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TECHNICAL REPORT ON

Shea Creek Property Saskatchewan, Canada Including Mineral Resource Estimates for the Kianna, Anne and Colette Deposits

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REPORT



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1.0 SUMMARY (ITEM 3)

This technical report has been prepared by Golder Associates Ltd (“Golder”), Burnaby for UEX Corporation (“UEX”). The purpose of the report is to support the press release by UEX of May 26, 2010, which disclosed Mineral Resource estimates for the Kianna, Anne and Colette Deposits on the Shea Creek property and to provide a current overview of other material technical information pertaining to the property.

The Shea Creek property, which contains the Anne, Kianna and Colette uranium deposits, is located in the western Athabasca Basin of northwestern Saskatchewan approximately 700 km north-northwest of the city of Saskatoon and approximately 25 km east of the border with the province of Alberta. The property is subject to a joint venture between AREVA Resources Canada Inc. (“AREVA”, 51% interest) and UEX (49% interest), with AREVA acting as project operator. The property comprises eleven mineral dispositions totalling 19,581 hectares (196 km²), which are registered to AREVA. The property lies within the Athabasca uranium district, one of the most prolific uranium producing regions in the world.

UEX acquired its interest in the Shea Creek property through the West Athabasca Lake option agreement (the Option Agreement”) which was signed in March 2004. Under the Option 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, by funding C\$30 million in exploration expenditures over an eleven-year period. Under the terms of the Agreement, UEX granted AREVA 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 payable by UEX. UEX received confirmation from AREVA that the total amount of UEX’s expenditures on AREVA’s western Athabasca Projects exceeded C\$30.0-million as of December 31, 2007, fulfilling the terms of the Option Agreement well ahead of the maximum eleven year period.

The Shea Creek property lies thirteen kilometres south of the formerly producing Cluff Lake mine site. It can be accessed year round by all-weather, maintained gravel Provincial Highway #955, which passes through the property. A gravel airstrip located to the northeast of the former Cluff Lake mine site is maintained by AREVA and provides year-round access to passenger aircraft. Several large lakes in the area allow float/ski plane access in the summer and winter months. Field operations are currently conducted from the former Cluff Lake mine camp, nine kilometres due north of the Shea Creek property.

This technical report has been completed in conformance with the CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines referred to in Companion Policy 43-101CP to National Instrument (N.I.) 43-101.

1.1 Geological Setting

The following section was modified from UEX’s April 3, 2009 N.I. 43-101 report entitled “Technical Report on the Shea Creek Property, Northern Saskatchewan” by Rhys et al. (2009).

The Shea Creek property lies within 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 metres to 800 metres of flat-lying to shallow dipping, post-metamorphic quartz sandstone of the late Proterozoic Athabasca Group, which forms an elongate, east-west 450 kilometres 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 of the mineralization discovered to date is developed, is 40-80 metres 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.

The gneiss sequence at Shea Creek was affected by at least two dominant periods of deformation prior to the deposition of the Athabasca sandstone, comprising early layer parallel S1 gneissosity (D1) which dips west-southwest, and a second phase, possibly progressively developed S2 foliation (D1). S2 is axial planar to minor, dominantly southwesterly verging folds of S1, and frequently transposes S1 foliation. Post or late D2 deformation comprised the 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. Numerous, northeast trending second and third order narrow dextral mylonitic shear zones associated with the Beatty River shear zone are developed to the north and 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 and 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 Ma and 1500 Ma. Below the unconformity at the 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-metre to 50-metre southwest side up zone of distributed displacement of the unconformity, which is manifested in the sandstone column as a broad, open monoclinial fault-related fold. 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 the areas of highest grade uranium mineralization at the unconformity, and are host to, or control underlying uranium mineralization in the basement rocks.



1.2 Uranium Mineralization

The following section was modified from UEX's April 3, 2009 N.I. 43-101 report entitled "Technical Report on the Shea Creek Property, Northern Saskatchewan" by Rhys et al. (2009).

Uranium mineralization on the Shea Creek property is of the unconformity-associated uranium deposit type, which is spatially related to the sub-Athabasca unconformity in the region. These 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 the underlying basement below.

Uranium mineralization identified to date on the Shea Creek property lies in northernmost portions of the property, comprising the Anne, Kianna and Colette Deposits and intervening mineralization in between them. These deposits occur along an approximately 3-kilometre strike length of the north-northwest trending pelitic gneiss unit that is host to the Saskatoon Lake Conductor at depths of 650-800 metres below the current surface beneath the thick sequence of overlying Athabasca Group sandstone. Within this corridor, drilling has been focused in two areas in which semi-continuous mineralization have been traced at the unconformity: a) the Colette and Colette South areas, over a 0.7-kilometre strike length; and b) the Kianna to Anne Deposit areas, over a 1.1-kilometre strike length. The area in between the Kianna and Colette Deposits, termed the 58B Area, has only been sparsely drilled along its 1-kilometre strike length, and has high potential for discovery of additional mineralization. Elsewhere on the property, drilling is limited and widely spaced, but mineralization has locally been intersected two kilometres southeast of the Anne Deposit.

Mineralization of three styles is developed within these mineralized domains, based on its position with respect to the Athabasca unconformity, and overall morphology. They comprise:

- a) *Unconformity-hosted uranium mineralization:* This is the most widespread style of mineralization identified to date. It forms shallow dipping zones that are developed in the lowermost Athabasca sandstone immediately above the sub-Athabasca unconformity, or straddling the unconformity and extending downward for several metres into the underlying basement gneisses. Mineralization in high grade areas may comprise massive, nodular or blebby pitchblende \pm coffinite \pm yellow U-silicates in a hematite-clay matrix. The mineralization of all grades is often associated with, and occurs within, chlorite-dravite dissolution breccias in the basal sandstone.
- b) *Basement-hosted mineralization:* This is the second most extensive style of mineralization, occurring in several portions of the Anne Deposit, in a large zone at Kianna, and in the Colette South area. Basement hosted mineralization is developed mainly in granitic gneiss for up to 200 metres below the sub-Athabasca unconformity, and vertically below the unconformity-hosted mineralization. Basement mineralization can be either concordant or discordant in style, with the two styles often occurring together, or branching off one another, and forming west-southwest plunging oreshoots where the styles intersect. **Concordant** basement mineralization, which occurs in the southern Anne and South Colette Deposit areas, forms dominantly shallow to moderate dipping west-southwest lenticular, locally stacked zones that are parallel or sub-parallel to gneissosity in the granitic gneiss. **Discordant** basement mineralization, which is best developed in the main Kianna basement zone and in the northern Anne Deposit, is defined as steeply dipping, easterly trending mineralized zones of disseminated, nodular and locally massive replacement style pitchblende \pm coffinite \pm hematite \pm U-silicates, and by sets of pitchblende \pm quartz \pm clay veinlets.



- c) *Perched mineralization*: Volumetrically, this is the least extensive of the three mineralization styles. It comprises flat-lying to shallow southwest-dipping lenses of disseminated to massive pitchblende-coffinite-hematite-clay mineralization that are developed in Athabasca sandstone up to 60 metres above the sub-Athabasca unconformity.

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 in areas 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. In areas 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.

Mineralization is associated with extensive clay alteration which affects the lower sandstone, and extends downward into basement rocks. The 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. The presence of both pitchblende fragments in the breccias, 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 modelling of the alteration 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 unbounded mineralization, providing significant room for expansion of Kianna basement mineralization, and the potential for additional, parallel basement zones.

1.3 Exploration History

The western portions of the Athabasca Basin were initially explored in the 1960's as exploration activities expanded outward from the established Beaverlodge uranium district utilizing airborne radiometric (scintillometer) surveys. 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. That year, AMOK Limited ("AMOK") acquired one mineral permit which covered much of the Shea Creek area, and conducted an airborne GEOTEM electromagnetic and magnetic survey over the project area which identified the presence of conductive north-northwest trending zones within basement rocks underlying the Athabasca sandstone sequence. The airborne surveys were followed up in 1991 and 1992 with ground electromagnetic surveys on several northeast-oriented lines which verified the position and better outlined the conductors identified by the initial airborne survey. Based on these surveys, AMOK re-staked the area, reducing the mineral permit to twelve individual claims, most of which now comprise the Shea Creek property. AMOK drilled several of the EM conductors in 1992, intersecting narrow intervals of uranium mineralization in northern



parts of the property located immediately beneath the sub-Athabasca unconformity, as well as promising alteration. In 1993, ownership of the property was transferred to COGEMA, who continued exploration by drilling to the north along the same conductive basement unit – now known as the Saskatoon Lake Conductor – which was associated with the initial mineralized intercept, and identifying significant uranium mineralization in 1994. Between 1994 and the winter of 2004, COGEMA drilled more than 99,000 metres in 177 drill holes, which resulted in the identification of two deposits, Anne and Colette, distributed with other mineralized intercepts over a three-kilometre long strike of the Saskatoon Lake Conductor. During the period from 2001 to 2003, no drilling was carried out, but additional airborne and ground EM surveys were undertaken to further enhance targeting.

In March 2004, COGEMA (since June 6, 2006 named AREVA) and UEX signed an option agreement. Drilling recommenced funded by UEX and, between the fall of 2004 and the end of 2009, approximately 88,717.5 metres of drilling in 194 diamond drill holes was completed under management by AREVA. The drilling programs during that period resulted in the discovery and partial delineation of the Kianna Deposit between the Colette and Anne Deposits, and discovery of new areas of mineralization along the prospective corridor between Anne and Colette (e.g. Colette South mineralization, Kianna South). Exploration during this period also included MEGATEM® airborne electromagnetic and magnetic surveys and a FALCON® airborne gravity gradiometer survey flown over the property area, and ground-based geophysical surveys, which included a DC Resistivity survey in 2005 that outlined several significant untested, or poorly tested, resistivity lows that could potentially be associated with mineralization-related clay alteration. Since 1999, directional drilling utilizing wedge cuts from a master (pilot) drill hole have been completed in areas where closely spaced drill holes are required to define mineralization. The directional drilling process reduces the overall quantity of coring required, and allows controlled drilling of deep targets. As is standard practice in uranium exploration, at the completion of each drill hole, downhole radiometric geophysical probing surveys are performed from the bottom of the hole up through the drill string.

In total, 188,039 metres of drilling in 371 drill holes have been completed on the Shea Creek property since systematic exploration began in 1992.

1.4 Shea Creek Mineral Resource Estimate

The May 2010 Shea Creek Mineral Resource Estimate at a cut-off grade of 0.30% U_3O_8 results in 1,872,600 tonnes at an average grade of 1.540% U_3O_8 , yielding 63,572,000 lbs U_3O_8 in the Indicated Mineral Resource category and 1,068,900 tonnes at an average grade of 1.041% U_3O_8 , yields 24,525,000 lbs U_3O_8 in the Inferred Mineral Resource category. No factors have been applied to the U_3O_8 lbs and they represent an in situ value. A summary of resources at various cut-offs is illustrated in Table 1-1.



SHEA CREEK URANIUM PROPERTY

Table 1-1: N.I. 43-101 Compliant Indicated and Inferred Mineral Resources (Capped) on the Shea Creek Project, as of May 2010 at Various Cut-off Grades of % U₃O₈

Category	Cut-off	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)
Indicated	0.10	2,733,900	1.118	67,414,000
	0.20	2,307,900	1.296	65,955,000
	0.30	1,872,600	1.540	63,572,000
	0.40	1,603,000	1.741	61,525,000
	0.50	1,383,000	1.946	59,342,000
	0.60	1,216,400	2.137	57,320,000
	0.70	1,076,100	2.332	55,316,000
	0.80	960,900	2.521	53,410,000
	0.90	863,700	2.710	51,594,000
	1.00	785,200	2.885	49,948,000
	1.50	509,500	3.786	42,527,000
Inferred	0.10	1,862,800	0.674	27,688,000
	0.20	1,364,000	0.869	26,128,000
	0.30	1,068,900	1.041	24,525,000
	0.40	886,100	1.185	23,156,000
	0.50	746,700	1.323	21,776,000
	0.60	596,200	1.520	19,973,000
	0.70	500,900	1.686	18,615,000
	0.80	424,500	1.854	17,350,000
	0.90	363,800	2.022	16,215,000
	1.00	322,700	2.159	15,360,000
	1.50	188,700	2.829	11,771,000



1.5 Recommendations

1.5.1 Database Review

Although the database containing collars, surveys, lithology, assays and recoveries was regarded as suitable for a resource estimate, it is recommended that all the data in the database should be reviewed for consistency. The biggest issue is the lack of consistency in the format of the sample identifiers. This inconsistency meant that only 25% of the samples in the assay database could be matched electronically to the assay certificates. In addition, the discrepancy in the Sperry Sun data needs to be resolved. The estimated cost for this review and correction is C\$15,000, but would be dependent on the number of inconsistencies identified.

1.5.2 Exploration

The Shea Creek property is prospective for the discovery of additional uranium mineralization. In known deposits, potential exists to expand the dimensions of high grade pods between, or outward from previous drill holes. Even small expansions by additional drilling to pods of very high grade mineralization that have been encountered can have a material effect on their estimated total uranium content. Therefore, infill and nearby step-out drilling in some of these areas is recommended. Exploration potential also exists for step-out drilling into open areas of mineralization, for example to expand the Kianna basement zone, and to test open mineralization downdip in the Colette area. Gaps in drilling 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. In these areas, modelling of the distribution and intensity of clay alteration in basement rocks, as well as the structural setting of local areas as exploration proceeds will aid in targeting for new zones of basement mineralization.

In other areas on the Shea Creek property where little or no drilling has occurred, exploration is in its early stages and targets are mainly geophysical (EM conductors and resistivity). Prospective areas of low resistivity with a 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 resistivity 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.

The recommended work program for 2010 on the Shea Creek property would comprise a combination of: a) infill and step-out drilling to further expand the resource base and increase resource confidence levels of inferred mineralization; and b) exploration drilling along the prospective three-kilometre corridor in the northern Shea Creek property. A drilling program of approximately 14,750 metres is planned for the property in 2010 utilizing at least four drill rigs. Costs for the 2010 drilling program are estimated at approximately C\$7.96 million, of which UEX, as 49% partner, is responsible for C\$3.90 million.



1.5.3 Interpretation Risk

During the review of the Shea Creek Datamine 3D block model, comparisons between different estimation methods (nearest neighbour and inverse distance power against kriging interpolation method) were completed. This review noted that out of a total of 23 mineralized subzones, 10 of the subzones had a difference in interpolated grade of greater than 15% when compared to nearest neighbour, inverse distance models or the declustered mean. These 10 subzones make up only a 6% portion of the resource. This may be due to the geological interpretation.

In order to quantify the risk due to interpretation, a single mineralized envelope should be constructed to contain the majority of samples with an assay of greater than 0.02% U_3O_8 for Shea Creek and the mineral resources re-estimated.

The estimated cost of evaluating the risk in the current modelling method would be approximately C\$80,000.

1.5.4 Assays

The current resource estimate was carried out on a mix of chemical and probe data. Although there is a correlation between data, the probe grades tended to be lower in all of the subzones. The probe is estimating the grade outside of the drill hole while the chemical grade is the grade of the core internal to the hole. It is recommended that all previously unsampled intervals in mineralized zones within the defined mineralization envelopes be sampled to provide a more comprehensive geochemical database for future resource work.



2.0 INTRODUCTION (ITEM 4)

Golder was retained by UEX to carry out mineral resource estimates for the Kianna, Anne and Colette Deposits on AREVA's Shea Creek Project based on drilling carried out during the period from 1992 to the end of 2009 and to provide a Technical Report to support the disclosures on these. This technical report has been prepared by Golder for UEX, with significant sections of the report below not pertaining directly to the resource estimate based on or extracted from the April 3, 2009 "Technical Report on the Shea Creek Property, Northern Saskatchewan" by Rhys et al. (2009) and additional information obtained from UEX, AREVA and SRC Laboratories. The purposes of the report are to: (1) support the press release by UEX of May 26, 2010, which disclosed Mineral Resource estimates for the Kianna, Anne and Colette Deposits on the Shea Creek property; and (2) to provide a current overview of other material technical information pertaining to the Shea Creek property.

The May 2010 Kianna, Anne and Colette Mineral Resource Estimates and the Shea Creek technical report were prepared by Kevin Palmer, P.Geo., of Golder, Burnaby, BC with technical report peer reviewed by Paul Palmer, P.Geo., P.Eng., of Golder, Sudbury, ON. Additional resource estimate updates were peer reviewed by Greg Greenough, P.Geo., and Olivier Tavchandjian, P.Geo., both of Golder, Mississauga, ON.

This report is intended to be used by UEX subject to the terms and conditions of its contract with Golder. That contract permits UEX to file this report as a Technical Report with Canadian Securities Regulatory Authorities pursuant to provincial securities legislation. Except for the purposes legislated under provincial securities law, any other use of this report by any third party is at that party's sole risk.

Parts of Sections 4 to 16 pertaining to the Kianna, Anne and Colette Deposit database, except for the subsection entitled "Golder Data Verification", in this report have been copied or summarized from the "Technical Report on the Shea Creek Property, Northern Saskatchewan" by Rhys, Horn and Eriks (2009) with the permission of the authors. These sections have been updated to include information on the winter/summer 2009 drilling campaign and were reviewed by Golder. Minor changes have been made accordingly.

The Shea Creek property has been subject to numerous exploration programs conducted since 1990. Details of historical exploration activities on the property are outlined in many exploration reports by AREVA. References to these activities are provided in the historical sections below and summarized in a previous N.I. 43-101 report on the property by Rhys et al. (2009).

Information concerning the geology and exploration results at the Kianna, Anne and Colette Deposits that is reported here was collected, interpreted, or compiled directly by the UEX geologists during ongoing exploration.

Kevin Palmer, P.Geo., visited the property from September 2 to 4, 2009, in the company of AREVA personnel John Robbins, Senior Project Geologist and Project Geologist Sheldon Modeland as well as UEX personnel, Sierd Eriks, Vice President of Exploration and geologists Dave Rhys, Leo Horn, and Luke van der Meer working on contract to UEX. Kevin Palmer has worked with the UEX geologists since 2007.



3.0 RELIANCE ON OTHER EXPERTS (ITEM 5)

Information concerning claim status, ownership and assessment requirements which are presented in Section 4 have been provided to the author by AREVA and have not been independently verified by the author. However, the author has no reason to doubt that the title situation is other than which has been presented here.



4.0 PROPERTY DESCRIPTION AND LOCATION (ITEM 6)

The following section was taken directly from UEX's April 3, 2009 N.I. 43-101 report entitled "Technical Report on the Shea Creek Property, Northern Saskatchewan" by Rhys et al. (2009). Minor changes and updates have been made and comments inserted where appropriate.

4.1 Property Location

The Shea Creek property is located in the western Athabasca Basin of northwestern Saskatchewan approximately 700 kilometres north-northwest of the city of Saskatoon (Figure 4-1) and approximately 25 kilometres east of the border with the province of Alberta. The property is approximately 230 kilometres north of the town of La Loche and 13 kilometres south of the former producing Cluff Lake mine site. It lies between latitudes 58°00'N to 58°15'N (UTM NAD83 643000N – 6457400N) and longitudes 109°15'W to 109°35'W (UTM NAD83 583100E – 603400E) and straddles parts of 1:50,000 scale topographic map sheets 74K/3 and 74K/4 of the Canadian National Topographic system.

4.2 Concession Descriptions and Title

The Shea Creek property consists of 19,581 hectares (196 km²) in 11 mineral dispositions (Table 4-1, Figure 4-2). The project is a joint venture between AREVA (51% interest) and UEX (49% interest), with AREVA acting as project operator. All mineral dispositions are registered to AREVA.

The disposition status of the Shea Creek Project is shown in Table 4-1 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 new groupings can be made each time eligible assessment expenditures are filed if the dispositions are in good standing. There are no surface rights to any portions of the property.

Mineral dispositions are located in the field by corner and boundary claim posts which lie along blazed and cut boundary lines. The entire length of the Shea Creek property boundary has not been surveyed. A legal survey is not required under the provisions of the Saskatchewan Mineral Disposition Regulations (1986). The property location is defined on the government claim map.



SHEA CREEK URANIUM PROPERTY

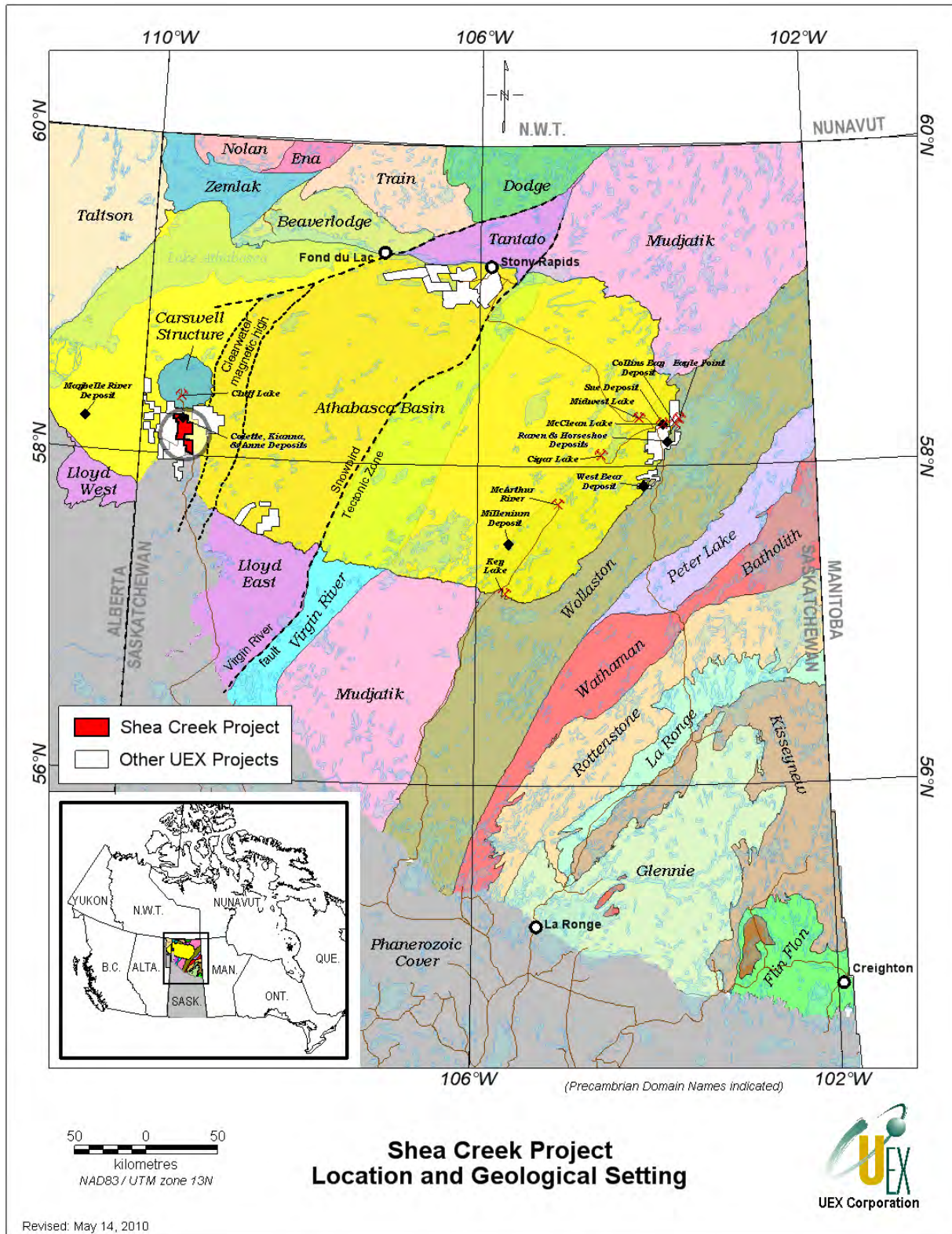


Figure 4-1: Shea Creek Project - Location and Geological Setting



SHEA CREEK URANIUM PROPERTY

**Table 4-1: List of Mineral Dispositions Comprising the Shea Creek Property
(as of May 18, 2010)**

Disposition Number	Record Date	Area (Hectares)	Annual Assessment Requirement	Next Assessment Due
S-104617	Jan. 29, 1990	1,478	\$36,950.00	2024
S-104619	Jan. 29, 1990	1,445	\$36,125.00	2032
S-104620	Jan. 29, 1990	1,431	\$35,775.00	2024
S-104621	Jan. 29, 1990	2,000	\$50,000.00	2024
S-104622	Jan. 29, 1990	2,208	\$55,200.00	2024
S-104623	Jan. 29, 1990	2,276	\$56,900.00	2024
S-104625	Jan. 29, 1990	2,444	\$61,100.00	2022
S-104626	Jan. 29, 1990	2,077	\$51,925.00	2022
S-104638	June 12, 1992	2,438	\$60,950.00	2032
S-104639	June 12, 1992	1,164	\$29,100.00	2033
S-104760	June 15, 1995	620	\$15,500.00	2030
	TOTALS	19,581	\$489,525.00	

Note: Data was provided by AREVA and has not been independently verified by the author.



SHEA CREEK URANIUM PROPERTY

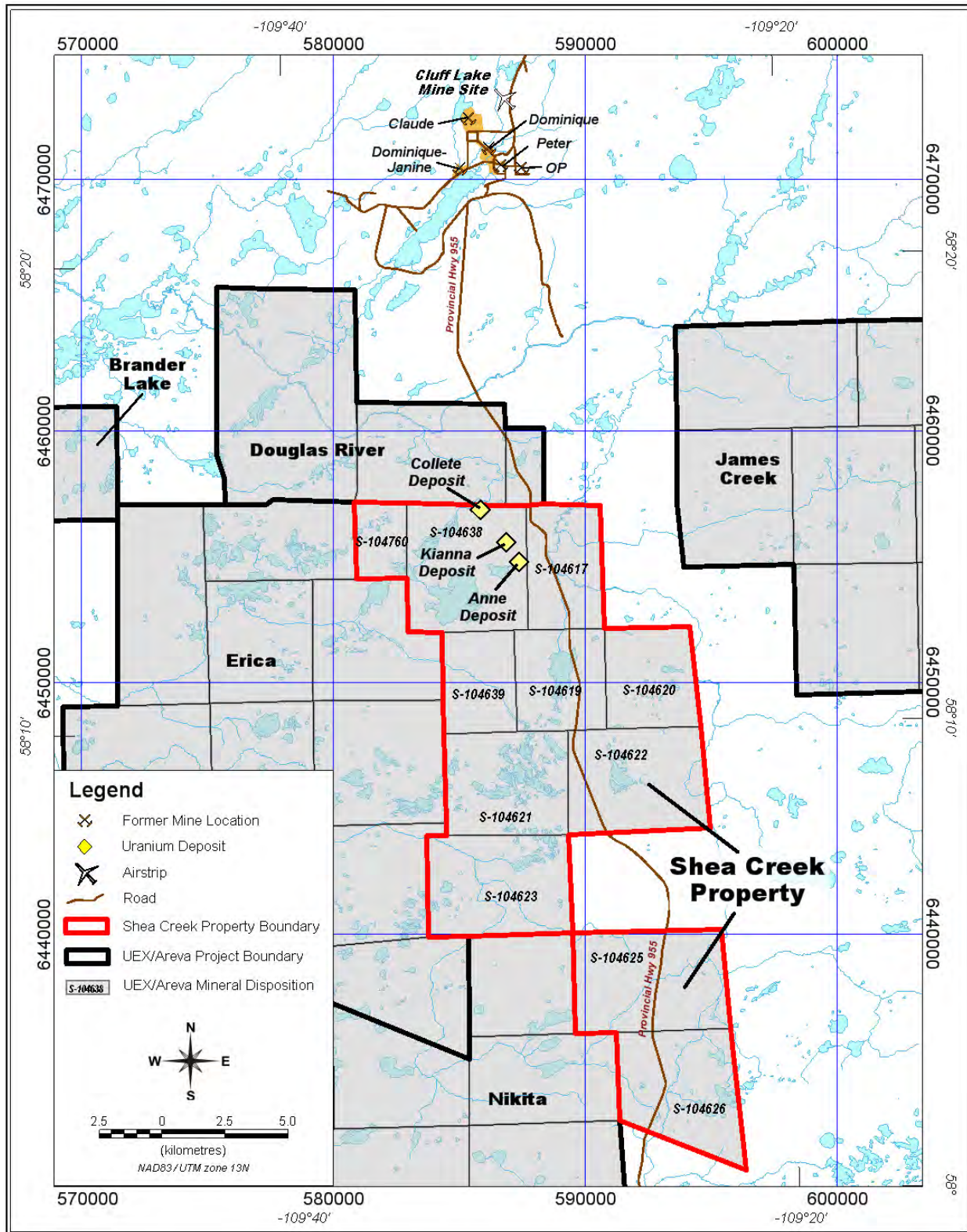


Figure 4-2: Shea Creek Property, Location and Mineral Dispositions



4.3 Title and Option Agreement

In March 2004, AREVA (formerly known as COGEMA) and UEX announced the Option 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 March 18, 2004 news release). Two new projects were staked in late 2004, bringing the total number of projects in the Option Agreement to ten (see UEX's January 31, 2005 news release). The ten Western Athabasca Projects (the "Projects") include Shea Creek (containing the Kianna, Anne and Colette uranium deposits), Douglas River, Erica, Alexandra, Laurie, Mirror River, Nikita, Uchrich, James Creek and Brander Lake, several of which are shown in Figure 4-2.

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 for the Option Agreement over a maximum 11 year period were stipulated as follows:

- a) Years 1 & 2: Minimum C\$2,000,000 per year;
- b) Years 3, 4, 5, 6: Minimum C\$2,500,000 per year;
- c) Years 7, 8, 9: Minimum C\$3,000,000 per year; and
- d) Years 10 & 11: Minimum C\$3,500,000 per year.

Under the terms of the Option Agreement, UEX also granted 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 the total amount of UEX expenditures on AREVA's Western Athabasca Projects exceeded C\$30.0 million as of December 31, 2007 (see January 11, 2008 news release), and fulfilled the terms of the Option Agreement well ahead of the maximum 11-year period. As a result, the Shea Creek property is now 51% and 49% owned by AREVA and UEX, respectively. Exploration activities on the Shea Creek Project will continue to be managed by AREVA through a joint venture agreement that is currently being negotiated between the two companies.

4.4 Other Property Interests

To the knowledge of the author, there are no underlying interests, back-in rights, payments, or other agreements on the property. As specified in the Option Agreement, UEX has granted AREVA a royalty 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.



4.5 Environmental Liabilities

The author is not aware, at the time of writing this report, of any known environmental liabilities on the Shea Creek property.

4.6 Annual Expenditures

Annual expenditures of \$12.00 per hectare are required for the first 10 years after staking of a claim to retain each disposition. This rate increases to \$25.00 per hectare annually after 10 years, a rate which currently applies to the dispositions comprising the Shea Creek property. Required assessment work for each mineral disposition is listed in Table 4-1. The total annual assessment expenditure requirements for the entire Shea Creek property are \$489,525. Dispositions on the property have substantial exploration credits that will maintain the individual properties in good standing to at least the dates listed in Table 4-1. Exploration conducted in 2008 and 2009 which has not yet been filed for assessment purposes will further increase the credits on the property.

4.7 Permits for Exploration

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



5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY (ITEM 7)

The following section was modified from UEX's April 3, 2009 N.I. 43-101 report entitled "Technical Report on the Shea Creek Property, Northern Saskatchewan" by Rhys et al. (2009).

5.1 Accessibility and Infrastructure

The Shea Creek property is located in northwestern Saskatchewan, approximately 230 kilometres north of the town of La Loche, 13 kilometres south of the former producing Cluff Lake mine site, and approximately 25 kilometres east of the border with the province of Alberta (Figure 4-1). Provincial Highway #955, an all-weather maintained gravel road which begins in La Loche and terminates at the Cluff Lake mine site, passes through and provides year-round ground access to the property (Figure 5-1). A gravel airstrip located to the northeast of the former Cluff Lake mine site (Figure 5-1) is maintained by AREVA and provides year-round access to passenger aircraft, as do several large lakes which allow float plane access. Field operations are currently conducted from the former Cluff Lake mine camp, 9 kilometres due north of the Shea Creek property (Figure 5-1). The camp, which is operated by AREVA, provides accommodations for up to thirty-one exploration personnel. Fuel and miscellaneous supplies are stored in the existing warehouse and tank facilities north of the camp. The site generates its own power by generator. Abundant water is available from the numerous lakes and rivers in the area.

Access to the principal areas of drilling in the area of, and between the Colette, Kianna and Anne Deposits in the north central portions of the property is from a series of skidder trails which extend 1 to 2.5 kilometres south-westward from Highway 955. Much of the area of current exploration focus in the northern Shea Creek property occurs in areas of dry ground, allowing year-round ground exploration activities and drilling.

5.2 Climate, Vegetation and Physiography

Physiography of the Shea Creek area comprises low rolling hills separated by abundant lakes and areas of muskeg. Relief varies from 340 metres above sea level in the depressions and lakes, to 385 metres above sea level along esker ridges (Koning et al., 2008). Hills are 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.



SHEA CREEK URANIUM PROPERTY

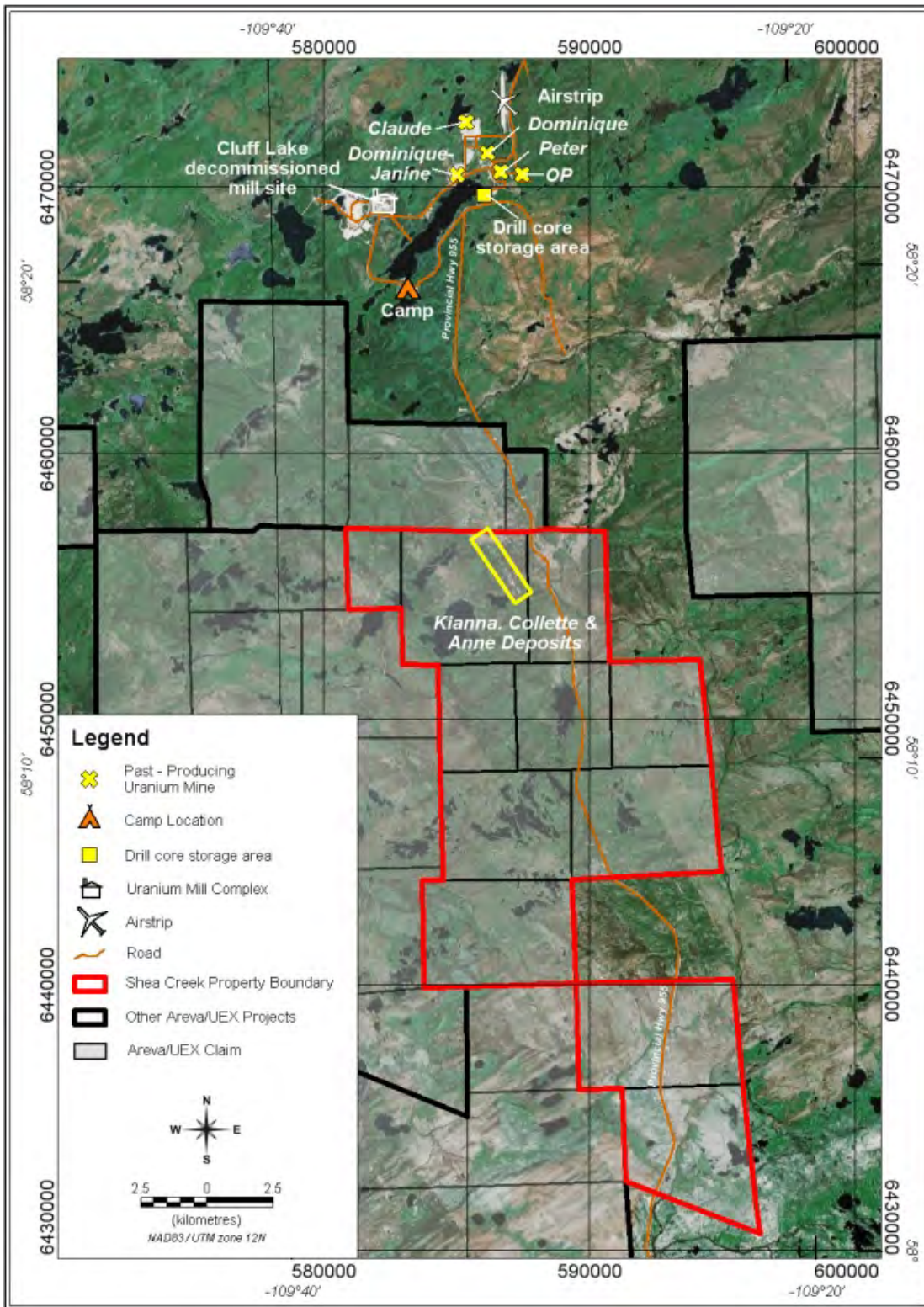


Figure 5-1: Infrastructure and Deposits on or Adjacent to the Shea Creek Property



SHEA CREEK URANIUM PROPERTY

Climatic conditions for the area have been monitored for a number of years, mainly at Cluff Lake. 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 (Koning et al., 2008). The cold winters are characterized by influxes of Arctic air alternating with intrusions of milder Pacific air. Average winter temperatures range from -17.5° C to -20.3° C. The average annual precipitation for the area is 450 mm, with more than half of the annual precipitation occurring from June through to September (Koning et al., 2008). Snowfall usually occurs from October to May, with most winter precipitation occurring between January and April.



6.0 HISTORY (ITEM 8)

The following section was modified from UEX's April 3, 2009 N.I. 43-101 report entitled "Technical Report on the Shea Creek Property, Northern Saskatchewan" by Rhys et al. (2009).

The western portions of the Athabasca Basin were initially explored in the 1960's as exploration activities expanded outward from the established Beaverlodge uranium district utilizing airborne radiometric (scintillometer) surveys. 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). Between 1968 and 1970, follow-up ground surveys and prospecting discovered several trains of uranium-bearing sandstone boulders and prospects in the Cluff Lake area, which led to extensive claim staking (Tona, 1985). Subsequent detailed geological exploration by Mokta, including diamond drilling, led to the discovery of the "D" sandstone-hosted unconformity deposit in 1970. Exploration continued, and by the end of 1995, seven additional basement-hosted unconformity related deposits had been delineated on the Cluff Lake mine site: OP and N discovered in 1970, the Claude deposit in 1971, Dominique-Peter in 1981, Dominique-Janine in 1984, Dominique-Janine extension in 1988, and West Dominique-Janine in 1995 (Koning and Robbins, 2006; Figure 5-1).

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). The formerly producing Cluff Lake properties are currently held and maintained by AREVA.

6.1 History of Exploration in the Shea Creek Area

The discoveries at Cluff Lake led to exploration activities by various companies which were undertaken on adjacent properties, including parts of the current Shea Creek property. The property was partially or totally held by several companies between 1969 and 1985, with most of the field activities occurring between 1978 and 1981 (Alexander et al., 1994). Regional studies completed include reconnaissance level geophysical surveys (airborne radiometry, magnetometer, ground magnetic, refraction seismic, and VLF EM), prospecting and mapping, and geochemistry (water, stream and lake, lake sediments, till and vegetation) conducted by several companies, including Kamalta Exploration Ltd., Houston Oils, Pentagon Petroleum Inc., Magellan Petroleum Corporation and Marline Oil Corporation

Systematic exploration of the Shea Creek property did not begin, however, until 1990 after granting of mineral permit MPP-1164 to AMOK which covered much of the current property area. AMOK initially conducted a 1,515 line-kilometre combined airborne GEOTEM electromagnetic and magnetic survey over the project area which identified the presence of conductive north-northwest- and northeast-trending zones within basement rocks underlying the Athabasca sandstone sequence (Koch, 1990). The airborne survey results led to the addition of a new exploration mineral permit, MPP-1165 covering 13,000 hectares, to the project area (Alexander et al., 1994). The airborne surveys were followed-up in 1991 and 1992 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 conductors identified by the initial airborne GEOTEM survey (Dalidowicz, 1991).



During March and June of 1992, AMOK re-staked the area, reducing the original MPP-1164 claim to 12 individual claims (Alonso et al., 1992). An additional claim, S-104760, was staked in 1995. These claims incorporate all of the current claim outlines in the Shea Creek Project with the exception of two claims which were subsequently allowed to lapse.

AMOK drilled three vertical diamond drill holes to test several of the EM conductors in 1992 that were identified by the 1991-1992 ground geophysical surveys (Alonso et al., 1992). Two of these initial drill holes, SHE-001A and SHE-002 intersected favourable alteration, faulting and anomalous geochemistry in the lower sandstone column, including reverse faulting, argillization, 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 Shea Creek property, also intersected a shallow dipping radioactive fault zone in basement granitic gneiss approximately 11 metres below the unconformity at a downhole depth of 706.8 metres (Alonso et al., 1992). Sampling of this fault zone returned 0.34% U_3O_8 over 0.40 metres. This is considered the discovery drill hole of mineralization on the Shea Creek property (Robbins, 2005).

In 1993, ownership of the Shea Creek Project was transferred to COGEMA. COGEMA continued ground geophysical surveys in 1993 and 1994 to better outline the previously identified conductors. These and the previous surveys identified a prominent, and traceable north-northwest trending conductor termed by Dalidowicz (1993) the "Saskatoon Lake Conductor" which was traceable over several kilometres in northern parts of the property, and which is spatially associated with the favourable drilling intercept obtained in drill hole SHE-002. Subsequent EM surveys have now traced the conductor over a strike length of more than 25 kilometres over much of the property (Nimeck and Koch, 2008; Figure 7-1).

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, twelve vertical diamond drill holes (SHE-004 to SHE-015) totalling more than 9,300 metres 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. The best result was in drill hole SHE-015A, which intersected two intervals of mineralization, including 0.126% eU_3O_8 over 9.3 metres from 699.0 metres to 708.3 metres in perched mineralization hosted by Athabasca sandstone above the Athabasca unconformity, and 0.305% eU_3O_8 over 6.0 metres at a depth of 718.4 metres to 724.4 metres at the unconformity. 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 metres and 768 metres, respectively, both now known to lie on the margins of the central Anne 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 three-kilometre strike length of the Saskatoon Lake Conductor in northern parts of the property, outlining several areas of uranium mineralization that contain the Anne, Colette and Kianna Deposits. Subsequent exploration programs are as follows, up to the signing of the option agreement with UEX in 2004 (Note: uranium intercepts mentioned below are geochemical and widths are apparent; total numbers of metres, holes drilled for each year, including incomplete drill holes are summarized in Table 10-1):



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- **1995:** Eighteen vertical diamond drill holes (SHE-016 to SHE-033) were completed to follow 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 9.1 metres at the unconformity in central parts of the Anne Deposit.
- **1996:** Seventeen vertical diamond drill holes (SHE-034 to SHE-050) were completed mainly in the principal mineralized corridor in the northern Shea Creek property, and two holes (1,041 metres) were completed on the SC-2 grid located on the southern Shea Creek claims (Munholland et al., 1996). Most of these intersected varying amounts of mineralization in the northern Shea Creek property, mainly in the Anne Deposit. The best intersection was obtained from drill hole SHE-038A, which intersected 2.6 metres grading 8.664% U_3O_8 located in the sandstone immediately above the unconformity between the Anne and Kianna Deposits.
- **1997:** Sixteen vertical diamond drill holes (SHE-051 to SHE-066) were drilled on the northern Shea Creek property (Robbins et al., 1997). Drill hole SHE-052, which intersected 16.8 metres grading 2.342% U_3O_8 at the unconformity, was the best hole of the program and is considered the discovery hole in the Colette Deposit (Robbins, 2006). Also drilled during this program was hole SHE-063B, now considered to be the Kianna Deposit discovery hole (Koning et al., 2008) which encountered 4.7 metres grading 1.639% U_3O_8 at the unconformity. However, the full significance of this drill hole was not apparent until subsequent drilling in 2004 and 2005.
- **1998:** Twenty-seven vertical diamond drill holes (SHE-067 to SHE-093) were drilled, with most of the holes concentrated in the Colette Deposit area, and six holes 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 6.0 metres in hole SHE-087 at the unconformity in the Anne Deposit. In addition to the drilling, UTEM III Moving Loop electromagnetic (31.9 line-kilometre) and gravity surveys (28.2 line-kilometres) provided additional data required to better locate major conductors, as well as detect new ones. A total of 510 line-kilometres of airborne helicopter VLF-EM surveying were also completed over various parts of the property (Robbins et al., 1998).
- **1999:** Thirty-three unconformity drilling intersections were completed (8 vertical pilot drill holes and 25 navigational cuts). 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 area. The program also identified the potential for significant basement mineralization below the unconformity, as exemplified by the broad intersection in drill hole SHE-096-3, which intersected 5.419% U_3O_8 over 19.0 metres straddling the unconformity, and two significant intercepts in underlying basement rocks of 18.0 metres grading 0.76% U_3O_8 followed by 20.8 metres grading 0.92% U_3O_8 .
- **2000:** Thirty-three unconformity intersections in 4 vertical pilot drill holes and 29 navigational cuts followed up previous drilling results in the northern Shea Creek property between, and within, the Anne and Colette Deposits (Robbins et al., 2000). Multiple mineralized intercepts were obtained.



- **2001 to 2003:** No drilling was conducted on the property between in 2001 and 2003, but geophysical programs were carried out. Exploration in 2002 comprised 158.2 line-kilometre of MEGATEM® electromagnetic and magnetic airborne surveys. These defined the basement geology better than previous airborne surveys, outlining alternating domains of linear magnetic highs and lows, with the magnetic lows corresponding to areas of known conductors (Koning et al., 2008). In 2003, 20.0 line-kilometre of UTEM Moving Loop surveys, 24.0 line-kilometre of gravity surveys, and 44.8 line-kilometre 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):** Three diamond drill holes (SHE-106 to SHE-108) were completed in the southern Shea Creek property, targeting conductors identified in this area from the 2003 geophysical surveys, and following up drill holes which had been completed there between 1993 and 1996 (SHE-001B, SHE-039 and SHE-041; Robbins and Williamson, 2004). Although SHE-106 was lost in the sandstone before reaching the unconformity, it intersected a significant zone of desilicification suggesting hydrothermal activity in the area (Robbins and Williamson, 2004).

In March 2004, UEX and COGEMA (now AREVA) signed the Option Agreement, whereby UEX funded all exploration on the Shea Creek property until it earned its 49% interest in December 2007 (see UEX's January 11, 2008 news release). Exploration activities conducted on the property since UEX initially acquired its option in 2004 are described in Section 10 of this report.

6.2 Historical Resources

There are no historical resource estimates for deposits on the Shea Creek property.

6.3 Production

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



7.0 GEOLOGICAL SETTING (ITEM 9)

The following section was modified from UEX's April 3, 2009 N.I. 43-101 report entitled "Technical Report on the Shea Creek Property, Northern Saskatchewan" by Rhys et al. (2009).

7.1 Regional Geological Setting

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 metres of flat-lying to shallow-dipping, post-metamorphic quartz sandstone of the late Proterozoic Athabasca Group, which forms an elongate, east-west 450 km long Proterozoic sedimentary basin that underlies much of northern Saskatchewan and extends into eastern Alberta (Figure 4-1).

Basement rocks in the western Athabasca area that underlie the Shea Creek region comprise orthogneiss and paragneiss of the Lloyd Domain, which forms part of the Rae Structural Province (Hoffman, 1988; Bickford et al., 1994). The Lloyd Domain, formerly termed the Firebag and Western Granulite Domains, is flanked by granitoid rocks of the 1990-1920 Ma age Taltson magmatic zone to the west which may represent a Proterozoic continental magmatic arc (Pana et al., 2007). To the east, the Lloyd Domain is bounded by the Snowbird tectonic zone, which forms the division between the Rae and Hearne provinces (Figure 4-1; Hanmer, 1997).

The oldest rocks in the Lloyd Domain are belts of supracrustal, often metapelitic gneiss termed the Careen Lake Group (Scott, 1985; Card 2002), which alternate with surrounding belts of orthogneiss, granite and quartz diorite. These include the garnet-cordierite-sillimanite-graphite-bearing biotite-quartz-feldspar gneiss which forms the Peter River gneiss within the Carswell structure (Pagel and Svab, 1985). These may be Archean or early Proterozoic based on minimum ages of 2320-2120 Ma in the Peter River gneiss (Bell, 1985) and similarities of these and other parts of the Careen Lake Group to sequences of these ages in adjacent domains (Card et al., 2007a).

The Lloyd Domain contains a significant, and often dominant, component of Proterozoic igneous rocks that include widespread 1980-1960 Ma magnetic granodiorite and quartz diorite intrusions ("quartz diorite" suite of Card et al., 2007a) which are of similar age, and potentially contiguous with, intrusions of the Taltson magmatic zone to the west (Card et al., 2007a; Stern et al., 2003; Ashton et al., 2007). In the western Lloyd Domain, these intrusions are in turn intruded by peraluminous, garnet-bearing granitoid sheets that, on the Shea Creek property and in adjacent areas, have returned ages of 1930-1910 Ma, which is similar to the age of intrusions of similar composition in the Taltson magmatic zone (Brouand et al., 2002; Card et al., 2007a).

7.1.1 Regional Deformation History and Architecture

The basement metamorphic sequence in the western Lloyd Domain is affected by multiple phases of pre-Athabasca deformation. Intense Proterozoic events associated with the 2000-1750 Ma collisional assembly of Laurentia formed the dominant foliations and structural architecture of the region. Dominant layer-parallel gneissosity defined by syn-amphibolite to granulite grade mineral assemblages in Careen Lake gneiss, and younger diorite and aluminous granite gneiss represents the earliest recognizable, dominant gneissic foliation in the Lloyd Domain.



Regional penetrative and syn-peak metamorphic events overlap with, and are succeeded by later partitioning of strain into zones of high non-coaxial deformation along transpressional shear zones in the Taltson and Lloyd Domains between 1930 and 1740 Ma under amphibolite to upper greenschist grade conditions (Card et al., 2007a; McDonough et al., 2000; Pana et al., 2007). The development of these structures may have been in response to accretionary events associated with the 1900-1800 Ma Trans-Hudson orogeny to the east of the Snowbird Tectonic zone (Card, 2006). West of the Trans-Hudson orogenic belt, this period of deformation led to the development of major, northeast-trending mylonitic shear zones with consistent dextral (right lateral) shear sense that affect much of the Precambrian basement of western Canada such as the Great Slave Shear zone. In the western Athabasca Basin, northeast trending right-lateral/reverse shear zones which were active during this period, constrained to between 1840 Ma and 1780 Ma, include the major mylonitic shear zones along the Snowbird Tectonic zone such as the Virgin River Shear zone (Mahan et al., 2003; Card et al., 2007a).

The post-1930 Ma dextral mylonites seen regionally are locally represented in the Shea Creek area by the Beatty River shear zone, a major northeast-trending mylonite zone which accommodates several tens of kilometres of right lateral displacement, as is evidenced by the deflection and offset of north-northwest trending belts of basement lithologies (Figure 7-1). Subsidiary, second- and third-order northeast-trending shear zones that are apparent on regional magnetic maps and indicated by offset marker units in drilling are evident to the north of the Beatty River shear zone (Figure 7-1). These are discussed further below; they have significant effects on the distribution of lithologies in areas of uranium mineralization, and later remobilization of these structures may have aided in the localization of uranium mineralization in the Shea Creek deposits.

7.1.2 Post-metamorphic Athabasca Sandstone

The folded Archean to Early Proterozoic metamorphic sequence is unconformably overlain by flat-lying to gently inclined quartz-rich arenitic sandstone of the Athabasca Group which is up to 1,500 metres thick in central portions of the Athabasca Basin. In the Shea Creek area, thickness of the Athabasca sandstone as defined by drilling varies from approximately 400 metres in the southern parts of the Shea Creek property up to 750 metres to the north. The lower portions of the Athabasca Group in the Shea Creek area comprise quartz arenite of the Smart and lower Manitou Falls formations (Ramaekers et al., 2007). Several metres of quartz pebble conglomerate are commonly present at the base, immediately above the basal unconformity. The Manitou Falls Formation is successively overlain by the Wolverine Point, Lazenby Lake, and Locker Lake formations which are represented in the local area. The Douglas and Carswell formations, which rim the Carswell structure to the northeast of the Shea Creek property (Figure 7-1), are the highest parts of the sequence, and are preserved in circular synclinal troughs which surround the Carswell structure.

U-Pb dating of apatite cement and dating of tuff units in upper portions of the Athabasca Group, as well as regional constraints on deposition by the age of underlying basement rocks and deformation events that the sub-Athabasca unconformity truncates, suggest progressive deposition of the Athabasca Group between 1769 and 1500 Ma (Ramaekers et al., 2007; Cumming and Krstic, 1992).

Widespread argillic alteration occurs in basement metamorphic rocks beneath the Athabasca sandstone to depths of several tens of metres below the sub-Athabasca unconformity. The alteration is similar in geochemistry, mineralogy and zoning to that observed today in lateritic profiles, and consequently has been commonly interpreted as a saprolitic (paleoweathering) profile related to pre-Athabasca erosion of the gneiss sequence (e.g., Hoeve and Sibbald, 1978). Alternatively, it could be related to the reaction of oxidized diagenetic fluids in the Athabasca sandstone with underlying basement rocks, or a superposition of both processes. Argillic alteration associated with uranium mineralization is superimposed on this alteration.



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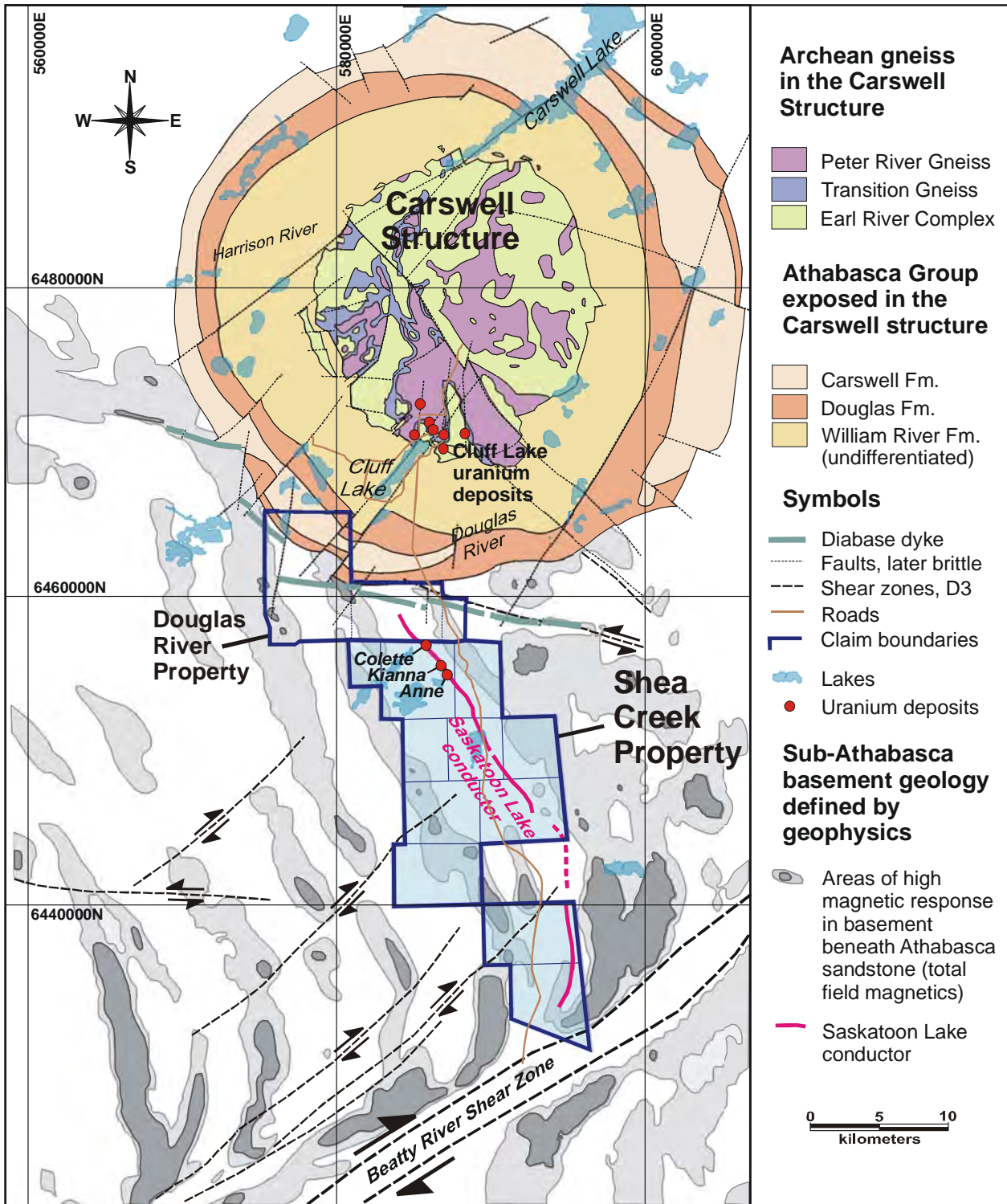


Figure 7-1: Geological Setting of the Shea Creek Property

From Rhys et al. (2009). Compiled from regional geophysical maps, with geology of the Carswell structure from Tona et al. (1985) and Koning and Robbins (2006).



7.1.3 Post-Athabasca Faulting

Throughout the Athabasca Basin, faulting is often localized along, and remobilizes pre-Athabasca basement shear zones, particularly along graphitic gneiss units. Displacements are typically reverse and minor, generally less than a few tens of metres, but larger displacements locally exceeding 100 metres occur along widely spaced fault zones such as the Rabbit Lake Fault in the eastern Athabasca Basin, and the Virgin River-Black Lake Fault zone. Such faults, often with minor displacements, are economically significant as they are often spatially associated with, or localize uranium deposits near the sub-Athabasca unconformity as they do at Shea Creek. These faults may reflect distal response to orogenic events elsewhere in Laurentia, including the 1740 Ma to 1430 Ma Central Plains orogeny, and the 1480 Ma to 1430 Ma convergence at the pre-Grenville margin of Laurentia to the east (Card, 2006).

7.1.4 The Carswell Structure

The Carswell structure is a circular feature exposing basement gneiss within the Athabasca Basin which lies to the northeast of the Shea Creek property, and which is host to the Carswell uranium deposits (Figure 7-1). It is composed of a 20-kilometre diameter inner core which exposes felsic and mafic orthogneiss of the Earl River Complex that contains lenses and belts of pelitic to psammopelitic biotite-quartz-feldspar gneiss of the Peter River gneiss (Figure 7-1; Tona et al., 1985). The Earl River and Peter River units are probably equivalent to the quartz-diorite/granitic orthogneiss and Careen Lake paragneiss units, respectively, of the surrounding Lloyd Domain (Card et al., 2007a). These core gneisses to the Carswell Dome are surrounded by annular rings of successive, steeply dipping Athabasca Group units, which have locally been termed from stratigraphically lowest to highest: the William River, Douglas and Carswell formations (Figure 7-1).

While several potential origins for the Carswell structure have been proposed (Pagel et al., 1985), the most common currently accepted interpretation is that it represents a meteorite impact structure. In addition to its morphology, overturning of the surrounding sandstone ring, and a basement core that is typical of post-impact rebound, supporting evidence includes the presence of shatter cones, discordant polymictic breccia bodies and dykes (the Cluff breccias), and chaotic intercalation of basement and gneiss lenses near the Athabasca basement contact (Baudemeont and Fedorowich, 1996). K-Ar and Ar-Ar age dating of Cluff breccia matrix suggests that the Carswell event occurred in early Paleozoic time at approximately 480 Ma (Clauer et al., 1985), making it one of the youngest structural events to affect rocks in the Athabasca Basin and post-dating uranium mineralization.

Apart from possible isolated, thin polymictic breccia dykes of possible Cluff breccia observed locally in drill core, the effects of the Carswell event do not extend on to the Shea Creek property where the unconformity is upright, intact and very shallow dipping and mineralization is not disrupted by significant discontinuities.



7.2 Shea Creek Geology: Distribution and Character of Lithologies

Airborne magnetic and electromagnetic patterns indicate that basement stratigraphy trends north-northwest, defined by alternating lithologies with magnetically low and high response and positive, linear conductive units (Figure 7-1). Comparison of geophysical patterns to areas of known geology suggests that the magnetically positive features correspond with the belts of the magnetite-bearing 1980 Ma to 1960 Ma age quartz diorite suite of the Lloyd and Taltson domains. Conversely, drilling indicates that the magnetic lows comprise belts of aluminous granitic gneiss, which are potentially equivalent to the Earl River Complex in the Carswell structure, and pelitic, graphitic biotite-quartz-feldspar gneiss. The latter includes the economically significant Saskatoon Lake Conductor, which under currently defined regional relationships by Card et al. (2007a) may form part of the Careen Lake assemblage. Garnet-bearing, aluminous granitic gneiss units in these magnetic lows on the Shea Creek property and on adjacent properties range from 1930 to 1911 Ma (Brouand et al., 2002), typical of the late granite suite of the Taltson magmatic zone. Assemblages of biotite, sillimanite, cordierite, garnet and potentially relict staurolite in metapelitic units suggest that these rocks were affected by at least amphibolite grade peak metamorphic assemblages, although granulite grade may have been achieved (Mysyk and McMullan *in* Munholland et al., 1996).

7.2.1 Saskatoon Lake Conductor (Pelitic Gneiss)

Local basement geology is best defined by drilling in the northern Shea Creek property in the vicinity of the Anne, Kianna and Colette Deposits (Figure 7-2). Here, the north-northwest trending, moderate west-dipping pelitic gneiss of the Saskatoon Lake Conductor occurs within granitic gneiss (felsic gneiss) in its footwall and hanging wall. Drilling indicates that it varies in true thickness from 40 metres to 80 metres.

Previous workers (*e.g.*, Baudement and Lorilleaux, 1998; Robbins et al., 2007 and other reports) have typically divided the unit into a lower mixed graphitic gneiss and garnetiferous gneiss subunit ('garnetite') and an upper subunit of pelitic gneiss.

Graphite-bearing pelitic gneiss is generally most abundant, and most graphite-rich, in lower parts of the pelitic unit comprising the Saskatoon Lake Conductor, corresponding with the axis of Conductor seen in EM surveys. Granitic and felsic pegmatite leucosomes are locally common within this subunit, parallel to gneissosity. The graphitic gneiss, particularly near its basal contact with underlying granitic gneiss, may be tectonized by late to post-metamorphic faulting (R3 fault zone). This results in development of chloritic clay gouge seams parallel to gneissosity and clay-chlorite alteration.



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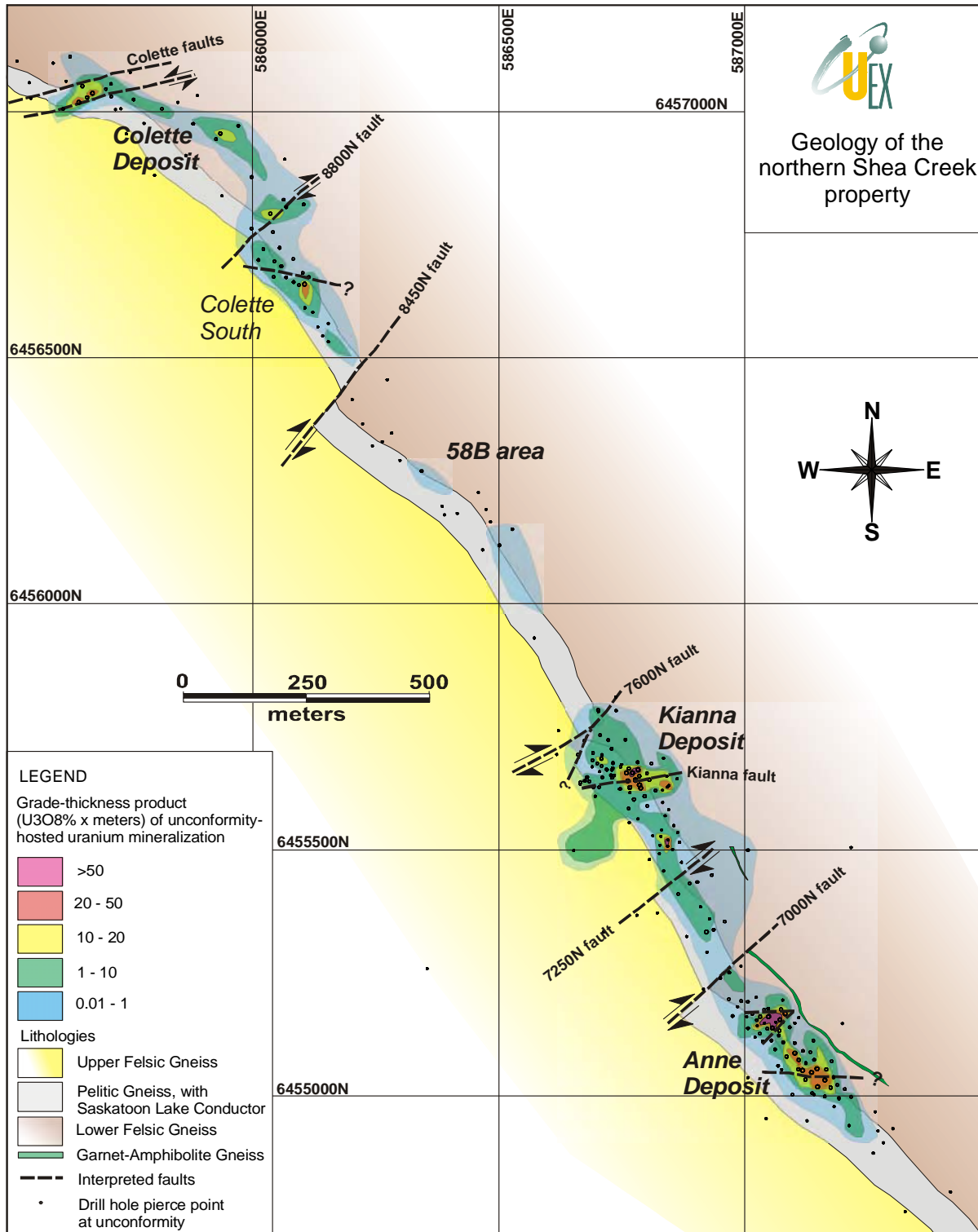


Figure 7-2: Geology of the Northern Shea Creek Property

From Rhys et al. (2009)



The graphitic pelitic gneiss is commonly interlaminated/intercalated with 0.3-metre up to 15-metre thick bands of pale grey, mottled garnet-quartz-feldspar gneiss. This subunit comprises 5% to 30% generally dark green chloritized garnets 2-6 mm in diameter, which with biotite forms diffuse compositional layers in a matrix of pale grey, medium-grained quartz-feldspar. Based on its texture, this garnetiferous quartz-feldspar gneiss may represent a series of aluminous granitic sills, as the texture is atypical of pelitic or psammopelitic metasedimentary units. An igneous origin is supported by Taltson magmatic zone equivalent 1830-1810 Ma U-Pb zircon age dates from bands of this unit that are hosted by pelitic gneiss in the Colette area (Brouand et al., 2002)

Green grey, chlorite-sericite altered pelitic gneiss and schist are often interlayered with the garnet gneiss in upper parts of the pelitic gneiss unit. Based on relict textures, this pelitic subunit comprised biotite-sillimanite-cordierite-garnet-quartz-feldspar \pm possible staurolite assemblages. Where cordierite and garnet are absent, this subunit is often more quartz-feldspar rich and semipelitic, with well developed compositional layering.

Abundance of these three subunits within the pelitic gneiss unit varies across the areas of more detailed drilling from the Anne Deposit in the southeast to the Colette Deposit in the northwest. Generally, most graphite-rich pelitic subunits comprise the lower portions of the pelitic gneiss throughout this area, although some higher graphite-rich areas may occur near the top as well. The greatest cumulative thickness of both the garnet-rich and graphitic gneiss subunits occurs in the vicinity of the Kianna Deposit, while graphite-poor pelitic gneiss and schist are more abundant in upper parts of the unit to the northwest and southeast of Kianna.

7.2.2 Upper and Lower Felsic Gneiss Sequences (Granitic Gneiss)

The pelitic gneiss unit that contains the Saskatoon Lake Conductor is surrounded both in its footwall and hanging wall by quartz-rich biotite-quartz-feldspar \pm garnet gneiss, termed the Upper and Lower Felsic Gneiss units by Baudemeont and Lorilleaux (1998) and in subsequent property reports and drill codes. These units extend to the limits of drilling in the northern Shea Creek property. A minimum thickness of at least 300 metres is indicated for the Lower Felsic Gneiss which has been intersected by many drill holes. The uppermost parts of the Upper Felsic Gneiss have only been intersected in a few drill holes which also cross into its uppermost parts of the pelite unit.

The Upper and Lower Felsic Gneiss units are lithologically similar. These units exhibit internal variation in abundance of garnet and biotite, grain size, and development of compositional layering, suggesting internal subunits may be present. The most common varieties comprise, when fresh, pale to moderate grey feldspar-quartz dominated gneiss which has 1% to 5% greenish-grey 1 mm to 5 mm garnets, and 1% to 15% biotite. The garnet and biotite are frequently most abundant in discontinuous, diffuse compositional lamina and lenses, which with deformed, flattened pale blue-grey quartz grains and aggregates define gneissosity. Coarse-grained feldspar porphyroclasts occur locally, suggesting a relict porphyritic texture. Varieties with higher biotite content may have granitic leucosomes which further accentuate compositional layering.

Overall texture of the felsic gneiss sequence, including the local relict porphyritic texture, and the euhedral intergrowth of quartz and feldspars, are typical of granitic gneiss. This is consistent with the 1830 Ma to 1810 Ma age dates obtained from these in the region by Brouand et al. (2002).



7.2.3 Mafic Gneiss in the Lower Gneiss Sequence (“Metabasite” Unit)

Within the Lower Felsic Gneiss 10 metres to 80 metres below the contact with the lowermost graphitic portions of the pelitic unit, dark green-grey mafic gneiss locally forms one or more discrete units that typically range from 1 metre to 10 metres in thickness, and are more rarely greater than 20 metres thick. These units contain 20% to 50% garnet \pm biotite \pm pyroxene which may develop compositional bands with feldspar \gg quartz layers. The most consistently traceable unit of this type occurs in the Anne Deposit, where it occurs approximately 50 metres to 70 metres below the metapelite unit. This lithology may be economically significant, as alteration in parts of the Anne Deposit may terminate against it, or locally basement-hosted uranium mineralization at Anne and Kianna may be preferentially developed along it.

7.3 Structural Geology of the Shea Creek Property: Syn-metamorphic Deformation

At a property scale, basement rocks and dominant foliation trend primarily north-northwest, and have moderate to shallow west-southwesterly dips. Within 10 kilometres of the Beatty River shear zone, lithologies progressively rotate to north and northeast trends, consistent with dextral (right lateral) deflection associated with shear zone displacement (Figure 7-1).

Detailed structural history on the Shea Creek property is defined largely on the basis of structures observed in drill core and associated lithologic map patterns and architecture in the northern Shea Creek property where drilling density is highest around the Anne, Kianna and Colette Deposits. A progressive sequence is apparent from early high grade metamorphic penetrative events, through formation of mylonitic shear zones and to later brittle faulting, which is compatible with the overall regionally defined structural history that is documented in Section 7.1 above. The following sequence of fabrics and faulting events are suggested.

7.3.1 D1 Deformation

Penetrative north-northwest trending, and moderate west-southwest dipping gneissic compositional layering (S1) and a parallel shape fabric defined by alignment of peak metamorphic minerals represents the earliest recognizable foliation in the northern Shea Creek property (Baudement, 1996; Moriceau, 1997). The foliation is developed in both the pelitic gneiss of the Saskatoon Lake Conductor and in the surrounding granitic gneiss units. It is parallel to, and in part defined by lithologies including compositional layers and granitic leucosomes.

S1 is variably transposed by S2 (D2 fabrics). Where S1 and S2 can be distinguished, S1 is generally defined by least strained metamorphic minerals, suggesting that it was coeval with peak amphibolite to granulite grade metamorphism in the local area. Similarly, while rootless, intrafolial folds potentially attributable to minor D1 isoclinal folds were observed locally in core, these may conversely be related to later D2 effects. Since S1 affects granitic gneiss at Shea Creek, a maximum age of S1 foliation during D1 deformation is constrained by the 1930 Ma to 1911 Ma U-Pb zircon ages of the granitic gneiss reported by Brouand et al. (2002), consistent with latter stages of regional syn-metamorphic deformation associated with the Taltson orogeny.



7.3.2 D2 Deformation

D2 is defined by the presence of folds (F2 folds) of S1 which are locally present in drill core, and which locally result in changes in dip orientation of S1 over short intervals. F2 folds range from minor tight or isoclinal closures to more open asymmetric folds of S1. They are associated with an axial planar foliation (S2) defined by biotite and alignment of other platy minerals and mineral aggregates. Core reorientation suggests that F2 folds have shallow to subhorizontal hinges which trend northwest-southeast. A shallow dipping composite S1-S2 intersection and mineral lineation, L2, that is defined by amphiboles, biotite aggregates and other minerals, is commonly visible in drill core in areas of F2 folding.

Away from F2 fold hinges, S2 merges with and is indistinguishable from S1, suggesting that the dominant foliation represents a composite S1-S2 fabric with significant transposition of S1 into S2. D2 post-dates the metamorphic peak, since S2 foliation, and transposed S1 wraps around garnet, amphibole and other porphyroblasts. New mineral growth along L2 of biotite and amphiboles suggest, however, amphibolite grade conditions during D2. The tightness of F2 fold hinges and common parallelism of S1 and S2 indicate that the D2 event accommodated high strains. D1 and D2 may represent pulses of a single, progressive phase of syn-metamorphic deformation event.

No definitive shear zones associated with S2 (D2) were identified during this study, however, diffuse high strain zones and narrow mylonitic shear zones of variable intensity are locally developed parallel to S1-S2. These affect peak metamorphic mineral assemblages, and also affect both S1 and S2 fabrics, suggesting that they represent either late D2 features, or are related to syn-D3 thrusting associated with mylonitic dextral shear zone development .

7.4 Retrograde Shear Zones and Later Brittle Faults: Controls to Uranium Mineralization

Several varieties of both pre- and post-Athabasca faults are superimposed on the earlier penetrative metamorphic fabrics and mineral assemblages. These include a series of both oblique slip mylonites and potentially associated concordant thrusts, as well as later brittle phases of faulting. These are reviewed in detail here since their distribution, style and architecture have fundamental influence on the distribution of uranium mineralization.

7.4.1 Steeply-dipping D3 Mylonites and Offsets of the Saskatoon Lake Conductor

S1 and S2 are overprinted on the northern Shea Creek property by a series of dominantly northeast-trending, steeply dipping narrow mylonitic shear zones. This event, consistently coded D3 by all previous workers (e.g., Baudement, 1996; Moriceau, 1997; Flotte, 2006) and in this study, is probably coeval with the development of the Beatty River shear zone and other major northeast-trending regional shear zones during dextral transpression overlapping Hudsonian orogenesis that is discussed in Section 7.1. Subsidiary northeast trending dextral shear zones to the Beatty River shear zone that are defined by offsets of magnetic patterns extend into the area of the Anne, Kianna and Colette Deposits (Figure 7-1).



In drill core on the northern Shea Creek property and southern Douglas property (see Moriceau, 1997), narrow mylonitic shear zones have been intersected in many drill holes within basement rocks. These comprise ductile mylonites and ultramylonites that are well laminated, very fine-grained and often colour banded. They are generally discordant to gneissosity, and where core re-orientation is possible using the known orientation of dominant foliation, often trend northeast with steep dips, consistent with the Beatty River and associated shear zones.

Oblique internal fabrics, including mylonitic foliation developed obliquely to shear zones margins (C-S geometry), shear bands, and asymmetric pressure shadows on porphyroclasts suggest that these structures accommodate right-lateral (dextral) shear sense with a variable vertical component, consistent with the offset on other known mylonitic shear zones in the area.

Preservation of biotite, but replacement of other higher grade metamorphic minerals such as garnet, and the occurrence of chlorite as matrix to local minor peripheral cataclastic breccias along some mylonites, suggest that these structures formed under greenschist grade conditions. These structures are retrograde in timing, as they overprint peak metamorphic minerals and both the S1 and S2 foliations. A pre-Athabasca timing is indicated on all of these structures since the mylonites do not penetrate into the overlying Athabasca sandstone, do not offset the unconformity, and are overprinted by paleoweathering clay alteration.

While mylonites are widespread in the northern Shea Creek property, they are not abundant, and most drill holes lack mylonite intercepts. However, their steeply dipping orientation is subparallel to most drill holes, so their frequency is probably underrepresented in drill core. Narrow mylonites were observed in multiple drill holes in the Kianna Deposit area, where they occur coincident with the intense area of basement alteration that is host to high grade uranium mineralization there, suggesting a possible pre-mineralization control (see Section 9). Other areas of mylonite development observed in drill core locally coincide with displacements of the pelitic gneiss unit between the Anne and Kianna Deposits.

Drilling indicates that the pelitic gneiss unit which is host to the Saskatoon Lake Conductor is offset by multiple, northeast-trending faults (e.g., Robbins et al., 1998; Baudemont and Lorilleaux, 1998). Principal faults based on these offsets interpreted here are illustrated in Figure 7-2. At least five significant apparent right-lateral (dextral), northeast-trending faults /shear zones with between approximately 40 metres and 110 metres of displacement are apparent or interpreted between the northwestern end of the Anne Deposit and the Colette Deposit, the 7000N, 7250N, 7600N, 8450N and 8800N faults (Figure 7-2). The largest apparent offset is on the 8450N fault, which is suggested by a large step in the trace of the pelitic gneiss unit between the Colette South and 58B areas. Approximately 90 metres and 115 metres of displacement are suggested, depending on how the contact is interpreted.

In addition to these northeast-trending faults, deflections in the pelitic gneiss and locally in the Athabasca unconformity suggest the presence of low displacement east-west to east-northeast trending faults with minor sinistral (left lateral) apparent offsets. These are less well defined than the northeast-trending set, but may be economically significant as they lie in areas of some of the best mineralization in all three deposits, including a fault zone termed here the Kianna Fault (Figure 7-2), which has been recognized by Flotte (2006) and Koning et al. (2008) to be coincident with, and probably control, basement mineralization at the Kianna Deposit. This and other potential faults associated with mineralization are further discussed in the sections below.



The lack of offset of the sub-Athabasca unconformity on many of these faults suggests that the fault displacements are largely pre-Athabasca in timing. Steeply dipping east- to northeast-trending mylonites were observed in the basement along the projected trace of several of these structures, particularly the 7000N and 8800N faults, as multiple narrow mylonites associated with quartz veins along the Kianna Fault, and along the faults in the northern Colette Deposit. The potential conjugate northeast-trending dextral – east-west to northwest-trending sinistral shear sense of the two fault orientations, implied pre-Athabasca timing, and local physical presence of suitably oriented mylonites along the trace of these offsets suggests that the offset is related to displacements on pre-Athabasca mylonites, which in turn are associated with the regional D3 event and Beatty River shear zone. Later remobilization of these structures appears to be an important local control on uranium mineralization in the northern Shea Creek property.

7.4.2 Graphitic Shear Zones and Gneissosity Parallel Concordant Mylonites: Possible Syn-D3 Structures

In addition to the discordant mylonites, which cut across the metamorphic stratigraphy, concordant to semi-concordant, moderate to shallow west-southwest dipping shear zones and local mylonites are developed along the lower portions of the pelitic unit in graphitic gneiss and locally in other parts of the sequence. These overprint S1 and S2 foliations, and are probably coeval with the more steeply dipping mylonites described above. The shear zones near the base of the pelitic gneiss unit and overprinting later faulting have been collectively termed the “R3” fault (Baudemont and Lorilleaux, 1998).

Where not completely overprinted by later brittle faulting and clay alteration, the shear zones in the graphitic gneiss unit are semi-brittle in style. Foliation is defined by alignment of phyllosilicate minerals and foliated compositional bands, and by widespread development of pressure solution fabrics, which are in part defined by stylolitic graphitic surfaces. Narrow lenses of lithified carbonaceous cataclastic breccia are often present along shear zone slip surfaces. Diffuse shear zones of this style appear to have affected much of the lower, graphitic portions of the pelitic package along the R3 trace prior to overprinting by later brittle faulting (see below). However, within this, more intense discrete shear zones are typically narrow, and 5 cm to 50 cm thick. Higher in the pelitic package in more quartzofeldspathic garnet gneiss, shear zones may also be present, but in the absence of graphite to aid in pressure solution processes, may have more pervasively ductile, mylonitic texture.

The presence of oblique internal foliation, which dips more steeply than the shear zone slip surfaces, synthetic shear bands, and asymmetric pressure shadows on entrained wallrock fragments and mineral aggregates, record a dominantly reverse (southwest side up thrusting) shear sense on these structures where determinable by re-orientation. The shear sense suggests an overall west-southwest-east-northeast direction of shortening which is compatible with the inferred offset on the D3 mylonitic shear zones, suggesting displacement on the two differently oriented shear zones may have been coeval.



7.4.3 Late Faulting: Post-Athabasca Tectonic Activity

The position and significance of post-Athabasca faulting effects is most clearly determinable by offsets of the sub-Athabasca unconformity, since any significant offsets with even a small vertical component will cause topographic changes to the unconformity surface. In the northern Shea Creek property, the most significant post-Athabasca faulting effects, which offset the unconformity, occur where west-southwest dipping faults localized along the base of the pelitic unit (Saskatoon Lake Conductor) intersect the sub-Athabasca unconformity. This fault zone, comprising remobilized graphitic shear zone surfaces of the R3 fault and other parallel faults above, results in approximately several tens of metres of southwest side up reverse offset of the unconformity that is visible on unconformity elevation contour maps (Figure 7-3) and on cross-sections through the deposits (Figures 9-1 to 9-5). The offset is distributed over a plan width of 50 metres to 150 metres in which multiple minor offsets on different fault strands cumulatively accommodate the full displacement. Across this corridor, from hanging wall to the southwest, to footwall to the northeast, cumulative displacement measured by the total change in elevation of the unconformity ranges from approximately 20 metres to 50 metres. Greatest displacements are in the Kianna (35 metres to 50 metres) and Anne (approximately 35 metres) areas, and lower overall displacements are present in the Colette area (20 metres to 25 metres).



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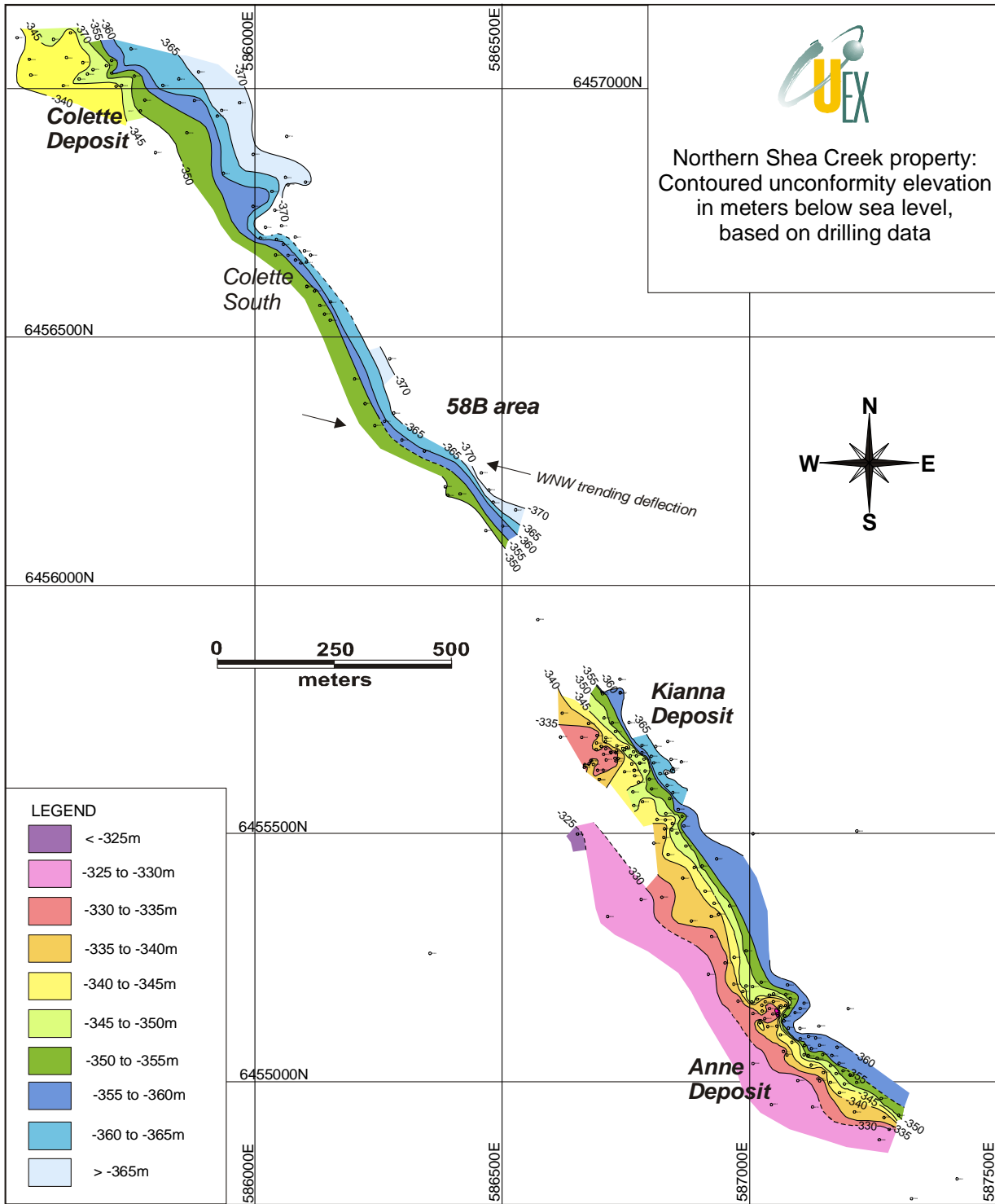


Figure 7-3: Northern Shea Creek Property: Contoured Unconformity Elevation in Metres below Sea Level, Based on Drilling Data

Modified from Rhys et al. (2009)



As with other post-Athabasca faults in the Athabasca Basin, overall geometry of the distributed displacement is of an open, monoclinical fold of the unconformity surface, with tilting of sandstone bedding to shallow northeast dips above the distributed fault trace. In some areas of greatest displacement, small thrust wedges of basement several metres high emplace lenses of basement over basal portions of the Athabasca sandstone. This results locally in folding of the sandstone adjacent to or near the wedge in which the sandstone bedding may be tilted to steeply dipping or overturned. The basement thrust wedges are also locally emplaced over chlorite-matrix breccias which are associated with uranium mineralization. The thrust wedges, post-depositional tilting of the sandstone bedding above the broad fault trace, and similarity of thin basal conglomerate on both the southwest and northeast sides of the fault indicate that the change in unconformity elevation is post-Athabasca in timing and not related to pre-Athabasca paleotopography as is seen in other parts of the Athabasca Basin. In contrast, pre-Athabasca paleotopography would likely result in differences in the stratigraphy of the basal Athabasca sandstone on different sides of the unconformity elevation drop.

The fault zones responsible for the displacement of the unconformity and basal sandstone represent dominantly brittle remobilization of shear zones and foliation surfaces in the pelitic gneiss unit, particularly along the R3 structure in graphite-rich portions near its base. In these areas, grey to green chlorite-clay and dark grey carbonaceous (graphitic) clay gouge seams exploit foliation and shear zone slip surfaces. The brittle faulting is accompanied by clay alteration, which along with a broad damage zone of minor slip surfaces further accentuates the effects of the gouge seams, resulting in extensive areas of disaggregating, broken altered gneiss along lower portions of the pelitic gneiss unit. These generally thin downdip away from the unconformity in many areas, and below the effects of paleoweathering brittle fault surfaces may be more confined.

Brittle faults developed parallel to foliation surfaces are also the most common fault orientation observed in the underlying Lower Felsic granitic gneiss to the pelitic gneiss unit. These faults are generally pale green-grey clay gouge filled zones that vary from a few centimetres to more than one metre in width. They occur periodically beneath, and parallel to the R3 structure in the Kianna and Anne areas, but are not abundant.

Where basement-hosted brittle faults pass upward into the overlying Athabasca sandstone, and where their extent is not obscured by alteration and brecciation associated with uranium mineralization, they may persist for several metres as discrete structures before dissipating into fractured sandstone. In the sandstone, they will sometimes steepen into narrow fault surfaces, or have splays which exploit bedding planes. The overall upward dissipation of faults in the sandstone column is consistent with progressive accommodation of fault displacement by folding higher in the sandstone column, as is seen in many fault systems associated with uranium deposits in the eastern Athabasca Basin. Termination points of some of these faults may locally correlate with the position of development of perched mineralization in the South Colette, Kianna and Anne Deposits, possibly due to enhanced structural permeability related to dissipation of the faults into more distributed fracture zones.



7.4.4 Patterns of Post-Athabasca Fault Activity

In combination with fault locations identified and traced in drill core, and modelling of the pelitic gneiss and other marker units, fault locations and post-Athabasca displacements which may influence uranium mineralization can be identified on unconformity elevation contour maps which illustrate offsets of the unconformity surface (Figure 7-3). In addition to the north-northwest trending reverse (southwest side up) offset of the unconformity associated with the main unit R3 structure along the pelitic gneiss unit, several discordant fault offsets of the unconformity surface are also apparent, as is shown in Figure 7-3. These are marked as breaks in the topographic contours associated with the R3 fault and imply that either the R3 fault is offset, or that the R3 and the discordant faults are interacting, with the R3 slip surfaces stepping as they join with, and then reappear across the discordant faults.

The largest deflections which imply post-Athabasca offset associated with discordant faults are in the Colette area. These include:

- a) In northwestern parts of the Colette Deposit, the unconformity contours deflect substantially to the left along an east-northeast trend which corresponds with the position of the offset interpreted as the Colette Fault. Paleoweathered, pre-Athabasca mylonites are present in drill core in this area along the trace of this feature implying that the deflection is due to post-Athabasca remobilization of a pre-Athabasca mylonite zone.
- b) At the southeastern end of the Colette Deposit, between Colette and Colette South, a significant right-handed, northeast-trending deflection in the unconformity contours corresponds with the position of the interpreted 8800N dextral fault. This also corresponds with a change in the position of unconformity mineralization from Colette South, where it lies above the pelitic gneiss unit, to the eastern parts of the main Colette area, where it occurs to the northeast of the pelitic unit (Figure 7-4). The distribution of uranium mineralization is thus more closely tied to the position of the offset of the unconformity (*i.e.*, the intersection of the faults with the unconformity) than to the position of the pelitic gneiss.



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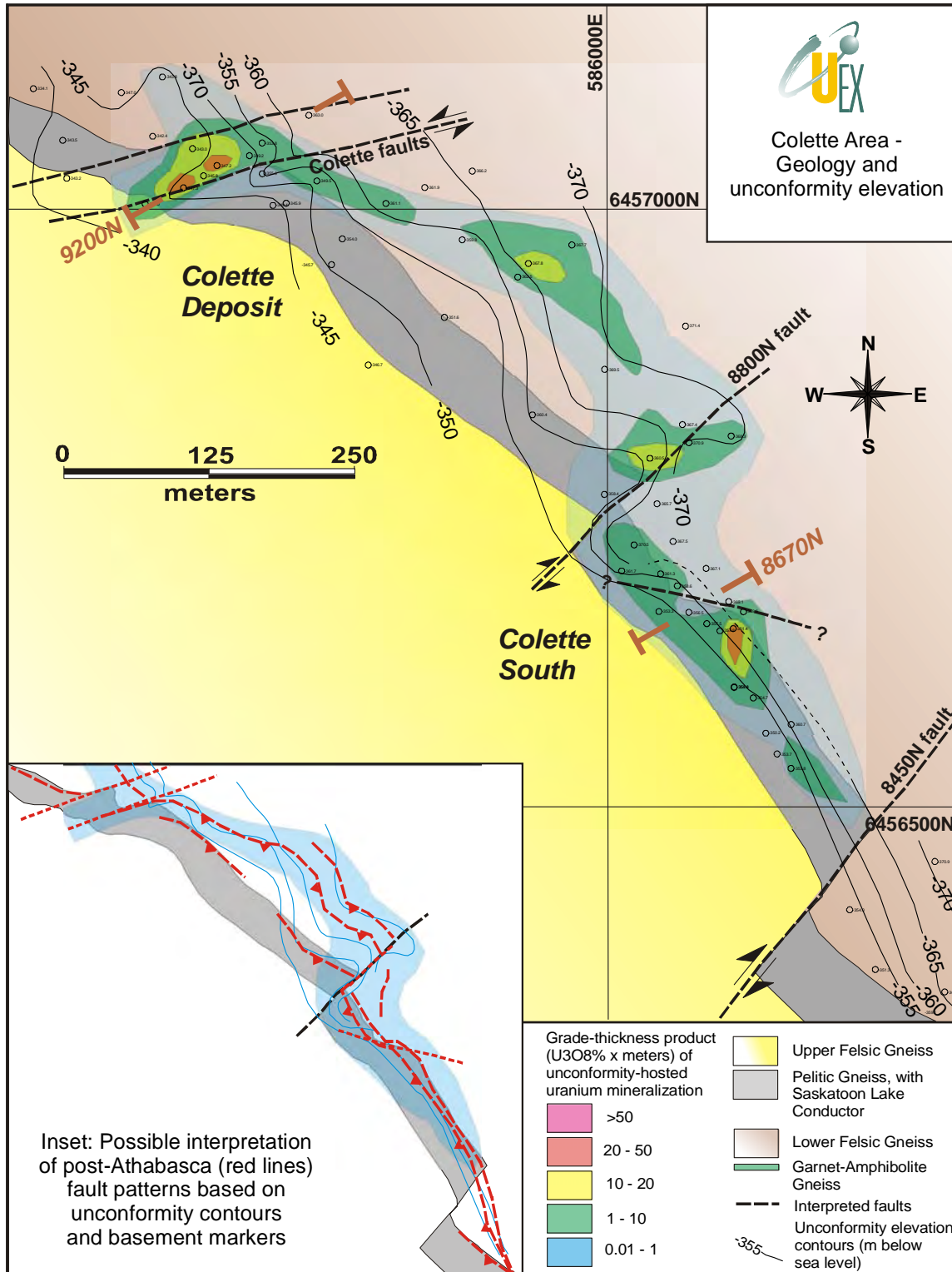


Figure 7-4: Colette Area – Geology and Unconfomity Elevation

Modified from Rhys et al. (2009)



In addition to these, additional deflections of the unconformity surface that are oblique to the R3/pelitic gneiss fault trend include a wedge-like step up bounded by northeast and east-west trending contour deflections in the northern Anne Deposit that is coincident with the some of the best developed mineralization there (Figure 7-5), and similar but more minor deflections with northeast to east-northeast trends in the Kianna and South Kianna areas (Figure 7-5), which also correspond with better developed mineralization. More subtle, local bends to more east-west trends of the contour traces also occur in the south Anne, 58B, and Colette South areas, which also commonly correspond with changes in the strike of the underlying pelitic gneiss, and often with areas of better developed mineralization. These may reflect the position of additional east-west to east-northeast trending faults which, based on the deflections, may accommodate a component of post-Athabasca sinistral displacement (Figure 7-5).

Also notable in Figures 7-4 and 7-5 is that some interpreted pre-Athabasca northeast-trending faults which have significant apparent right lateral offset of the pelitic gneiss unit display little or no deflection of the unconformity contours (e.g., 8450N, 7250N and 7000N faults), suggesting that they may not have been remobilized by post-Athabasca faulting.

Logging of clay alteration intensity in basement rocks has also defined several areas of extensive clay alteration which extend deep into the basement rocks and which are associated with uranium mineralization. The best defined of these is a large, tabular, east-northwest trending and steeply-dipping zone of clay alteration that contains the basement mineralization at the Kianna Deposit. Its tabular nature, and coincidence with narrow mylonite zones and quartz vein sets of similar orientation, defined this as a diffuse zone of faulting and vein development which has been focus to probably later fault remobilization and uranium mineralization. Here termed the Kianna Fault zone, it is further described under mineralization below. Modelling of lithologies in Datamine suggests that it is associated with an approximately 20-metre apparent south side down offset of the pelitic gneiss unit, and undulations in the overlying Athabasca unconformity surface.



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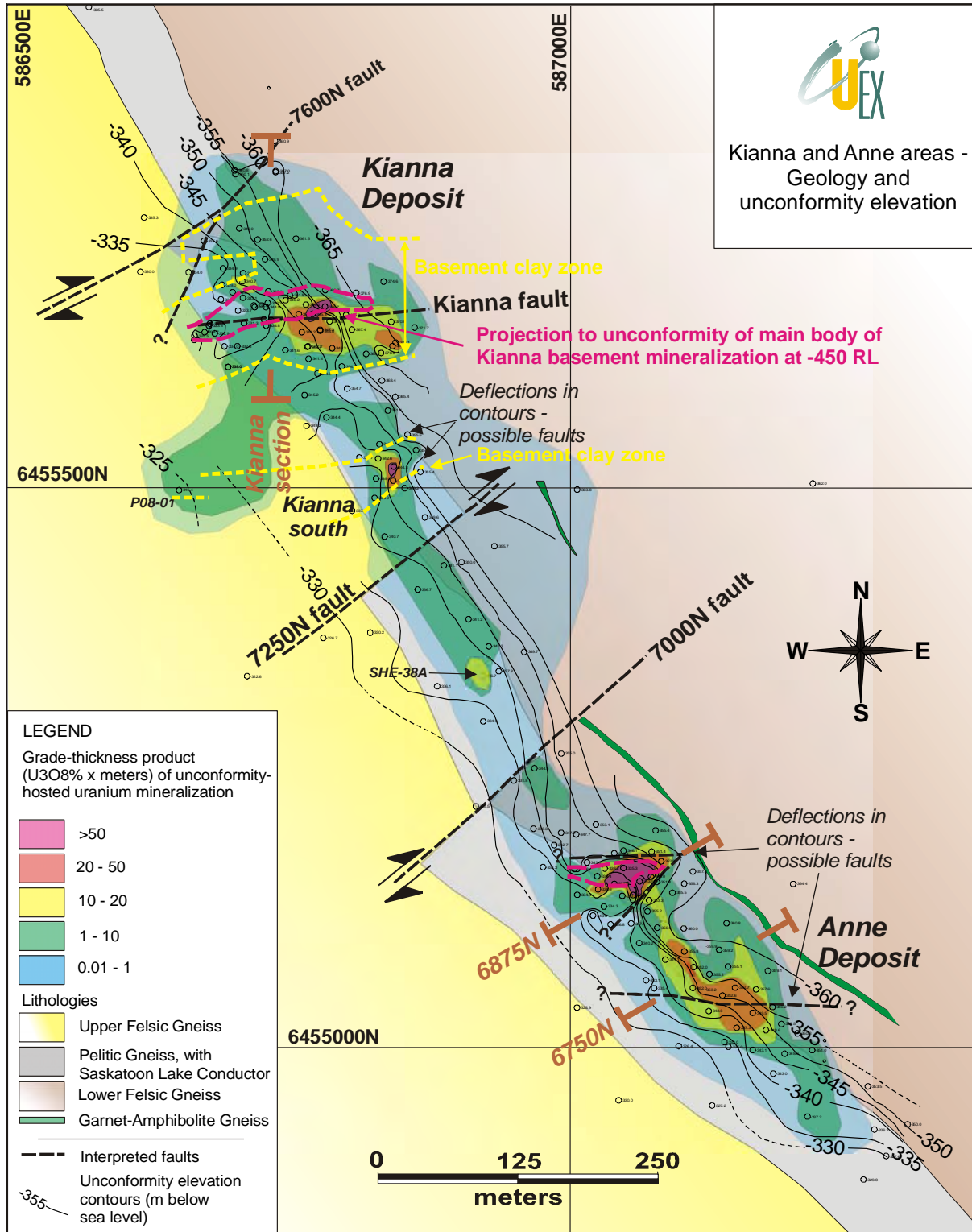


Figure 7-5: Kianna and Anne Areas – Geology and Unconformity Elevation

Modified from Rhys et al. (2009)



7.4.5 Mineralized Vein and Fracture Orientations in Oriented Drill Core

Orientations of veinlets and fractures containing uranium mineralization (pitchblende) from the Kianna, south Kianna and Anne areas obtained from oriented drill core show a common east-west to east-northeast trending, dominantly moderate north dipping orientations. The overall strike of these mineralized veinlet orientations is similar to the east-west to east-northeast trending fault trends suggested by offsets of the sub-Athabasca unconformity (e.g., Kianna Fault), although the dips are shallower.



8.0 DEPOSIT TYPES (ITEM 10)

The following section was modified from UEX's April 3, 2009 N.I. 43-101 report entitled "Technical Report on the Shea Creek Property, Northern Saskatchewan" by Rhys et al. (2009).

The Shea Creek property lies within the Athabasca uranium district, one of the most prolific uranium producing regions in the world, including 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 in the region, 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 (<1700 Ma) timing for uranium mineralization in the region. U-Pb age dates obtained from uraninite mineralization in deposits throughout the Athabasca Basin support a principal phase of mineralization between 1600-1500 Ma with a potential second event between 1460-1350 Ma, and potential later periods of reworking indicated by younger ages (Fayek et al., 2002; Alexandre et al., 2009; Cumming and Krstic, 1992).

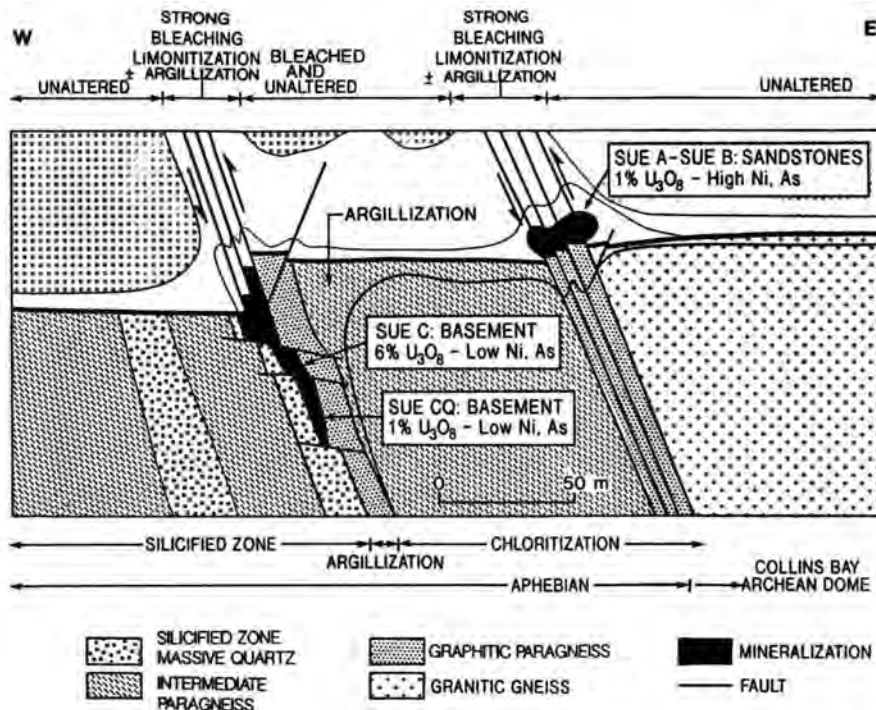


Figure 8-1: Schematic Cross-Section through the Sue Zones, McClean Lake Property Showing the Unconformity and Basement Styles of Uranium Mineralization that are Common in Unconformity-type Uranium Deposits

From Baudemont et al. (1993)



SHEA CREEK URANIUM PROPERTY

Illustrated in Figure 8-1 is a north view from Baudemont et al. (1993) showing the spatial association of basement (Type B) and unconformity (Type A) mineralization on parallel mineralized trends and the distribution of associated argillic alteration. Mineralization is developed in graphitic gneiss units that contain concordant faults. Mineralization at Shea Creek comprises both of these styles, often stacked on top of one another, and additional variations of these styles.

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):

- a) 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, Maybelle River; Figure 8-1). Deposits of this style are often characterized by assemblages of Ni and Ni-Co arsenides and sulpharsenides that accompany uranium mineralization. Locally, this style of mineralization is associated with perched mineralization which occurs in veinlets and lenses up to several tens of metres above the unconformity within alteration plumes that extend upward into the sandstone column.
- b) 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. Eagle Point, Dominique Peter, and Sue C are composed of veins, disseminations and pods that link, or overprint shear zones and faults, often in or near graphitic-bearing gneiss. Unlike deposits of the Type A above, these deposits generally lack arsenide and sulpharsenide minerals in mineralized zones, although basement-hosted mineralization at Shea Creek may be an exception to this pattern (see below). Mineralization is composed of discrete pitchblende veins, planar replacements of fine-grained nodular pitchblende + clays, or undulating pitchblende/uraninite-bearing redox fronts surrounding clay veins and faults. A variation on this deposit type occurs at UEX's Raven and Horseshoe, where mineralization occurs in hematitic redox fronts and veins surrounding large, semi-tabular clay alteration zones that are cored by probable faults (Rhys et al., 2008).
- c) 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.

Both the "Type A" and "Type B" styles of mineralization are present at Shea Creek.

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-kilometre strike length of the Collins Bay Fault system on the Rabbit Lake property. More locally, the Cluff Lake Deposits which lie only 13 kilometres to 16 kilometres 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 (Type A) mineralization at the



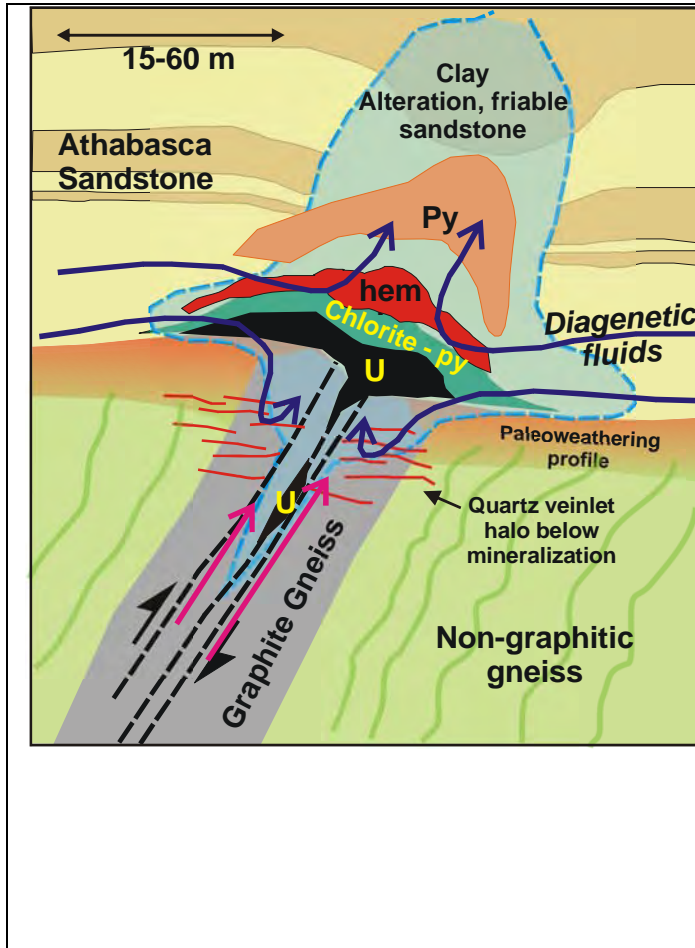
Cluff Lake D zone is spatially associated with nearby basement hosted deposits such as Dominique-Peter (Koning and Robbins, 2006; Baudemont and Fedorowich, 1996). The spatial coincidence of unconformity and basement-hosted deposits emphasizes the importance of testing both the unconformity and basement 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.

Deposits of all the styles described above are associated with, and generally enveloped by, intense zones of argillic alteration 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 8-2).

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.



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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.

Figure 8-2: Schematic Cross-Section through a Hypothetical Unconformity-hosted Deposit Illustrating the Diagenetic-hydrothermal Model for Deposit Formation

From Rhys et al. (2009)



9.0 MINERALIZATION (ITEM 11)

The following section was modified from UEX's April 3, 2009 N.I. 43-101 report entitled "Technical Report on the Shea Creek Property, Northern Saskatchewan" by Rhys et al. (2009).

Uranium mineralization identified to date on the Shea Creek property lies in the northernmost portions of the property, comprising the Anne, Kianna and Colette Deposits and intervening mineralization in between them. These deposits occur along an approximately 3-kilometre strike length of the north-northwest trending pelitic gneiss unit that is host to the Saskatoon Lake Conductor (Figure 7-2). In other parts of the property, drilling is limited and widely spaced, but mineralization has locally been intersected 2 kilometres southeast of the Anne Deposit (e.g., Shea Creek area discovery hole SHE-002); elsewhere, much of the property has little or no drill testing. The discussion below is consequently focused on mineralization associated with the three deposits located in the northern Shea Creek property. Mineralization in these areas is typically developed at depths of 650 metres to 800 metres below the current surface, beneath a thick sequence of overlying Athabasca Group sandstone, at elevations of 330 metres to 550 metres below sea level.

9.1 Uranium Mineralization Styles

To date, drilling within the 3-kilometre corridor on the northern Shea Creek property has been focused in two areas in which semi-continuous mineralization has been traced at the unconformity: a) the Colette and south Colette area, over a 0.7-kilometre strike length; and b) the Kianna to Anne Deposit areas, over a 1.1-kilometre strike length (Figure 7-2). The region in between the Kianna and Colette areas, termed the 58B Area based on a mineralized intercept located there (Figure 7-2), has only been sparsely drilled and has high potential for discovery of additional mineralization.

Within these mineralized domains in the northern Shea Creek property, three styles of mineralization are developed, based on relative position with respect to the Athabasca unconformity, and overall morphology. These three mineralization styles may be stacked on top of one another, as illustrated in cross-section in Figures 9-1 to 9-5. They comprise:

a) **Unconformity-hosted Mineralization (Photos 1 and 2):**

This is the most widespread style of mineralization identified to date on the northern Shea Creek property, and its outlines in plan view as currently defined are illustrated in Figures 7-2, 7-5 and 7-6. Unconformity style mineralization occurs as a shallow dipping sheet-like mineralized zone developed at the base of the Athabasca sandstone immediately above the sub-Athabasca unconformity (Figure 9-1; Photo 2), or straddling the unconformity and extending downward up to several metres into the underlying basement gneisses (Figure 9-3). It may also locally be contiguous with more extensive basement mineralization (Figure 9-2). The mineralization typically is elongated in plan view, occurring at the unconformity over a 40-metre to 150-metre plan view 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 (Figure 7-2).



Unconformity-hosted mineralization in high grade areas may comprise massive, nodular or blebby pitchblende ± coffinite ± yellow U-silicates in a hematite-clay matrix (Photo 1) that grades between 5% and 35% U_3O_8 over intervals of several metres. 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, dissolution breccias in the basal sandstone, which have a chlorite-dravite matrix (see below), both as partial matrix replacement and as fragments. Unconformity-hosted mineralization may be thickest and of highest grade in areas where basement and/or perched mineralization are developed vertically below or above it. These patterns are common in areas where steeply dipping northeast or east-west trending zones of faulting and clay alteration extend downward into basement rocks below.

b) Basement-hosted Mineralization (Photos 3 to 5):

This is the second most extensive style of mineralization developed in the northern Shea Creek property. Basement-hosted mineralization at Shea Creek is developed mainly in the footwall granitic gneiss unit (Lower Felsic Gneiss) tens to hundreds of metres below the sub-Athabasca unconformity, and vertically below the unconformity-hosted mineralization (Figures 9-2 to 9-5). Some minor mineralization also occurs in the pelitic gneiss unit, often as lenses following southwest dipping fault planes. Basement-hosted mineralization is variable in style and morphology, and is associated with areas of intense white to pale green clay-chlorite alteration of the basement gneiss. Two dominant styles of basement mineralization are apparent in the Anne, Kianna and Colette areas:



1A: SHE-050, 722-724 metres: Kianna South area



1B: SHE-115-03, core from 744-746 metres: Kianna Deposit



1C: SHE-122-01, 717 metres: Anne Deposit



1D: SHE-095-03, 721 metres: Anne Deposit

Photo 1: Unconformity-hosted Mineralization Textures

From Rhys et al., 2009

A: Centre core row shows the top of a moderate-grade intercept of unconformity mineralization (1.3% U_3O_8 over 2.7 metres) 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 left is pyritic, reduced. **B and 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% U_3O_8 over 0.3 metres. Note late carbonate-hematite veinlets cutting mineralization.



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Photo 2: High-grade Unconformity Uranium Mineralization from Drill Hole SHE-115-03 in the Kianna Deposit Illustrating Textures and Associated Alteration

From Rhys et al., 2009



Core shown is from 717.0 metres to 753.0 metres. In the top four core rows, bleached, pale grey Athabasca sandstone from which diagenetic hematite has been lost is underlain by a discrete zone of oxidized brick red hematite alteration of the sandstone (rows 7 to 10, upper center; "hematite halo"). This in turn is underlain by five rows between 734.0 metres and 742.0 metres containing reduced, grey-green Fe-chlorite \pm pyrite altered sandstone which contains local disseminated and blebby pitchblende. The interval averages 3.36% U_3O_8 . Note, in the lowermost row of this interval, between 741.0 metres and 742.0 metres, sandstone bedding is tilted at approximately 40 degrees to core axis. The chloritized sandstone is underlain by a zone of high grade pitchblende-hematite alteration between 742.0 metres and 746.3 metres (dark black-reddish rows outlined in red on photo) which occurs at, and partly obscures, the unconformity with the underlying granitic gneiss unit. The interval grades 21.15% U_3O_8 over 4.3 metres. Note inset detail of area outlined in blue on photo showing banded to blebby pitchblende-hematite, with pale green-grey pyrite (marcasite) patches. The lower four rows below the mineralization are clay-altered granitic gneiss basement rocks. The sequence of alteration is representative of that seen at Kianna and other deposits at Shea Creek, and is closely comparable to other unconformity uranium deposits in the Athabasca Basin, with mineralization occurring at a major change in redox conditions.



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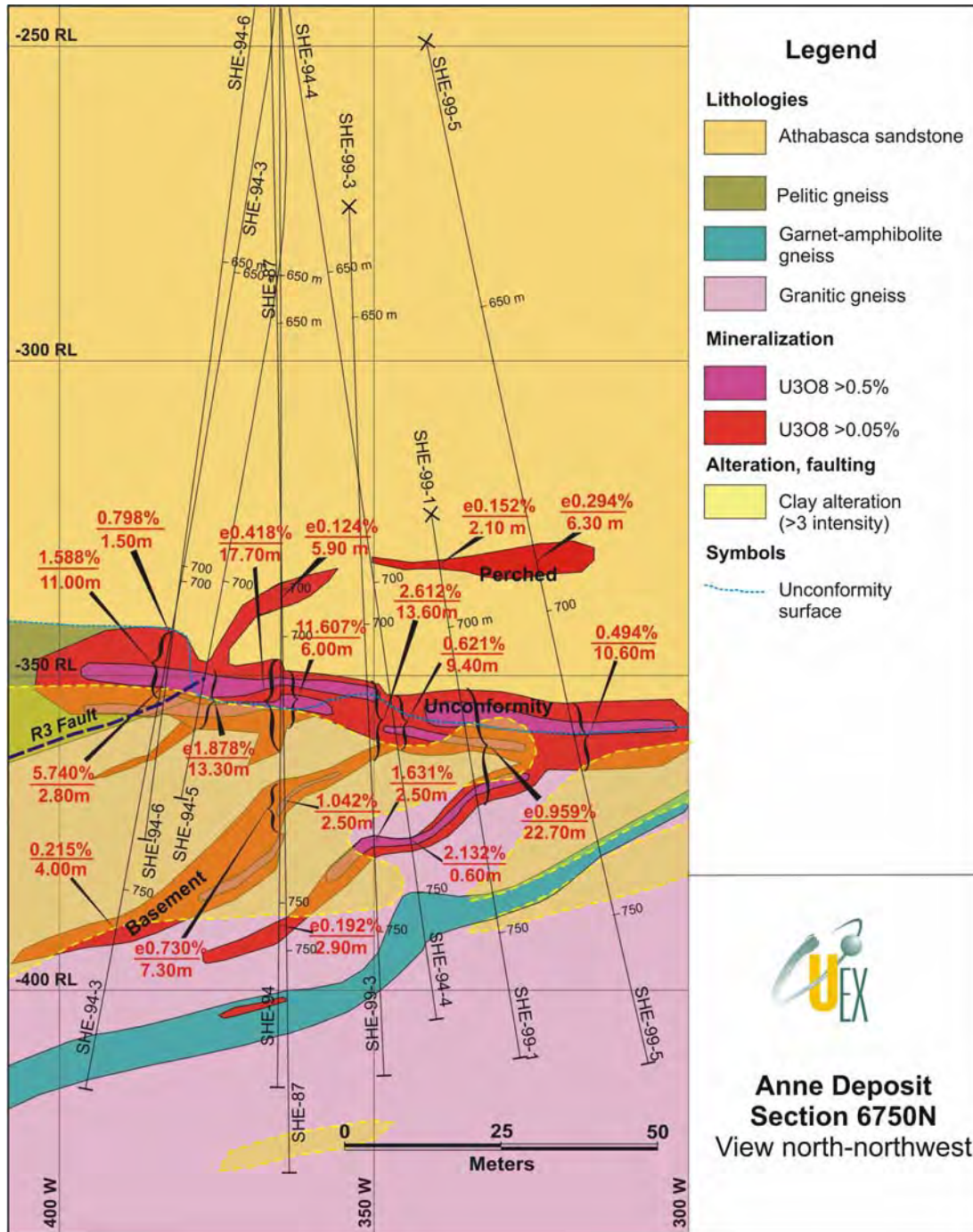


Figure 9-1: Anne Deposit – Section 6750 – View North-Northwest

From Rhys et al., 2009. See Figure 7-5 for location.



SHEA CREEK URANIUM PROPERTY

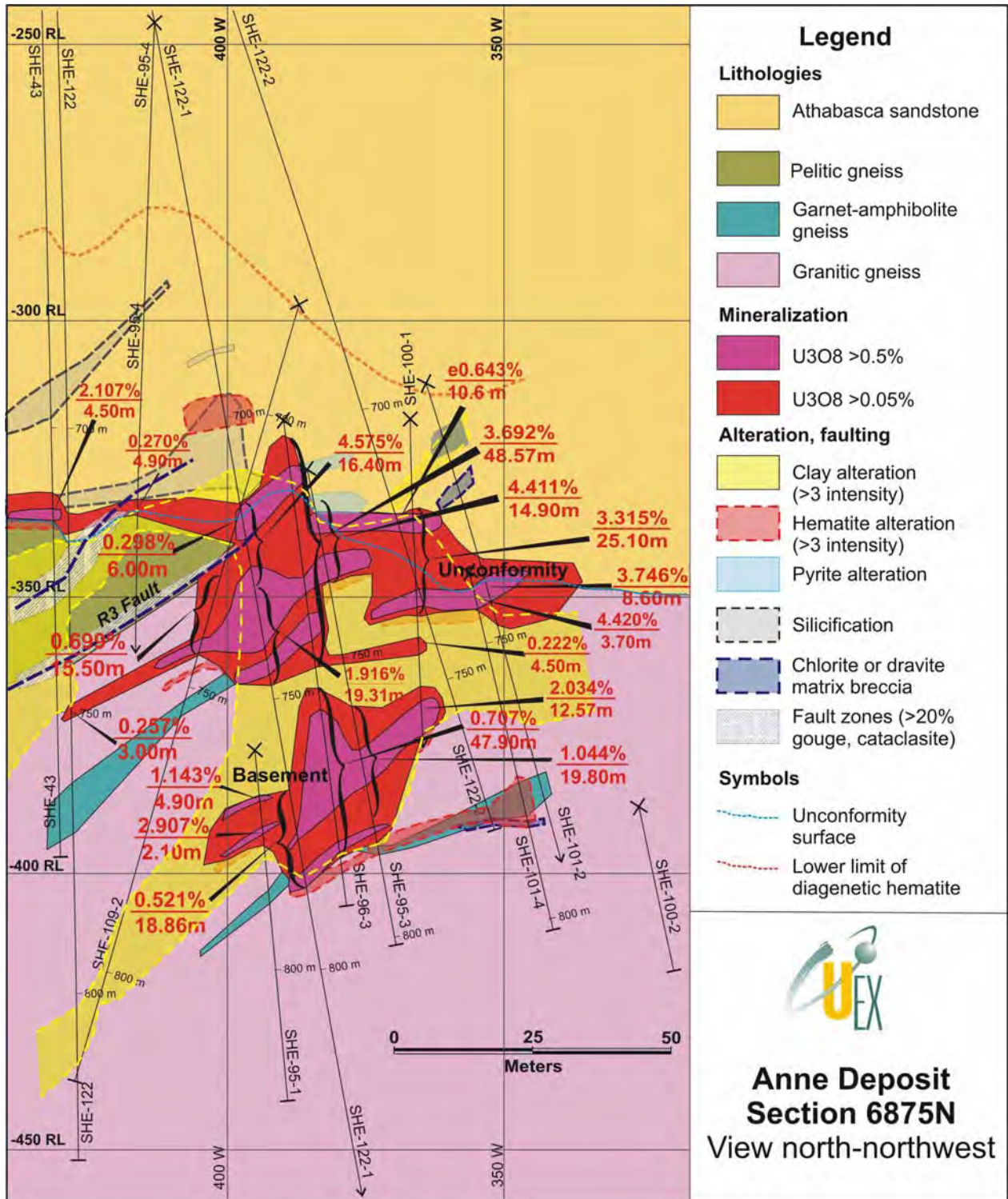
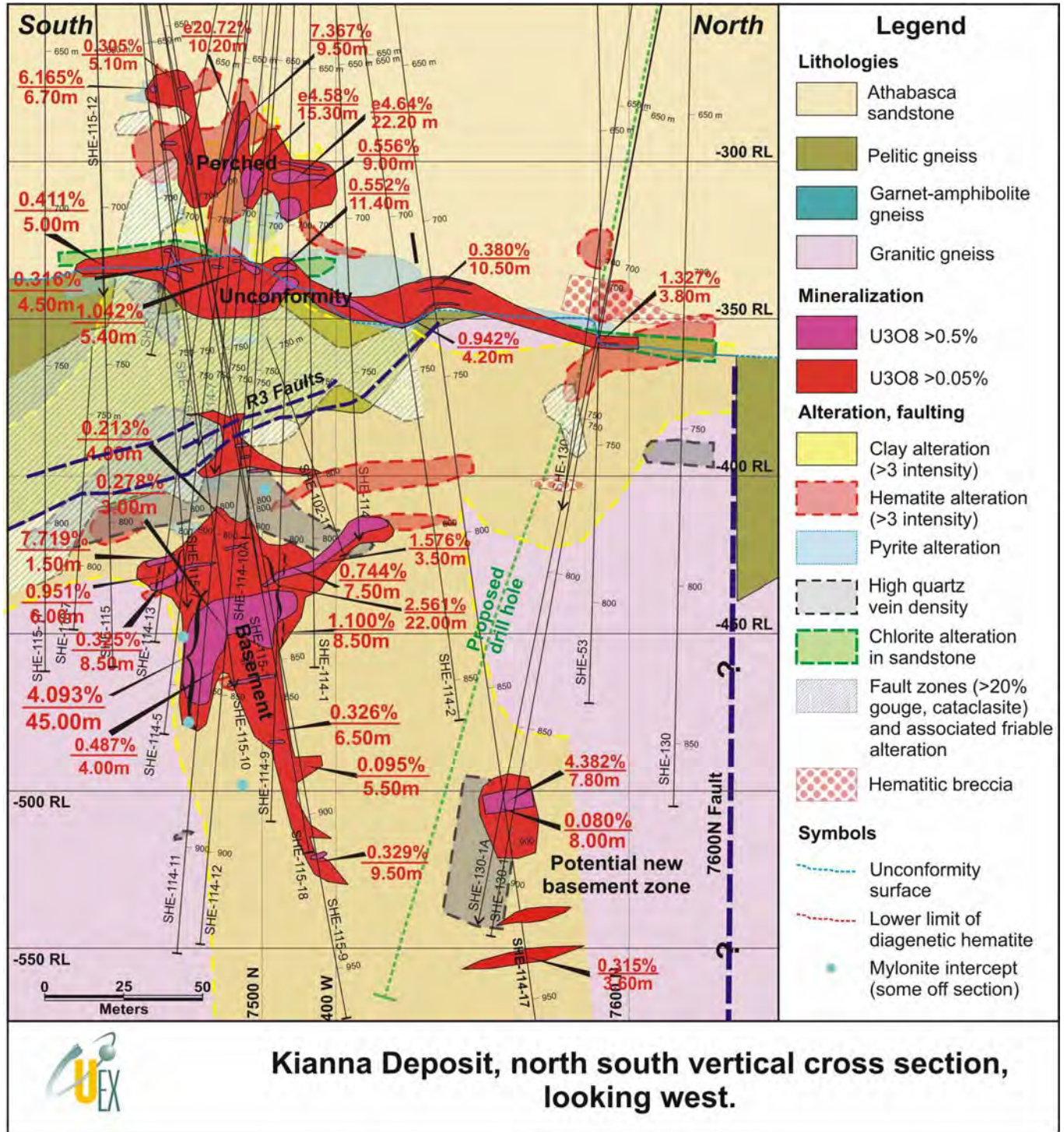


Figure 9-2: Anne Deposit – Section 6875 – View North-Northwest.

From Rhys et al., 2009. See Figure 7-5 for location.



SHEA CREEK URANIUM PROPERTY



Kianna Deposit, north south vertical cross section, looking west.

Figure 9-3: Kianna Deposit – North South Cross-Section, Looking West

From Rhys et al. (2009). See Figure 7-5 for location.



Concordant Style Basement Mineralization: In the southern parts of the Anne Deposit (Figure 9-1) and the Colette South area (Figure 9-4), basement mineralization forms dominantly shallow to moderate west-southwest lenticular zones that are parallel or sub-parallel to gneissosity in the granitic gneiss (Photos 3C; 4A to 4C). These zones locally follow fault surfaces or lithologic units. On several cross-sections in both the Anne and Kianna areas, the garnet-amphibolite gneiss unit (metabasite) is preferentially mineralized, with areas of higher grade (see $>0.5\%$ U_3O_8 outlines in Figure 9-2) within mineralized zones occurring along the projection of, and replacing, this unit. Concordant mineralization may splay off the unconformity-hosted mineralization, as at south Anne (Figure 9-1), or occur separated from the unconformity locally in stacked foliation parallel lenses (Figure 9-4).

Discordant Style Basement Mineralization: More complex zones of basement mineralization occur in the Kianna Deposit and northern parts of the Anne Deposit, where mineralization overall is defined as steeply dipping, easterly trending mineralized zones (Figures 9-2 and 9-3), which are particularly well developed at Kianna. This style is discordant overall, and cuts steeply across the metamorphic sequence. However, it may be made up internally of several stacked higher grade subzones that are concordant and parallel to the southwest-dipping gneissosity (Figures 9-2 and 9-3).

Mineralization patterns suggest that a complete gradation in style occurs between concordant and discordant types of basement mineralization. Mineralization in these different types comprises textural varieties which include:

- a) Disseminated and nodular blebby replacement style pitchblende \pm hematite \pm U-silicates (Photo 3D) which may occur in irregular shaped zones locally with sinuous redox fronts (Photos 4D to 4F) but which, at a larger scale, may show southwest-dipping lithological control;
- b) Pervasively disseminated or massive lenses and veins of pitchblende that may be either concordant or discordant (Photos 3A to 3C); and
- c) Pitchblende in sets of pitchblende \pm quartz \pm hematite veinlets (Photo 5) that, based on oriented core, have dominantly east-west to east-northeast trends, and moderate to steep northerly dips.

Interaction between the two mineralization styles, and the occurrence of splays of higher grade lenses of concordant mineralization off discordant mineralization apparent on many cross-sections, suggests that higher grade zones in discordant basement mineralization will plunge moderately to shallowly to the west-southwest, parallel to the intersection line of the discordant zones with gneissosity. Areas where discordant zones of mineralization are projected to cross garnet-amphibolite gneiss (“metabasite”) units are considered favourable for oreshoot development, as indicated by the preferential development of concordant mineralization along some of these units (Figure 9-2).



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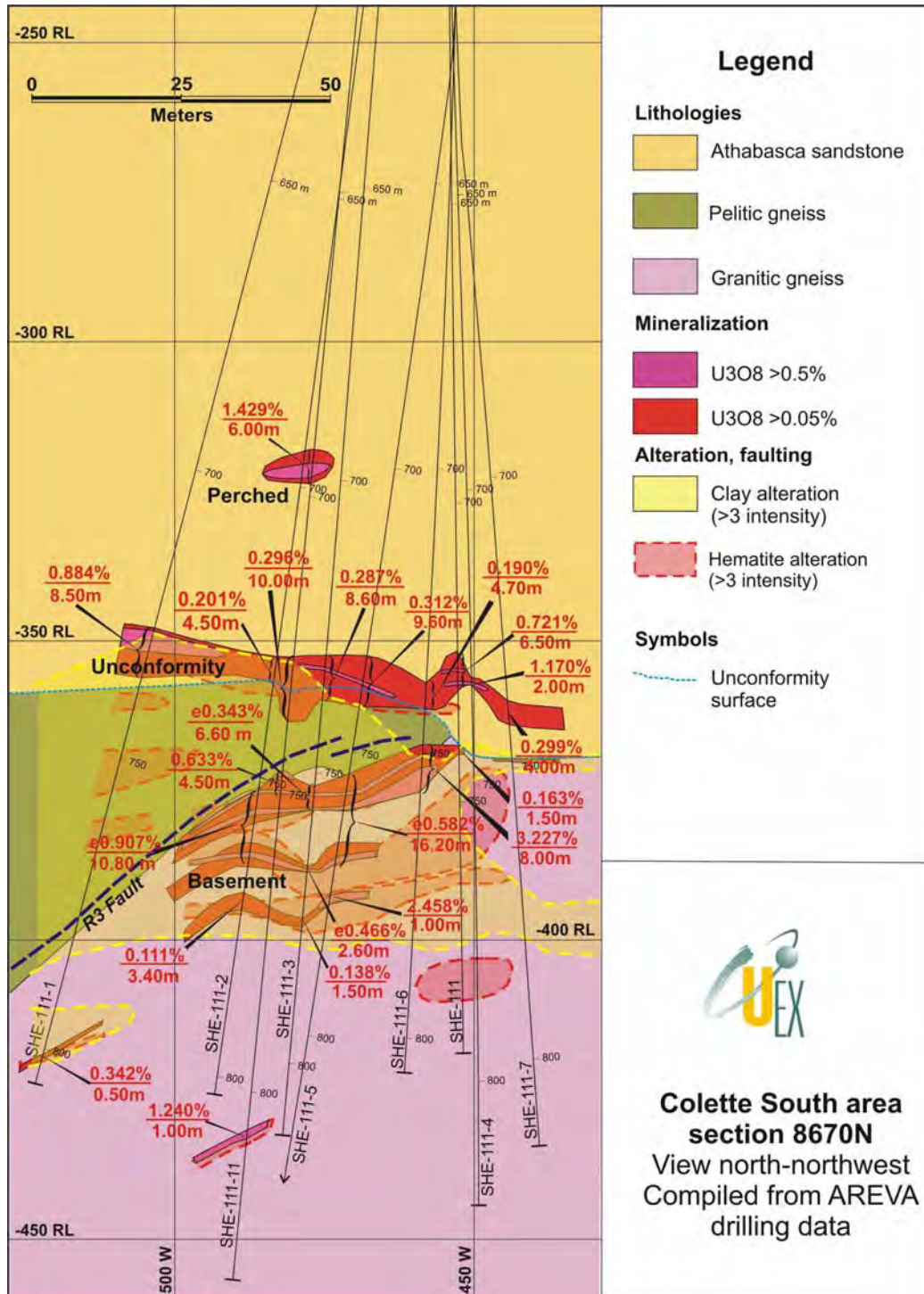


Figure 9-4: Colette South Area – Section 8670 – View North-northwest

From Rhys et al. (2009). See Figure 7-5 for location.



SHEA CREEK URANIUM PROPERTY

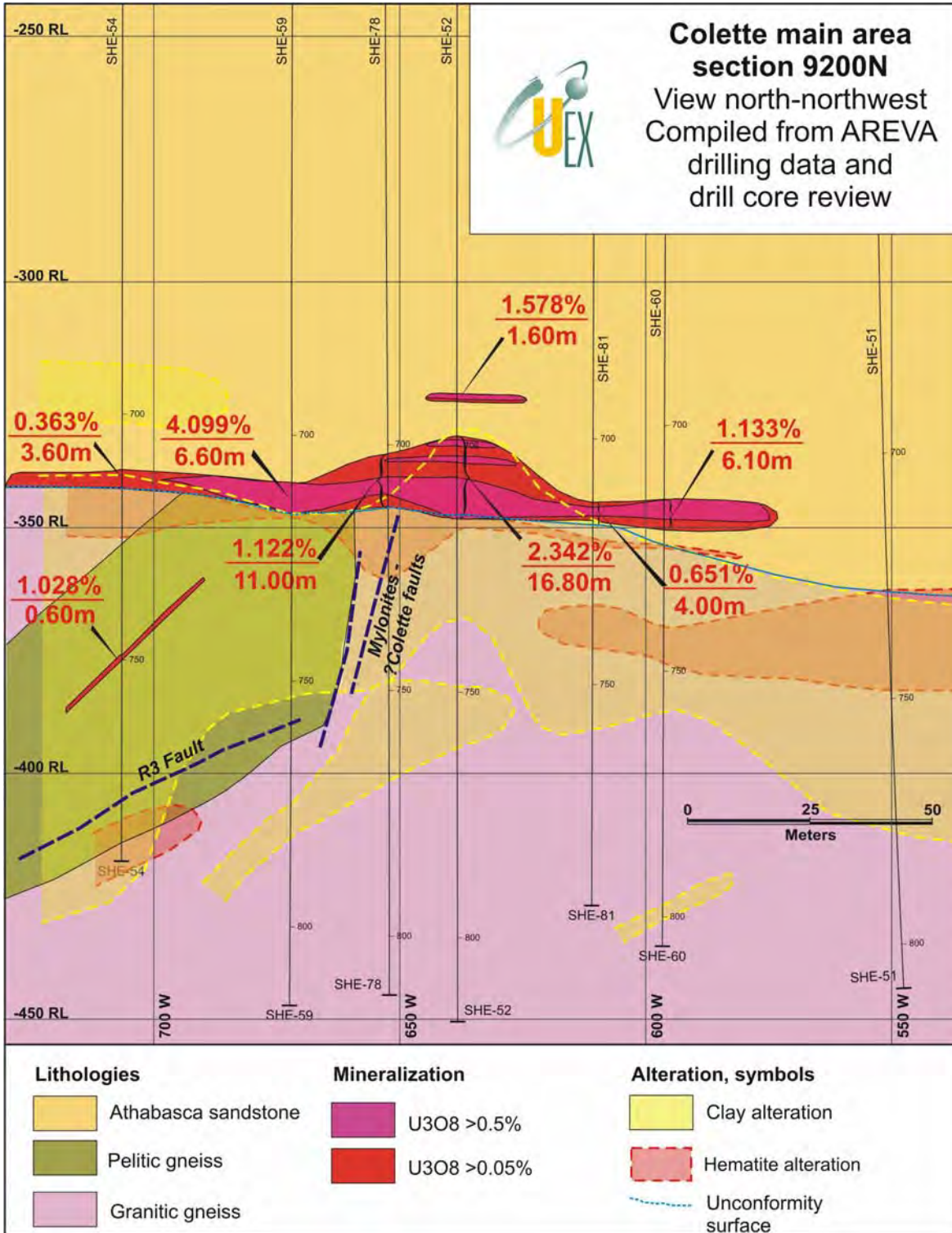


Figure 9-5: Colette Main Area – Section 9200 – View North-northwest

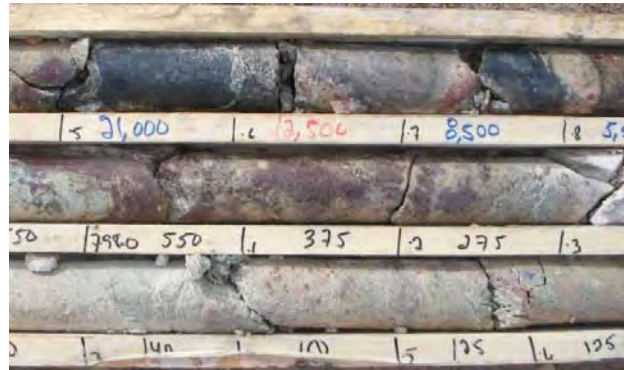
From Rhys et al. (2009). See Figure 7-5 for location.



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3A: SHE-114-17, 881.9-885.3 metres



3B: SHE-115-05, 794.5-795 metres (top row)



3C: SHE-115-11, 862.2-865.3 metres



3D: SHE-115-06, 862.7-864.6 metres

Photo 3: Kianna Deposit Basement Mineralization Styles

From Rhys et al., 2009

A: Central row shows massive pitchblende-rich interval grading 20.0% U_3O_8 over 0.5 metres in altered granitic gneiss. **B:** 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. **C:** Central parts of a high grade basement intercept (5.38% U_3O_8 over 16.5 metres), showing semi-concordant, but diffuse bands of pitchblende-hematite. This forms part of a shallow southwest dipping high grade, concordant lens (west-southwest plunging oreshoot) within the overall steeply dipping, northeast-trending Kianna basement zone. **D:** Irregular (“vermiform”) textured fine-grained nodular pitchblende-hematite replacement mineralization.



SHEA CREEK URANIUM PROPERTY



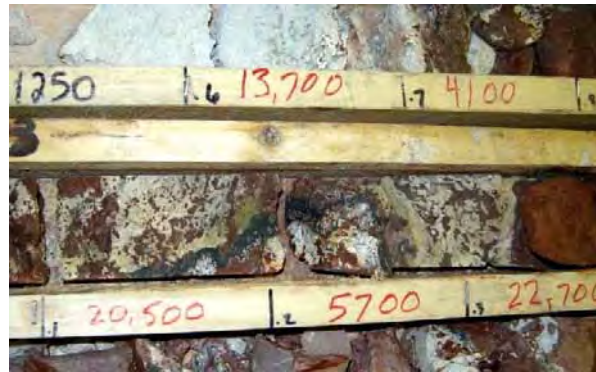
4A: SHE-095-3, 779-783.5 metres



4B: SHE-096-03, 783.4 metres



4C: SHE-096-03, 733.6-737 metres



4D: SHE-122-01, 727-727.4 metres (center row)



4E: SHE-122-01, 744.5 metres,



4F: SHE-096-03, samples between 761 and 764 metres

Photo 4: Anne Basement Mineralization Styles

From Rhys et al., 2009



A to C: These images illustrate concordant mineralization styles, showing pitchblende-hematite banding parallel to the dominant gneissosity in granitic gneiss. In Photo A, concordant mineralization (left) in clay altered granitic gneiss occurs at the bottom of the clay alteration zone, with fresh garnet-amphibole gneiss (“metabasite”) at right. Photo B shows a high grade (20.1 % U_3O_8 over 0.2 metres) band of mineralization which has lenses and bands of pitchblende-coffinite-hematite parallel to foliation planes. Similar relationships are apparent in the two foliation parallel pitchblende-hematite bands in Photo C. **D to F:** Style of high grade, discordant mineralization. These examples occur as replacements along redox fronts which have variable angles to core axis, but probable overall steep dips. They may splay off, and link concordant zones, collectively defining larger, bulk zones of mineralization. In Photo D, note the variable core axis angle of the black pitchblende seam along the sinuous redox line. Photos E and F show nodular replacement styles, locally with yellow secondary U-silicates.



5A: SHE-112-01, vein (above) at 767.6 metres, Anne Deposit



5B: SHE-115-06, 875.8-877.6 metres, Kianna Deposit



5C: SHE-123-02, vein in lower row 786.7 metres, Kianna South area



5D: SHE-088, 759.6 metres, Anne Deposit

Photo 5: Discordant Vein Style Mineralization in Basement Rocks

From Rhys et al., 2009

All examples show discrete veins (Photos A, C and D) or vein-like replacement zones (Photo B) which cut across gneissosity at high angles in variably altered granitic gneiss. **A:** At upper right, a carbonate-pitchblende veinlet cuts almost 90 degrees across foliation, and is surrounded by an inner envelope of red-brown hematite and, at upper left, a thin black line marks a pitchblende-bearing redox front at the outer edge of the hematite envelope, which is parallel to the vein. **B:** In the lower core, a steeply-dipping banded pitchblende (dark bands)-hematite-clay replacement vein at a shallow core axis angle cuts across the gneissosity at a high angle. The gneissosity is parallel to the fractures in the lower core row. **C:** Pitchblende-dravite-clay veinlets at shallow core axis angles cut across gneissosity. **D:** Discrete, steeply dipping pitchblende veinlet.



c) **Perched Mineralization (Photo 6):**

This mineralization style is developed above the unconformity in the Athabasca sandstone, occurring up to 60 metres above the unconformity. Volumetrically, this is the least extensive mineralization style, but it may have very high grades perched above the unconformity, such as in the Kianna area. Perched mineralization also varies in style, from shallow dipping lenses of disseminated, stringer or more massive mineralization that may be parallel to bedding in the Athabasca sandstone (Figure 9-4), to west-southwest dipping zones that may follow faults and chloritic breccia bodies (Figure 9-1). The latter may extend off unconformity mineralization as a series of upward thinning lenses, or may occur as lenses separate from the unconformity mineralization that lie along minor faults and breccia zones which can sometimes be traced back to southwest-dipping faults that follow gneissosity in the underlying pelitic and granitic gneiss units (e.g., south Anne Deposit; Figure 9-1). Controls on this mineralization style may consequently be related to the dissipation upward of foliation faults into the overlying sandstone, and/or to more pervasive permeability-redox control, occurring at the mixing-interaction point between basement derived fluids along faults with oxidized basinal fluids.



6A: Oblique view of core: black, mineralized interval is from 679 to 689 metres, and has some core loss



6B: Detail of high grade mineralization shown in Photo A

Photo 6: High-grade Kianna Perched Mineralization in Drill Hole SHE-114-5

From Rhys et al., 2009

A: Black high-grade pitchblende mineralization hosted by friable, clay altered Athabasca sandstone occurs at centre. This interval grades 20.721% eU₃O₈ (composited with probe grade due to core loss). **B:** Detail of mineralization: black, massive pitchblende with interstitial red-brown hematite-clay.

Petrographic studies (e.g., Pacquet and Reyx, 1995; numerous reports by Pacquet and Reyx in 1996-1999 assessment reports) suggest that pitchblende (botryoidal uraninite) is the dominant uranium-bearing mineral in all three mineralization settings. A common paragenetic sequence which is frequently apparent from this petrographic work comprises early pitchblende locally accompanied by brannerite, which are replaced by secondary pitchblende + coffinite ± boltwoodite or other U-silicates. In addition to pyrite and/or marcasite, uranium mineralization is often accompanied by small quantities of nickel arsenide minerals (gersdorffite, nickeline, and rammelsbergite), chalcopyrite, and galena which may occur included in, rimming, or as grains spatially associated with pitchblende (Pacquet and Reyx, 1995). Although present, Ni-arsenides occur



only in minor quantities in perched and unconformity mineralization (generally <1,000 ppm Ni in high grade areas at Anne and Kianna with U/Ni and U/As ratios of generally >100 in perched mineralization and >10 in unconformity mineralization). Ni-arsenides are more abundant in basement zones (U/Ni and U/As ratios of >3) within areas of mineralization grading >0.05% U₃O₈. Consequently, mineralization at Shea Creek is more similar to the monomineralic character seen in the eastern Athabasca basin than the Ni-arsenide association observed at Midwest Lake or Cigar Lake, where U/Ni ratios often exceed, or are close to 1:1.

9.2 Alteration Associated with Uranium Mineralization

The Shea Creek mineralization is associated with areas of clay alteration and sandstone desilicification locally above the mineralization, and peripheral silicification which collectively may be detectable through resistivity surveys. Alteration patterns are closely comparable to other unconformity-type uranium deposits in the Athabasca Basin. These alteration patterns and distributions provide important indicators to the position and distribution of uranium mineralization.

Alteration above the Unconformity: Unconformity and Perched Mineralization

In the Athabasca sandstone, initial areas of alteration which lie tens to hundreds of metres above uranium mineralization are marked by bleaching of the sandstone to cream-pale grey with loss of the regional purple-red diagenetic hematite that is normally present in the sandstone, and by elevated clay content in the sandstone column (Quirt, 2002). In the Kianna and Anne areas, the bleaching commonly continues downward toward the unconformity as linear north-northwest trending belts of alteration which occur above the unconformity hosted mineralization. This alteration, from top to bottom towards the unconformity, comprises:

- i) A zone of friable, disaggregated and fractured sandstone (sandstone dissolution), locally with interstitial clay development, in which sandstone cement and framework quartz are often corroded;
- ii) An oxidized "cap" of brick-red hematite in sandstone that is typically several metres thick, and usually in more competent rock than the overlying friable sandstone (Photo 2);
- iii) More component, reduced sandstone containing disseminated or blebby pyrite and/or marcasite and tinted grey-green with disseminated chlorite (Photos 2 and 7A), which becomes increasingly brecciated and grades downward into; and
- iv) Areas of sandstone dissolution breccia which lie immediately above the unconformity, and comprise angular sandstone fragments in a matrix of chlorite-clay-dravite ± pyrite. Variable quantities of uranium mineralization as matrix fill and fragments are often associated with the lower parts of the breccias, and more massive high grade unconformity mineralization, where developed, will form the bottom of this sequence immediately above the gneiss sequence below.

Partial or complete profiles of the sequence described above are commonly observed, and are generally best developed and most intense above the higher grade and more extensive areas of uranium mineralization. Silicification of the sandstone may also be developed laterally to, or above the mineralization and, in many cases, the presence of silicified sandstone fragments in the areas of chlorite breccias indicate that the sandstone was silicified prior to brecciation (Pacquet and Reyx, 1995). Secondary clay mineral content in the lower sandstone column associated with these alteration types includes both illite and kaolinite, with a general paragenetic sequence which commences with an early, widespread phase of illite alteration that is partially to



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totally overprinted by kaolinite, dravite and locally smectite and carbonates (Pacquet and Reyx, 1995; and reports by Pacquet and Reyx in 1996-1999 assessment reports). A late generation of illite is also noted locally. Late siderite and dolomite veinlets are locally present, and may cut across uranium mineralization (Photo 1D).

Alteration patterns are similar in areas containing perched mineralization, with the perched zones locally inserted into the same sequence as described above below a locally developed hematite halo, and underlain by pyritic reduced assemblages. Pyrite may occur as discrete areas with abundant blebs and disseminations (Photo 7A) which may represent replacement of former hematite haloes. The latter may have been replaced (reduced) as the redox front rose higher into the sandstone column.



7A: SHE-114-03, 735.8 and 743.5 metres



7B: SHE-115-03, 988-997.5 metres

Photo 7: Alteration Styles, Kianna

From Rhys et al., 2009

A: Mottled clots of pyrite in the lower Athabasca sandstone replace hematite beneath the hematite cap that occurs above mineralization. The pyrite in this reduced zone forms a discrete zone which may replace a previous hematite cap that has been overprinted by rising reduced assemblages from the basement. On some sections, this more abundant zone of pyrite can be laterally traced into areas of perched mineralization.

B: Sharp base of clay alteration (upper three core rows) occurs along a concordant brittle fault at upper center. Fresh granitic gneiss occurs abruptly below. Boundaries of alteration zones are generally more gradational but can be sharp when structurally controlled.

Mineralization-related Breccias at the Unconformity

The breccias developed at the base of the alteration profile show a close spatial association with unconformity uranium mineralization, and typically occur along the trace of the intersection of the basement-hosted southwest dipping faults in the graphitic gneiss with the unconformity (Lorilleaux et al., 2002). The most common variety of these breccias is matrix supported, consisting of a dark green sudoite chlorite \pm illite \pm chlorite \pm dravite matrix containing variable 0.2 cm to 5 cm fragments of sandstone, and near the unconformity local altered basement fragments (Photo 8). They may grade upward into narrow zones and lenses of clast-supported chloritic breccia that extend into the overlying sandstone. Disseminated and blebby pyrite and/or marcasite are also commonly observed in the breccia matrix.



Where chlorite-matrix breccias at and above the Athabasca unconformity are mineralized, pitchblende may occur as fragments, but pitchblende-coffinite is also observed overprinting the breccia matrix and rimming fragments. This suggests that the timing of brecciation overlapped with uranium mineralization. The breccia textures and clast types, morphology of the breccia zones, and lack of tectonic fabric in the breccia matrix are consistent with formation of the breccias through dissolution of the basal sandstone column (Lorilleaux et al., 2002), probably through interaction of basement derived fluid along the underlying west-southwest dipping faults in the basement rocks with basinal fluids in the Athabasca sandstone. The presence of foliated cataclasites with pressure solution fault fabrics that extend into the breccias as extensions of the southwest dipping faults in the underlying pelitic gneiss unit indicate that tectonic activity, and syn-tectonic fluid flow continued after breccia formation.

Overall patterns show an early illite-dominant alteration event in and around the unconformity which may have overlapped with silicification of the basal sandstone column, followed by various pulses of reduced basement fluid which rose to various levels in the lower sandstone column. These basement fluids were associated with the introduction of Fe-Mg-K-Al and B bearing chlorite, illite, kaolinite, dravite and pyrite-marcasite assemblages, with deposition of uranium mineralization at the interface with oxidized hematite-bearing assemblages above.



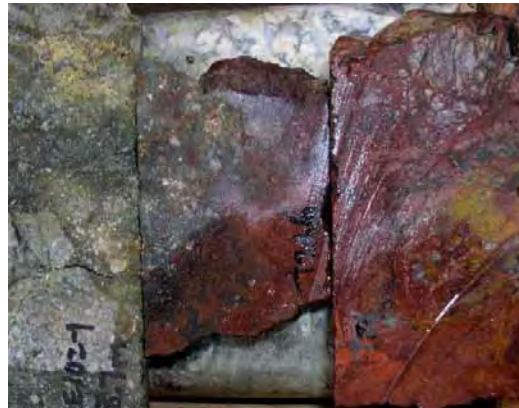
8A: SHE-114-03, 748.3 metres, (top);
SHE-102-05, 742.8 metres (bottom)



8B: SHE-102-01, samples from
718-718.5 metres, Kianna South



8C: SHE-099-02, 719.1



8D: SHE-102-01, samples from
718.7-721 metres; Kianna South

Photo 8: Breccias Developed in the Basal Athabasca Sandstone Associated with Unconformity-hosted Mineralization

From Rhys et al., 2009

A: Chlorite (above) and dravite (below) matrix breccias in the basal sandstone column. Note silicification of sandstone fragments in the upper sample. **B:** Classic mineralized chlorite-matrix breccia textures. Blebby pitchblende and/or coffinite locally replace the matrix. Interval grades 1% to 2% U_3O_8 . **C:** Chlorite-matrix breccia with possible pitchblende fragments. **D:** Chlorite-matrix breccia from same drill hole just below samples in Photo B. Breccia is progressively replaced from left to right by hematite \pm pitchblende. Note relict breccia textures in right core. This indicates that mineralization at least locally outlasted brecciation.



Alteration in Basement Rocks: Guides and Controls to Mineralization Distribution

Vertically zoned red to green zone pre-mineralization paleoweathering alteration, which affects basement rocks for up to several tens of metres below the unconformity, represents the earliest phases of clay alteration which affect basement rocks in the Shea Creek area. Beneath unconformity mineralization, this paleoweathering profile is hydrothermally overprinted by cream to pale green clay-chlorite alteration which contains varying quantities of sudoite chlorite, illite, kaolinite and dravite, which often show the same early illite to later kaolinite paragenesis observed in the sandstone (Pacquet and Reyx, 1995). Clay alteration can be tracked in basement rocks qualitatively by coding its relative intensity, from fresh rocks, through increasing visually estimated intensity of initial alteration of ferro-magnesium minerals, feldspars, and quartz, with increasing overall friability.

Alteration extends deeper and is most intense around basement-hosted mineralization, forming broad zones which may extend for more than 200 metres below the unconformity. In these areas, alteration is locally intense, altering the gneissic basement rocks to variably friable, cream coloured clay-rich zones over intervals of tens to locally >100 metres, where even quartz in the gneiss may be corroded or replaced by clay. Friable clay-rich zones can be difficult to distinguish from faults but, in most cases, primary relict texture are preserved and intact, indicating that large portions of the alteration are not affected by any significant translational displacement. Faults comprising white to greenish clay gouge, however, are present in clay altered zones, and locally bound some intense areas of alteration. These faults are generally parallel to gneissosity where observed, although discordant faults are also locally present that may play an important role in localizing mineralization.

Comparisons to other Athabasca Deposits with Basement Mineralization: Exploration Implications

Of the three mineralization styles described here at Shea Creek, basement mineralization is the most complex, but also has the highest potential for further expansion of mineralization in the Anne to Colette corridor since even in areas which have now outlined unconformity-hosted mineralization, basement style mineralization may lie beneath. In addition, when compared to other unconformity uranium deposits in the region, where both basement- and unconformity-hosted mineralization are developed in the same mineralizing system, the largest zones of mineralization are often in the basement (e.g., Eagle Point-Collins Bay zones; Sue Deposits; Dawn Lake; Cluff Lake). Consequently, the association of basement and unconformity mineralization at Shea Creek, and the clear evidence of interaction between concordant and discordant faults that provides for favourable basement-hosted structural sites imply the potential for additional large, undiscovered zones. It is possible that, like the Eagle Point and Millennium Deposits, potential zones of basement mineralization may have little or no manifestation at the unconformity, or may step deeper into the basement than has been drilled along en echelon, or parallel zones. In such cases, areas of alteration in the basal sandstone column and potentially favourable structural indicators (e.g., discordant faults) may be the only indicators of the system below.

9.3 Gold Mineralization

Gold was historically mined as a by-product from the mineralization in the D Zone at Cluff Lake (Koning and Robbins, 2006). At Shea Creek, locally high gold grades are also present. Significant composited gold intercepts with a grade of greater than 3.0 grams per Tonne gold ("g/T Au") and grade-thickness product (Au g/T x metres) of greater than 5.0 are illustrated in Table 9-1. The morphology and true thickness of areas which are high in gold content are as yet undetermined. Analyses are carried out by fire assay at the



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SRC Geoanalytical Laboratories in Saskatoon, Saskatchewan. 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 all three 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 have been identified in samples from basement- and sandstone-hosted mineralization (Pacquet and Reyx, 1995; and Reyx in Robbins et al., 1998).

Significant gold-bearing intercepts include 20.79 g/T Au over 2.40 metres in drill hole SHE-087, 14.02 g/T Au over 3.30 metres in hole SHE-115-03, 13.75 g/T Au over 2.50 metres in hole SHE-079, 9.70 g/T Au over 3.50 metres in hole SHE-102, and 5.95 g/T Au over 5.70 metres in hole SHE-115-04. Future work to establish patterns of gold distribution is recommended, especially to identify if any consistent local gold-enriched domains can be identified which might enhance the potential value of parts of the Shea Creek deposits. See Rhys et al. (2009) for a more extensive summary of gold intercepts.



10.0 EXPLORATION (ITEM 12)

The following section was modified from UEX's April 3, 2009 N.I. 43-101 report entitled "Technical Report on the Shea Creek Property, Northern Saskatchewan" by Rhys et al. (2009).

Since March 2004, when UEX and COGEMA (now AREVA) signed the Option Agreement, both drilling and geophysical programs have continued to be utilized as principal exploration methods to explore the Shea Creek property. UEX funded all exploration on the Shea Creek property until it earned its 49% interest in December 2007 (see UEX's news release of January 11, 2008). Since that time, expenditures are shared by UEX and AREVA on a pro rata basis. AREVA is the exploration manager, and all exploration activities are supervised and implemented by AREVA personnel and contractors, with exploration programs directed by Erwin Koning, P.Geo., District geologist, and John Robbins, P.Eng., Senior Project Geologist for AREVA. Exploration activities conducted on the property prior to UEX acquiring its option on the property in 2004 are summarized in Section 6 of this report.

Exploration programs which have been completed since UEX acquired its option on the Shea Creek property have been carried out by AREVA personnel and contractors as noted below. Highlights of mineralized drilling intercepts obtained during these, and prior drilling programs before UEX's involvement, are summarized in Section 11.5 of this report. Exploration programs that have been completed since March 2004 are as follows:

- **2004 April to December:** 6,596.0 metres of drilling with twelve unconformity intersections (6 vertical pilot holes and 6 navigational cuts – 12 holes total). 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 SHE-111 series holes), further outlining mineralization in those areas (Robbins, 2005).
- **2004-2005 Geophysical Programs:** In 2004 and 2005, MEGATEM® airborne electromagnetic and magnetic surveys and a FALCON® airborne gravity gradiometer survey were flown over the West Athabasca Projects, including the Shea Creek property (Koning et al., 2008). A These surveys were undertaken to improve understanding of basement geology and structural style for property scale drill targeting, and to aid in the identification of alteration zones associated with uranium mineralization. In addition to these airborne surveys, a 116.7 line-km pole-pole DC-Resistivity survey was completed 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 and parallel areas of low resistivity near the Klark Lake conductor, as well as several other areas west of the Saskatoon Lake Conductor (Nimeck, 2005).
- **2005:** 8,729.5 metres of drilling with twenty-four unconformity intersections (1 vertical pilot hole, 23 navigational cuts and 1 incomplete hole – 25 holes total) were completed in 2005. Drilling was concentrated in the south Colette area drilling program (12 directional drill holes SHE-111-4 to -13) where significant basement mineralization was intersected, and in the area of previous drill hole SHE-063B. In this latter Area 63B, eleven directional drill holes (SHE-114-01 to -11) and one 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 the Kianna Deposit (Robbins and Koning, 2006).



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- **2006:** 11,696.0 metres of drilling with twenty-two unconformity intersections (3 vertical pilot holes and 19 navigational cuts – 22 holes total) 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).
- **2007:** 18,776.5 metres of drilling with thirty-six unconformity intersections (12 vertical pilot holes and 24 navigational cuts – 36 holes total) further explored the Kianna Deposit and parts of the southeastern Colette area (Koning et al., 2008). 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:** 20,355.0 metres of drilling with forty-four unconformity intersections (7 vertical pilot holes and 37 navigational cuts – 44 holes total) were completed in 2008. Most drilling continued to define the Kianna, and Anne Deposits in 2008, including a series of holes drilled between Anne and Kianna to assess the continuity of mineralization between the two deposits. Six drill holes (one pilot hole and five navigational cuts) extended mineralization southward in the southern portion of the Colette Deposit. A significant outcome of the 2008 drilling program was that drilling between the Kianna and Anne Deposits suggests that mineralization at the unconformity may be continuous between the two deposits, indicating a strike length of at least 900 metres. In addition to the drilling, a 50 km ground magnetotelluric (MT) survey and a Low Temperature Superconducting Quantum Interference Device (LT SQUID) survey were completed over the northern Shea Creek property to test these two techniques in refining resistivity patterns to depth for drill hole targeting.
- **2009:** 22,564.5 metres of drilling with fifty-four unconformity intersections (3 vertical pilot holes and 51 navigational cuts – 54 holes total) 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 (1 pilot hole and 12 navigational cuts) focused on better definition of mineralization in the basement and at the unconformity;
 - ii) Infill drilling at the Anne Deposit (1 pilot hole and 12 navigational cuts) to further test open areas in southeastern portions of Anne and to further define mineralization in the northern portions of Anne;
 - iii) Exploration drill holes between Anne and Kianna (21 navigational cuts) to further assess the extent and continuity of mineralization between Anne and Kianna, and define areas of higher grade mineralization within this corridor; and
 - iv) Exploration drill holes at the 58B target area, located between the Kianna and the Colette Deposits (1 pilot hole and 2 navigational cuts) to test the possible continuity of mineralization previously intersected by drill hole SHE-58B, which encountered multiple mineralized intervals in the basement.

In total to the end of 2009, 371 drill holes totalling 188,039.0 metres of drilling have been conducted on the Shea Creek property since systematic exploration began in 1992 (Table 10-1). Since UEX initially acquired its option to earn 49% of the property in March 2004, 194 drill holes totalling 88,717.5 metres have been completed (Table 10-1), in addition to the airborne and ground geophysical surveys mentioned above. Drill hole locations are shown in Figures 10-1 to 10-3.



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Apart from five drill holes (SHE-003, SHE-007, SHE-009, SHE-041 and SHE-077), all other drill holes have been drilled along a 26-kilometre strike length of the Saskatoon Lake Conductor.

Table 10-1: Diamond Drilling on the Shea Creek Property, 1992-2009

Year	Drill Hole Series	# Vertical Pilot Holes	# Wedge Cuts off Pilot Holes	Total # Drill Holes	Metres Drilled
1992	SHE-001/001A, SHE-001B to SHE-003	4 (1 not completed)	0	4	2,421.0
1994	SHE-004 to SHE-015, SHE-010A, SHE-015A	14 (2 not completed)	0	14	9,339.5
1995	SHE-016 to SHE-033, SHE-032A	19 (1 not completed)	0	19	14,563.0
1996	SHE-034 to SHE-050, SHE-034A SHE-038A, SHE-040A, SHE-047A	21 (4 not completed)	0	21	13,199.0
1997	SHE-051 to SHE-066, SHE-058A, SHE-058B, SHE-061A, SHE-063A, SHE-063B	21 (5 not completed)	0	21	13,389.0
1998	SHE-067 to SHE-093, SHE-067A, SHE-068A	29 (2 not completed)	0	29	21,820.0
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	12,157.0
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	10,855.0
2004 winter	SHE-106, SHE-107, SHE-108	3	0	3	1,578.0
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 (1 not completed)	6	13	6,596.0
2005	SHE-111-03 to SHE111-13; SHE-113-01; SHE-114-01 to SHE-114-10; SHE-114-10A; SHE-114-11; SHE-115	1	24 (1 not completed)	25	8,729.5



SHEA CREEK URANIUM PROPERTY

Year	Drill Hole Series	# Vertical Pilot Holes	# Wedge Cuts off Pilot Holes	Total # Drill Holes	Metres Drilled
2006	SHE-114-12 to 114-17; SHE-115-01 to SHE-115-10; SHE-116; SHE-117; SHE-118; SHE-118-01 to SHE-118-03	3	19	22	11,696.0
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 SHE-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 HYD-07-05	12	24	36	18,776.5
2008	SHE-115-17, SHE-115-17A, SHE-115-18; SHE-118-11 to 118-13, SHE-118-13A; SHE-122-04 to 122-07; SHE123-03 to 123-13; SHE-126 to 126-01, SHE-126-01A, SHE-126-02 to 126-05; SHE-127; SHE-128; SHE-129; SHE-130; SHE-130-01 to 130-02; ***P08-01, P08-02	7	37	44	20,355.0
2009	SHE-037-01 to 037-7, SHE-037-3A; 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 130-02	3	51	54	22,564.5
	Grand Totals	156	215	371	188,039.0
	Totals: 1992-March 2004 (pre-UEX)	123	54	177	99,321.5
	Totals: March 2004-2009 (UEX option)	33	161	194	88,717.5

*drill holes drilled in the SHE south area

**drill holes drilled 0.5-2 km southeast of the Anne Deposit

***HYD-series and P08 holes are piezometer/geotechnical drill holes in the Kianna-Anne areas



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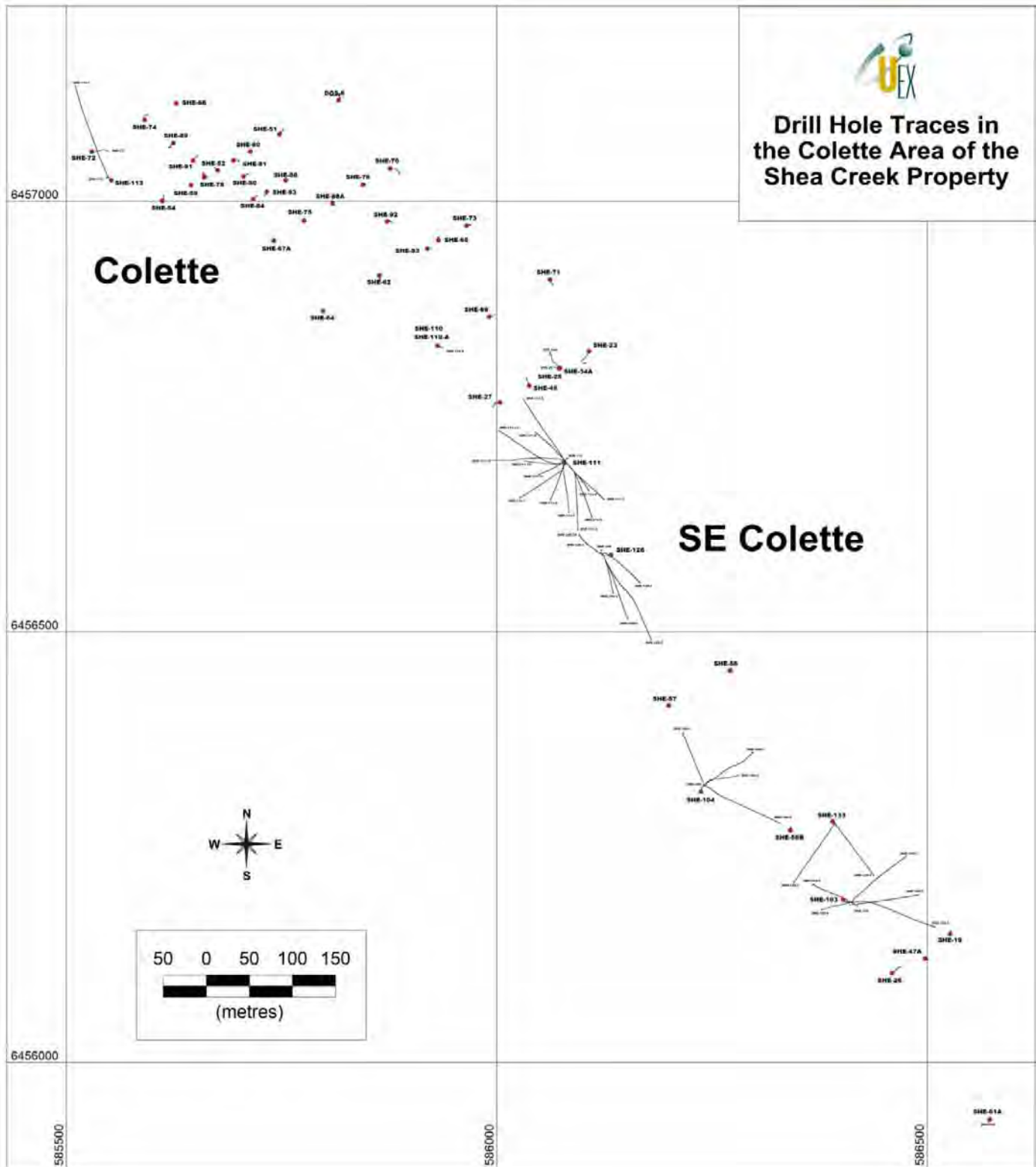


Figure 10-1: Drill Hole Traces in the Colette Area of the Shea Creek Property



SHEA CREEK URANIUM PROPERTY

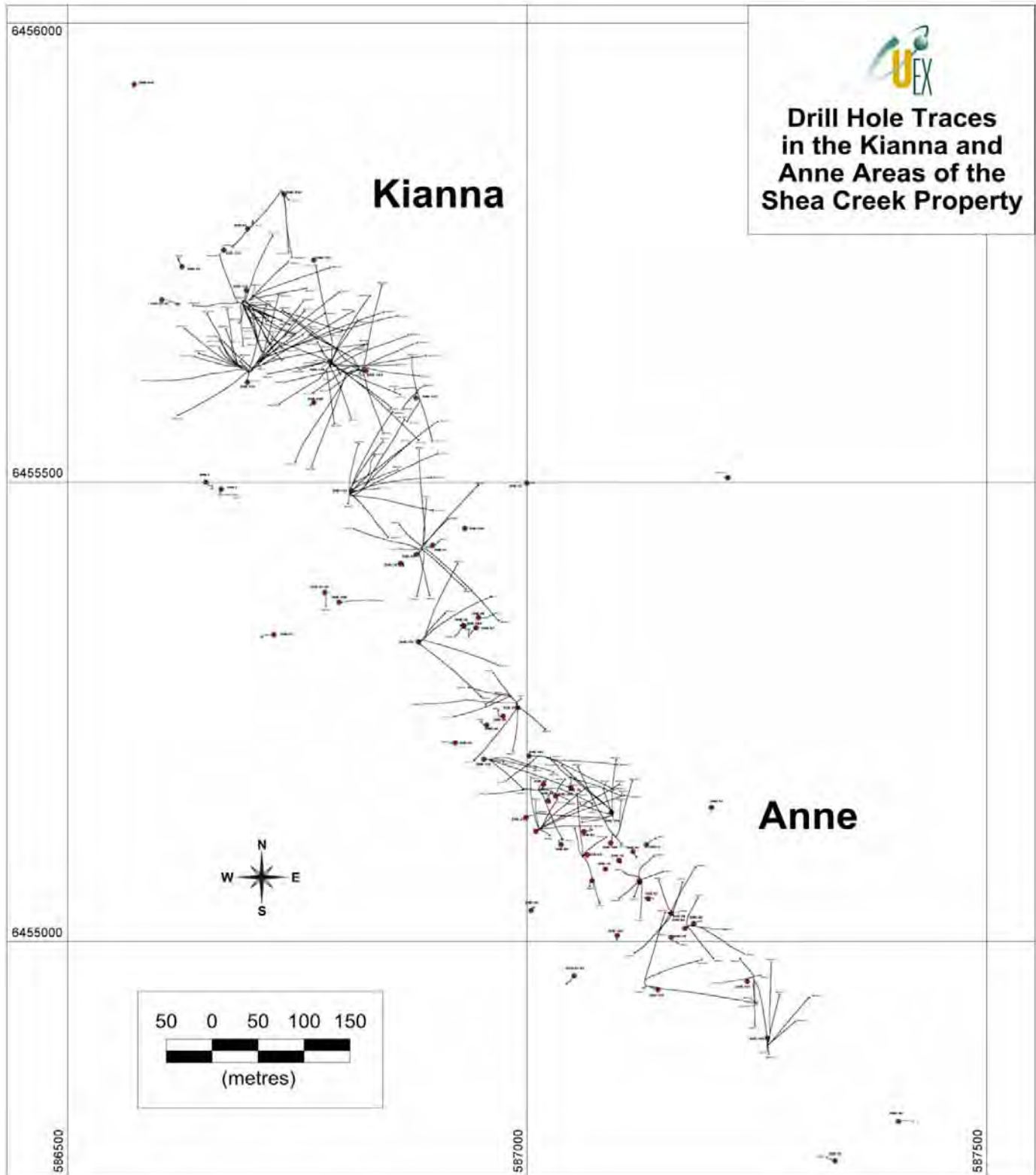


Figure 10-2: Drill Hole Traces in the Kianna and Anne Areas of the Shea Creek Property



SHEA CREEK URANIUM PROPERTY

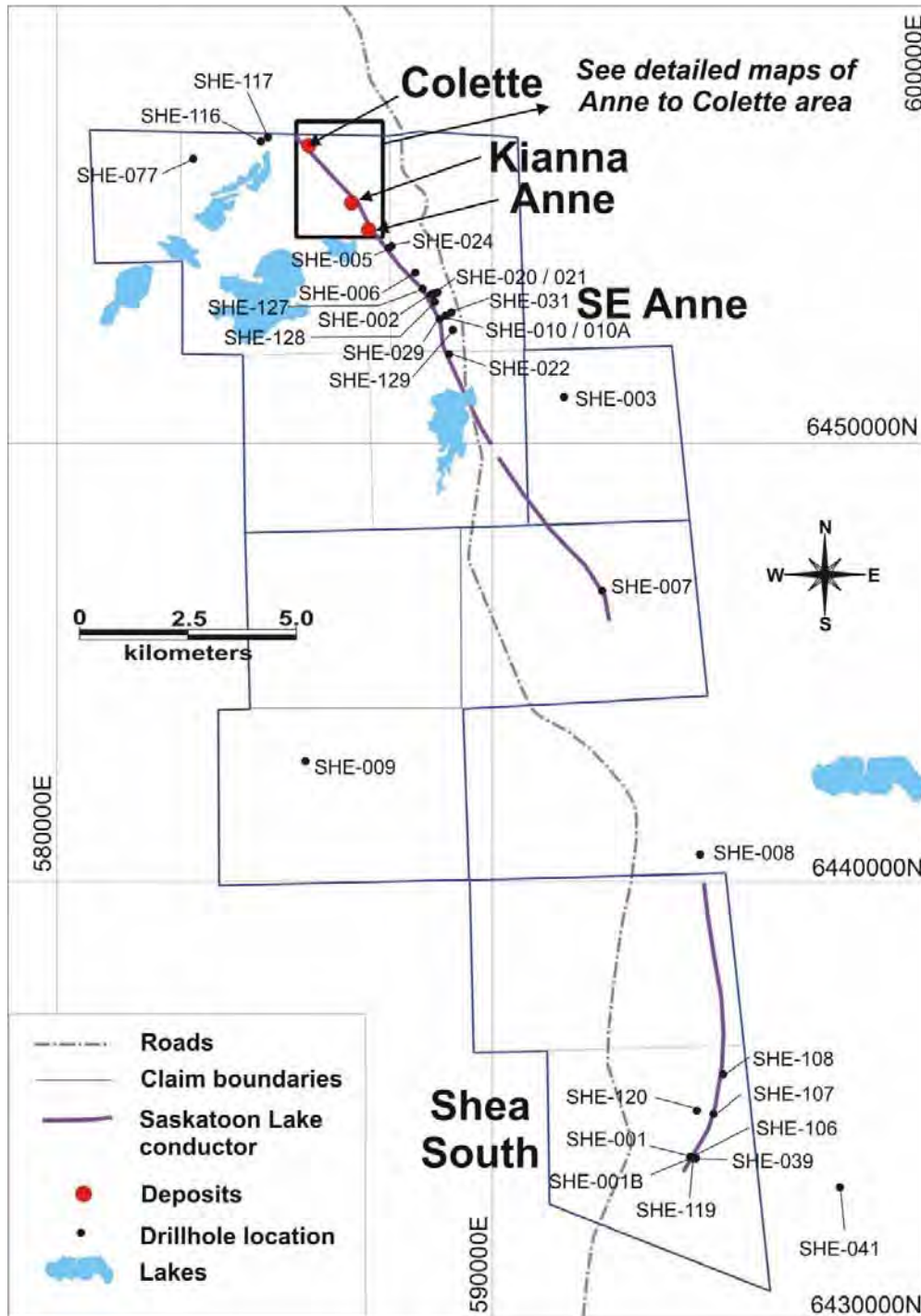


Figure 10-3: Drilling in Outlying Parts of the Shea Creek Property

From Rhys et al. (2009). See Figures 7-2, 7-5, 10-1 and 10-2 for more detailed drilling plans of the northern Shea Creek property.



11.0 DRILLING (ITEM 13)

The following section was modified from UEX's April 3, 2009 N.I. 43-101 report entitled "Technical Report on the Shea Creek Property, Northern Saskatchewan" by Rhys et al. (2009).

Diamond drilling on the Shea Creek property is the principal method of exploration and mineralization delineation after initial geophysical surveys. Diamond drilling since 2004 has been conducted using drilling services supplied by Boart Longyear or Team Drilling under contracts with AREVA (Koning et al., 2008). 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 and then, if present, the cut number if wedging off the pilot hole has been completed. Outlined in Appendix I is summary intersections of drill holes per subzone.

11.1 Drilling Methodologies

Due to the mineralization being deeper than 600 metres, drilling is generally conducted by penetrating overburden with HW diameter casing followed by HQ coring to 400 metres depth. The holes are typically completed by reducing to NQ-sized core (48 mm core diameter), which is the typical core size testing mineralization at target depths (Koning et al., 2008). 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 stick (Koning et al., 2008).

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 vertical 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 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 400 metres to 600 metres below surface, depending on the position of the target with respect to the pilot hole. The directional drilling process is summarized by Koning et al. (2008) as follows:

"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. 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). It should be noted that the motor does not operate constantly during a 24 hour period. 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 rods. Another problem is the directional control of the bit since the motor is 6 metres behind the bit; there is always a risk of pulling the motor too early or too late.



During the 2005 to 2008 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."

The same process and drilling systems were implemented during the 2009 program.

11.2 Downhole Directional Surveys

Downhole survey methodologies have varied during exploration on the Shea Creek property. Prior to 2005, drill hole deviation was measured every 30 metres to 50 metres with a Sperry Sun singleshot camera or Reflex single-shot probe during normal drilling operations. During directional operations, survey shots were taken preferably every 3 metres because control of the motor is 6 metres to 12 metres behind the drill bit. Since 2005 with the Devico system, drill hole deviation is measured every 50 metres with a Reflex single-shot probe during normal drilling operations. During directional operations, survey shots are taken every 3 metres to 9 metres at the bit using a "Pee Wee" directional survey probe (Koning et al., 2008).

11.3 Radiometric Probing of Drill Holes

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 there is statistically sufficient confidence in the calibration and conversion to uranium concentrations. Koning et al. (2008) describe probe methodologies at Shea Creek as follows:

"Down-hole 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, STD-27, and STD-27-HF (high flux) tools manufactured by AREVA. Radioactivity measurements obtained from the ST-22-2T, STD-27, and STD27-HF are used to estimate equivalent uranium grades for mineralized intervals.

The Saskatchewan Research Council (SRC) provides down-hole probe calibration facilities in Saskatoon, SK, for calibration of the down-hole 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 down-hole 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 ST-22-2T or STD-27 tool. This ST-22-2T or STD-27 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 STD-27-HF tool (high flux). The ST-22-2T and STD-27 use two ZP-1200 Gieger Müller tubes, whereas the STD27-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 down-hole 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. The software used to generate the radioactivity-grade correlation is known as *Sermine*, which is proprietary software developed by AREVA.”

11.4 Drill Hole Collar Field Locations and Surveys

Drill hole locations are measured in grid coordinates and later updated by UTM NAD83 coordinates surveyed by ARC personnel. Drill hole collars prior to 1998 have been 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.

11.5 Summary of Drilling Composites and Interpretation of Results: Northern Shea Creek Property

Composited drilling intercepts which have been obtained on the Shea Creek property since drilling began in 1992 are highlighted in Sections 11.5.2 to 11.5.6. The results are composited to a minimum grade of 0.05% U₃O₈ and a minimum grade (%U₃O₈)-thickness (length in metres) product (“GT”) of 0.1. Results reported are mainly geochemical results from analyses of uranium by ICP-MS and ICP-OES at the Saskatchewan Research Council Laboratories, as is documented in Section 13.2 of this report. However, where 20% or more of a composited interval is not recovered during drilling (core loss), is unsampled, or where no geochemical sampling at all has occurred across a mineralized interval, down-hole radiometric probe equivalent grades reported as equivalent uranium (eU₃O₈) are substituted. The conversion coefficients for conversion of probe counts per second to eU₃O₈ equivalent uranium grades for different parts of the Shea Creek property are documented in Koning et al. (2008) and summarized in Section 13.3 of this report. These conversions are based on correlation of probe results with geochemical results obtained from drilling on the property. The author has reviewed these factors and believes them to form a reasonable estimate of uranium concentration. Infill geochemical sampling is recommended to provide more continuous geochemical results for areas where unsampled core remains in mineralized intervals, or where sampling did not fully bound the margins of mineralization. Note that the composited geochemical and probe results which are documented below differ from, and supersede previously



released probe results in 2004 to 2007 joint AREVA-UEx news releases, which utilized a probe conversion coefficient which has since been recalibrated using a more recent geochemical-probe correlation, as is documented in Section 13.3 of this report and disclosed in UEx's news release of March 24, 2009.

Sections 11.5.2 to 11.5.6 are modified from Rhys et al. (2009).

11.5.1 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 documented below at a high angle that is close to, or at true thickness (e.g., Figures 9-1 to 9-5). Similarly lenses of perched mineralization, and of concordant basement mineralization are generally shallow dipping and crossed by drill holes at orientations which intercept mineralization at close to true thickness (Figures 9-1, 9-4). Mineralized intercepts of discordant basement mineralization have more complex morphology, and as a result intercept thicknesses are generally apparent and variable with respect to true widths (e.g. Figure 9-3). 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 oreshoots.

11.5.2 Drilling in the Anne Deposit Area

Mineralization in the Anne Deposit has been traced continuously over approximately 450 metres from the SHE-105 series drill holes on gridline 6550N to the vicinity of the 7000N fault (Figure 7-5). To date, 97 drill holes have been completed in this area, comprising both pilot drill holes and directional cuts.

Unconformity-hosted mineralization is the most extensive style identified to date at Anne. Thickest, highest grade intercepts define two pods (Figure 7-5), one in the south-central parts (around section 6750N) and the second in the northern parts of the Anne Deposit (around section 6875N). Highlights of the intercepts in this area include the following, which are at, or close to true thickness:

- 4.324% U₃O₈ over 9.1 m, including 24.115% U₃O₈ over 1.4 m in hole SHE-016;
- 5.446% U₃O₈ over 3.0 m, including 9.577% U₃O₈ over 1.5 m in hole SHE-079;
- 11.607% U₃O₈ over 6.0 m, including 23.964% U₃O₈ over 2.9 m and 34.694% U₃O₈ over 1.9 m in hole SHE-087;
- 1.283% U₃O₈ over 9.4 m in hole SHE-094-01;
- 1.588% U₃O₈ over 11.0 m, including 4.608% U₃O₈ over 2.6 m in hole SHE-094-03;
- 1.878% eU₃O₈ over 13.3 m, including 3.841% eU₃O₈ over 5.9 m in hole SHE-094-05;
- 1.796% U₃O₈ over 8.9 m, including 6.367% U₃O₈ over 2.0 m in hole SHE-095-01;
- 4.411% U₃O₈ over 14.9 m, including 20.898% U₃O₈ over 2.9 m in hole SHE-095-03;
- 5.419% U₃O₈ over 19.0 m, including 29.200% U₃O₈ over 3.4 m in hole SHE-096-03;
- 2.235% U₃O₈ over 7.5 m, including 7.477% U₃O₈ over 1.4 m in hole SHE-098;
- 10.027% U₃O₈ over 8.4 m, including 34.149% U₃O₈ over 2.3 m and 60.601% U₃O₈ over 1.2 m, in hole SHE-099;



- 0.959% eU₃O₈ over 22.7 m, including 4.368% e U₃O₈ over 3.4 m in hole SHE-099-01;
- 5.649% U₃O₈ over 17.9 m, including 14.547% U₃O₈ over 6.5 m in hole SHE-099-02;
- 2.612% U₃O₈ over 13.6 m, including 16.661% U₃O₈ over 1.9 m in hole SHE-099-03;
- 3.315% U₃O₈ over 25.1 m, including 16.866% U₃O₈ over 4.0 m in hole SHE-100-01;
- 3.746% U₃O₈ over 8.60 m, including 6.413% U₃O₈ over 4.9 m and 15.630% U₃O₈ over 1.5 m in hole SHE-101-02;
- 4.420% U₃O₈ over 3.7 m in hole SHE-101-04;
- 0.682% U₃O₈ over 22.2 m, including 5.789% U₃O₈ over 2.0 m in hole SHE-109-01;
- 7.051% U₃O₈ over 8.7 m, including 17.075% U₃O₈ over 2.0 m in hole SHE-109-5;
- 4.170% U₃O₈ over 8.5 m in hole SHE-109-6;
- 4.206% U₃O₈ over 36.0 m, including 13.703% U₃O₈ over 6.5 m in hole SHE-122-01;
- 2.631% U₃O₈ over 8.0 m, including 13.000% U₃O₈ over 1.5 m in hole SHE-122-04;
- 3.642% U₃O₈ over 20.5 m, including 11.407% U₃O₈ over 6.0 m and 15.635% U₃O₈ over 4.0 m in hole SHE-122-05; and
- 1.518% U₃O₈ over 7.6 m in hole SHE-131-3.

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 the underlying basement rocks (Figure 9-2).

Basement mineralization at Anne is mainly concordant in style and occurs under the highest-grade pods of unconformity mineralization described above. In southern parts of the Anne Deposit, it is mainly of the concordant basement style, while in the north it represents a combination of the concordant and discordant styles for which true thickness is generally undetermined. Principal intercepts include the following:

- 3.244% U₃O₈ over 9.0 m, including 10.159% U₃O₈ over 2.0 m in hole SHE-088;
- 4.553% U₃O₈ over 3.9 m, including 7.925% U₃O₈ over 2.2 m in hole SHE-094-01;
- 5.740% U₃O₈ over 2.8 m, including 14.089% U₃O₈ over 0.9 m in hole SHE-094-06;
- 1.033% U₃O₈ over 10.7 m, and 1.854% U₃O₈ over 4.4 m in hole SHE-095-01;
- 1.044% U₃O₈ over 19.8 m, including 5.511% U₃O₈ over 1.7 m in hole SHE-095-03;
- 0.760% U₃O₈ over 18.0 m, and 0.92% U₃O₈ over 20.8 m, in hole SHE-096-03;
- 3.826% U₃O₈ over 2.5 m, including 13.132% U₃O₈ over 0.7 m in hole SHE-096-04;
- 3.639% U₃O₈ over 7.5 m, including 16.954% U₃O₈ over 0.6 m in hole SHE-100-01;
- 1.541% eU₃O₈ over 5.3 m in hole SHE-105-04;
- 0.699% U₃O₈ over 15.5 m in hole SHE-109-02;
- 1.854% U₃O₈ over 11.1 m in hole SHE-109-5;
- 23.171% U₃O₈ over 3.5 m, and 3.512% U₃O₈ over 8.5 m in hole SHE-122-01 (upper basement zone);
- 1.096% U₃O₈ over 10.5 m, including 4.025% U₃O₈ over 3.5 m in hole SHE-122-01 (lower basement zone);
- 2.071% eU₃O₈ over 4.2 m in hole SHE-122-03; and
- 3.569% U₃O₈ over 4.0 m, including 6.661% U₃O₈ over 1.5 m in hole SHE-122-04.



Basement mineralization at Anne is potentially open for expansion in several areas, locally where earlier holes may not have 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 bounded to the southeast.

11.5.3 Areas between the Anne and Kianna Deposits (Kianna South)

The 400-metre distance between the Anne and Kianna Deposits is tested by 52 drill holes which are variable, but generally widely spaced. Drilling suggests that at least low grade mineralization at the unconformity here is contiguous between Anne and Kianna, and there is significant room at the unconformity between existing drill holes to expand some areas of higher grade mineralization. Drilling in this area has intersected significant unconformity-hosted mineralization, mainly in the SHE-37, SHE-50, SHE-102, SHE-121 and SHE-123 series drill holes, which include:

- 0.745% U_3O_8 over 4.1 m in hole SHE-50-2;
- 4.352% U_3O_8 over 2.5 m in hole SHE-50-5;
- 2.336% U_3O_8 over 4.0 m in hole SHE-50-8;
- 1.818% U_3O_8 over 4.3 m in hole SHE-50-11;
- 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;
- 11.114% U_3O_8 over 3.6 m, including 32.262% U_3O_8 over 1.1 m in hole SHE-123-06; and
- 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:

- 0.795% U_3O_8 over 5.5 m in hole SHE-50-2;
- 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; and
- 4.231% U_3O_8 over 2.0 m in hole S8HE-123-12.

Potential for additional basement hosted mineralization in this area is high. Based on the east-northeast trend of the associated clay alteration (Figure 7-5, Kianna South), basement mineralization could form a discordant mineralized zone of similar orientation to the main basement zone at Kianna. Clay alteration over 100 metres to the west in hole P08-01 may represent a continuation of this clay zone. Minor perched alteration also occurs in this area, including 0.550% U_3O_8 over 4.5 metres in hole SHE-123-03.



A significant unconformity-hosted intercept comprising 8.664% U_3O_8 over 2.6 metres in hole SHE 038A occurs approximately 300 metres south-southeast of Kianna that was largely open to the northwest and southeast. Recent drilling of the SHE-37, SHE-50 and SHE-121 series holes in 2009 confirmed that unconformity mineralization is continuous throughout this area. Drilling between Kianna and Anne has now established that mineralization at the unconformity is continuous between the deposits, indicating a strike length of at least 1,000 metres of mineralization which is open in all directions.

11.5.4 Kianna Area

Kianna is the most structurally focused uranium mineralization in the northern Shea Creek property. A total of 97 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 at least 200 metres below the unconformity (Figure 9-3). Numerous significant intercepts have been obtained in this basement zone. True thickness to many of these is unknown. Some intercepts are drilled at shallow angles to mineralization, but many high grade sub-intervals within the broader intercepts also form shallow lenses with intercepts close to true thickness within the overall steeply dipping zone. These include:

- 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;
- 1.917% U_3O_8 over 5.9 m in hole SHE-114-18A;
- 4.899% U_3O_8 over 10.4 metres in hole SHE-114-19A;
- 1.02% eU_3O_8 over 141.4 m, including 3.256% U_3O_8 over 3.5 m, 3.459% U_3O_8 over 6.0 m, 3.570% U_3O_8 over 9.5 m and 3.512% U_3O_8 over 5.0 metres 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 10.0m, 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; and
- 19.244% U_3O_8 over 1.0 m in hole SHE-118-15.

The high grade intercept in hole SHE-114-17 listed above is an isolated, largely open intercept which may form a separate, and new east-northeast trending zone to the north of the main zone of basement mineralization, or could be linked southward in a drilling gap to the main zone (Figure 9-3). The mineralization is bounded to the northeast by drill holes SHE-130-1 and -1A, but is otherwise open in all other directions and warrants high priority follow-up. Portions of the main zone may also be open downdip and along strike, depending on overall morphology of the zone. The hosting clay zone remains open and strong to the northeast and southwest suggesting that the mineralized corridor could extend.

Unconformity-hosted mineralization at Kianna forms a high-grade lens that lies above the basement mineralization. Intercepts are close to true thickness and occur over a 70-metre (north-south) by 150-metre (east-west) area in plan view. Significant intercepts include:

- 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% U₃O₈ over 6.8 m in hole SHE-118-13;
- 1.254% U₃O₈ over 13.0 m in hole SHE-118-14;
- 1.114% U₃O₈ over 17.5 m, including 5.124% U₃O₈ over 2.5 m in hole SHE-118-15; and
- 2.407% U₃O₈ over 6.9 m in hole SHE-118-18.

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 metres to 70 metres above the unconformity. 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. Some very high grade intercepts have been obtained in this zone:

- 20.721% eU₃O₈ over 10.2 m, including 27.729% eU₃O₈ over 7.6 m in hole SHE-114-05;
- 7.367% U₃O₈ over 9.5 m, including 10.700% U₃O₈ over 6.5 m, which includes 21.163% U₃O₈ over 2.0 m in hole SHE-114-07;
- 4.637% eU₃O₈ over 22.2 m, including 8.001% eU₃O₈ over 3.2 m, and 7.851% eU₃O₈ over 8.8 m in hole SHE-114-09;
- 4.580% eU₃O₈ over 15.3 m, including 9.967% eU₃O₈ over 6.4 m in hole SHE-114-11;
- 3.86% eU₃O₈ over 14.2 m, including 20.64% eU₃O₈ over 1.4 m in hole SHE-114-18A;
- 6.007% eU₃O₈ over 6.2 m, including 14.623 % U₃O₈ over 0.5 m and 56.721% U₃O₈ over 0.5 m in hole SHE-114-19;
- 2.793% U₃O₈ over 12.2 m in hole SHE-114-19A;
- 1.815% U₃O₈ over 10.0 m, including 3.490% U₃O₈ over 4.0 m in hole SHE-115-06;
- 6.165% U₃O₈ over 6.70 m, including 20.134% U₃O₈ over 2.0 m in hole SHE-115-08;
- 1.213% eU₃O₈ over 26.41 m in hole SHE-115-08 (lower zone); and
- 8.420% eU₃O₈ over 12.6 m in hole SHE-115-18.

11.5.5 58B Area

The area between the Kianna and Colette Deposits, along a one-kilometre strike length of the Shea Creek conductive trend, is prospective and has only been tested by very few holes (Figure 10-2). Previous drilling has intersected multiple intervals of basement-hosted mineralization in the 58B Area located 700 metres northwest of Kianna (Figure 7-2). In 1997, drill hole SHE-58B intersected unconformity mineralization grading 0.44% eU₃O₈ over 8.1 metres and basement-hosted mineralization grading 2.21% U₃O₈ over 2.6 metres including 6.73% U₃O₈ over 0.7 metres.

Recent drilling in the 58B Area during 2009 intersected basement-hosted mineralization grading 1.21% eU₃O₈ over 3.1 metres and 0.85% eU₃O₈ over 1.0 metres in drill hole SHE-133-2 (see UEX's news release of November 19, 2009); true thickness and orientation of mineralization are unknown. This basement-hosted mineralization occurs in steeply dipping vein systems, suggesting potential for Kianna basement-style structurally controlled mineralization.



11.5.6 Colette Area

Drilling in the Colette area includes 59 drill holes distributed between the main portions of Colette to the north (38 drill holes) and the area of Colette South (21 holes). The two areas have different styles. Main portions of Colette, northwest of the 8800N fault (Figure 7-4) are of dominantly unconformity-hosted mineralization, with best intercepts occurring along the projected traces of the northeast trending 8800N and Colette faults (Figure 7-4). The best unconformity intercepts, 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-045;
- 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-052;
- 4.099% U_3O_8 over 6.6 m, including 6.493% U_3O_8 over 3.9 m in hole SHE-059;
- 1.732% U_3O_8 over 11.9 m, including 3.476% U_3O_8 over 4.6 m in hole SHE-065;
- 1.122% U_3O_8 over 11.0 m in hole SHE-078; and
- 1.517% U_3O_8 over 8.9 m in hole SHE-091.

At the northwestern margins of the Colette Deposit, a flat lying perched zone of mineralization occurs 30 metres to 50 metres above the unconformity, which has yielded several intercepts that include 1.578% U_3O_8 over 1.6 m in hole SHE-052, 0.720% U_3O_8 over 4.7 m in hole SHE-066, and 0.725% U_3O_8 over 4.5 m in hole SHE-074.

In the Colette South area, the most significant drilling intercepts are of basement mineralization. Here, drilling in the SHE-111 and SHE-126 series drill holes has defined a series of stacked concordant style zones of basement mineralization (Figure 9-4) over a strike length of at least 250 metres. The best intercepts 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; and
- 0.700% U_3O_8 over 10.2 m, including 4.521% U_3O_8 over 1.0 m in hole SHE-126-01A.

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



11.6 Drilling in Other Areas on the Shea Creek Property

Outside the northern three kilometres of the Shea Creek property where exploration has been focused on the Anne, Kianna and Colette Deposits, only 26 drill holes test other parts of the Shea Creek property. These holes have been focused in three main areas (Figure 10-3):

- i) Along the Saskatoon Lake Conductor for approximately 3 km southeast of the Anne Deposit, which has been tested by fourteen widely spaced drill holes. Drilling here has intersected extensions of the same geology as in the northern parts of the property, with faulting continuing to be localized along the polydeformed gneiss unit, and inducing a north-northwest trending fault-related fold offset of the Athabasca unconformity that is coincident with the polydeformed gneiss unit. Several intercepts of low grade mineralization, clay alteration and faulting here which are of similar style to that in the main deposit areas to the north suggest that this area has high potential for the discovery of additional deposits.
- ii) In southernmost portions of the Shea Creek property along extensions of the Saskatoon Lake Conductor. Eight drill holes have tested an approximately two-kilometre strike length of the conductor on three widely spaced sections in this area, intersecting graphitic gneiss and associated anomalous clay alteration and pathfinder geochemistry.
- iii) Several holes which have tested EM and resistivity anomalies west of the Colette Deposit.

See Rhys et al. (2009) for further details. Outside of these areas three isolated drill holes, SHE-007, SHE-003, and SHE-009, have been drilled mainly to test EM and resistivity targets (Figure 10-3). None of these holes intersected any significant alteration or mineralization. Two drill holes, SHE-008 and SHE-041, have been drilled on claims that are no longer part of the Shea Creek property (Figure 10-3). Given the sparseness of drilling on most of the property, including significant portions of the strike length of the Saskatoon Lake Conductor, and the high frequency of mineralization in the region, exploration potential is considered to be high. Future expansion of existing DC resistivity survey coverage (Figure 10-1), and/or other new technologies such as Low Temperature Superconducting Quantum Interference Device (LT SQUID) surveys, is planned to identify targets in other parts of the property.

11.7 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. 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.



12.0 SAMPLING METHOD AND APPROACH (ITEM 14)

The following section was taken directly from UEX's April 3, 2009 N.I. 43-101 report entitled "Technical Report on the Shea Creek Property, Northern Saskatchewan" by Rhys et al. (2009). Minor changes and updates have been made and comments inserted where appropriate.

A review of the procedures, described below, by Golder of the sampling method and approach used by AREVA indicates that they are of an industry standard and provide an acceptable basis for the geological interpretation of the deposits leading to the estimation of mineral resources and economic evaluation of the deposits.

12.1 Drill Core Handling and Logging Procedures

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 metre length and a nominal 4.5-metre 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. The core handling procedures at the drill site are industry standard.

Drill holes are logged at the Shea Creek Exploration core logging facilities located on the Cluff Lake mine site. All core logging and sampling is conducted by AREVA personnel. At the core logging facilities, the core is measured to determine core recovery on a per metre basis and then scanned for radioactivity using a shielded SRAT SPP2 scintillometer (measuring between 10 cps to 15,000 cps), SRAT SPPγ (measuring between 10 cps to 40,000 cps), a GMT-3T Geiger-Müller instrument (measuring between 0 cps to 5,000 cps), or a GMT-15T Geiger-Müller instrument (measuring between 0 cps to 50,000 cps) (Koning et al., 2008). As per AREVA standard practices (Koning et al., 2008), a color code is used when writing radioactive values on the core box; from 0 to 3,000 cps SPP2 or SPPγ a black marker is required; from 3,000 cps to 40,000 cps SPP2 or SPPγ a red marker is required; 0 to 50,000 cps AVP a blue marker is required (note: 1 cps AVP is roughly equivalent to 10 cps SPP2 or SPPγ). Readings between 0 cps to 3,000 cps SPP2 or SPPγ are considered to be weakly mineralized, readings between 3,000 cps to 40,000 cps SPP2 or SPPγ are considered to be moderately to strongly mineralized, and all readings in AVP are considered to be strongly mineralized (Koning et al., 2008). Along with other geological parameters, these readings form the basis for the selection of geochemical sampling intervals.

Further treatment of mineralized intervals and core logging are described by Koning et al. (2008) as follows:

"If a zone of anomalous radioactivity has been intersected, the radiometric readings over the length of core are recorded in 10 cm intervals. The measured intervals are documented and are recorded in the drill hole database. The measured radiometric values on core are compared to down-hole radiometric probe readings taken of the mineralized interval to correlate and correct probe recording depths. The recording of down-hole probe depths can be affected by stretching of the co-axial cable on which the probe is connected, especially for deep drill holes. Therefore adjustments may be required to the depth intervals of down-hole probe data to correct for this potential source of error and possible driller error.

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. This data is then transferred from the field log to computer and imported into DrillKing, a drill hole logging and software database program developed by SURPAC Software International."



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 metres 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 (UTM coordinates; 585925E and 6469787N).

The core handling and logging procedures were actively observed by the author at the Cluff Lake core logging facility. In the author's opinion, these are performed to industry standards.

12.2 Drill Core Sampling

Sampling was not being carried out during the site visit and hence actual sampling has not been observed.

Several types of samples are collected routinely from drill core at Shea Creek. These include:

- 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 grab samples and split-core intervals for geochemical quantification of geologically-interesting material and mineralized material, respectively;
- 3) Samples collected for determination of specific gravity – dry bulk density; and
- 4) Non-geochemical samples for determination of mineralogy to assess alteration patterns, lithotypes and mineralization characteristics.

Selective samples form a quantitative assessment of mineralization grade and associated elemental abundances, while the systematic and mineralogical samples are collected mainly for exploration purposes to determine patterns applicable to mineral exploration. These sampling types and approaches are typical for uranium exploration and definition drilling programs in the Athabasca Basin.

Principal sampling methodologies are described by Koning et al. (2008) as follows:

“Systematic Composite Sampling

In systematic composite sampling, the sandstone and basement portions of each drill hole are systematically “chip”-sampled. The sample chips are small (2-3 cm length) core pieces taken from the end of each core box row within the composite interval. These composite intervals are a maximum of 20 metres in width in the sandstone and are <10 metres in width in the basement.



In the sandstone, 20 metres composites are taken from the top of the drill hole core to about 100 metres above the sub-Athabasca unconformity, at which point 10 metres composites are taken down to ~1 metres above the unconformity. A narrow-interval composite 1 metres chip sample is taken above the unconformity using core pieces taken at 20 to 30 cm intervals. Samples are labelled in the “1SYS” series for initial sampling and then “3SYS”, “4SYS”, etc. for resampling of the drill core. Sample field duplicates are anonymously included in the same series as the original samples.

Systematic sampling of basement lithologies follows a similar pattern. The first 1 metre below the unconformity is chip-sampled with fragments taken at 20-30 cm intervals. Below this, the limits of the composite samples are dictated by the widths of individual lithological/alteration units, with a maximum length of 10 metres. The sample composites do not cross lithological/alteration contacts. As for the sandstone sampling, the sample chips are taken from the end of each core box row within composite interval. These basement systematic composite samples are labelled in the “1SYB” series, then “2SYB”, “3SYB”, etc. for resampling of the drill core.

The geochemical data from these systematic composite samples are used only for exploration purposes, for example, to determine trends in elemental enrichments/depletions and to determine the normative clay mineral (kaolin, illite, Mg-chlorite, dravite) proportions. These data are not used in the mineral resource calculations.

Selective Sampling

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 fracture fills or small veins. 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 SPPy scintillometer.

The unsplit grab samples are taken to characterize specific features of interest in the core, for example fracture zones and clay-altered regions. These samples are generally 'fist-sized'. Selective samples from the sandstone are labelled in the “1SEL” (“2SEL”, “3SEL”, etc. for resampling purposes) while basement samples are in the “1BAS” series (2BAS, 3BAS, etc. for resampling purposes).

The sample interval is split using a hydraulic splitter, one half for analysis and the other half left in the core box. The splitter is cleaned after the sampling of each mineralized interval.

Specific Gravity and Dry Bulk Density Sampling

No separate samples are taken for use in specific gravity determinations. The powdered pulps or the crushed reject part of samples taken for geochemical analysis are used in these determinations. However, separate samples are taken for use in determinations of dry bulk density and other physical property measurements. These samples consist of a 10 to 15 cm length of unbroken, non-fractured core. These samples are not crushed and ground, but are cut to 10 cm in length with a rock saw so that the core ends are perpendicular to the core axis and then submitted for analysis. These latter samples are labelled in the “1MAS” series”.



Bulk Density Sampling by UEX Corporation

In order to obtain accurate bulk density estimates, UEX carried out a small program of dry bulk density sampling from diamond drill core in January 2010. The samples were systematically selected from the main mineralized zones to represent local major lithologic units and alteration types, including different intensities of clay alteration.

All core was stored at the northeast end of Cluff Lake on the Cluff Lake mine site. Dry bulk density samples approximately 10 cm to 18 cm in length were selected from half split core retained in the core box after geochemical sampling. The samples were tagged and placed in sample bags on site, then shipped directly to SRC. In total, UEX collected 678 samples from 97 holes for dry bulk density testing.

Other Sampling

Other sampling carried out by AREVA personnel is described by Koning et al. (2008) as follows:

“Sampling is also carried out so that the distribution(s) of the clay mineral species (plus hydrothermal dravite) can be determined. These samples are sandstone or basement chips normally taken at 3 metres intervals, generally at core run markers. The clay mineralogical determinations are obtained on a whole-rock basis by SWIR (Short Wave InfraRed) spectrometry using either a PIMA or ASD TerraSpec spectrometer. The resulting data are clay mineral proportions (kaolinite, dickite, halloysite, illite, chlorite and dravite). These samples are labelled in the “1PIC” series and “1PICB” series for sandstone and basement samples analysed using the PIMA spectrometer, or in the “1TER” series and “1TERB” series for sandstone and basement samples analysed using the TerraSpec spectrometer.

Samples have been taken from a number of drill holes for determination of rock physical properties (wet and dry density, porosity, electrical resistivity, magnetic susceptibility, and P- and S-wave acoustic velocity). These samples, labelled in the “1MAS” series (“2MAS”, “3MAS”, etc. for resampling purposes), consist of one piece of unfractured core that is a minimum of 10 cm in length. The core samples were taken at approximately 20 metres intervals down the drill holes. The physical property determinations were carried out in the Rock Mechanics Lab (Department of Geological Sciences, University of Saskatchewan, Saskatoon, SK).

As needed, whole-core samples are also taken for petrographic examination and description, with the examinations being carried out in-house or contracted to an external service provider. These samples are labelled in the “TS” series.”

Systematic Geochemical Profiling and Clay Analysis

Systematic samples are taken throughout the sandstone column above the unconformity to determine clay alteration and geochemical haloes within the sandstone column. These samples consist of a series of systematically spaced (1.5 metres) rock chips collected over 20 metres composite sample intervals, except within the last 100 metres above the unconformity, where samples are collected at 10 metres sample intervals (Koning et al., 2008). The sample depth is recorded as the start point of the interval. Each sample is geochemically analysed for a suite of elements, including a minimum of K₂O, Al₂O₃, MgO, Pb, Boron, and U (total). Samples are also taken for mineralogical analysis by X-Ray Diffraction (XRD) or by Short Wave Infrared Reflectance (SWIR) spectrometry using the Portable Infrared Mineral Analyser (PIMA) or ASD TerraSpec® instruments, which allow in particular determination of phyllosilicate-clay and carbonate assemblages.



12.3 Sample Quality, Selection, Representativity and Potential Bias

Selective geochemical sampling by AREVA personnel at the Shea Creek property, the only geochemical sampling type used here to determine grade and extent of uranium mineralization, is considered by the author to be representative of the mineralized intervals, and reliably reflective of both grade and mineralization distribution. In conjunction with visual characterization by the geologist, the systematic scintillometer analysis of mineralized intervals allows samples to be selected and collected from representative intervals which have common grade characteristics, distinguishing high from lower grade intervals. Sampling intervals are further divided if significant changes in lithology, alteration or core recovery are encountered. The majority of selective samples in the Shea Creek database have 0.5 metre sample lengths, but may also frequently range between 0.1 metres and 0.7 metres.

Rhys et al. (2009) noted during their review of drill core on site and compositing results that some mineralized intervals had not been sampled geochemically. Sampling of these intervals was recommended to provide a more complete geochemical profile through the identified mineralized zones. Additional intervals were sampled during 2009.

Core Recovery Considerations for Selective Samples, and use of Probe Data

An important consideration in both sample selection and representativity of selective geochemical samples is core recovery. 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 sections within the lower sandstone column and near the unconformity where core recovery is poor in areas of desilicified sandstone and clay alteration that sometimes 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 AREVA's policy not to sample a mineralized interval if there is less than 75% recovery of the core over a 50 cm sample width (Koning et al., 2008). In such cases, downhole radiometric probe data can be substituted in place of radiometric grades, since as described in Section 13.3, probe data correlates positively with uranium grade, and probe data are calibrated in areas of good recovery to geochemical values.

In the author's review of previously sampled drill core on site, some intervals were noted to have remained unsampled geochemically in areas of mineralization even where core recovery was good. For completeness, further infill sampling is recommended to provide more complete geochemical profiles. In addition, sampling of previously unsampled areas with less than 75% recovery is recommended to provide an additional check of probe data.

Sample Quality

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. The correlation of downhole radiometric probing, detailed radiometric SRAT SPP-2, SRAT SPP γ , GMT-3T or GMT-15T readings, as well as assay comparison and the quality assurance/quality control ("QA/QC") program (Section 15) provide further levels of confidence.

Author's Opinion on Core Handling and Logging Procedures

In the author's opinion, the core sizes, procedures for logging, recording of core recoveries, and sampling are standard industry practices. These, in conjunction with calibrated probe data in areas of poor recovery, will provide an acceptable basis for the geological and geotechnical interpretation of the deposits leading to the estimation of mineral resources.



13.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY (ITEM 15)

The following section was taken directly from UEX's April 3, 2009 N.I. 43-101 report entitled "Technical Report on the Shea Creek Property, Northern Saskatchewan" by Rhys et al. (2009). Minor changes and updates have been made and comments inserted where appropriate.

On site, after sampling from drill core is completed, 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., 2008). The radioactive samples are shipped within Canada in compliance with pertinent federal and provincial regulations regarding their transport and handling.

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 described below are completed, analytical data are securely sent by SRC to AREVA through the use of electronic transmission of the results. The electronic results are secured through the use of WINZIP encryption and password protection. These results are provided as a series of Adobe PDF files containing the official analytical results and a Microsoft Excel spreadsheet file containing only the analytical results.

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.

Sample preparation and analytical procedures sections outlined below are sourced from Koning et al. (2008), and SRC (2007).

13.1 Sample Preparation

On arrival at the SRC lab, all samples are received and sorted into their matrix types (sandstone versus basement) and received radioactivity levels (using a multi-dot classification system). 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 (2 dots or higher; *i.e.*, more than 2,000 cps) 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 to 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 labelled 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 using several digestion methods. A “total” tri-acid digestion, on a 250 mg aliquot of the sample pulp, uses a mixture of concentrated HF/HNO₃/HClO₄ 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 HNO₃. A “partial” acid digestion, on a 2 g aliquot of the sample pulp, is digested using 2.25 ml of 8:1 ratio ultrapure HNO₃ and HCl for 1 hour at 95°C in a hot water bath and then diluted to 15ml using deionized water.

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 and then cooled to room temperature before fluorimetric analysis.

Another digestion used is a Na₂O₂ fusion in which an aliquot of pulp is fused with a mixture of Na₂O₂ and NaCO₃ in a muffle oven. The fused mixture is subsequently dissolved in deionized water. Boron is analyzed by ICP-OES on this solution.

13.2 Analytical Procedures

The following section is summary of the analytical procedures undertaken by SRC (2007). 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 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 ICP-MS analysis, the ions are separated in a mass spectrometer on the basis of their mass-to-charge ratio, allowing determination of ions with atomic masses from 7 to 250. A series of detectors produce signals proportional to the concentration of the individual ions with analytical detection limits in the parts per billion range. Perkin-Elmer instruments (models Optima 300DV, Optima 4300DV, and Optima 5300DV) are currently in use.

In ICP-OES analysis, the ICP ionizes the atomized sample material and the ions then emit light (photons) of a characteristic wavelength for each element which is recorded by optical spectrometers. Calibrations against standard materials allow this technique to provide a quantitative geochemical analysis.

Secondary geochemical analysis methods include fluorimetry for U analysis, following either a total or partial digestion. The fluorimetric U analyses have much lower detection limits (0.1 ppm for U-total, 0.02 ppm for U-partial). The fluorescence of the fused pellets is measured using a modified Jarrel Ash fluorimeter. Analysis for Boron is done by ICP-OES, following a Na₂O₂ fusion and subsequent dissolution in deionized water.

13.2.1 Total and Partial Digestion

The samples are tested using validated procedures by trained personnel. All samples are digested prior to analysis by ICP and fluorimetry. The samples are subjected to multi-suite assay analysis which includes U, Ni, Co, As, Pb by total and partial digestions.



Total digestions are performed on an aliquot of sample pulp. The aliquot is digested to dryness on a hotplate in a Teflon beaker using a mixture of concentrated HF/HNO₃/HClO₄ acids. The residue is dissolved in dilute HNO₃ (SRC, 2007). Partial digestions are performed in an aliquot of sample pulp. The aliquot is digested in a mixture of concentrated HNO₃:HCl in a hot water bath then diluted to 15ml with deionized water. Fluorimetry is used on low uranium samples (<100 ppm) as a comparison for ICP-OES uranium results as the fluorimetric U analyses have much lower detection limits.

Principal geochemical analysis techniques sandstone and basement samples are described by Koning et al. (2008) as follows:

Sandstone Samples

“Sandstone samples (e.g., 1SYS and low-level radioactive 1SEL samples) are currently (since 2006) analysed using the “ICP-MS package for sandstone” multi-element analysis package, plus a Boron analysis. Note that U analysis by fluorimetry is not needed when using this ICP-MS package. A total of 87 analyses, including the Pb isotopes, are performed with this package using both partial and total digestions (SRC, 2007).

Prior to 2006, these samples were analysed using earlier variations of the “Uranium exploration ICP-OES package” multi-element analysis package (SRC, 2006) with the U analyses being by fluorimetry. However, the element suite and the proportion of samples being fully analysed varied by year.”

Basement Samples

“The basement samples (e.g., 1SYB and low-level radioactive 1BAS samples) are still being analysed using the “Uranium exploration ICP-OES package” multi-element analysis is package, with a Boron analysis and with U-partial analysis by fluorimetry. This analytical package was specifically designed for the uranium exploration industry. The analytical package includes a total of 63 analyses: 46 total digestion ICP-OES analyses, 16 partial digestion ICP-OES analyses, and uranium by fluorimetry analysis on the partial digestion. Nine analytes are analyzed on both partial and total digestions by ICP-OES (Ag, Co, Cu, Mo, Ni, Pb, U, V, and Zn). With the additional fluorimetric uranium analysis, 3 uranium analyses are provided. At present, if a U-total analysis exceeds 1 000 ppm, a U₃O₈ assay is also automatically performed. Au, SiO₂, LOI, Sulphur (for evaluation of sulphides), and Carbon (for evaluation of graphitic/carbonaceous samples) are additional elements of interest that can be added to the analysis list.

Prior to 2006, the basement samples were analysed using earlier variations of the “Uranium exploration ICP-OES package” multi-element analysis package (SRC, 2006). However, the element suite and the proportion of samples being fully analysed varied by year.”

The reader is referred to the SRC’s website (<http://www.src.sk.ca/>) for more details regarding the analytical techniques and sample handling procedures.



13.2.2 U₃O₈ Method by ICP-OES

Principal geochemical analysis techniques for mineralized samples are described by Koning et al. (2008) as follows:

“Mineralized samples (sandstone and basement) are analyzed using an analytical package similar to the “Uranium exploration ICP-OES package” multi-element analysis package, with a Boron analysis and a U₃O₈ assay, in addition to partial/total U analyses. Note that geochemical Au analyses (and/or Au assays) are also generally performed on Shea Creek mineralized samples. The partial/total U analyses on mineralized samples are by ICP or ICP-MS, not by fluorimetry.

The uranium (U₃O₈) assay is done on samples containing relatively high U contents. This assay procedure uses an ICP-OES U analysis following sample digestion using Aqua Regia (a 3:1 mixture of HCl:HNO₃). The historical minimum reported detection limit (MDL) was 0.01 wt% U₃O₈, although the actual current MDL of 0.002 wt% U₃O₈ is more similar (at 17 ppm) to that of the ICP U-total analysis (2 ppm). The assay data are very similar to those produced by the ICP U-total analysis, but the precision is better (1-2%) because more sample material is used, less digestion dilution is used, and a more rigorous analysis protocol is followed. These more precise data are suitable for use in resource/reserve grade and tonnage calculations.”

McCready (2007) documents in detail the SRC U₃O₈ assay method and it is summarized below. All samples are received and entered into the Laboratory Information Management System (“LIMS”). In the case of uranium assay by ICP-OES, a pulp is already generated from the first phase of preparation and assaying (discussed above). AREVA now routinely assays every sample above 1,000 ppm Uranium via ICP total digestion with ICP-OES Uranium assay. A 1,000 mg of sample is digested for 1 hour in an HCl:HNO₃ 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 ICP-OES. 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 U₃O₈ by this method is 0.001%. 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.

13.3 Conversion of Radiometric Probe Data to Equivalent Uranium Grade

Mineralized sections of drill holes are radiometrically logged down-hole using either an ST-22 2T or STD-27 low flux probe, as well as with an STD27-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 (“cps”; Koning et al., 2008).

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



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poor core recovery where representative sampling is not possible. When sufficient correlation between probe and geochemical data has been established, commonly 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 “eU₃O₈”) 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 during the 1980’s 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. Specific probe conversion coefficients for the Colette Deposit and 58B Area were calculated for AREVA by SRK Consulting (Canada) Inc. in early 2010 (Revering, 2010). Consequently, the geochemical data reported in Section 11.5, and the probe equivalent grades which are reported in Section 11.5 and used for the mineral resource estimate in Section 17.0 in areas of poor core recovery or incomplete sampling, differ from, and supercede composited intervals reported in 2004 to 2007 joint AREVA-UEX news releases, as is disclosed in UEX’s news release of March 24, 2009.

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 Golder 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 Golder by UEX as eU converted data, and subsequently converted to eU₃O₈ (conversion factor of 1.179) and composited to the intervals used in the mineral resource estimate.

Data obtained from down-hole probe results are converted to equivalent uranium grades utilizing a two step process:

- 1) Conversion of raw probe counts (cps) into Appareillage Volant de Prospection counts per second (“AVP cps” described further below), taking into account the type of probe used (ST22 ST, ST27 or ST27-HF), the drill hole conditions (hole diameter, casing parameters, drilling fluid, steel thickness of rod) and the counts themselves (correction for dead time). In the Anne and Kianna Deposits, the average ratio of AVP cps to raw cps varies from 40 to about 71.
- 2) Calibration of AVP cps into equivalent uranium grade (%eU or eU₃O₈) 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, and are largely extracted with minor modification from Koning et al. (2008) and Revering (2010):



13.3.1 AVP Conversion

Radiometric data obtained from low flux (*i.e.*, ST-22 2T and STD-27) and high flux (STD27-HF) gamma probes are converted into equivalent uranium (eU) values by first converting the raw probe counts per second (“cps”) into AVP cps, a uranium mining standard developed by the French Atomic Energy Commission defined as;

$$1 \text{ AVP cps} = 1 \text{ ppm Uranium (in equilibrium)}$$

The conversion of raw cps to AVP cps adjusts the down-hole 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 by Koning et al. (2008) and for the Colette Deposit and 58B Area by Revering (2010) to convert AVP cps into eU. These take 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.

13.3.2 Radiometrics-Grade Correlation

The radiometrics–grade correlation was generated by comparing geochemical sample results from mineralized samples to their corresponding probe data. Geochemical sample intervals used by Koning et al. (2008) and Revering (2010) for these correlations required a minimum core recovery of 75% and 80%, respectively, 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 (Koning et al., 2008; Revering, 2010).

Anne Deposit Grade-Radiometric Correlation

The grade–radiometric correlation for the Anne Deposit (Figure 13-1) is based on 119 mineralized intervals from 47 drill holes located within the Anne area (Koning et al., 2008). The drill holes and mineralized intervals used for the correlation are provided in Koning et al. (2008), and based on a review of this information, are in the opinion of the author representative of the mineralization in the Anne Deposit. The conversion formula used to transform radiometric data into eU values (10 cm support) defined by Koning et al. (2008) is expressed, in permil, as:

$$eU \text{ ‰} = 0.7563 * (AVP/1000)^{1.0178}$$

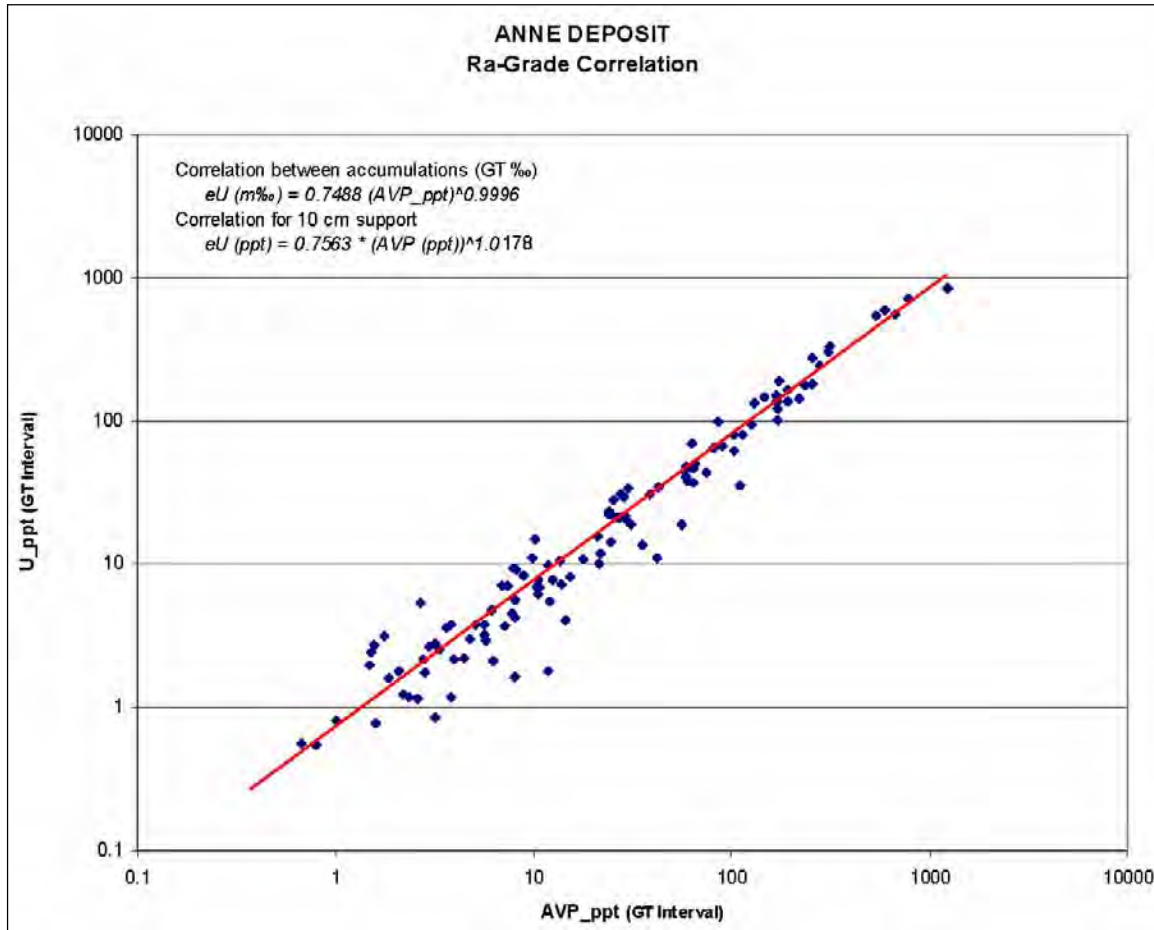


Figure 13-1: Anne Deposit - Sermine USURA Correlation of Uranium Grade and AVP from Representative Composited Intervals using the 2008 Anne Grade-Radiometric Correlation

Graph is from Koning et al. (2008)

Kianna Deposit Grade-Radiometric Correlation

The grade–radiometric correlation for the Kianna Deposit (Figure 13-2) is based on 107 mineralized intervals from 45 drill holes located within the Kianna area (Koning et al., 2008). The drill holes and mineralized intervals used for the correlation are provided in Koning et al. (2008), and based on a review of this information, are in the opinion of the author, representative of the mineralization in the Kianna Deposit. The conversion formula used to transform radiometric data into eU values (10 cm support) defined by Koning et al. (2008) is expressed, in permil, as:

$$eU \% = 0.8706 * (AVP/1000)^{1.0011}$$

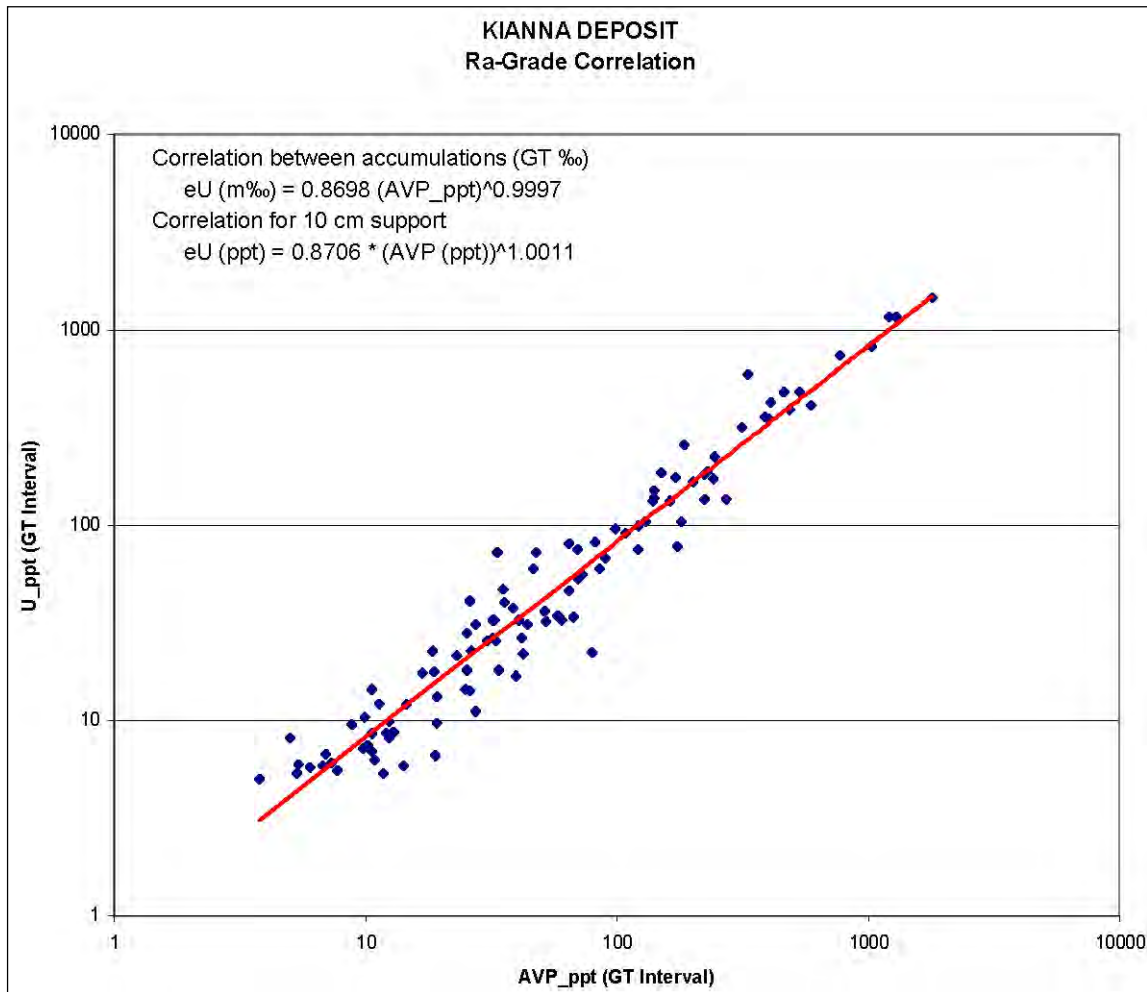


Figure 13-2: Kianna Deposit - Sermine USURA Correlation of Uranium Grade and AVP from Representative Composited Intervals using the 2008 Kianna Grade-Radiometric Correlation

Graph is from Koning et al. (2008)

Colette Deposit and 58B Area Grade-Radiometric Correlation

The grade–radiometric correlation for a combined dataset from the Colette Deposit and 58B Area (Figure 13-3) is 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 (Revering, 2010). 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 author, 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) defined by Revering (2010) is expressed, in permil, as:

$$eU \text{ ‰} = 0.8057 * (AVP/1000)^{1.0397}$$

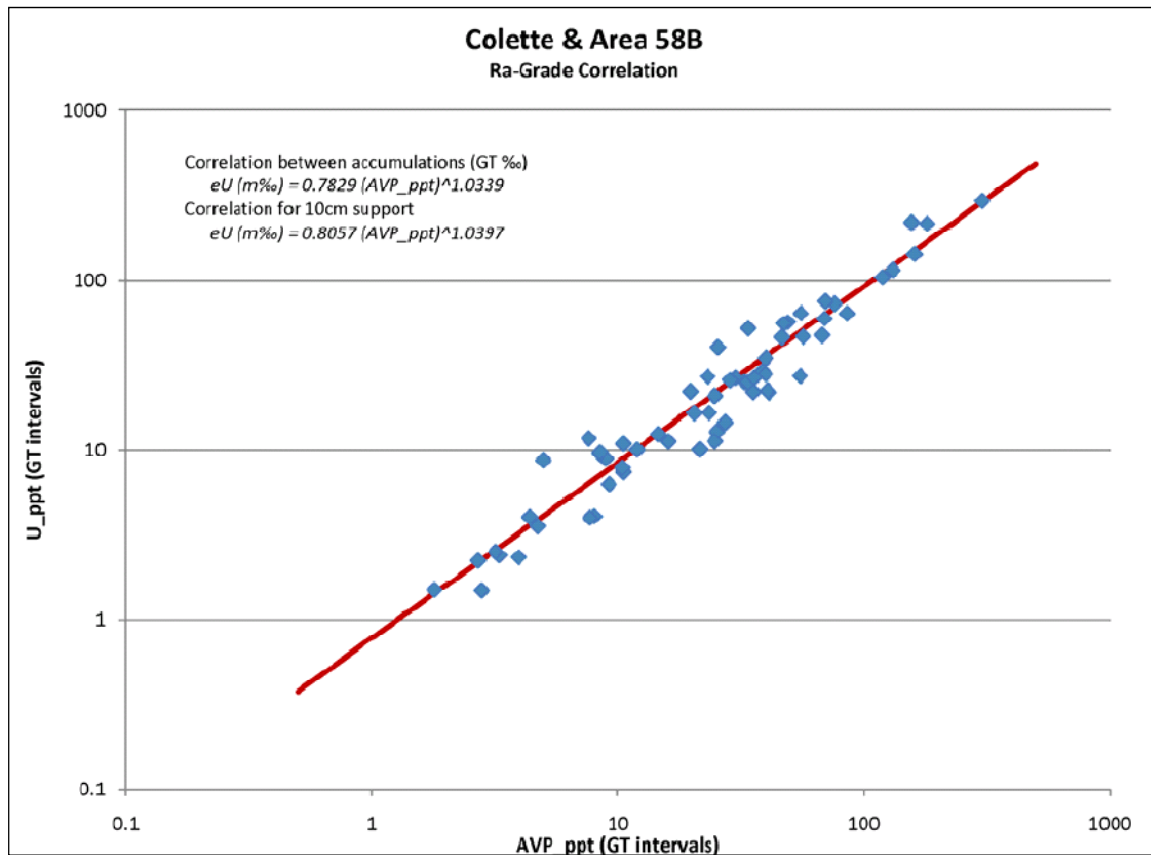


Figure 13-3: Colette Deposit and Area 58B - Sermine USURA Correlation of Uranium Grade and AVP from Representative Compositing Intervals using the 2010 Colette & Area 58B Grade-Radiometric Correlation

Graph is from Revering (2010)

This correlation is recommended for future analysis of down-hole radiometric data for the Colette and Area 58B data, when converting lowflux gamma probe counts into equivalent uranium values. This correlation is considered to be preliminary and should be reviewed and adjusted as required when new data become available from future exploration drill programs (Revering, 2010).

Grade-Radiometric Correlation for other parts of the Shea Creek Property

For drill holes outside of the Anne, Kianna and Colette Deposits and Area 58B, AREVA currently utilizes a general grade-radiometric coefficient of $eU \% = 1.000 * (AVP/1000)1.0000$ (E. Koning, pers. comm., 2009). Based on the conversion coefficients at Anne, Kianna, Colette and 58B, this may on average overstate the geochemical grade equivalent. Consequently, where sufficient geochemical data are available, it is recommended here that customized conversion coefficients be constructed for other parts of the project area, especially if the data are to be used in any disclosure or resource estimate.



13.4 Dry Bulk Density Samples

The following section was modified from Van der Meer and Musienko (2010).

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.

To ensure a high degree of consistency, 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. Once dry bulk density testing was completed on these unsplit samples, they were subsequently split with half the core analysed geochemically in order to obtain uranium analyses.

A total of 678 samples from 80 holes were collected during this program and were subject to dry bulk density testing. These included 300 samples from 14 Kianna drill holes, 274 samples from 30 Anne drill holes and 104 samples from 36 Colette drill holes. Based on the entire sample suite, mean dry bulk density for Shea Creek lithologies is 2.54 g/cm³.

Analytical Methods

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.

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.

For the 80 whole and unsplit core samples for which no prior uranium analyses had been completed, after dry bulk density analysis, the samples were split in half. One half split core was crushed and analysed geochemically using both the SRC standard 55 element total package and 9 element partial package so a complete geochemical database is available for all dry bulk density samples. The other split half was retained for shipment back to the Cluff Lake mine site.

Correlation between Dry Bulk Density and U₃O₈ Grade

All samples were used to produce the density-grade model demonstrating correlation between dry bulk density and uranium grade (U₃O₈ %) shown in Figure 13-4.



The regression curve is flat below 2% U_3O_8 , suggesting that there is no meaningful correlation between increasing grade and increasing dry bulk density if grade is equal or lower than 2% U_3O_8 . The inflection on the regression curve in the range of higher grades demonstrates a weak positive correlation between dry bulk density and high grade uranium mineralization when U_3O_8 is greater than 2%. The correlation can be attributed to high concentration of uranium which has a density 18.9 to 19.1 g/m^3 . The inflection on the regression curve is presented separately in Figure 13-5 and shows a weak positive correlation between increasing U_3O_8 grade and increasing dry bulk density.

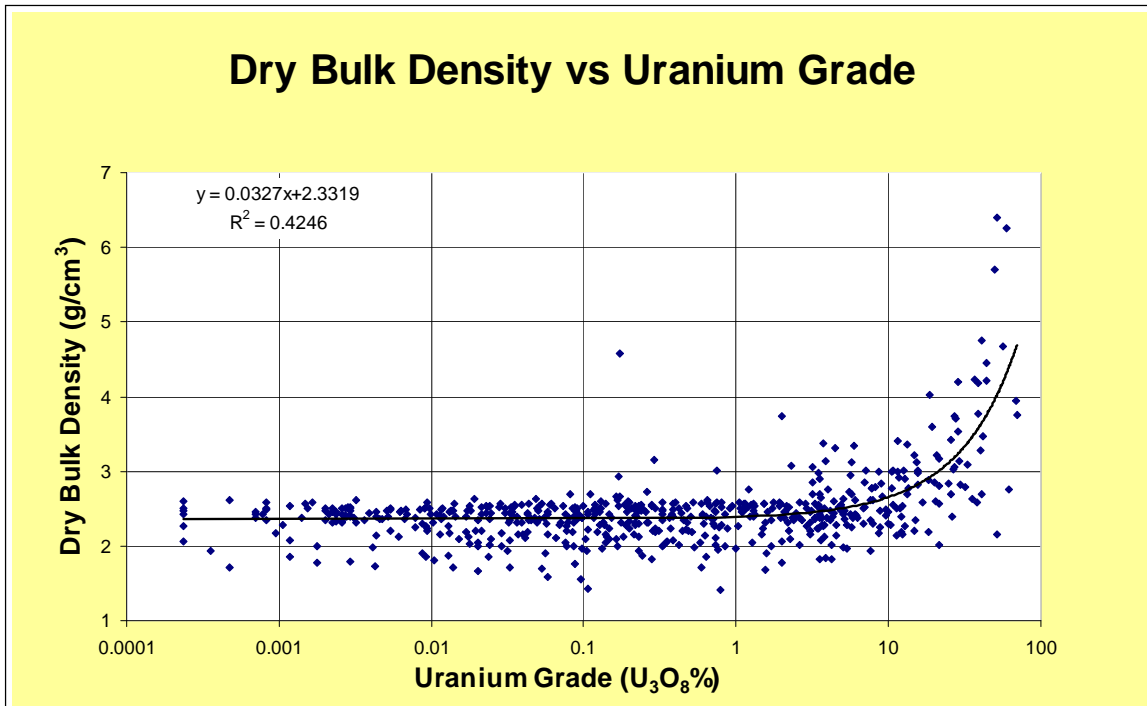


Figure 13-4: Logarithmic Plot of Dry Bulk Density versus Uranium Grade in Corresponding Geochemical Samples

From Van der Meer and Musienko (2010)

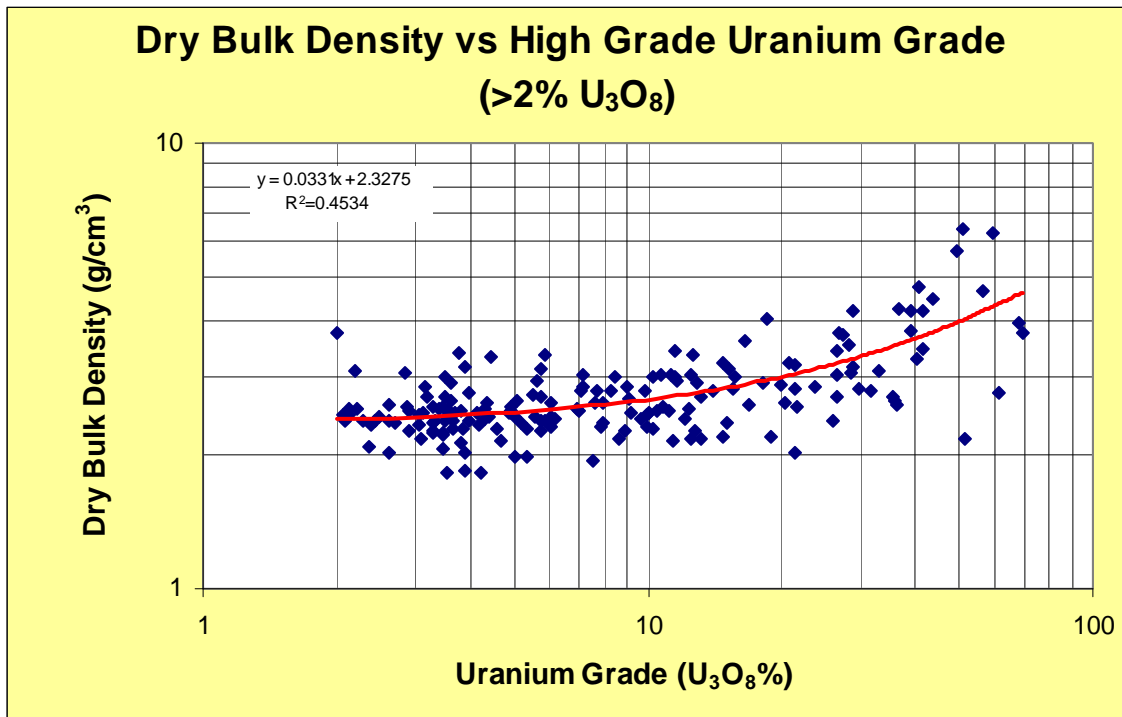


Figure 13-5: Logarithmic Plot of Dry Bulk Density versus High Uranium Grade (>2% U₃O₈) in Corresponding Geochemical Sample

From Van der Meer and Musienko (2010)

Decrease in Dry Bulk Density of Rocks due to the Intensity of Clay Alteration

As observed in Figure 13-5, there is significant scatter in dry bulk density values resulting from the number of strongly mineralized samples which have low dry bulk densities. The proportion of clay in altered samples generally lowers the dry bulk density of the rock since clay alteration causes decomposition of feldspar and mafic minerals with resultant replacement by lighter clay minerals as well as loss of silica from feldspar.

Samples are grouped according to their rock types, intensity of clay alteration and U₃O₈ grade in Table 13-2. Intensity of clay greater than 2.5 corresponds to strong or very strong clay alteration of the rocks. There is an obvious increase in dry bulk density with increasing grade in fresh to medium clay altered rocks. In contrast, strongly clay-altered mineralized rocks have lower densities despite the larger amounts of contained uranium, which is offset by the loss of mass due to alteration changes.



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Table 13-1: Intensity of Clay Alteration, Average Dry Bulk Density (g/cm³) and Grade U₃O₈% for Different Groups of Rock (Van der Meer and Musienko, 2010)

Rock Group	Intensity of Clay Alteration	Average Dry Bulk Density (g/cm ³)	Grade U ₃ O ₈ %	Number of Samples
Athabasca Sandstone	0.0 - 2.0	2.46	0.01 – 1.00	139
Athabasca Sandstone	0.0 - 2.0	2.55	1.00 – 33.00	58
Athabasca Sandstone	2.5 - 4.0	2.05	0.01 – 1.00	14
Athabasca Sandstone	2.5 - 4.0	2.00	1.00 -15.00	6
Felsic Granites	0.0 - 2.0	2.48	0.01 – 1.00	76
Felsic Granites	0.0 - 2.0	2.59	1.00 – 70.00	29
Felsic Granites	2.5 - 4.0	2.20	0.01 – 1.00	165
Felsic Granites	2.5 - 4.0	2.20	1.00 – 20.00	39
Pelitic Package	0.0 - 2.0	2.50	0.01 – 1.00	43
Pelitic Package	0.0 - 2.0	2.50	1.00 – 22.00	12
Pelitic Package	2.5 - 4.0	2.30	0.01 – 1.00	14
Pelitic Package	2.5 - 4.0	N/A	N/A	N/A

The logarithmic plots presented below have been produced to demonstrate the effect of the intensity of clay alteration on the dry bulk density of rocks. The regression curve in Figure 13.6 shows a weak correlation between increasing dry bulk density and increasing U₃O₈ grade in fresh to medium clay-altered rocks in samples which contain more than 2% U₃O₈. Dry bulk density values are scattered within a broad range from 1.71 to 6.40 g/cm³.

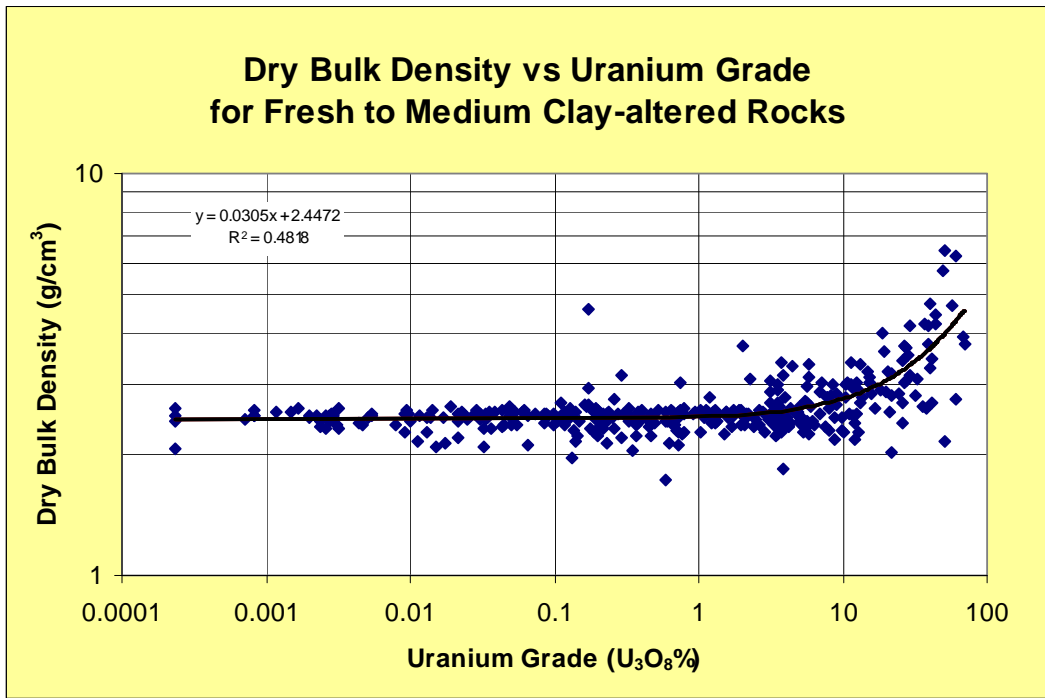


Figure 13-6: Logarithmic Plot of Dry Bulk Density versus Uranium Grade for Fresh to Medium Clay-altered Rocks, Intensity of Clay Alteration less than 2.5

From Van der Meer and Musienko (2010)

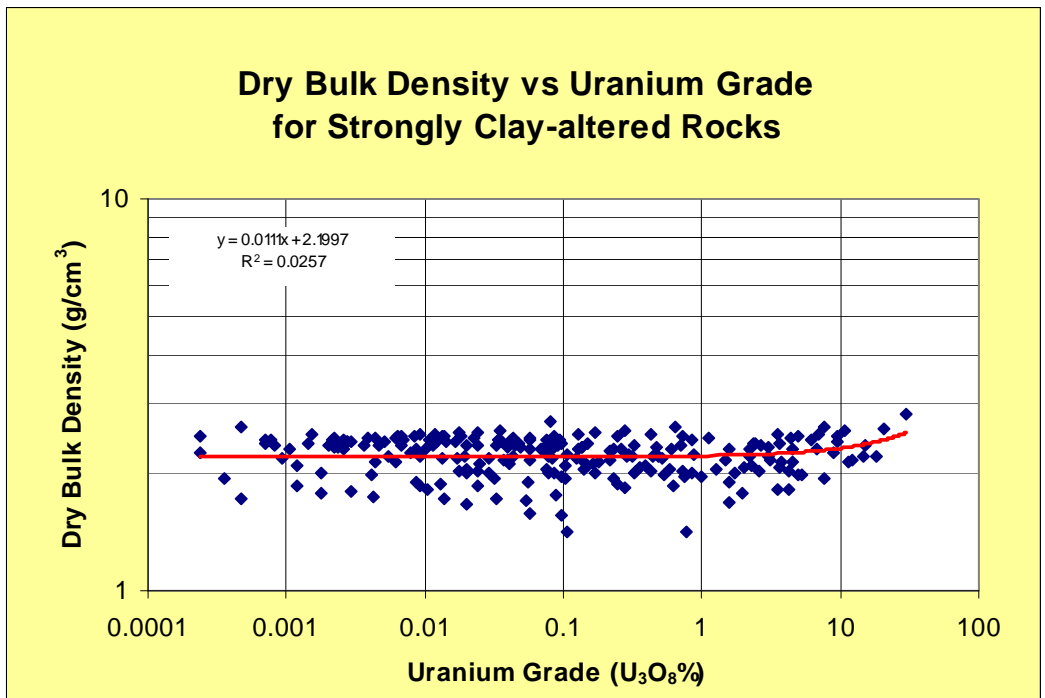


Figure 13-7: Logarithmic Plot of Dry Bulk Density versus Uranium Grade for Strongly Clay-altered Rocks, Intensity of Clay Alteration greater than 2.5

From Van der Meer and Musienko (2010)



The regression curve calculated for the samples which are affected by strong clay alteration is almost flat (Figure 13-7), and suggest that the anticipated increase in dry bulk density towards higher grades is offset by the effects of overprinting, lower density clay alteration. The range of dry bulk density values narrows to between 1.41 and 2.80 g/cm³ in this sample set.

Dry Bulk Density Quality Assurance and Quality Control

Quality assurance and quality control (“QA/QC”) for dry bulk density determinations was monitored by SRC. SRC conducted one repeat analysis in every 37 samples in each batch to provide an estimate of quality control. All repeats passed the internal QC limit of ± 0.02 g/cm³. SRC carried out a total of 25 repeat analyses which are plotted against original values in Figure 13-8. The sample repeats show a strong positive correlation.

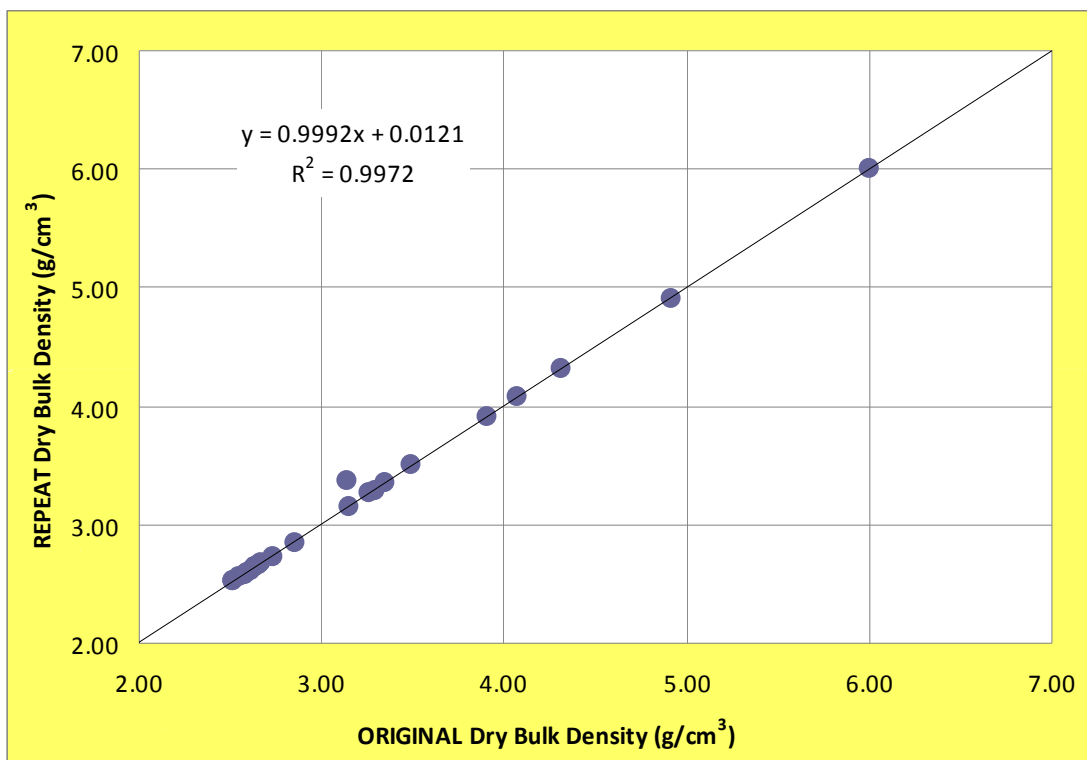


Figure 13-8: Quintile-Quintile Plot of Laboratory Dry Bulk Density Replicates

From Van der Meer and Musienko (2010)

SGS Minerals Services, Lakefield (“SGS”) of Lakefield, Ontario carried out 30 independent repeat analyses to verify the SRC dry bulk density results. A representative suite of samples encompassing a wide range of U₃O₈ grade and intensity of alteration were selected for repeat check analysis. The results are presented in Figure 13-9 and show a strong positive correlation.

Internal lab replicates and external quality control repeat test samples therefore both show a strong correlation of $R^2 = 0.9972$ and $R^2 = 0.9948$, respectively.

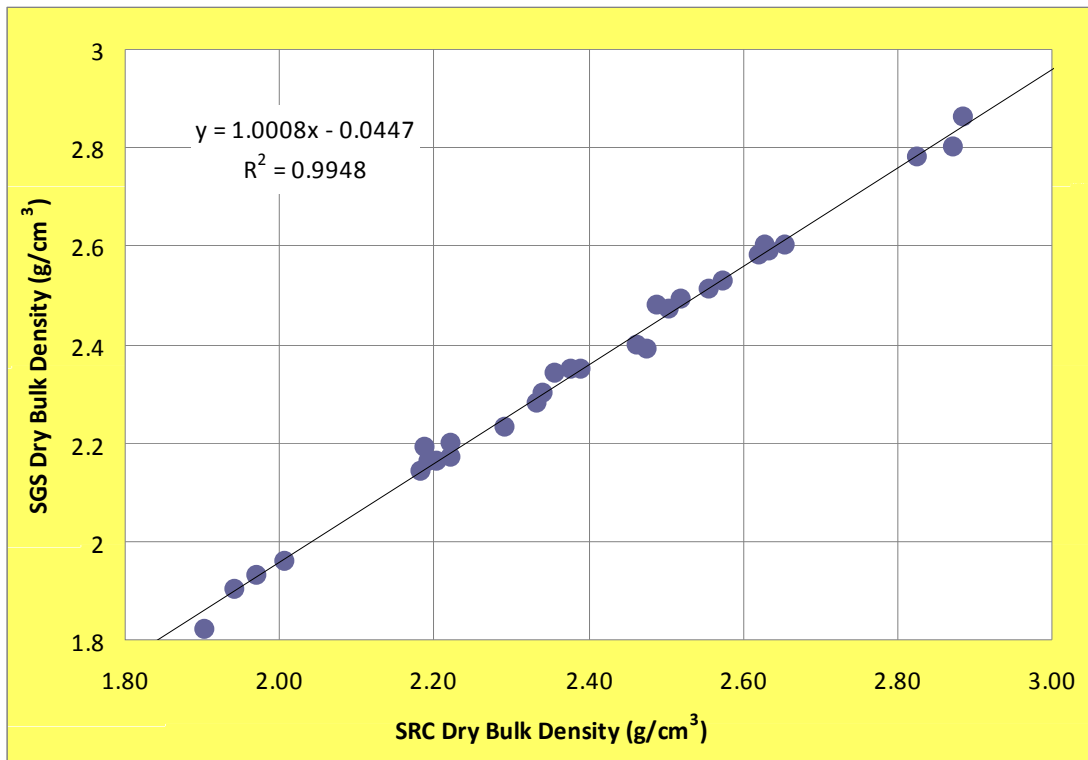


Figure 13-9: Quintile-Quintile Plot of SGS Dry Bulk Density Repeats versus SRC Dry Bulk Density

From Van der Meer and Musienko (2010)

Application of Dry Bulk Density Results

Based on the aforementioned discussion of the results on the dry bulk density testing, two formulas were applied to calculate densities of lithological groups encountered at Shea Creek.

The regression equation shown in Figure 13-6 was applied to calculate densities of **fresh to medium clay-altered rock** as follows:

$$Y=0.0305X +2.4472$$

where Y is dry bulk density (g/cm³) and X is the uranium grade in U₃O₈%.

The regression equation shown in Figure 13-7 was applied to calculate densities of **strongly clay-altered rock** as follows:

$$Y=0.0111X +2.1997$$

where Y is dry bulk density (g/cm³) and X is the uranium grade in U₃O₈%.



13.5 Sample Security

The Shea Creek core facility is on the former Cluff Lake mine site to which only AREVA or other authorized personnel have access. As such, all on site sampling is 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 in Saskatoon, Saskatchewan (Koning et al, 2008). 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.

13.6 Quality Control Measures

Quality control measures and procedures are addressed in Section 14.0.

13.7 Authors' Opinion on Sampling, Preparation, Security, and Procedures

In the author's opinion, 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.

Two detailed laboratory audits were completed on the primary laboratory, SRC in Saskatoon, by UEX personnel. A laboratory audit was conducted on September 24, 2007 and a follow-up review on June 5, 2008. The laboratory audit covered all aspects of the sample preparation and analytical process. The review is documented with an appropriate action plan for non-compliance or suggested action items. The laboratory was also visited by the author and Esther Bordet of Golder on July 9, 2008.

A significant additional 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. The author has reviewed the probe use and methodologies, and find these and the currently utilized coefficients that were calculated in 2008 and 2010 conform to industry standards, and form a reasonable estimation of uranium grade in the Kianna, Anne and Colette Deposits.



14.0 DATA VERIFICATION (ITEM 16)

Sections 14.1 to 14.3 were taken directly from UEX's April 3, 2009 N.I. 43-101 report entitled "Technical Report on the Shea Creek Property, Northern Saskatchewan" by Rhys et al. (2009). Minor changes and updates have been made and comments inserted where appropriate.

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

- i) Internal SRC laboratory 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 to probe results; and
- iv) External laboratory check analysis of selected samples.

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 (Koning et al., 2008). As part of AREVA's quality improvement programs, a more rigorous QA/QC program was implemented in 2006, which continues to be followed.

14.1 Comparison of Analytical Techniques

Comparison of analytical pairs for 2006 and 2007 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 14.1. 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.



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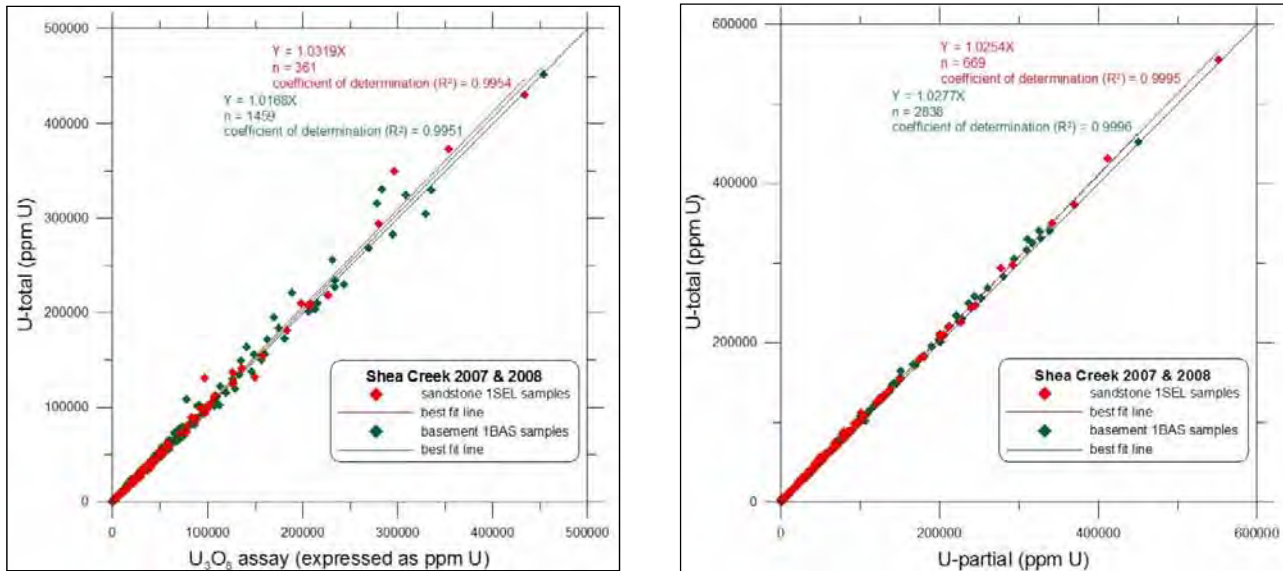


Figure 14-1: Scatter Plots illustrating Correlation between Different Uranium Analytical Techniques for 2007 and 2008 Geochemical Data from Sandstone- (red) and Basement- (green) hosted Samples

From Rhys et al. (2009).

All data are in ppm U. At left, U total by ICP-MS versus uranium assay (ICP-OES). At right, U-total ICP-MS versus U-partial (ICP-MS). In both cases, sandstone and basement samples show strong positive correlations ($R^2 =$ of 0.9951 to 0.9996).

14.2 Sample Blanks and Standards Inserted by AREVA

Since 2006, AREVA has used two special quality control samples that are inserted in the geochemical analysis stream: (i) an instrumental blank; and (ii) an AREVA standard sample representing “background” sandstone (Koning et al., 2008). 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., 2008). These quality control samples are inserted approximately every 25 to 30 regular samples (*i.e.*, for each sample batch). A Field Duplicate sample is also taken approximately every 25 to 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 (± 5 to 10%) depending on the parameter in question (Koning et al., 2008). Data verification includes reviewing the geochemical data as found in the AREVA database with the original results reported by the geochemical laboratory.

14.3 Laboratory Internal Quality Assurance and Quality Control

The laboratory internal quality assurance and quality control section outlined below was sourced from SRC (2007).



The SRC 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 AREVA has compiled.

Kevin Palmer has directly reviewed with SRC representatives these laboratory procedures, and confirms that they meet industry standards.



14.4 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.

14.4.1 Assay by SRC's 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% U₃O₈.

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 (2-5 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 with the ICP-MS Total Digestion results ($R^2 = 0.9974$), (Figure 14-2). The DNC technique is not used in any estimation but as a check between assay techniques and labs.

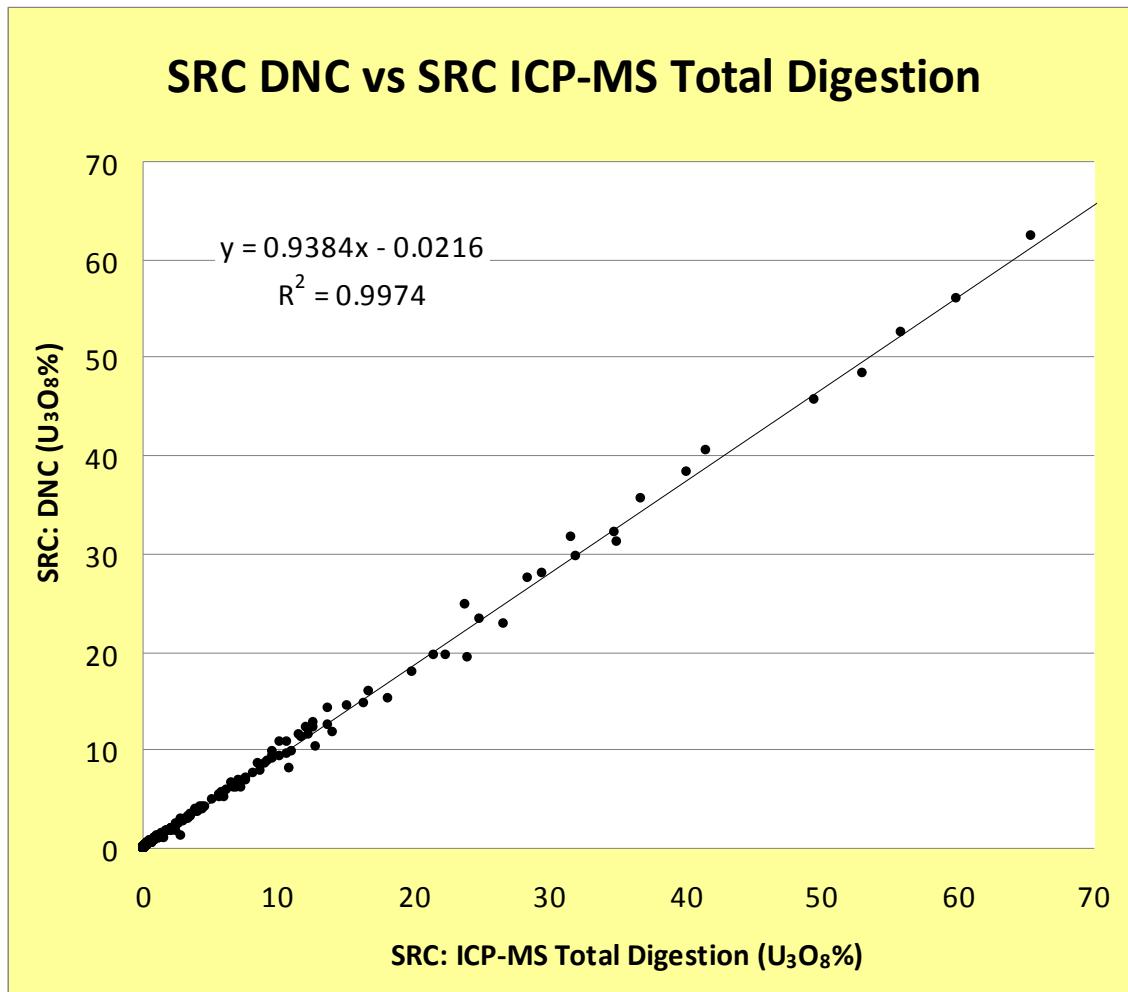


Figure 14-2: Scatter Plot of SRC DNC Assay Technique versus SRC ICP-MS Total Digestion in Corresponding Geochemical Samples

From UEX

A Thompson-Howarth plot reveals that 234 assay pairs between ICP-MS Total Digestion and DNC are within 10% precision (Figure 14-3). A total of three samples have a precision greater than 50%.

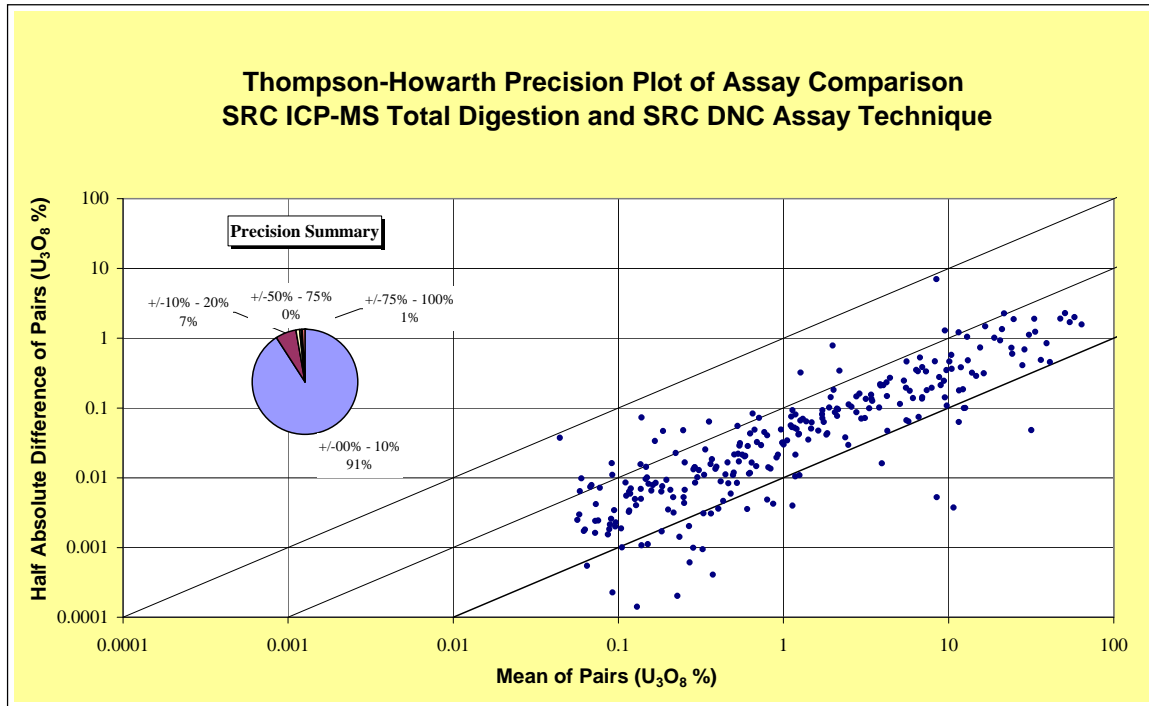


Figure 14-3: Thompson-Howarth Precision Plot of Assay comparison between SRC ICP-MS Total Digestion and SRC DNC Assay Technique

From UEX

The three diagonal lines represent 100%, 10% and 1% precision (left to right).

In addition, the DNC results show a strong positive correlation with the ICP-OES uranium assay results ($R^2 = 0.999$), (Figure 14-4).

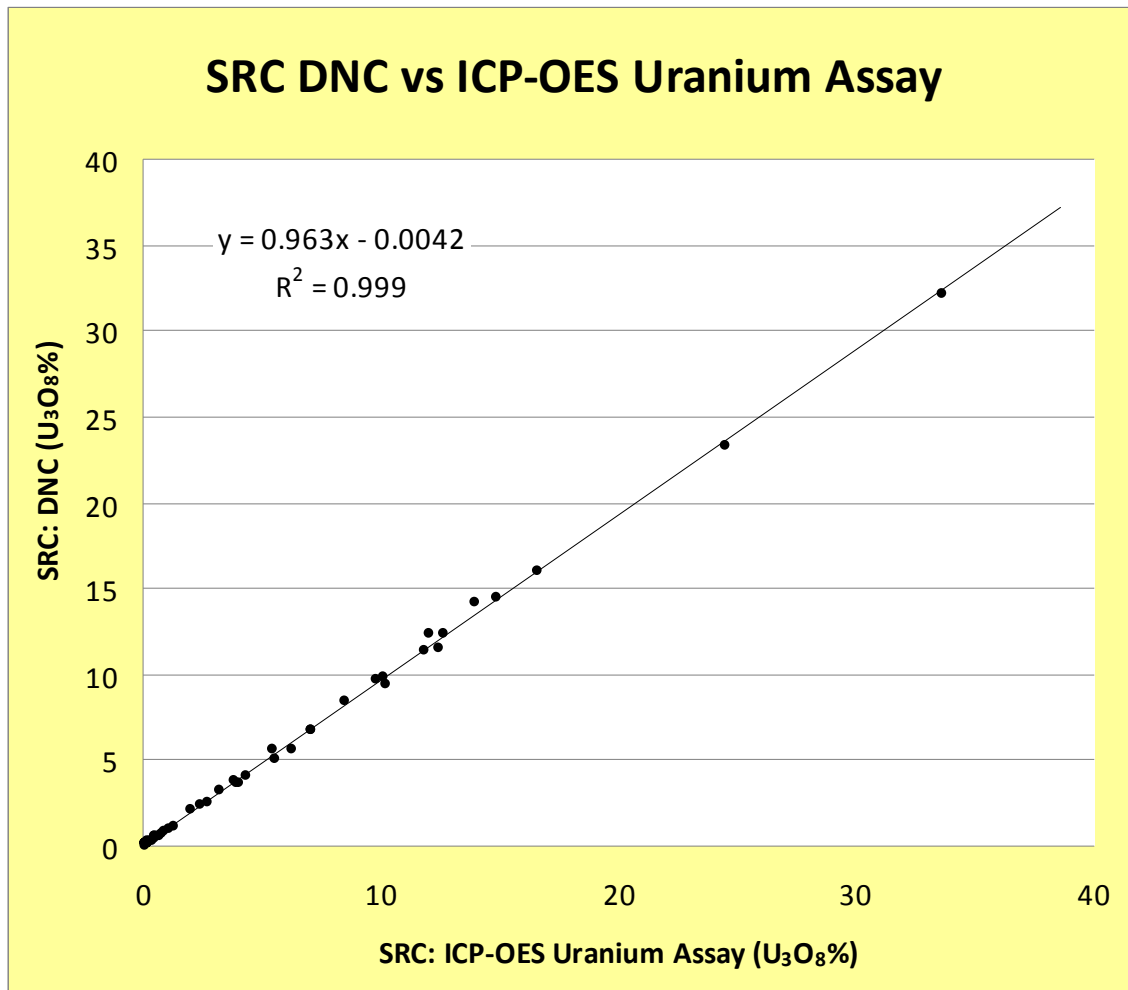


Figure 14-4: Scatter Plot of SRC DNC Assay Technique versus SRC ICP-OES Uranium Assay in Corresponding Geochemical Samples

From UEX

14.4.2 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% U₃O₈. Figure 14-5 reveals a strong positive correlation ($R^2 = 0.9971$) with negligible scatter of sample pairs.

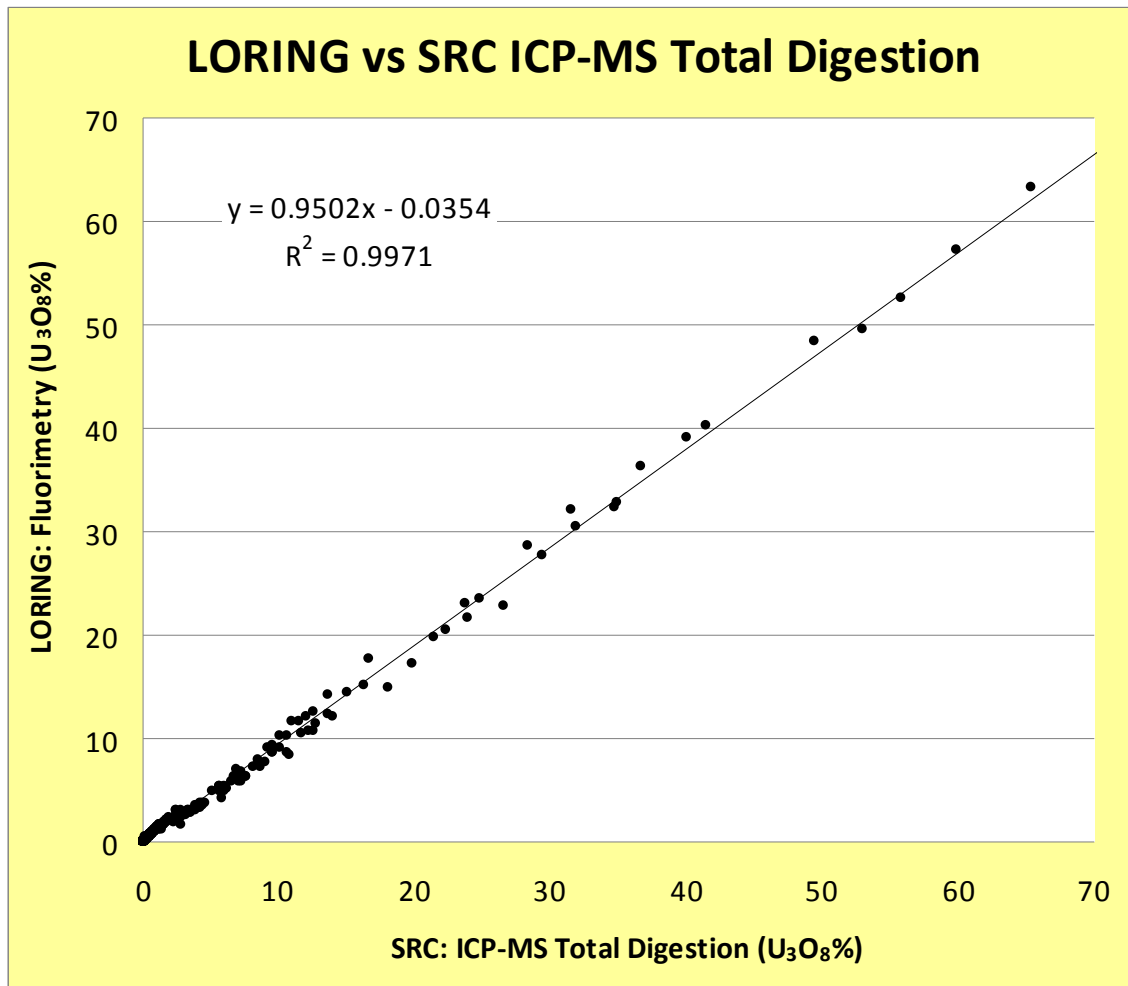


Figure 14-5: Scatter Plot of Loring Fluorimetry versus SRC ICP-MS Total Digestion in Corresponding Geochemical Samples

From UEX

14.5 Golder Data Verification

In order to verify that the data in the UEX database was acceptable for the May 2010 Shea Creek Mineral Resource Estimate, Golder reviewed the transfer of data from logging through to the final database. The assay data file supplied to Golder was reviewed against assay data obtained directly from SRC, AREVA's primary laboratory. The data verification was carried out by Kevin Palmer (P.Ge.), as well as Esther Bordet (G.I.T.), Samuelle Garipey (G.I.T) and Maeve Murphy under the direction of Kevin Palmer, all of Golder. No restrictions were placed on Golder during the data verification process.

The data files supplied by UEX comprised a total of 360 drill holes, which excludes incomplete holes, for Shea Creek.



Drill core results provided by UEX to Golder for the use in the mineral resource estimate included:

- Drill hole collar position data (electronic format);
- Downhole in-hole survey data (hard copy and electronic format); and
- Sample assays (electronic format).

Electronic format indicates that the data was supplied in Excel files or as text files.

As part of Golder's verification checks Kevin Palmer, P.Geo., visited the property between September 2 and 4, 2009. During this site visit, a selection of drill logs were compared to original stored core samples, and logging and sampling procedures were reviewed.

14.5.1 Logging and Sampling Procedure Review

During Golder's site visit, the logging and sampling procedures were reviewed with the AREVA and UEX geologists on site and were found to be consistent with those described in Section 11.

14.5.2 Collar Position and Collar Review

During Golder's site visit, 25 drill hole collars were surveyed using a hand-held Garmin eTrex GPS. The surveys were taken when the GPS indicated a minimum of seven metre accuracy. Golder's surveys were then compared to the collar positions in the UEX database. Minor differences were found between the survey collar positions provided by UEX and the GPS surveys completed by Golder.

As part of Golder's internal collar checks the collars were plotted on an X-Y chart and no spurious locations were evident. In addition, the elevations were plotted and no anomalies were noted.

As part of the data verification for the 2010 estimate, 43 collar positions out of 156 from the UEX database (approximately 30%) were checked against the original values in Tri-City field notes and digital log sheets. The verification of collar positions was conducted by visual checking of the database against these documents. Five errors were noted in the Shea Creek collar database, from holes SHE-126-5, SHE-131, SHE-40A, SHE-50, out of the 21 collars reviewed. The differences were either reconciled or corrected.



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Table 14-1: Shea Creek Collars, Comparison between Golder GPS and UEX Database

BHID	GPS			Survey			Difference		
	Easting	Northing	Elevation	Easting	Northing	Elevation	Easting	Northing	Elevation
SHE-4	587133	6455103	368	587,130	6,455,105	356	3	-2	12
SHE-14	587010	6455030	396	587,004	6,455,034	381	6	-4	15
SHE-18	586857	6455410	384	586,862	6,455,411	385	-5	-1	-1
SHE-25	586075	6456805	376	586,073	6,456,806	373	2	-1	3
SHE-35	587153	6455012	362	587,157	6,455,004	360	-4	8	2
SHE-37	586984	6455251	373	586,990	6,455,255	369	-6	-4	4
SHE-40A	587030	6455157	372	587,031	6,455,158	378	-1	-1	-6
SHE-44	586951	6455235	381	586,956	6,455,236	375	-5	-1	6
SHE-50	586873	6455427	388	586,880	6,455,421	382	-7	6	6
SHE-52	585674	6457037	373	585,676	6,457,036	367	-2	1	7
SHE-53	586692	6455780	374	586,696	6,455,776	360	-4	4	14
SHE-63B	586765	6455597	385	586,768	6,455,587	377	-3	10	8
SHE-65	585932	6456955	377	585,932	6,456,955	375	0	1	2
SHE-69	585982	6456870	375	585,991	6,456,866	374	-9	4	1
SHE-70	585873	6457054	380	585,876	6,457,038	372	-3	16	8
SHE-75	585770	6456981	376	585,776	6,456,977	372	-6	4	4
SHE-76	585845	6457020	376	585,844	6,457,019	372	1	1	4
SHE-78	585651	6457029	371	585,660	6,457,028	367	-9	1	4
SHE-79	587072	6455078	384	587,085	6,455,079	373	-13	-1	11
SHE-80	587117	6455103	365	587,115	6,455,098	357	2	5	8
SHE-82	587065	6455124	387	587,062	6,455,120	379	3	4	8
SHE-86	585729	6457016	375	585,755	6,457,025	373	-26	-9	2
SHE-91	585644	6457046	371	585,647	6,457,047	369	-3	-1	2
SHE-93	585922	6456953	379	585,920	6,456,945	375	3	8	4
SHE-97	586937	6455336	370	586,944	6,455,342	367	-7	-6	3
SHE-98	587169	6455017	356	587,172	6,455,014	357	-3	3	-1
SHE-99	587163	6455021	345	587,157	6,455,030	356	6	-9	-11
SHE-100	587093	6455105	379	587,091	6,455,107	371	2	-2	8
SHE-101	587003	6455197	378	587,002	6,455,202	376	1	-5	2
SHE-102	586827	6455621	376	586,825	6,455,621	364	2	0	12
SHE-105	587261	6454897	358	587,262	6,454,895	359	-1	2	-1
SHE-109	587097	6455133	371	587,094	6,455,135	367	3	-2	4
SHE-111	586073	6456692	373	586,078	6,456,696	373	-5	-4	0
SHE-112	586983	6455197	356	586,953	6,455,198	378	30	-1	-22
SHE-114	586696	6455699	379	586,691	6,455,707	377	5	-8	2
SHE-115	586694	6455606	388	586,696	6,455,609	385	-2	-3	3
SHE-118	586,777	6,455,626	376	586,788	6,455,634	368	-11	-8	8
SHE-121	586878	6455322	387	586,882	6,455,325	382	-4	-3	5
SHE-122	587010	6455120	388	587,010	6,455,120	378	0	0	10
SHE-123	586808	6455489	393	586,809	6,455,491	386	-1	-2	7
SHE-124	587107	6455003	376	587,098	6,455,006	376	9	-3	0
SHE-126	586129	6456586	367	586,133	6,456,589	369	-4	-3	-2
SHE-130	586738	6455801	365	586,732	6,455,816	360	6	-15	5
SHE-131	587238	6454953	349	587,240	6,454,956	353	-2	-3	-4
SHE-132	586874	6455589	366	586,879	6,455,592	366	-5	-3	0



14.5.3 Downhole Surveys, Collar and Lithology Review

Prior to carrying out the May 2010 estimate, the downhole survey and lithology data were checked against the original survey files and logs. Golder inspected the validity of the modelling database against lithology log sheets and downhole survey data supplied by UEX and AREVA in paper and electronic format.

In-hole downhole surveys for the UEX Shea Creek drill holes included dip and azimuth readings, the majority of which were obtained from a Reflex EZ-Shot® downhole survey tool but some were collected from Sperry Sun, PeeWee and Devi-Flex tools. There were 1,525 records, out of 8,119, where the change in dip was found to be greater than 5% while over a 30-metre interval at the same time the change in depth was less than 30 metres. This is believed to be due to the drilling method utilised.

During the verification a total of 297 entries from 21 drill holes in the survey data file were checked against the paper logs. Small differences in dip values were noted and differences in azimuth may be due to the magnetic variation not being updated annually. Differences were also noted in the Sperry Sun readings and these have not yet been reconciled. As the drill holes that had Sperry Sun surveys were collared vertically and remained near vertical in most cases, these differences are unlikely to significantly impact the resource estimate.

Internal checks on the UEX lithology data showed that there were no overlapping intervals as well as no duplicate intervals. In all intervals the FROM depth was less than the TO depth and 35 unique codes were found. Only 10 gaps out of the 4,698 entries checked there were noted in the lithology data.

The lithology data from UEX database was checked against original log by randomly selecting four drill holes. No errors were found. AREVA drill logs were also compared to the UEX database. Numerous differences were noted as UEX is presently in the process of relogging the drill holes in order to have systematic and standardized nomenclature for the lithologies.

14.5.4 Assay

Original assay certificates in electronic format were provided directly to Golder by SRC and spanned the years 1992 through to 2009.

Data was received from SRC labs in two batches. The first was received in October 2009 and consisted of data for the years 1992, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2004, 2005, 2006, 2007 and 2008. The second was received in April 2010 and had the rest of the data for 2008 as well as that for 2009.

Data received for the years 1992, 1994, 1995, 1996, 1997, 1998, 1999 and 2000 were in files created using a DOS program with the results listed in rows rather than columns when opened in Excel or a text editor. All data was compiled according to year.

Internal checks on the UEX assay data showed no overlaps and 691 sample identifiers (“SampleIDs”) that were duplicated. The duplicated SampleIDs could be distinguished by the SampleType which was either 1BAS or 1SEL.

The UEX and SRC data were imported into two separate tables in Microsoft Access. There are a total of 252,869 samples in the AssayUEX table and 9,855 samples in the AssayLAB table. The AssayUEX table includes probe data. There were over ninety different assay-types including both partial and total analyses and for the purposes of this investigation, only Uranium values were checked. An initial comparison of SampleIDs resulted in a match of only 2,898 SampleIDs.



The AssayLAB table was edited to remove all the following records:

- Type = Repeat, Standard, BasementRA or SandstoneRA;
- SampleIDs with the letters DUP; and
- All records where there is no value for any of the total Uranium fields.

This yielded a table of 5,219 samples for comparison. A SQL query in Access compared the two sets of data and returned 2,518 samples that matched on SampleIDs. This is 25% of the client data and was considered acceptable for comparison of the Uranium values which are shown in Table 14-2. The main reason for not being able to match more data is believed to be the lack of a standard SampleID format. The differences in values are believed to be due to rounding and the mixing of duplicate analysis.

Table 14-2: Results of Comparing %U₃O₈ from UEX Data with the Uranium Value from SRC

Number of samples where difference in total U is <0.001	1595
Number of samples where difference in total U is <0.01	878
Number of samples where difference in total U is <0.1	34

14.5.5 Independent Samples

During the site visits in 2009, a total of seven samples were collected from the remaining half core and submitted to SRC for assay analysis. These samples are to provide an independent verification of U₃O₈ mineralization on the Shea Creek project. Each sample was analyzed by total digestion ICP Analysis. The assay values for the Golder samples and the UEX/AREVA original samples are compared in Table 14-3. Differences in the assays values are probably due to the sample size difference between the Golder samples and the UEX/AREVA samples. The Golder samples for Shea Creek were 10 cm in length, whereas the UEX/AREVA samples average 50 cm. The samples do confirm the presence of U₃O₈ mineralization at Shea Creek.

Table 14-3: Independent Samples taken by Golder at Shea Creek

Golder		Original	
Sample Id	U ₃ O ₈ (%)	Sample Id	U ₃ O ₈ (%)
G79183	19.600		11.650
G79184	0.272	SHE114-11_1SEL_17	0.750
G79185	19.900	SHE114-11_1BAS_87	3.570
G79186	44.400	SHEA_96_034SE013	40.680
G79187	0.345	SHEA_96_034SE090	0.720
G79188	4.660	SHEA_52__4SE002	1.780
G79189	0.870	SHEA_52__4SE027	0.160



14.5.6 Conclusion

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

Although the database is known to contain errors, they are believed to be of only minor significance and are unlikely to have an impact on the mineral resource estimate. Golder strongly recommends that the database be reconstructed so that it is fully auditable, and that a standard format for sample identifiers is used by AREVA and SRC. The database is considered acceptable for Mineral Resource estimation of the Shea Creek deposits.



15.0 ADJACENT PROPERTIES (ITEM 17)

The following section was modified from UEX's April 3, 2009 N.I. 43-101 report entitled "Technical Report on the Shea Creek Property, Northern Saskatchewan" by Rhys et al. (2009).

The northern boundary of the Shea Creek property lies 13 kilometres to the south of the past producing Cluff Lake uranium camp, which produced 64.2 million lbs U_3O_8 between 1980 and 2002 (Koning and Robbins, 2006). While much of the mining infrastructure has now been reclaimed, excellent all weather road access, and a year round camp for accommodation are still retained on site. The area also has a long record of environmental study through the mining and reclamation work. Geologically, the Cluff Lake deposits have similarities to the Shea Creek mineralization and further underscore this area as a significant uranium district.

The northern portions of the Colette Deposit extend nearly to the northern boundary of the Shea Creek property with the adjacent Douglas River property. The Douglas River property is part of the Western Athabasca Projects shown in Figure 4-2 and, like Shea Creek, forms part of the UEX-AREVA joint venture in which UEX has earned a 49% interest. Geophysical surveys and drilling indicate that the Saskatoon Lake Conductor and its hosting pelitic gneiss unit continues northward onto the Douglas River property. Several widely spaced drill holes have tested the conductor on the Douglas River property. These include drill hole DGS-10, drilled 300 metres north-northwest of the Colette Deposit, which intersected uranium mineralization at the sub-Athabasca unconformity grading 0.53% eU_3O_8 over 3.7 metres at a vertical depth of approximately 690 metres. Other drill holes on line L96+00N, DGS-9 (210 metres east of DGS-10) and DGS-11 (80 metres west of DGS-10), display anomalous U-partial, Pb and Ni at the unconformity (Robbins et al., 1997b), which are positive geochemical indicators of potential nearby mineralization. Drill holes are widely spaced in this area and exploration potential of this area is high for extensions of Shea Creek mineralization.

The Shea Creek property is also contiguous with the Erica property to the west (Figure 4.2), which also forms part of the UEX-AREVA joint venture. Drilling of conductive features on this property have confirmed the presence of graphitic conductors with associated faults, but no mineralization has been intersected to date in the few drill holes which have been completed.

The author of this report has not verified the information on adjacent properties. The Shea Creek mineralization described in this report is not necessarily indicative of what may be present on the Douglas and Erica properties.



16.0 MINERAL PROCESSING AND METALLURGICAL TESTING (ITEM 18)

The following section was taken directly from UEX's April 3, 2009 N.I .43-101 report entitled "Technical Report on the Shea Creek Property, Northern Saskatchewan" by Rhys et al. (2009).

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 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 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 review of the geochemical database suggest that uranium mineralization at Shea Creek is dominantly in pitchblende with associated secondary uranium minerals and low Ni-arsenide abundance. The Shea Creek mineralization has very similar mineralogical and paragenetic characteristics to mineralization in other deposits in the region, including Cluff Lake, which have been, or are currently being mined.



17.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES (ITEM 19)

17.1 Introduction

This is the first resource estimate that has been carried to CIM standards and announced in a press release, dated May 26, 2010, for the Shea Creek deposits.

Discussions with UEX and AREVA have indicated to Golder that there are no known environmental, permitting, socio-economic, marketing or political issues. The extent to which mining, metallurgical infrastructure or other factors will affect the estimate is also not known.

17.2 Mineral Resource Estimate for the Shea Creek Deposit

The May 2010 Shea Creek Mineral Resource Estimate was prepared by Kevin Palmer, P.Geo., of Golder, Burnaby and peer reviewed completed by Greg Greenough, P.Geo., and Olivier Tavchandjian, P.Geo., of Golder, Mississauga, all of whom are independent of UEX. The mineral resource estimation utilized 360 of 371 diamond drill holes, which includes directional holes drilled off the pilot hole, (over 188,000 metres from holes drilled between 1992 and 2009) that are described in preceding sections, which test the deposits at 2 metre to 130 metre drill centres. The mineral resource was estimated using a minimum cut-off grade of 0.05% U₃O₈ and eU₃O₈ utilizing a geostatistical block model technique with ordinary kriging (“OK”) methods and Datamine Studio 3.

17.2.1 Exploratory Data Analysis

In order to carry out the evaluation of the property, a digital database for collars, surveys, lithology, density, recoveries and assays, suitable for importing into Datamine was provided in an Excel format by UEX. UEX also provided 23 separate 3D mineralized envelopes which were interpreted to include most of the mineralization above a 0.05% U₃O₈ cut-off on the Shea Creek deposits. The unconformity mineralization at Kianna and Anne was provided as a single wireframe for the purpose of grade interpolation but the models were separated for reporting. Each envelope has been given a numeric and an alphanumeric code (Table 17-1).

Table 17-1: Numeric and Alphanumeric Codes for Shea Creek Mineralized Envelopes
First letter A = Anne, K = Kianna, C = Colette and second letter P = Perched, U = Unconformity, B = Basement

Alphanumeric	AP1	AU1	AB1	AB2	AB3	AB4	AB5	AB6	AB7	AB8	AB9
Numeric	101	103	103	104	105	106	107	108	109	110	111
Alphanumeric	KP1	KP2	KP3	KU1	KB1	KB2	KB3	KB4	KB5	KB6	KB7
Numeric	201	202	203	204	205	206	207	208	209	210	211
Alphanumeric	CP1	CU1	CB1								
Numeric	301	302	303								

Exploratory Data Analysis and Variography were carried out using Supervisor software.



17.2.1.1 Data

The Shea Creek database contains approximately 252,800 combined chemical and probe assays from a total of 360 drill holes. When combining the data the chemical data took precedence over the probe in that if an intersection contained chemical data this was used even if probe data was available. There are also 678 dry bulk density measurements. The mineralized envelopes (all 23 subzones with cut-off grades at 0.05% U_3O_8) contain 35,572 data entries of % U_3O_8 . The relationship between the bulk density and % U_3O_8 (Section 13.4) was used to assign a density measurement to each sample based on the % U_3O_8 .

17.2.1.2 Geological Interpretation

Datamine string files were interpreted around a cut-off of 0.05% U_3O_8 for the majority of the deposit in order to provide an assessment of the mineralization by UEX. These strings were used to create 3D wireframes around the mineralized envelopes. Three distinct styles of mineralization have been noted, namely perched, unconformity and basement. The unconformity mineralization is found at the contact of the sandstone and basement rocks. Structural information in combination with grade was used to define the shape of the perched and basement mineralization. The mineralized envelopes are strongly associated with an alteration halo. The Kianna and Anne unconformity mineralization forms a continuum and a single wireframe (KAU) was used to define the mineralization.

3D wireframes were generated from the string files by UEX. These wireframes were subsequently verified for duplicate vertices, duplicate faces and empty faces in Datamine and are illustrated in Figure 17-1.

Golder reviewed the interpretation and verified that they were consistent with UEX's planned geological and mineral interpretation as described above.

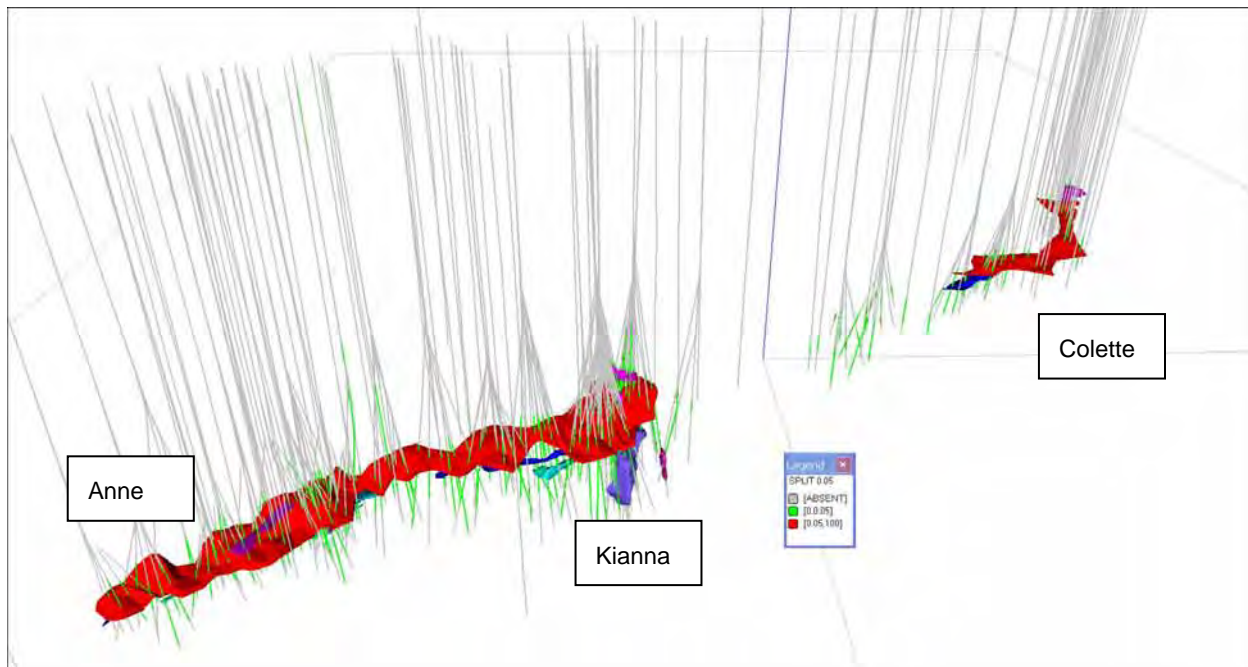


Figure 17-1: Shea Creek Subzones with Drill Holes, Oblique Section looking West (Legend refers to % U_3O_8 in Drill Holes)



17.2.1.3 Assays

A statistical review of the of the combined chemical and probe assays from the 360 drill holes for the Shea Creek deposits was completed by Golder. AREVA and UEX have coded their lithologies with 34 different codes, the statistics for the 10 rock types containing the highest means is shown in Table 17-2. Lithology coded UX contains the highest mean grade. UX is applied to lithologies when the primary rock type has been altered and is no longer identifiable. The mean value for UX is 4.336% U₃O₈ with a median value of 0.180% U₃O₈. The highest grades in an identifiable rock type are found in the amphibolite-garnet-biotite gneiss (“GAMP”) with a mean value of 0.368% U₃O₈ and a median value of 0.004% U₃O₈.

Table 17-2: Shea Creek Statistics for % U₃O₈ by Lithology for Raw Data

Statistic	All	UX	CLAY	UC	GAMP	PEL3	PEL0	UNKN	SDST	GRGN	BX
Samples	254,999	1,127	2	86	3,250	2,714	3,637	35	76,385	121,397	1,065
Minimum	0.000	0.000	1.350	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Maximum	69.570	69.570	1.530	38.790	43.170	56.600	26.650	2.260	56.720	69.450	5.030
Mean	0.194	4.336	1.440	0.534	0.368	0.316	0.267	0.214	0.191	0.156	0.146
Std. Deviation	1.808	10.717	0.090	2.571	3.199	3.621	1.539	0.654	1.452	1.487	0.400
Coef. of Var	9.310	2.472	0.063	4.812	8.691	11.449	5.772	3.059	7.599	9.544	2.729
Variance	3.270	114.844	0.008	6.609	10.232	13.114	2.370	0.428	2.109	2.212	0.160
Skewness	19.686	3.401	1.79769e+308	13.451	10.347	13.675	10.836	4.417	17.369	22.941	7.520
Grade at percentile	10th	0.000	0.009	1.350	0.005	0.000	0.000	0.000	0.000	0.000	0.000
	20th	0.000	0.020	1.350	0.008	0.000	0.000	0.004	0.005	0.000	0.000
	30th	0.002	0.040	1.350	0.010	0.000	0.004	0.006	0.008	0.000	0.003
	40th	0.005	0.090	1.350	0.020	0.002	0.005	0.009	0.009	0.004	0.005
	Median	0.006	0.180	1.350	0.030	0.004	0.006	0.010	0.010	0.005	0.006
	60th	0.009	0.340	1.350	0.070	0.006	0.008	0.010	0.010	0.008	0.009
	70th	0.010	0.870	1.350	0.170	0.008	0.010	0.030	0.010	0.010	0.010
	80th	0.020	3.900	1.530	0.280	0.010	0.010	0.050	0.020	0.020	0.020
	90th	0.070	15.090	1.530	0.440	0.020	0.020	0.210	0.300	0.120	0.050
	95th	0.300	29.480	1.530	2.260	0.090	0.040	0.700	0.300	0.450	0.220
97.5	1.040	40.090	1.530	6.340	0.840	0.140	2.630	2.260	1.300	0.880	
99th	3.980	53.060	1.530	6.430	12.610	3.660	7.200	2.260	4.240	3.310	

The basic statistics for the samples for each subzone are listed in Table 17-3 to Table 17-5.



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Table 17-3: Statistics for % U₃O₈ for Colette

Statistic	CB1	CP1	CU1	
Samples	1,163	215	594	
Minimum	0.000	0.000	0.000	
Maximum	23.930	4.680	15.210	
Mean	0.373	0.389	0.809	
Std. Deviation	1.571	0.749	1.725	
Coef. of Var	4.207	1.928	2.132	
Variance	2.468	0.561	2.977	
Skewness	10.149	2.682	4.305	
Grade at percentile	10th	0.001	0.005	0.020
	20th	0.004	0.009	0.050
	30th	0.007	0.010	0.090
	40th	0.010	0.030	0.130
	Median	0.020	0.040	0.190
	60th	0.040	0.080	0.320
	70th	0.080	0.180	0.530
	80th	0.220	0.570	0.940
	90th	0.770	1.210	2.160
	95th	1.730	2.190	3.660
	97.5	2.770	2.480	6.200
99th	6.850	3.200	9.220	

Table 17-4: Statistics for % U₃O₈ for Kianna

Statistic	KAU	KB1	KB2	KB3	KB4	KB5	KB6	KB7	KP1	KP2	KP3	
Samples	6,528	16,804	1,222	1,219	412	354	703	70	1,614	187	107	
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.005	0.006	
Maximum	68.510	69.450	6.260	4.380	17.500	30.420	42.450	0.180	69.570	41.700	14.190	
Mean	1.337	0.489	0.163	0.120	0.560	0.704	0.386	0.036	4.349	1.440	1.319	
Std. Deviation	4.789	2.930	0.539	0.362	2.300	2.941	3.118	0.036	9.743	5.807	2.528	
Coef. of Var	3.583	5.989	3.310	3.022	4.108	4.175	8.075	1.010	2.240	4.033	1.917	
Variance	22.931	8.583	0.291	0.131	5.291	8.649	9.724	0.001	94.918	33.725	6.389	
Skewness	7.348	11.171	6.846	7.313	5.412	7.996	12.361	2.199	3.775	5.786	3.460	
Grade at percentile	10th	0.010	0.001	0.000	0.004	0.000	0.002	0.000	0.006	0.040	0.020	0.010
	20th	0.030	0.005	0.001	0.009	0.001	0.006	0.002	0.009	0.070	0.030	0.030
	30th	0.060	0.007	0.004	0.010	0.002	0.010	0.006	0.010	0.130	0.050	0.050
	40th	0.090	0.010	0.005	0.020	0.006	0.020	0.008	0.010	0.230	0.070	0.090
	Median	0.150	0.010	0.010	0.030	0.010	0.040	0.010	0.030	0.420	0.100	0.220
	60th	0.230	0.020	0.010	0.040	0.020	0.080	0.020	0.030	0.860	0.150	0.430
	70th	0.400	0.040	0.050	0.070	0.060	0.160	0.040	0.050	2.530	0.240	0.970
	80th	0.810	0.080	0.110	0.100	0.100	0.450	0.070	0.050	5.280	0.500	2.120
	90th	2.480	0.310	0.390	0.210	0.550	1.140	0.160	0.070	12.700	0.720	3.800
	95th	5.880	1.250	0.770	0.420	2.190	2.190	0.480	0.090	22.550	9.800	5.830
	97.5	11.800	4.670	1.600	1.000	8.720	4.830	1.620	0.090	34.900	10.300	6.680
99th	25.600	12.890	2.540	1.520	12.690	12.190	5.010	0.180	55.420	17.600	14.190	



Table 17-5: Statistics for % U₃O₈ for Anne

Statistic	AB1	AB2	AB4	AB5	AB6	AB7	AB8	AB9	AP1	
Samples	1,788	915	20	216	577	94	461	143	161	
Minimum	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	
Maximum	31.600	21.460	0.850	2.490	15.800	1.010	28.890	6.430	2.410	
Mean	0.711	0.373	0.128	0.155	0.269	0.095	0.611	0.311	0.178	
Std. Deviation	2.157	1.508	0.204	0.349	1.251	0.174	2.187	0.883	0.313	
Coef. of Var	3.032	4.043	1.597	2.254	4.656	1.843	3.579	2.837	1.754	
Variance	4.652	2.275	0.042	0.122	1.564	0.030	4.781	0.779	0.098	
Skewness	5.867	9.160	2.808	4.425	10.615	3.758	7.469	4.219	3.435	
Grade at percentile	10th	0.001	0.001	0.002	0.002	0.000	0.002	0.000	0.001	0.007
	20th	0.004	0.005	0.005	0.004	0.001	0.005	0.001	0.004	0.010
	30th	0.005	0.009	0.010	0.008	0.004	0.009	0.005	0.008	0.020
	40th	0.010	0.010	0.030	0.010	0.005	0.030	0.010	0.010	0.040
	Median	0.020	0.030	0.060	0.020	0.009	0.050	0.020	0.020	0.060
	60th	0.040	0.060	0.070	0.050	0.010	0.060	0.070	0.030	0.080
	70th	0.110	0.110	0.120	0.080	0.030	0.080	0.140	0.100	0.110
	80th	0.500	0.250	0.130	0.210	0.100	0.100	0.390	0.220	0.280
	90th	1.790	0.690	0.290	0.370	0.630	0.200	1.450	0.610	0.470
	95th	4.030	1.530	0.320	0.650	1.410	0.350	2.710	1.870	0.750
	97.5	7.010	2.470	0.850	0.900	1.870	0.500	5.010	2.920	1.010
99th	10.800	7.940	0.850	1.620	2.730	0.960	11.200	3.960	1.370	

Subzone KP1 (Kianna Perched 1) has the highest grade with a mean of 4.349% U₃O₈ and a median value of 0.420% U₃O₈. Subzone KP2 (Kianna Perched 2) contains the next highest grades with a mean of 1.440% U₃O₈ and a median value of 0.100% U₃O₈. The length weighted histograms of the subzones with well defined histograms indicate that the % U₃O₈ population has a lognormal distribution. There is also the suggestion of more than one population within some of the subzones but they appear to have a significant overlap.

17.2.1.4 Methodology

Review of the data indicated that there is a relationship between the dry bulk density and the % U₃O₈ and for this reason a density weighted estimate was carried out. A variable, IUXDEN, was created that is the product of the grade and the dry bulk density. Capping and variography were carried out on this variable which was interpolated into the individual blocks. The dry bulk density was also interpolated into the blocks and the final block grade was estimated by dividing the product variable by the density.

17.2.1.5 Capping

Capping of density assay product is applied to reduce the impact on the mineral resource estimate of high grade samples that are interpreted as not being part of the lognormal population, *i.e.*, outliers. Anomalous high grades are cut to the highest grade that would be regarded as being part of that population.



Lognormal histograms and log probability plots were reviewed to establish the capping level for each subzone (Appendices II and III). A total of 52 samples were cut from all of the subzones, with the most, seven, being cut from AB1 and KP1. The effect of the cutting and the subsequent compositing had the effect of reducing the co-efficient of variation (“CV”) to less than 1.50 for five out of the 23 subzones. A possible reason for the high co-efficient in most of the subzones is the use of both chemical and probe data and the use of a product for interpolation.

The effects of the capping and subsequent compositing are shown in Table 17-6.

Table 17-6: Effect of Capping and Compositing on Coefficient of Variation

Statistic	CB1	CP1	CU1								
Uncut Mean	0.977	0.971	2.058								
Uncut CV	4.75	1.95	2.27								
Capping Value	35.000	NTC	NTC								
No. Capped	1	0	0								
Cut Mean	0.880	0.971	2.058								
Cut CV	3.76	1.95	2.27								
Composite Cut Mean	0.880	0.971	2.058								
Composite Cut CV	3.59	1.88	2.00								
Statistic	KAU	KB1	KB2	KB3	KB4	KB5	KB6	KB7	KP1	KP2	KP3
Uncut Mean	3.839	1.296	0.400	0.278	1.461	1.800	0.967	0.082	13.695	4.601	3.470
Uncut CV	4.30	6.61	3.43	3.18	4.16	4.23	8.50	1.06	2.71	4.49	2.03
Capping Value	NTC	165.000	NTC	NTC	13.000	30.000	5.000	0.300	150.000	3.000	18.000
No. Capped	0	1	0	0	5	2	4	1	7	5	1
Cut Mean	3.839	1.288	0.400	0.278	0.800	1.445	0.261	0.078	12.090	0.634	2.945
Cut CV	4.30	6.50	3.43	3.18	3.20	3.27	3.25	0.90	2.28	1.32	1.60
Composite Cut Mean	3.839	1.288	0.400	0.278	0.800	1.445	0.261	0.078	12.090	0.634	2.945
Composite Cut CV	4.01	5.88	2.92	3.13	3.20	3.27	2.93	0.89	2.15	1.31	1.45
Statistic	AB1	AB2	AB4	AB5	AB6	AB7	AB8	AB9	AP1		
Uncut Mean	1.671	0.900	0.293	0.347	0.668	0.215	1.523	0.775	0.439		
Uncut CV	3.23	4.30	1.54	2.24	5.30	1.87	3.73	2.92	1.77		
Capping Value	26.000	11.000	0.720	2.000	10.000	NTC	17.000	10.200	4.000		
No. Capped	7	6	1	2	1	0	6	1	1		
Cut Mean	1.530	0.650	0.225	0.291	0.473	0.215	1.142	0.728	0.431		
Cut CV	2.75	2.64	1.07	1.72	2.83	1.87	2.59	2.72	1.69		
Composite Cut Mean	1.531	0.650	0.225	0.291	0.473	0.215	1.142	0.728	0.431		
Composite Cut CV	2.49	2.54	1.07	1.66	2.59	1.60	2.12	2.56	1.32		

17.2.1.6 Composites

Assays were composited to 0.5 metre lengths, which is the 80th percentile of the of the chemical sample lengths contained within the mineralized envelopes. The minimum composite length allowed is 0.15 metres. The compositing method chosen in Datamine is the one whereby all samples are included in one of the composites. This is achieved by adjusting the composite length but trying to keep the length as close as possible to 0.5 metres.

Compositing was restricted to within individual subzones, based on codes assigned to the drill hole file.

Compositing had the effect of reducing the CV in 20 out of the 23 subzones (Table 17-6).



17.2.1.7 Spatial Analysis

Variography, using Supervisor software, was completed for IUXDEN, after capping, for each individual subzone.

Downhole variograms were used to determine nugget effect and subsequently lognormal variograms were modelled to determine spatial continuity of IUXDEN. Subzones AB4, AB6, AB8, AB9, AP1, CP1, KB7, KP2 and KP3 had insufficient data to establish variograms. In these cases, the modelled variograms for AB4, AB6, AB8 and AB9 used the variogram for AB5, AP1, CP1, KP2 and KP3 used KP1, KB7 used KB5. Plots of the modelled variograms can be found in Appendix IV.

A two-structure spherical model was used to model most of the lognormal variograms. Table 17-7 summarizes the results of the variography.



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Table 17-7: Variogram Parameters for Shea Creek Subzones

Subzone	Variable	Direction	Azimuth	Dip	Nugget	Sill C ₁	Range A ₁ (m)	Sill C ₂	Range A ₂ (m)
AB1	U ₃ O ₈	1	014	72	0.28	0.39	3.50	0.33	43.00
	U ₃ O ₈	2	073	-10	0.28	0.39	6.00	0.33	13.00
	U ₃ O ₈	3	340	-15	0.28	0.39	12.00	0.33	27.50
AB2	U ₃ O ₈	1	156	-14	0.69	0.18	20.00	0.13	39.50
	U ₃ O ₈	2	075	31	0.69	0.18	18.50	0.13	30.50
	U ₃ O ₈	3	045	-55	0.69	0.18	2.00	0.13	3.50
AB5	U ₃ O ₈	1	155	00	0.46	0.30	10.00	0.24	20.00
	U ₃ O ₈	2	245	-65	0.46	0.30	2.00	0.24	6.50
	U ₃ O ₈	3	065	-25	0.46	0.30	2.50	0.24	7.50
AB7	U ₃ O ₈	1	000	00	0.00	0.86	3.00	0.10	70.60
	U ₃ O ₈	2	090	00	0.00	0.86	3.00	0.10	70.60
	U ₃ O ₈	3	000	90	0.00	0.86	3.00	0.10	70.60
CB 1	U ₃ O ₈	1	140	00	0.70	0.27	15.60	0.03	60.20
	U ₃ O ₈	2	230	-30	0.70	0.27	35.40	0.03	35.60
	U ₃ O ₈	3	050	-60	0.70	0.27	12.20	0.03	18.40
CU1	U ₃ O ₈	1	110	00	0.00	0.47	18.80	0.53	121.80
	U ₃ O ₈	2	200	00	0.00	0.47	28.20	0.53	39.40
	U ₃ O ₈	3	000	90	0.00	0.47	2.80	0.53	7.20
KAU	U ₃ O ₈	1	055	-15	0.19	0.44	14.20	0.37	40.00
	U ₃ O ₈	2	145	00	0.19	0.44	18.00	0.37	48.60
	U ₃ O ₈	3	055	75	0.19	0.44	1.80	0.37	5.00
KB1	U ₃ O ₈	1	320	-75	0.19	0.48	7.40	0.33	31.00
	U ₃ O ₈	2	050	00	0.19	0.48	6.80	0.33	27.20
	U ₃ O ₈	3	320	15-	0.19	0.48	6.80	0.33	28.00
KB2	U ₃ O ₈	1	165	00	0.50	0.37	33.00	0.14	64.80
	U ₃ O ₈	2	255	-45	0.50	0.37	7.00	0.14	30.00
	U ₃ O ₈	3	075	-45	0.69	0.18	20.00	0.13	39.50
KB3	U ₃ O ₈	1	110	00	0.23	0.33	13.60	0.44	24.40
	U ₃ O ₈	2	200	-40	0.23	0.33	5.80	0.44	19.40
	U ₃ O ₈	3	020	-50	0.23	0.33	9.20	0.44	14.40
KB4	U ₃ O ₈	1	129	14	0.82	0.08	14.80	0.10	38.40
	U ₃ O ₈	2	210	-31	0.82	0.08	6.40	0.10	20.00
	U ₃ O ₈	3	060	-55	0.82	0.08	2.60	0.10	10.00
KB5	U ₃ O ₈	1	140	00	0.00	0.51	15.20	0.49	30.00
	U ₃ O ₈	2	230	-20	0.00	0.51	14.00	0.49	20.00
	U ₃ O ₈	3	050	-70	0.00	0.51	2.40	0.49	5.00
KB6	U ₃ O ₈	1	000	-90	0.30	0.53	6.20	0.17	35.40
	U ₃ O ₈	2	090	00	0.30	0.53	10.00	0.17	20.00
	U ₃ O ₈	3	000	00	0.30	0.53	10.00	0.17	20.00
KP1	U ₃ O ₈	1	230	-15	0.00	0.43	16.20	0.53	19.20
	U ₃ O ₈	2	140	00	0.00	0.43	1.80	0.53	10.00
	U ₃ O ₈	3	050	-75	0.00	0.43	3.00	0.53	15.00



Subzone CU1 (Colette Unconformity) has the largest range (A2, second structure) range of 121.80 metres on an azimuth of 110° with no dip. A range of between five metres and 45 metres for the second structure appears to be common.

17.2.2 Resource Block Model

Block models were established in Datamine for all subzones. A standard block size of 10.0 metres x 10.0 metres x 3.0 metres (Easting x Northing x Elevation) was used for the interpolation. This was based on the average sample spacing on the property. Sub-celling was allowed in order to improve the fill of the interpreted solids. The minimum cell sizes allowed were 2.5 metre for Northing, 2.5 metre for Easting and 1.5 metre for the Elevation.

17.2.3 Interpolation Plan

At Shea Creek, most of the blocks for IUXDEN were interpolated during the first pass which was at the range of continuity of the variograms. A second pass at four times and a third at sixteen times the sill range were required to interpolate all the blocks in all the subzones. The grade interpolation plan is summarized in Table 17-8. A minimum of 18 samples and a maximum of 24 samples were used in the first pass, a minimum of 11 samples and a maximum of 24 samples were used in the second pass and the minimum was set to four and maximum 24 for the and third pass. A minimum of three drill holes were used in the first pass, two in the second and one in the third.



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Table 17-8: Summary of Shea Creek Grade Interpolation Plan

Model Name	ctminmod		
Dimensions	X	Y	Z
Parent Cell	10.0	10.0	3.0
Minimum sub cell	2.5	2.5	1.5
Model origin	585,110	6,454,750	-610
Total parent cells	240	260	260
Parent discretisation	6	6	2
Interpolated attributes	Attribute	Unit	Comment
	OKTUXD	%g/cm ³	Capped IUXDEN, ordinary kriging
	ID2TUXD	%g/cm ³	Capped IUXDEN, inverse distance squared
	NNTUXD	%g/cm ³	Capped IUXDEN, nearest neighbour
	OKUXD	%g/cm ³	IUXDEN, ordinary kriging
	ID2UXD	%g/cm ³	IUXDEN, inverse distance squared
	NNUXD	%g/cm ³	IUXDEN, nearest neighbour
	OKDEN	g/cm ³	DENSITY, ordinary kriging
	ID2DEN	g/cm ³	DENSITY, inverse distance squared
Assigned attributes	NNDEN	g/cm ³	DENSITY ,nearest neighbour
	ZONA	Alphanumeric Subzone Code , Ann : AP1, AU1 , AB1, AB2 and AB4 to AB6, Keanna: KP1 to KP3, KU1 and KB1 to KB7, Collette: CP1,CU1 and CB1	
	ZONN	Numeric Subzone Code , Ann : 101 to 104 and 106 to 109, Keanna: 201 to 210, Collette: 301 to 303	
	AREA	ANN for Ann, KEA for Keanna and COL for Collette	
	MINSTYL	BP= Basement or Perched and U = Unconformity	
	NSAMU	Number of samples used in interpolation of OKTUXD and OKUXD	
	OKTU3O8	OKTUXD/OKDEN	
	ID2TU3O8	ID2TUXD/ID2DEN	
	NNTU3O8	NNTUXD/NNDEN	
	OKU3O8	OKUXD/OKDEN	
	ID2U3O8	ID2UXD/ID2DEN	
	NNTU3O8	NNUXD/NNDEN	
	SVOLU	Search neighbourhood volume for OKTUXD and OKUXD	
	VAR KU	Kriging Variance for OKTUXD and OKUXD	
	DENSITY	OKDEN used for DENSITY	
CATEGORY	Numeric Value for Mineral Resource Category 1=Measured, 2=Indicated, 3=Inferred and 4=Exploration Potential		
CATA	Alphanumeric for Resource Categories. This has been modified from the original, if ZONA >90% Indicated then whole ZONA Indicated (AU1,KU1,CB1), if ZONA < 10% Indicated then whole ZONA Inferred (KP3). All AB1, KB1 and KB6 Inferred due drill hole intersection angle.. All AB4, AB6, AB7 and AB9, KB4, KB5, KB6, KB7 and KP2 Inferred due to poor correlation with declustered drill holes and Nearest Neighbour model.		



17.2.4 Mineral Resource Classification

Several factors are considered in the definition of a resource classification:

- 1) CIM requirements and guidelines;
- 2) Experience with similar deposits;
- 3) Spatial continuity; and
- 4) Confidence limit analysis.

The search volume was used as a guide to classify the Shea Creek deposits. Blocks interpolated during the first pass would be regarded as Indicated Mineral Resources, containing a minimum of three drill holes within the range of the modelled variograms. On the second pass, two drill holes within four times the range were classified as Inferred Mineral Resources and on the third pass, any blocks remaining within the subzone block model would be classified as Exploration Potential. Subzones AB2, AB4, AB5, AB6, AB8, AB9, AP1 and CP1 contained blocks interpolated in the third pass. The only significant tonnage, 40,500 tonnes out of a total of 50,500 tonnes, was found in CP1. Due to the relatively small tonnage, these blocks were also defined as an Inferred Mineral Resource. In subzones KB1, KB6 and AB1, the drill holes are drilled parallel to sub-parallel to the mineralization and for this reason the resources were set to Inferred for these subzones. Subzones AB4, AB6, AB7, AB9, KB4, KB5, KB6, KB7, KP2 and KP3, which make up 6% of the global tonnage, show a poor correlation in the comparison between nearest neighbour, inverse distance and ordinary kriged models as well as when compared to the declustered drill holes. These subzones were also set to the Inferred category. If the majority of the mineralization, 90%, was either Indicated or Inferred, the whole of that subzone was set to that category.

17.2.5 Mineral Resource Tabulation

The Indicated Mineral Resources and Inferred Mineral Resources for the Shea Creek deposits capped model are summarized in Table 17-9. The kriged capped values have been used for reporting the mineral resource estimates. No factors have been applied to the U_3O_8 lbs and they represent an in situ value. The mineral resources for both the capped and uncapped models are summarized by area and subzone in Appendix V.



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Table 17-9: Shea Creek Indicated and Inferred Mineral Resources (Capped) at Various % U₃O₈ Cut-offs (Ordinary Kriged Values)

Category	Cut-off	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)
Indicated	0.10	2,733,900	1.118	67,414,000
	0.20	2,307,900	1.296	65,955,000
	0.30	1,872,600	1.540	63,572,000
	0.40	1,603,000	1.741	61,525,000
	0.50	1,383,000	1.946	59,342,000
	0.60	1,216,400	2.137	57,320,000
	0.70	1,076,100	2.332	55,316,000
	0.80	960,900	2.521	53,410,000
	0.90	863,700	2.710	51,594,000
	1.00	785,200	2.885	49,948,000
	1.50	509,500	3.786	42,527,000
Inferred	0.10	1,862,800	0.674	27,688,000
	0.20	1,364,000	0.869	26,128,000
	0.30	1,068,900	1.041	24,525,000
	0.40	886,100	1.185	23,156,000
	0.50	746,700	1.323	21,776,000
	0.60	596,200	1.520	19,973,000
	0.70	500,900	1.686	18,615,000
	0.80	424,500	1.854	17,350,000
	0.90	363,800	2.022	16,215,000
	1.00	322,700	2.159	15,360,000
	1.50	188,700	2.829	11,771,000

A cut-off grade of 0.30% U₃O₈ results in 1,872,600 tonnes at an average grade of 1.540% U₃O₈, yielding 63,572,000 lbs U₃O₈ in the Indicated Mineral Resource category and 1,068,900 tonnes at an average grade of 1.041% U₃O₈, yields 24,525,000 lbs U₃O₈ in the Inferred Mineral Resource category.



17.2.6 Block Model Validation

The Shea Creek grade interpolation plan and model was validated using four methods:

- 1) Comparison of block model volumes to volumes within solids;
2) Visual comparison of colour-coded block model grades with drill hole grades on section and plan plots;
3) Comparison of the global mean block grades for ordinary kriging, nearest neighbour and inverse distance squared methods; and
4) Comparison of block model grades and drill hole grades using swath plots.

17.2.6.1 Block Volume/Solid Volume Comparison

The block model volumes were compared to the original volume within the interpreted mineralized envelopes or subzones provided by UEX. The results are shown by subzone in Table 17-10. Only minor differences were noted which indicates a good translation between the mineralized geometry and the resource block models for each subzone.

Table 17-10: Comparison of Block Model and Solid Volumes (m³)

Table with 12 columns: Subzone, Model Vol, Solid Vol, % Diff, Subzone, Model Vol, Solid Vol, % Diff, Subzone, Model Vol, Solid Vol, % Diff. It lists data for subzones CP1, CUI, CB1, KP1-7, and AB1-9.

17.2.6.2 Visual Validation of Sections

The visual comparisons of block model grades with composite grades for the five zones show a reasonable correlation between the values. No significant discrepancies were apparent from the sections and plans reviewed. Figure 17-2 is an example of one of the sections. Appendix VI contains additional sections through the subzones.



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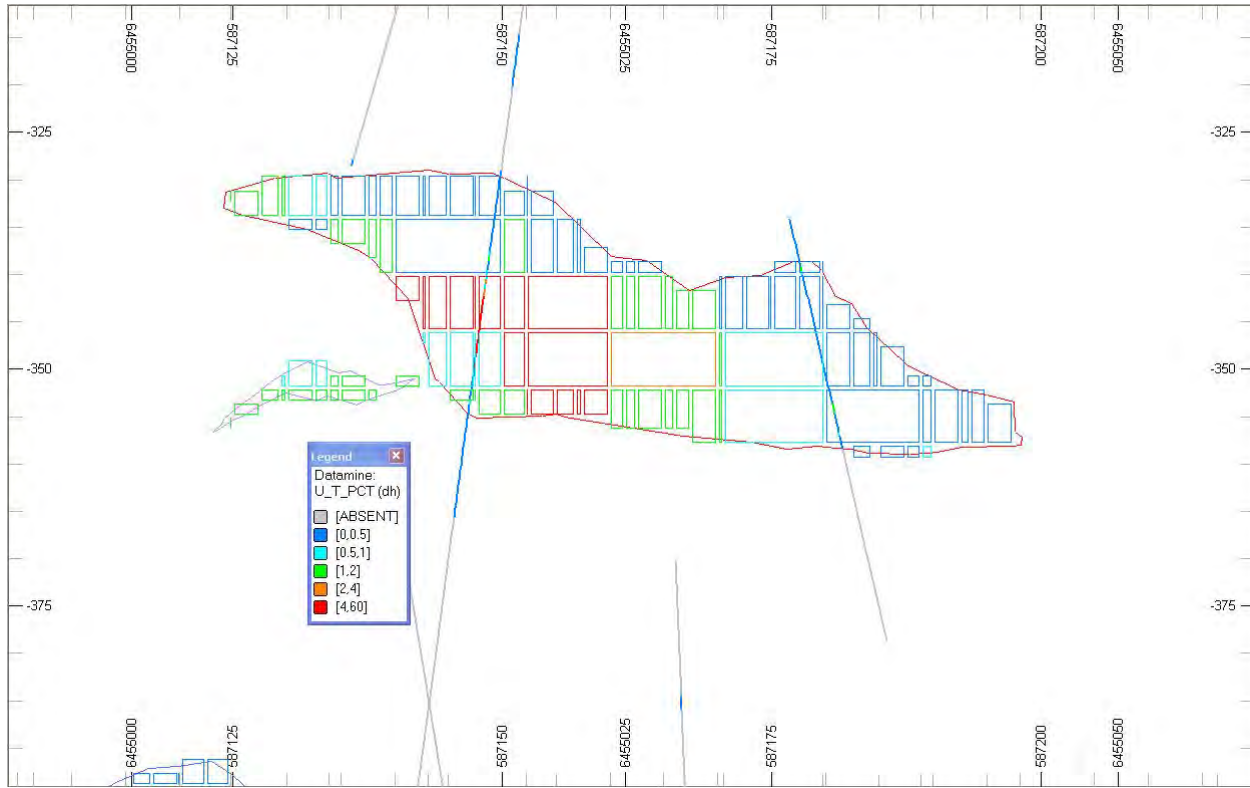


Figure 17-2: Shea Creek Dip Section looking North, showing Block Model and Drill Holes

17.2.6.3 Global Comparisons

The global block grade statistics for the ordinary kriging model are compared to the declustered means for the kriged uncapped value for each subzone (Table 17-11). Subzones CP1, KAU, KB1, KB4, KB5, KB6, KB7, KP1, KP2, KP3, AB1, AB2, AB4, AB5, AB6 and AB9 have differences above 15%.

Table 17-11: Comparison of Top Cut Declustered Drill Holes with OK

Subzone	CU1	CB1	CP1								
Model Mean	0.864	0.521	0.434								
Declust. DH Mean	0.794	0.506	0.371								
% Difference	9	3	17								
Subzone	KAU	KB1	KB2	KB3	KB4	KB5	KB6	KB7	KP1	KP2	KP3
Model Mean	1.273	0.442	0.187	0.135	0.490	0.959	0.293	0.049	3.935	0.755	1.382
Declust. DH Mean	0.960	0.354	0.195	0.148	0.646	0.539	0.088	0.064	5.242	0.190	0.933
% Difference	33	25	-4	-9	-24	78	232	-23	-25	297	48
Subzone	AB1	AB2	AB4	AB5	AB6	AB7	AB8	AB9	AP1		
Model Mean	0.780	0.458	0.207	0.186	0.300	0.110	0.725	0.566	0.179		
Declust. DH Mean	0.648	0.299	0.342	0.160	0.390	0.121	0.644	0.789	0.200		
% Difference	20	53	-40	16	-23	-10	12	-28	-11		

A further check was carried out on the interpolation where the global ordinary kriged (“OK”) grades were compared to the nearest neighbour (“NN”) and inverse distance squared (“ID²”) interpolation (Table 17-12).



Table 17-12: Comparison of Interpolation for Ordinary Kriging

Subzone	CU1	CB1	CP1								
OK Model Mean	0.864	0.521	0.434								
ID2 Model Mean	0.885	0.523	0.459								
% Difference	-2	-1	-6								
OK Model Mean	0.864	0.521	0.434								
NN Model Mean	0.793	0.452	0.313								
% Difference	8	13	28								
Subzone	KAU	KB1	KB2	KB3	KB4	KB5	KB6	KB7	KP1	KP2	KP3
OK Model Mean	1.273	0.442	0.187	0.135	0.490	0.959	0.293	0.049	3.935	0.755	1.382
ID2 Model Mean	1.315	0.446	0.165	0.120	0.484	0.887	0.329	0.036	4.050	1.136	1.900
% Difference	-3	-1	12	11	1	8	-12	28	-3	-50	-37
OK Model Mean	1.273	0.442	0.187	0.135	0.490	0.959	0.293	0.049	3.935	0.755	1.382
NN Model Mean	1.135	0.398	0.167	0.149	0.337	0.393	0.406	0.057	3.720	0.462	1.109
% Difference	11	10	11	-10	31	59	-38	-16	5	39	20
Subzone	AB1	AB2	AB4	AB5	AB6	AB7	AB8	AB9	AP1		
OK Model Mean	0.780	0.458	0.207	0.186	0.300	0.110	0.725	0.566	0.179		
ID2 Model Mean	0.780	0.443	0.139	0.157	0.295	0.086	0.638	0.387	0.175		
% Difference	0	3	33	15	2	22	12	32	2		
OK Model Mean	0.780	0.458	0.207	0.186	0.300	0.110	0.725	0.566	0.179		
NN Model Mean	1.035	0.379	0.265	0.208	0.539	0.138	0.572	0.883	0.192		
% Difference	-33	17	-28	-12	-80	-26	21	-56	-8		

Subzones that have differences of greater than 15% in two or three of the comparisons were classified as an Inferred Resource. These make up only 6% of the global tonnage.

17.2.6.4 Swath Plots

Swath plots have been generated for OK, ID² and NN for the total subzone models. An example of a swath plot is present below (Figure 17-3). This is from one of the lower grade subzones on the northeast. Appendix VII contains swath plots for subzone AU1, KU1, CU1, KB1 and AB1. AU1 and KU1 were combined (KAU) for the purposes of interpolation.

In general, the swath plots show a reasonable correlation between drill holes, NN, ID2 and OK values.



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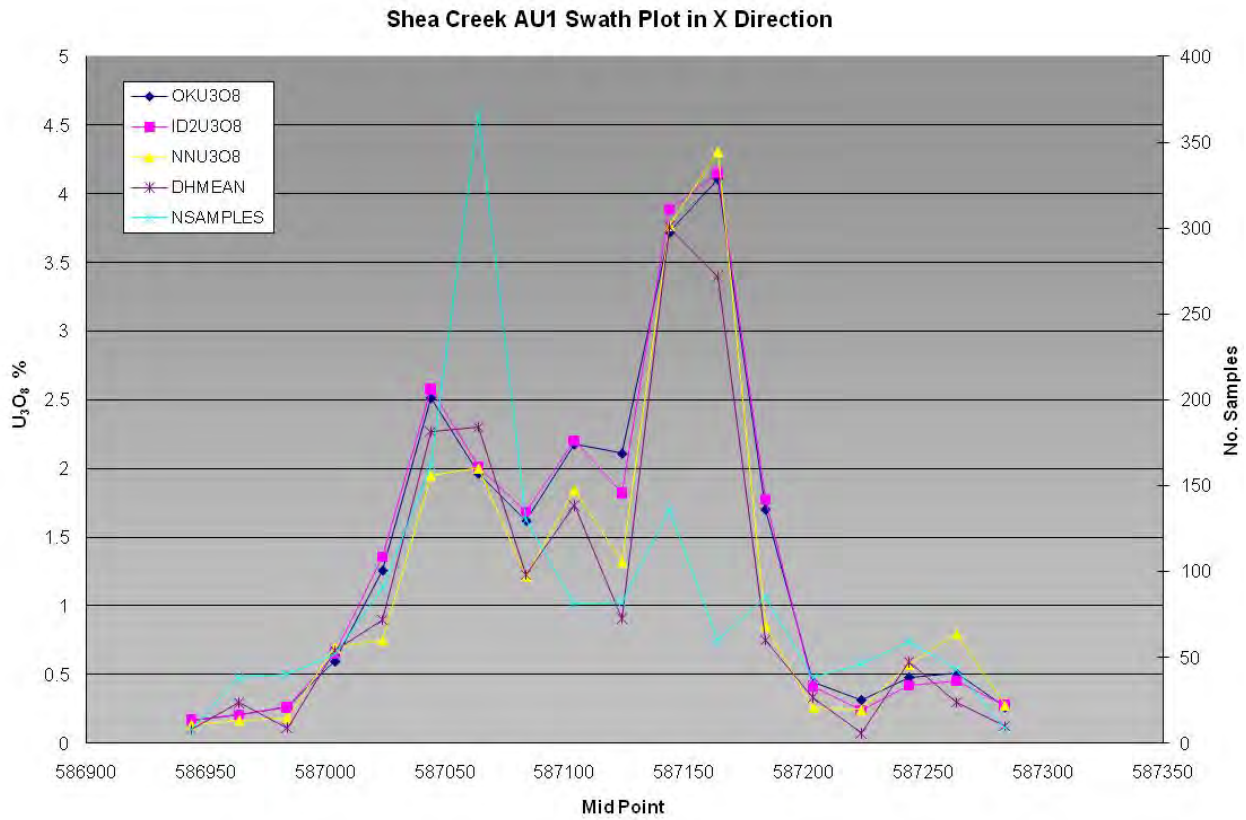


Figure 17-3: % U_3O_8 Swath Plot for AU1 Subzone in X Direction



18.0 OTHER RELEVANT DATA AND INFORMATION (ITEM 20)

No other significant information concerning the Kianna, Anne and Colette Deposits and their local area is considered relevant to the report at this time. Future preliminary assessments, pre-feasibility and feasibility studies will address environmental, economic and cultural aspects of potential future development of the deposits.



19.0 INTERPRETATION AND CONCLUSIONS (ITEM 21)

Golder was retained by UEX to complete an initial mineral resource estimate for the Shea Creek deposits in the western Athabasca Basin of northwestern Saskatchewan. Golder visited the project site as part of this initial undertaking, where the core logging and sampling methods were reviewed. Subsequent to the visit, the AREVA/UEX QA/QC program and the drill hole sample database used to estimate the mineral resources were reviewed for the initial estimates and subsequent updates.

Several levels of data verification are utilized at Shea Creek which include:

- Internal SRC laboratory QA/QC;
- 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);
- Comparison to probe results; and
- External laboratory check analysis of selected samples.

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 (Koning et al., 2008). As part of AREVA's quality improvement programs, a more rigorous QA/QC program was implemented in 2006. In addition UEX has carried out duplicate bulk density estimates.

All significant differences noted between the UEX databases and Golder's verification were either reconciled or corrected by UEX prior to the use of the database. The database is considered acceptable for mineral resource estimation of the Shea Creek deposits.

The geological interpretation of the Shea Creek deposits was developed by UEX's geologists. Golder reviewed this geological interpretation and concluded that it is consistent with the data and the actual understanding of the deposits.

3D regular block models were constructed in Datamine and NN, ID² and OK used to interpolate block U_3O_8 grades. The OK interpolated capped grades have been used for reporting.

The mineral resource classification criteria were based on the number and spatial distribution of samples used to estimate U_3O_8 grades. A bulk density grade product and bulk density was initially interpolated into the blocks. The product was then divided by the density to give the grade. This was carried out for all three interpolation methods.

The May 2010 Shea Creek Mineral Resource Estimate at a cut-off grade of 0.30% U_3O_8 results in 1,872,600 tonnes at an average grade of 1.540% U_3O_8 , yielding 63,572,000 lbs U_3O_8 in the Indicated Mineral Resource category and 1,068,900 tonnes at an average grade of 1.041% U_3O_8 , yields 24,525,000 lbs U_3O_8 in the Inferred Mineral Resource category. No factors have been applied to the U_3O_8 lbs and they represent an in situ value. A summary of resources at various cut-offs is illustrated in Table 19-1.



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Table 19-1: N.I. 43-101 Compliant Indicated and Inferred Mineral Resources (Capped) on the Shea Creek Project, as of May 2010 at Various Cut-off Grades of % U₃O₈

Category	Cut-off	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)
Indicated	0.10	2,733,900	1.118	67,414,000
	0.20	2,307,900	1.296	65,955,000
	0.30	1,872,600	1.540	63,572,000
	0.40	1,603,000	1.741	61,525,000
	0.50	1,383,000	1.946	59,342,000
	0.60	1,216,400	2.137	57,320,000
	0.70	1,076,100	2.332	55,316,000
	0.80	960,900	2.521	53,410,000
	0.90	863,700	2.710	51,594,000
	1.00	785,200	2.885	49,948,000
	1.50	509,500	3.786	42,527,000
Inferred	0.10	1,862,800	0.674	27,688,000
	0.20	1,364,000	0.869	26,128,000
	0.30	1,068,900	1.041	24,525,000
	0.40	886,100	1.185	23,156,000
	0.50	746,700	1.323	21,776,000
	0.60	596,200	1.520	19,973,000
	0.70	500,900	1.686	18,615,000
	0.80	424,500	1.854	17,350,000
	0.90	363,800	2.022	16,215,000
	1.00	322,700	2.159	15,360,000
	1.50	188,700	2.829	11,771,000

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.



20.0 RECOMMENDATIONS (ITEM 22)

20.1 Database Review

Although the database containing collars, surveys, lithology, assays and recoveries was regarded as suitable for a resource estimate, it is recommended that all the data in the database should be reviewed for consistency. The biggest issue would be the lack of consistency in the format of the sample identifiers. This inconsistency meant that only 25% of the samples in the assay database could be matched directly to the assay certificates. In addition, the discrepancy in the Sperry Sun data needs to be resolved. The estimated cost for this review and correction is C\$15,000 but would be dependent on the number of inconsistencies noted.

20.2 Exploration

UEX has approved an exploration budget for 2010 of C\$7.96 million for the Shea Creek Project. The proposed exploration plan has been reviewed by the author and is included as part of Golder's recommendations. Details of the proposed program are outlined below.

The 2010 exploration program at Shea Creek began mid-January and consists of diamond drilling utilizing at least four drills. The drilling program is intended to focus on the Kianna Deposit as well as the area between the Kianna and Colette Deposits known as the 58B Area.

20.2.1 Kianna Deposit

At the Kianna Deposit ("Kianna"), basement mineralization is open down dip and to the west, and the extent of high grade mineralization in eastern parts of the basement zone is currently undefined. The Kianna basement zone, to date, has been defined over a strike length of 200 metres and a dip length of 160 metres. The steeply dipping, east-northeast trending fault-hosted or vein-hosted zones have a high potential for significant expansion of existing mineralization, and form a top priority exploration target. In addition, previous drill hole SHE-114-17 intersected 7.8 metres grading 4.38% U_3O_8 in basement granitic gneisses several tens of metres north of the main Kianna basement zone. This intercept is open, and could represent part of an additional, undefined zone of basement mineralization. Proposed 2010 drilling at Kianna is planned to:

- Investigate the north side of the Kianna Deposit. A new pilot hole will be placed 100 metres north of the main deposit to investigate the potential of unconformity mineralization. Directional drilling from this pilot hole will test potential open mineralization associated with drill hole SHE114-17, as well as the down-dip extension of the Kianna basement mineralization which to date has not been determined.
- Test the eastern portion of the Kianna basement mineralization and the extent of the high-grade mineralization in this area recently intersected in drill hole SHE-114-20 grading 1.02% eU_3O_8 over 141.4 metres, including 5.55% eU_3O_8 over 15.8 metres (see UEX's news release of November 19, 2009).
- Further investigate the western and down-dip portions of the Kianna basement where open areas of potential mineralization could exist.



20.2.2 Area between the Kianna and Colette Deposits

The area between the Kianna and Colette Deposits, along a one-kilometre strike length of the Shea Creek conductive trend, is prospective and has only been tested by very few holes. Previous drilling has intersected multiple intervals of basement-hosted mineralization in the 58B Area located 700 metres northwest of Kianna. In 1997, drill hole SHE-58B intersected unconformity mineralization grading 0.44% eU₃O₈ over 8.1 metres and basement-hosted mineralization grading 2.21% U₃O₈ over 2.6 metres including 6.73% U₃O₈ over 0.7 metres.

Recent drilling in the 58B Area during 2009 intersected basement-hosted mineralization grading 1.21% eU₃O₈ over 3.1 metres and 0.85% eU₃O₈ over 1.0 metres in drill hole SHE-133-2 (see UEX's news release of November 19, 2009). This basement-hosted mineralization occurs in steeply dipping vein systems, suggesting potential for Kianna basement-style structurally controlled mineralization.

The 2010 drilling program will test the 58B Area utilizing a new pilot hole and multiple directional cuts.

20.2.3 Budget

Costs for the 2010 drilling program are outlined in Table 20-1. AREVA would be operator of this program. Total costs are estimated at approximately C\$7.96 million, of which UEX, as 49% partner, is responsible for C\$3.90 million. Costs are based on previous programs operated by AREVA, and include accommodation and logistical use of AREVA's Cluff Lake camp facilities. Personnel costs below include geological staff, technicians, administrative staff as well as geophysical and engineering support.

Table 20-1: Proposed 2010 Shea Creek Exploration Budget

Item	Cost
AREVA Personnel	1,418,385
Supplies and Maintenance	130,931
Fuel	543,255
Freight	20,000
Travel and Transportation	96,000
Cluff Lake Camp Accommodation Costs	756,000
Communications and Utilities	5,000
Land Use	1,500
Equipment Rental	68,900
Drilling Costs (contractor), including Directional Drilling Costs	3,860,000
SRC Laboratory Analysis	134,400
Other	200,000
<i>Total Operational Costs</i>	<i>7,234,371</i>
<i>AREVA Overhead/Management Fee (10%)</i>	<i>723,437</i>
Grand Total	7,957,808
UEX Cost at 49%	3,899,326



20.3 Interpretation Risk

During the review of the Shea Creek Datamine 3D block model, comparisons between different estimation methods (nearest neighbour and inverse distance power against kriging interpolation method) and the declustered mean were completed. This review noted that out of a total of 23 mineralized subzones, 10 of the subzones had a difference in interpolated grade, kriged, of greater than 15% in the global mean when compared to at least two of the nearest neighbour, inverse distance or the declustered mean estimates. These 10 subzones make up only a 6% portion of the resource. This may be due to the geological interpretation.

In order to quantify the risk due to interpretation, a single mineralized envelope should be constructed to contain the majority of samples with an assay of greater than 0.02% U_3O_8 for Shea Creek and the mineral resources re-estimated.

The estimated cost of evaluating the risk in the current modelling method would be approximately C\$80,000.

20.4 Assays

The current resource estimate was carried out on a mix of chemical and probe data. Although there is a correlation between data the probe grades tended to be lower in all of the subzones. Also the probe is estimating the grade outside of the drill hole while the chemical grade is the internal hole, core, grade. It is recommended that all previously unsampled intervals in mineralized zones within the defined mineralization envelopes be sampled to provide a more comprehensive geochemical database for future resource work.

20.5 Gold Mineralization

In addition to uranium, Shea Creek mineralization locally contains high gold grades, although the morphology and true thickness of areas which are high in gold content are as yet undetermined. These frequently, but not always, occur in areas of higher grade uranium mineralization, and can be present both in unconformity and basement mineralization. Future work to establish patterns of gold distribution is recommended, especially to identify if any consistent local gold-enriched domains can be recognized which might enhance the potential value of parts of the deposit.

The estimated cost of evaluating the gold mineralization would be approximately C\$50,000.



21.0 DATE AND SIGNATURE PAGE

This technical report dated July 8, 2010, with an effective date of May 26, 2010, was prepared, signed and stamped by Kevin Palmer, P.Geo., of Golder Associates Ltd., who is responsible for all sections of the report. The technical report was also peer reviewed and signed by Paul Palmer, P.Geo., P.Eng., of Golder Associates Ltd.

GOLDER ASSOCIATES LTD.

Original signed and stamped by:

Original signed by:

Kevin Palmer, P.Geo.
Associate, Senior Resource Geologist

Paul Palmer, P.Geo., P.Eng.
Associate, Senior Geological Engineer

KJP/BCF/PGP/lb/mrb/rs

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23.0 CERTIFICATE OF QUALIFIED PERSON (ITEM 24)

23.1 Certificate of Kevin Palmer

I, Kevin Palmer, of Nanaimo, British Columbia, Canada, do hereby certify that as the author of this “Technical Report on the Shea Creek property, Saskatchewan, Canada, including Mineral Resource estimates for the Kianna, Anne and Colette Deposits”, dated July 8, 2010, I hereby make the following statements:

- I am employed as a Senior Resource Geologist with Golder Associates Ltd. with a business address at 4260 Still Creek Drive, Suite 500, Burnaby, British Columbia, V5C 6C6, Canada.
- I am a graduate of University of University of the Witwatersrand, Johannesburg, South Africa (B.Sc. (Honours) Geology, 1984).
- I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia (License #30020). I am also a member in good standing of The South African Council for Natural Science Professions (License #400320/04).
- I have practiced my profession continuously since graduation.
- I have read the definition of “qualified person” set out in National Instrument 43-101 (N.I. 43-101) and certify that, by reason of my education, affiliation with a professional association (as defined in N.I. 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purpose of N.I. 43-101.
- My relevant experience with respect to the Shea Creek deposits includes over 21 years in exploration, mining geology and grade estimation in Canada and southern Africa. Over the last 3 years, I have carried out mineral resource estimates following CIM guidelines on a number of uranium projects including the West Bear, Horseshoe and Raven Uranium Deposits in Northern Saskatchewan, Canada.
- I am responsible for the preparation of all of the sections of this technical report titled “Technical Report on the Shea Creek property, Saskatchewan, Canada, including Updated Mineral Resource estimates for the Kianna, Anne and Colette Deposits”, dated July 8, 2010. In addition, I visited the Property during the period September 2 to 4, 2009.
- I have had no previous involvement with the Shea Creek property in northern Saskatchewan.
- As of the date of this Certificate, to my knowledge, information and belief, the sections of this Technical Report for which I am responsible contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.



- I am independent of the Issuer as defined by Section 1.4 of the Instrument. I have read National Instrument 43-101 and the sections for which I am responsible in this Technical Report have been prepared in compliance with National Instrument 43-101 and Form 43-101F1.

Signed and dated this 8th day of July 2010 at Burnaby, British Columbia, Canada.

Original signed and stamped by:

Kevin Palmer, P.Geo.



APPENDIX I

Summary Intersections by Subzone or Zone

Subzone	BHID	From	To	Length	U ₃ O ₈ and eU ₃ O ₈ %	Density (g/cm ³)
AB1	SHE-100-1	735.8	761.0	25.2	1.130	2.22
AB1	SHE-109-5	722.5	728.6	6.1	0.583	2.20
AB1	SHE-109-5	742.2	758.2	16.0	1.352	2.21
AB1	SHE-109-7	723.6	748.1	24.5	0.047	2.19
AB1	SHE-122-1	730.5	783.0	52.5	1.032	2.22
AB1	SHE-122-4	748.0	760.5	12.5	1.082	2.20
AB1	SHE-122-4	778.6	781.5	2.9	0.044	2.44
AB1	SHE-122-5	737.5	750.7	13.2	0.335	2.45
AB1	SHE-122-7	740.0	772.0	32.0	0.067	2.30
AB1	SHE-43	744.7	745.4	0.7	0.012	2.30
AB1	SHE-43	746.4	768.0	21.6	0.017	2.42
AB1	SHE-88	752.0	774.5	22.5	1.308	2.48
AB1	SHE-95-1	740.1	776.6	36.5	0.857	2.20
AB1	SHE-95-3	732.6	736.5	3.9	0.020	2.44
AB1	SHE-95-3	743.1	781.3	38.2	0.575	2.23
AB1	SHE-96-3	737.4	785.1	47.7	0.844	2.20
AB2	SHE-105-2	712.1	713.0	0.9	0.054	2.44
AB2	SHE-105-4	708.5	722.2	13.7	0.300	2.20
AB2	SHE-109-2	726.0	739.0	13.0	0.783	2.47
AB2	SHE-112	725.5	730.1	4.6	0.061	2.44
AB2	SHE-112-4	736.5	737.0	0.5	0.070	2.44
AB2	SHE-122	747.5	750.5	3.0	0.265	2.20
AB2	SHE-122-3	738.4	740.5	2.1	2.159	2.51
AB2	SHE-122-4	735.0	748.0	13.0	0.246	2.37
AB2	SHE-122-6	725.0	737.0	12.0	0.437	2.22
AB2	SHE-122-7	739.2	740.0	0.8	0.055	2.44
AB2	SHE-125-1	733.8	734.3	0.5	0.580	2.20
AB2	SHE-125-2	742.8	744.3	1.5	0.117	2.44
AB2	SHE-125-3	755.6	764.2	8.6	0.120	2.44
AB2	SHE-131-2	712.0	717.0	5.0	0.570	2.46
AB2	SHE-131-3	709.2	714.1	4.9	0.136	2.24
AB2	SHE-131-4	716.5	729.8	13.3	0.171	2.20
AB2	SHE-131-5	723.5	725.5	2.0	0.250	2.20
AB2	SHE-35	714.8	715.3	0.5	0.060	2.20
AB2	SHE-37-2	716.8	728.6	11.8	0.162	2.20
AB2	SHE-37-3A	715.0	744.5	29.5	0.131	2.26
AB2	SHE-43	745.4	746.3	0.9	0.046	2.28
AB2	SHE-79	725.2	739.5	14.3	0.213	2.27
AB2	SHE-88	728.0	742.5	14.5	0.069	2.44
AB2	SHE-94-1	717.3	718.1	0.8	0.000	2.44
AB2	SHE-94-3	721.9	729.1	7.2	0.039	2.19
AB2	SHE-94-6	721.3	724.1	2.8	5.737	2.26
AB2	SHE-95	724.7	727.1	2.4	0.012	2.19
AB2	SHE-95-1	723.1	723.6	0.5	0.030	2.20
AB2	SHE-96	734.0	736.5	2.5	0.642	2.21

Subzone	BHID	From	To	Length	U ₃ O ₈ and eU ₃ O ₈ %	Density (g/cm ³)
AB2	SHE-96-4	749.2	756.3	7.1	1.359	2.48
AB2	SHE-99-2	706.5	712.0	5.5	0.185	2.20
AB2	SHE-99-4	710.0	711.6	1.6	0.074	2.20
AB4	SHE-94-1	730.4	730.9	0.5	0.110	2.45
AB4	SHE-98-2	718.6	721.5	2.9	0.090	2.44
AB4	SHE-99-2	719.0	722.0	3.0	0.071	2.19
AB5	SHE-109-1	728.8	745.3	16.5	0.106	2.39
AB5	SHE-122-6	752.5	764.0	11.5	0.285	2.20
AB5	SHE-82	739.5	749.5	10.0	0.075	2.19
AB5	SHE-96-1	741.6	747.9	6.3	0.141	2.20
AB5	SHE-96-2	767.2	768.0	0.8	0.415	2.32
AB6	SHE-112	756.7	757.2	0.5	1.660	2.49
AB6	SHE-112-1	753.8	767.8	14.0	0.119	2.44
AB6	SHE-112-2	749.4	762.9	13.5	0.103	2.42
AB6	SHE-112-3	759.2	760.9	1.7	1.246	2.21
AB6	SHE-112-4	762.8	781.5	18.7	0.071	2.28
AB6	SHE-122-3	766.9	777.7	10.8	0.811	2.46
AB6	SHE-37-4	740.5	748.5	8.0	0.287	2.19
AB6	SHE-37-5	757.5	758.0	0.5	0.130	2.20
AB6	SHE-40A	740.8	741.9	1.1	0.440	2.20
AB6	SHE-95	746.4	765.5	19.1	0.308	2.20
AB6	SHE-95-3	738.6	743.1	4.5	0.008	2.19
AB7	SHE-124	768.5	776.9	8.4	0.083	2.24
AB7	SHE-131-2	737.4	741.0	3.6	0.134	2.20
AB7	SHE-35	752.2	757.4	5.2	0.077	2.20
AB7	SHE-98-2	747.0	753.0	6.0	0.078	2.28
AB7	SHE-99-4	763.8	767.1	3.3	0.141	2.44
AB8	SHE-100	746.5	755.3	8.8	0.126	2.19
AB8	SHE-109	747.4	748.4	1.0	0.395	2.20
AB8	SHE-109-1	773.3	774.8	1.5	2.483	2.52
AB8	SHE-12	768.2	769.8	1.6	1.427	2.21
AB8	SHE-122-6	791.0	793.5	2.5	1.240	2.21
AB8	SHE-125-1	781.3	784.3	3.0	0.130	2.20
AB8	SHE-16	751.8	761.0	9.2	1.074	2.47
AB8	SHE-79	755.8	763.5	7.7	0.201	2.45
AB8	SHE-80	730.0	739.5	9.5	0.155	2.29
AB8	SHE-82	782.0	783.0	1.0	1.385	2.21
AB8	SHE-87	726.5	729.0	2.5	1.037	2.47
AB8	SHE-94	737.6	743.9	6.3	0.804	2.20
AB8	SHE-94-1	741.7	750.0	8.3	2.155	2.35
AB8	SHE-94-2	730.3	742.8	12.5	0.210	2.45
AB8	SHE-94-3	752.2	758.8	6.6	0.142	2.20
AB8	SHE-94-4	741.3	741.9	0.6	2.127	2.51
AB8	SHE-96	775.0	775.5	0.5	0.070	2.20
AB8	SHE-96-1	782.1	782.6	0.5	0.090	2.20

Subzone	BHID	From	To	Length	U ₃ O ₈ and eU ₃ O ₈ %	Density (g/cm ³)
AB8	SHE-99	741.5	742.0	0.5	0.290	2.20
AB8	SHE-99-1	724.4	728.2	3.8	0.642	2.40
AB8	SHE-99-3	722.6	737.1	14.5	0.294	2.29
AB9	SHE-101	747.5	752.6	5.1	0.664	2.46
AB9	SHE-109-6	747.2	748.8	1.6	0.120	2.37
AB9	SHE-112-1	774.0	778.3	4.3	0.053	2.44
AB9	SHE-112-2	771.2	774.9	3.7	0.121	2.45
AB9	SHE-112-4	792.5	793.0	0.5	0.100	2.20
AB9	SHE-122-3	786.8	795.6	8.8	0.197	2.23
AB9	SHE-122-7	787.0	790.5	3.5	0.061	2.19
AB9	SHE-40A	752.6	753.5	0.9	0.254	2.45
AB9	SHE-95	775.4	776.0	0.6	4.247	2.57
AP1	SHE-16	699.6	704.1	4.5	0.152	2.45
AP1	SHE-79	706.0	710.0	4.0	0.139	2.44
AP1	SHE-94	700.0	703.2	3.2	0.048	2.44
AP1	SHE-94-2	694.4	698.9	4.5	0.209	2.45
AP1	SHE-96-1	708.5	709.0	0.5	0.400	2.45
AP1	SHE-99-1	687.3	690.0	2.7	0.080	2.44
AP1	SHE-99-5	688.2	694.2	6.0	0.300	2.45
CB1	SHE-111	731.2	742.2	11.0	0.039	2.44
CB1	SHE-111-11	742.6	750.5	7.9	0.397	2.40
CB1	SHE-111-12	757.9	773.5	15.6	0.669	2.46
CB1	SHE-111-13	753.5	763.0	9.5	0.308	2.45
CB1	SHE-111-2	751.0	772.0	21.0	0.493	2.46
CB1	SHE-111-3	749.5	776.5	27.0	0.198	2.37
CB1	SHE-111-4	733.0	753.1	20.1	0.015	2.44
CB1	SHE-111-5	754.0	777.3	23.3	0.243	2.45
CB1	SHE-111-6	749.0	757.0	8.0	3.224	2.54
CB1	SHE-111-7	744.3	748.8	4.5	0.031	2.44
CB1	SHE-111-8	738.5	746.4	7.9	0.031	2.33
CB1	SHE-111-9	748.0	752.7	4.7	0.046	2.39
CB1	SHE-126	749.9	776.7	26.8	0.227	2.35
CB1	SHE-126-1A	756.0	773.9	17.9	0.407	2.34
CB1	SHE-126-3	760.5	766.9	6.4	0.104	2.43
CP1	SHE-52	688.2	693.1	4.9	1.628	2.49
CP1	SHE-66	659.1	685.5	26.4	0.157	2.45
CP1	SHE-74	664.5	673.0	8.5	0.395	2.45
CU1	SHE-111	724.7	731.2	6.5	0.715	2.46
CU1	SHE-111-1	727.4	735.9	8.5	0.879	2.27
CU1	SHE-111-10	739.5	743.5	4.0	0.449	2.46
CU1	SHE-111-11	728.0	738.0	10.0	0.296	2.45
CU1	SHE-111-12	727.0	735.3	8.3	0.243	2.43
CU1	SHE-111-13	740.5	742.5	2.0	0.425	2.46
CU1	SHE-111-2	728.0	733.1	5.1	0.185	2.45
CU1	SHE-111-3	729.0	737.6	8.6	0.284	2.45

Subzone	BHID	From	To	Length	U ₃ O ₈ and eU ₃ O ₈ %	Density (g/cm ³)
CU1	SHE-111-4	731.0	733.0	2.0	1.168	2.48
CU1	SHE-111-5	733.0	743.2	10.2	0.290	2.36
CU1	SHE-111-6	738.0	742.7	4.7	0.188	2.45
CU1	SHE-111-7	738.2	744.3	6.1	0.254	2.45
CU1	SHE-111-8	724.2	735.0	10.8	0.541	2.46
CU1	SHE-111-9	738.0	748.0	10.0	0.145	2.45
CU1	SHE-126	723.0	724.5	1.5	0.150	2.36
CU1	SHE-126-3	721.0	722.5	1.5	0.257	2.28
CU1	SHE-23	735.1	742.7	7.6	0.724	2.40
CU1	SHE-25	738.3	746.8	8.5	0.163	2.37
CU1	SHE-34A	737.1	742.1	5.0	0.101	2.44
CU1	SHE-45	724.7	739.5	14.8	1.186	2.41
CU1	SHE-52	696.5	714.8	18.3	2.157	2.49
CU1	SHE-54	711.4	715.0	3.6	0.356	2.45
CU1	SHE-59	707.8	716.0	8.2	3.306	2.54
CU1	SHE-60	715.2	721.9	6.7	1.032	2.47
CU1	SHE-65	728.3	741.7	13.4	1.579	2.49
CU1	SHE-66	701.6	702.1	0.5	0.090	2.20
CU1	SHE-68A	725.4	733.3	7.9	0.513	2.31
CU1	SHE-69	742.9	744.3	1.4	0.067	2.20
CU1	SHE-73	738.0	742.6	4.6	0.236	2.41
CU1	SHE-74	710.0	710.6	0.6	0.067	2.20
CU1	SHE-78	701.5	712.5	11.0	1.116	2.44
CU1	SHE-81	713.0	717.5	4.5	0.582	2.44
CU1	SHE-86	719.5	723.2	3.7	0.352	2.39
CU1	SHE-90	717.0	720.5	3.5	0.151	2.45
CU1	SHE-91	703.5	712.4	8.9	1.512	2.49
CU1	SHE-92	729.8	733.5	3.7	0.128	2.44
CU1	SHE-93	726.2	734.2	8.0	0.156	2.45
KAU	SHE-100	731.0	732.2	1.2	0.250	2.33
KAU	SHE-100-1	710.7	735.8	25.1	3.312	2.28
KAU	SHE-100-3	727.1	731.5	4.4	0.208	2.36
KAU	SHE-101-2	731.4	746.6	15.2	2.700	2.51
KAU	SHE-101-3	736.5	741.5	5.0	0.202	2.20
KAU	SHE-101-4	733.0	739.0	6.0	2.960	2.47
KAU	SHE-102	716.8	730.2	13.4	0.651	2.45
KAU	SHE-102-1	710.6	722.5	11.9	0.933	2.47
KAU	SHE-102-10	717.0	728.0	11.0	1.413	2.48
KAU	SHE-102-11	724.5	746.7	22.2	0.052	2.41
KAU	SHE-102-2	712.0	727.0	15.0	1.558	2.49
KAU	SHE-102-3	721.4	742.6	21.2	0.126	2.25
KAU	SHE-102-4	740.0	744.0	4.0	0.246	2.45
KAU	SHE-102-5	739.5	750.8	11.3	0.239	2.32
KAU	SHE-102-6	713.0	715.5	2.5	0.298	2.45
KAU	SHE-102-7	710.6	716.2	5.6	2.003	2.46

Subzone	BHID	From	To	Length	U ₃ O ₈ and eU ₃ O ₈ %	Density (g/cm ³)
KAU	SHE-102-8	723.5	726.5	3.0	0.243	2.45
KAU	SHE-105-1	701.0	708.1	7.1	0.080	2.44
KAU	SHE-105-2	686.5	691.0	4.5	0.125	2.35
KAU	SHE-105-3	714.9	715.5	0.6	0.550	2.46
KAU	SHE-105-4	696.8	701.2	4.4	0.569	2.46
KAU	SHE-109	722.6	726.1	3.5	0.861	2.47
KAU	SHE-109-1	705.3	724.8	19.5	0.675	2.39
KAU	SHE-109-2	705.2	726.0	20.8	0.143	2.32
KAU	SHE-109-3	717.9	723.4	5.5	0.989	2.47
KAU	SHE-109-4	726.3	730.4	4.1	0.112	2.45
KAU	SHE-109-5	704.4	722.5	18.1	3.520	2.49
KAU	SHE-109-6	708.8	720.0	11.2	3.195	2.54
KAU	SHE-109-7	705.5	723.6	18.1	0.344	2.35
KAU	SHE-112-1	724.3	730.9	6.6	0.055	2.38
KAU	SHE-112-2	729.3	734.1	4.8	0.108	2.42
KAU	SHE-112-3	732.5	737.3	4.8	0.259	2.43
KAU	SHE-112-4	721.0	722.0	1.0	0.070	2.44
KAU	SHE-114	713.4	720.4	7.0	0.264	2.29
KAU	SHE-114-1	716.5	721.3	4.8	0.108	2.44
KAU	SHE-114-10A	719.9	740.3	20.4	0.331	2.45
KAU	SHE-114-11	711.2	720.1	8.9	0.330	2.45
KAU	SHE-114-12	713.5	718.9	5.4	1.095	2.21
KAU	SHE-114-13	713.6	724.2	10.6	0.023	2.44
KAU	SHE-114-14	713.0	721.0	8.0	0.279	2.40
KAU	SHE-114-15	713.9	716.4	2.5	0.170	2.25
KAU	SHE-114-16	717.8	718.3	0.5	0.140	2.45
KAU	SHE-114-17	717.5	728.0	10.5	0.375	2.45
KAU	SHE-114-18A	713.7	726.7	13.0	0.290	2.45
KAU	SHE-114-19	711.0	718.0	7.0	0.722	2.33
KAU	SHE-114-19A	711.0	720.0	9.0	0.194	2.45
KAU	SHE-114-2	722.0	735.7	13.7	0.327	2.45
KAU	SHE-114-20	730.0	742.0	12.0	0.063	2.33
KAU	SHE-114-3	748.0	759.6	11.6	0.368	2.28
KAU	SHE-114-4	725.5	733.0	7.5	1.021	2.47
KAU	SHE-114-5	713.7	730.9	17.2	0.086	2.44
KAU	SHE-114-6	709.7	717.8	8.1	0.393	2.38
KAU	SHE-114-7	716.0	735.3	19.3	0.052	2.29
KAU	SHE-114-9	710.5	722.6	12.1	1.014	2.47
KAU	SHE-115	716.0	721.0	5.0	0.405	2.33
KAU	SHE-115-1	726.2	741.8	15.7	0.232	2.45
KAU	SHE-115-10	718.5	730.5	12.0	0.436	2.43
KAU	SHE-115-11	719.8	725.5	5.7	0.118	2.44
KAU	SHE-115-12	718.6	720.0	1.4	0.119	2.45
KAU	SHE-115-15	723.0	725.0	2.0	1.279	2.48
KAU	SHE-115-15A	719.4	722.0	2.6	0.373	2.45

Subzone	BHID	From	To	Length	U ₃ O ₈ and eU ₃ O ₈ %	Density (g/cm ³)
KAU	SHE-115-16	720.5	725.0	4.5	0.943	2.36
KAU	SHE-115-17	722.0	725.0	3.0	0.932	2.47
KAU	SHE-115-17A	721.6	725.0	3.4	0.395	2.45
KAU	SHE-115-18	722.0	735.5	13.5	0.096	2.31
KAU	SHE-115-19	721.0	721.8	0.8	0.016	2.44
KAU	SHE-115-2	732.8	751.5	18.7	0.712	2.35
KAU	SHE-115-20	722.5	723.0	0.5	0.050	2.44
KAU	SHE-115-3	732.4	747.8	15.4	9.093	2.70
KAU	SHE-115-4	745.4	767.5	22.1	2.493	2.39
KAU	SHE-115-5	730.0	737.7	7.7	7.320	2.52
KAU	SHE-115-6	733.7	745.6	11.9	1.999	2.48
KAU	SHE-115-7	720.0	723.8	3.8	0.743	2.46
KAU	SHE-115-8	720.4	730.1	9.7	1.500	2.49
KAU	SHE-115-9	721.0	739.7	18.7	0.110	2.34
KAU	SHE-118	703.5	711.4	7.9	6.294	2.61
KAU	SHE-118-1	714.7	734.5	19.8	1.054	2.47
KAU	SHE-118-10	719.0	721.6	2.6	0.405	2.45
KAU	SHE-118-11	733.2	740.5	7.3	2.835	2.51
KAU	SHE-118-12	728.8	740.0	11.2	0.277	2.45
KAU	SHE-118-13	734.3	741.1	6.8	1.602	2.47
KAU	SHE-118-13A	734.8	743.7	8.9	0.954	2.47
KAU	SHE-118-14	720.0	741.0	21.0	0.903	2.39
KAU	SHE-118-15	729.4	744.0	14.6	1.341	2.41
KAU	SHE-118-16	725.5	744.5	19.0	0.359	2.45
KAU	SHE-118-17	713.0	714.5	1.5	0.044	2.44
KAU	SHE-118-18	705.7	712.6	6.9	2.403	2.47
KAU	SHE-118-2	743.2	745.8	2.6	0.196	2.45
KAU	SHE-118-3	731.3	740.0	8.7	0.918	2.47
KAU	SHE-118-4	716.1	732.4	16.4	0.989	2.45
KAU	SHE-118-5	705.0	716.5	11.5	1.897	2.34
KAU	SHE-118-5A	704.4	717.0	12.6	1.782	2.37
KAU	SHE-118-6A	701.0	707.0	6.0	2.643	2.49
KAU	SHE-118-6B	702.5	708.5	6.0	4.164	2.57
KAU	SHE-118-7	704.4	710.5	6.1	0.880	2.47
KAU	SHE-118-8	705.5	715.5	10.0	2.628	2.48
KAU	SHE-118-9	706.0	717.5	11.5	2.395	2.52
KAU	SHE-12	706.5	709.7	3.2	0.066	2.44
KAU	SHE-121-1	711.6	717.0	5.4	0.146	2.45
KAU	SHE-121-2	723.0	729.5	6.5	0.531	2.30
KAU	SHE-121-3	725.3	728.8	3.5	0.304	2.38
KAU	SHE-121-4	721.5	723.5	2.0	0.212	2.45
KAU	SHE-122	713.3	717.1	3.8	0.223	2.45
KAU	SHE-122-1	710.5	730.5	20.0	5.455	2.38
KAU	SHE-122-2	721.6	741.7	20.1	0.405	2.45
KAU	SHE-122-3	723.3	727.2	3.9	0.475	2.46

Subzone	BHID	From	To	Length	U ₃ O ₈ and eU ₃ O ₈ %	Density (g/cm ³)
KAU	SHE-122-4	713.3	724.5	11.2	1.943	2.50
KAU	SHE-122-5	727.0	737.5	10.5	6.739	2.65
KAU	SHE-122-6	712.7	722.0	9.3	0.292	2.45
KAU	SHE-122-7	714.3	721.5	7.2	0.359	2.45
KAU	SHE-123-1	740.5	741.5	1.0	0.655	2.46
KAU	SHE-123-11	726.7	727.5	0.8	0.583	2.46
KAU	SHE-123-12	732.3	739.0	6.7	0.100	2.44
KAU	SHE-123-13	730.0	733.0	3.0	0.090	2.44
KAU	SHE-123-3	744.4	751.5	7.1	0.882	2.41
KAU	SHE-123-4	740.5	756.5	16.0	0.377	2.38
KAU	SHE-123-5	729.5	730.0	0.5	0.090	2.45
KAU	SHE-123-6	729.8	736.6	6.8	5.489	2.59
KAU	SHE-123-7	729.5	732.8	3.3	4.620	2.54
KAU	SHE-123-8	732.5	737.4	4.9	8.129	2.54
KAU	SHE-123-9	733.0	735.8	2.8	2.424	2.52
KAU	SHE-125-1	714.5	719.5	5.0	0.165	2.32
KAU	SHE-125-3	709.0	727.4	18.4	0.331	2.45
KAU	SHE-131-1	695.5	712.0	16.5	0.111	2.31
KAU	SHE-131-2	685.0	701.0	16.0	0.014	2.44
KAU	SHE-131-3	699.7	709.2	9.5	1.217	2.38
KAU	SHE-131-4	694.5	698.0	3.5	1.144	2.48
KAU	SHE-131-5	683.4	699.9	16.5	0.218	2.45
KAU	SHE-132	730.7	735.6	4.9	0.407	2.45
KAU	SHE-132-1	728.5	737.5	9.0	0.170	2.41
KAU	SHE-132-2	729.0	739.1	10.1	0.279	2.33
KAU	SHE-132-3	724.6	739.5	14.9	0.144	2.43
KAU	SHE-132-4	724.1	733.8	9.7	0.176	2.45
KAU	SHE-132-5	727.0	737.5	10.5	0.174	2.42
KAU	SHE-15A	718.5	724.5	6.0	0.300	2.38
KAU	SHE-16	714.7	723.8	9.1	4.321	2.58
KAU	SHE-17	722.6	729.1	6.5	0.142	2.40
KAU	SHE-18	716.6	721.9	5.3	0.681	2.43
KAU	SHE-35	700.1	705.0	4.9	0.220	2.36
KAU	SHE-36	715.0	718.7	3.7	0.719	2.27
KAU	SHE-37-1	713.9	718.5	4.6	0.198	2.36
KAU	SHE-37-2	706.0	716.8	10.8	0.168	2.41
KAU	SHE-37-3A	702.4	703.1	0.7	0.021	2.19
KAU	SHE-37-4	714.5	720.3	5.8	0.235	2.45
KAU	SHE-37-5	707.5	714.5	7.0	0.180	2.45
KAU	SHE-37-6	716.5	722.0	5.5	0.231	2.43
KAU	SHE-37-7	700.0	703.5	3.5	0.210	2.45
KAU	SHE-38A	707.4	710.0	2.6	8.662	2.71
KAU	SHE-4	710.0	717.6	7.6	0.185	2.42
KAU	SHE-40A	722.8	725.4	2.6	0.158	2.45
KAU	SHE-43	712.8	717.3	4.5	2.535	2.52

Subzone	BHID	From	To	Length	U ₃ O ₈ and eU ₃ O ₈ %	Density (g/cm ³)
KAU	SHE-44	703.5	707.4	3.9	0.099	2.37
KAU	SHE-46	704.4	716.4	12.0	0.361	2.32
KAU	SHE-48	712.6	717.0	4.4	0.188	2.42
KAU	SHE-49	705.2	713.0	7.8	0.555	2.46
KAU	SHE-50	718.2	725.2	7.0	0.581	2.39
KAU	SHE-50-1	735.0	743.5	8.5	0.241	2.45
KAU	SHE-50-10	713.6	716.9	3.3	1.172	2.40
KAU	SHE-50-11	739.4	746.8	7.4	1.091	2.38
KAU	SHE-50-2	729.7	738.1	8.4	0.491	2.42
KAU	SHE-50-3	742.0	747.0	5.0	0.579	2.46
KAU	SHE-50-4	750.1	752.6	2.5	0.119	2.21
KAU	SHE-50-5	719.6	724.8	5.2	2.135	2.51
KAU	SHE-50-6	715.5	719.5	4.0	0.760	2.46
KAU	SHE-50-7	725.5	728.3	2.8	0.159	2.24
KAU	SHE-50-8	715.0	719.1	4.1	2.335	2.52
KAU	SHE-50-9	719.0	731.3	12.3	0.135	2.42
KAU	SHE-63B	716.8	728.7	11.9	0.668	2.46
KAU	SHE-79	714.5	717.5	3.0	5.440	2.56
KAU	SHE-80	714.2	717.5	3.3	0.116	2.41
KAU	SHE-82	717.5	735.0	17.5	0.438	2.44
KAU	SHE-85	714.3	716.6	2.3	0.119	2.45
KAU	SHE-87	705.5	717.5	12.0	5.821	2.62
KAU	SHE-88	713.5	719.5	6.0	0.164	2.24
KAU	SHE-94	711.0	724.1	13.1	0.549	2.26
KAU	SHE-94-1	707.9	717.3	9.4	1.278	2.48
KAU	SHE-94-2	718.5	726.1	7.6	0.577	2.31
KAU	SHE-94-3	709.4	721.9	12.5	1.397	2.38
KAU	SHE-94-4	718.0	727.4	9.4	0.628	2.23
KAU	SHE-94-5	711.0	724.2	13.2	1.829	2.50
KAU	SHE-94-6	708.0	711.9	3.9	0.407	2.35
KAU	SHE-95	719.6	723.7	4.1	0.163	2.45
KAU	SHE-95-1	713.1	723.1	10.0	1.397	2.38
KAU	SHE-95-2	713.1	719.5	6.4	0.062	2.44
KAU	SHE-95-3	710.5	732.6	22.1	2.987	2.43
KAU	SHE-95-4	716.5	721.4	4.9	0.264	2.33
KAU	SHE-96	705.5	719.1	13.6	0.165	2.45
KAU	SHE-96-1	719.8	738.9	19.1	0.289	2.43
KAU	SHE-96-2	714.2	718.0	3.8	0.078	2.44
KAU	SHE-96-3	706.0	737.4	31.4	3.890	2.39
KAU	SHE-98	700.7	712.6	11.9	1.428	2.36
KAU	SHE-98-1	713.0	717.5	4.5	0.498	2.46
KAU	SHE-98-2	710.5	716.0	5.5	0.493	2.46
KAU	SHE-98-3	711.6	712.2	0.6	0.450	2.20
KAU	SHE-98-4	716.4	723.6	7.2	0.208	2.20
KAU	SHE-99	701.3	712.4	11.1	7.642	2.57

Subzone	BHID	From	To	Length	U ₃ O ₈ and eU ₃ O ₈ %	Density (g/cm ³)
KAU	SHE-99-1	706.2	720.4	14.2	1.197	2.35
KAU	SHE-99-2	694.1	706.5	12.4	11.005	2.32
KAU	SHE-99-3	709.0	722.6	13.6	2.609	2.25
KAU	SHE-99-4	688.4	696.3	7.9	0.594	2.43
KAU	SHE-99-5	713.6	726.2	12.6	0.418	2.39
KB1	SHE-102-10	796.2	815.4	19.2	0.031	2.40
KB1	SHE-102-2	802.1	814.5	12.4	0.048	2.44
KB1	SHE-114-1	807.0	818.5	11.5	0.517	2.46
KB1	SHE-114-11	792.0	869.7	77.7	2.514	2.30
KB1	SHE-114-12	795.5	886.6	91.1	0.071	2.29
KB1	SHE-114-13	809.5	827.0	17.5	1.824	2.29
KB1	SHE-114-14	793.5	943.7	150.2	0.052	2.41
KB1	SHE-114-15	897.2	931.8	34.6	0.130	2.32
KB1	SHE-114-18A	800.1	884.8	84.7	0.242	2.23
KB1	SHE-114-18A	895.1	921.1	26.0	0.035	2.28
KB1	SHE-114-19A	796.0	864.2	68.2	0.794	2.36
KB1	SHE-114-20	791.3	943.0	151.7	0.894	2.37
KB1	SHE-114-4	797.5	813.5	16.0	0.298	2.45
KB1	SHE-114-5	810.0	825.0	15.0	0.200	2.20
KB1	SHE-114-8	809.0	872.3	63.3	1.277	2.41
KB1	SHE-114-9	803.0	885.5	82.5	0.256	2.27
KB1	SHE-115-1	811.7	827.6	15.9	0.062	2.20
KB1	SHE-115-1	862.3	919.3	57.0	0.420	2.21
KB1	SHE-115-10	811.9	931.4	119.5	1.212	2.23
KB1	SHE-115-11	829.9	871.0	41.1	2.468	2.51
KB1	SHE-115-13	857.0	864.0	7.0	0.727	2.46
KB1	SHE-115-14	836.0	877.5	41.5	0.239	2.38
KB1	SHE-115-15A	828.4	944.0	115.6	0.658	2.40
KB1	SHE-115-16	844.0	845.0	1.0	1.415	2.49
KB1	SHE-115-17A	832.0	963.0	131.0	0.031	2.34
KB1	SHE-115-18	805.0	848.0	43.0	0.195	2.31
KB1	SHE-115-18	878.5	880.0	1.5	0.062	2.20
KB1	SHE-115-18	894.0	910.9	16.9	0.638	2.20
KB1	SHE-115-19	829.3	845.0	15.7	0.098	2.44
KB1	SHE-115-2	805.3	900.4	95.1	0.105	2.34
KB1	SHE-115-20	836.7	847.5	10.8	0.024	2.19
KB1	SHE-115-3	831.9	942.1	110.2	0.079	2.35
KB1	SHE-115-4	840.6	925.5	84.9	0.037	2.42
KB1	SHE-115-5	908.8	931.8	23.0	0.066	2.37
KB1	SHE-115-6	822.5	901.9	79.4	0.268	2.41
KB1	SHE-115-7	814.0	854.0	40.0	0.431	2.29
KB1	SHE-115-7	882.0	927.7	45.7	0.089	2.33
KB1	SHE-115-8	817.3	926.3	109.0	0.400	2.38
KB1	SHE-115-9	813.4	844.5	31.1	1.373	2.47
KB1	SHE-115-9	883.0	923.0	40.0	0.116	2.21

Subzone	BHID	From	To	Length	U ₃ O ₈ and eU ₃ O ₈ %	Density (g/cm ³)
KB1	SHE-118-1	854.5	888.6	34.1	0.354	2.25
KB1	SHE-118-3	807.6	819.1	11.5	0.018	2.32
KB1	SHE-118-4	791.9	892.5	100.6	0.073	2.33
KB1	SHE-118-6B	804.5	810.0	5.5	0.583	2.46
KB1	SHE-118-7	797.0	803.5	6.5	0.108	2.22
KB1	SHE-118-8	797.5	820.0	22.5	1.252	2.42
KB2	SHE-102-3	742.6	763.5	20.9	0.038	2.40
KB2	SHE-118-14	746.0	758.0	12.0	0.289	2.44
KB2	SHE-118-15	746.5	755.5	9.0	0.489	2.23
KB2	SHE-121-2	745.5	748.5	3.0	0.165	2.45
KB2	SHE-121-3	743.2	753.6	10.4	0.261	2.42
KB2	SHE-123-1	782.0	790.0	8.0	0.056	2.44
KB2	SHE-123-2	786.5	787.0	0.5	0.880	2.47
KB2	SHE-123-3	768.6	784.2	15.6	0.362	2.44
KB2	SHE-123-4	765.0	771.0	6.0	0.276	2.37
KB2	SHE-123-4	786.1	787.6	1.5	0.683	2.46
KB2	SHE-123-7	792.3	802.0	9.7	0.149	2.41
KB2	SHE-123-8	793.4	795.2	1.8	0.583	2.46
KB2	SHE-18	775.3	803.1	27.8	0.054	2.44
KB2	SHE-50	735.5	765.6	30.1	0.008	2.21
KB2	SHE-50-2	758.0	774.8	16.8	0.309	2.41
KB2	SHE-50-3	773.5	784.0	10.5	0.039	2.44
KB2	SHE-50-5	786.3	793.5	7.2	0.093	2.44
KB2	SHE-97	736.0	745.0	9.0	0.115	2.44
KB3	SHE-102-10	751.6	760.2	8.6	0.006	2.34
KB3	SHE-102-11	778.4	782.0	3.6	0.032	2.19
KB3	SHE-102-2	727.0	743.4	16.4	0.017	2.44
KB3	SHE-114-10A	763.5	764.5	1.0	0.137	2.20
KB3	SHE-114-18A	760.2	764.2	4.0	0.059	2.44
KB3	SHE-114-20	756.0	765.0	9.0	0.267	2.45
KB3	SHE-114-5	762.0	763.9	1.9	0.048	2.20
KB3	SHE-114-7	766.3	768.0	1.7	0.085	2.20
KB3	SHE-115-1	766.1	767.9	1.8	0.221	2.21
KB3	SHE-115-10	768.0	771.3	3.3	0.088	2.20
KB3	SHE-115-18	772.1	780.4	8.3	0.162	2.39
KB3	SHE-115-2	762.0	774.5	12.5	0.108	2.40
KB3	SHE-115-3	762.0	771.0	9.0	0.291	2.20
KB3	SHE-115-4	767.5	768.0	0.5	1.320	2.21
KB3	SHE-115-5	763.0	781.2	18.2	0.092	2.24
KB3	SHE-115-6	767.7	777.9	10.2	0.252	2.30
KB3	SHE-115-7	770.0	770.5	0.5	0.070	2.20
KB3	SHE-115-8	770.8	772.9	2.1	0.025	2.19
KB3	SHE-115-9	771.5	773.5	2.0	0.113	2.20
KB3	SHE-118	737.3	746.2	8.9	0.237	2.20
KB3	SHE-118-5	722.5	748.5	26.0	0.124	2.20

Subzone	BHID	From	To	Length	U ₃ O ₈ and eU ₃ O ₈ %	Density (g/cm ³)
KB3	SHE-118-5A	719.0	749.0	30.0	0.072	2.20
KB3	SHE-118-8	754.1	755.0	0.9	0.042	2.44
KB3	SHE-118-9	728.5	737.5	9.0	0.062	2.20
KB4	SHE-118-10	798.0	803.5	5.5	0.230	2.45
KB4	SHE-123-12	809.5	811.5	2.0	4.228	2.57
KB4	SHE-123-2	800.5	828.5	28.0	0.694	2.46
KB4	SHE-123-6	806.5	820.6	14.1	0.027	2.44
KB4	SHE-123-8	817.4	823.1	5.7	0.033	2.39
KB4	SHE-123-9	809.5	828.0	18.5	0.683	2.39
KB4	SHE-50-3	814.4	816.1	1.7	0.033	2.44
KB5	SHE-102-1	768.8	774.3	5.5	0.071	2.44
KB5	SHE-102-10	775.0	775.5	0.5	0.190	2.45
KB5	SHE-114-10A	772.9	773.6	0.7	0.086	2.44
KB5	SHE-114-18A	771.7	772.2	0.5	0.038	2.44
KB5	SHE-114-19A	783.5	784.0	0.5	0.610	2.20
KB5	SHE-114-20	771.0	774.5	3.5	3.253	2.54
KB5	SHE-114-7	780.9	781.7	0.8	0.131	2.45
KB5	SHE-115-1	781.2	782.5	1.4	0.144	2.44
KB5	SHE-115-10	789.5	790.5	1.0	0.575	2.46
KB5	SHE-115-18	785.8	786.3	0.5	0.054	2.44
KB5	SHE-115-2	793.5	794.0	0.5	0.610	2.46
KB5	SHE-115-5	792.0	796.0	4.0	4.091	2.31
KB5	SHE-115-6	798.0	799.0	1.0	3.570	2.55
KB5	SHE-115-7	798.3	801.1	2.8	0.084	2.20
KB5	SHE-115-8	791.7	798.5	6.8	0.287	2.45
KB5	SHE-115-9	784.0	787.0	3.0	0.260	2.45
KB5	SHE-118	762.6	775.3	12.7	0.354	2.20
KB5	SHE-118-5A	761.4	764.6	3.2	0.014	2.32
KB5	SHE-118-8	772.5	778.5	6.0	0.051	2.44
KB5	SHE-118-9	761.5	778.0	16.5	0.576	2.46
KB6	SHE-114-17	873.8	944.0	70.2	0.538	2.31
KB6	SHE-130-1A	843.5	877.0	33.5	0.022	2.36
KB6	SHE-130-2	915.0	921.0	6.0	0.210	2.45
KB7	SHE-115-11	742.1	743.1	1.0	0.006	2.44
KB7	SHE-115-15	738.5	739.0	0.5	0.090	2.45
KB7	SHE-115-15A	736.5	741.3	4.8	0.030	2.19
KB7	SHE-115-16	739.5	742.5	3.0	0.025	2.44
KB7	SHE-115-17A	738.5	743.5	5.0	0.030	2.22
KB7	SHE-115-19	742.4	743.2	0.8	0.060	2.20
KB7	SHE-115-20	747.0	747.5	0.5	0.180	2.45
KP1	SHE-114	684.5	686.5	2.0	2.868	2.53
KP1	SHE-114-1	680.2	692.5	12.3	0.740	2.47
KP1	SHE-114-10A	671.8	679.5	7.7	0.244	2.45
KP1	SHE-114-11	674.5	694.6	20.1	3.743	2.56
KP1	SHE-114-12	682.5	688.4	5.9	1.471	2.49

Subzone	BHID	From	To	Length	U ₃ O ₈ and eU ₃ O ₈ %	Density (g/cm ³)
KP1	SHE-114-13	685.1	691.7	6.6	0.156	2.45
KP1	SHE-114-18A	670.8	694.8	24.0	2.337	2.51
KP1	SHE-114-19	681.2	694.4	13.2	5.962	2.58
KP1	SHE-114-19A	671.6	692.0	20.4	3.092	2.54
KP1	SHE-114-20	675.0	676.5	1.5	0.147	2.45
KP1	SHE-114-5	669.3	688.8	19.5	10.423	2.76
KP1	SHE-114-7	662.5	683.1	20.6	6.406	2.64
KP1	SHE-114-9	677.1	699.0	21.9	6.227	2.30
KP1	SHE-115-1	687.3	688.3	1.0	0.134	2.45
KP1	SHE-115-10	681.3	683.6	2.3	0.893	2.47
KP1	SHE-115-18	686.6	699.6	13.0	8.490	2.70
KP1	SHE-115-9	677.4	695.3	17.9	1.714	2.49
KP2	SHE-115-1	659.6	666.7	7.1	0.319	2.45
KP2	SHE-115-10	663.0	669.5	6.5	0.189	2.45
KP2	SHE-115-2	663.7	669.7	6.0	0.039	2.44
KP2	SHE-115-8	663.7	670.4	6.7	6.088	2.63
KP2	SHE-115-9	669.0	674.4	5.4	0.210	2.45
KP3	SHE-102-10	701.0	707.0	6.0	0.369	2.45
KP3	SHE-102-11	696.7	700.7	4.0	1.978	2.51
KP3	SHE-115-2	713.9	715.2	1.3	0.370	2.45
KP3	SHE-115-6	704.2	714.7	10.5	1.728	2.49

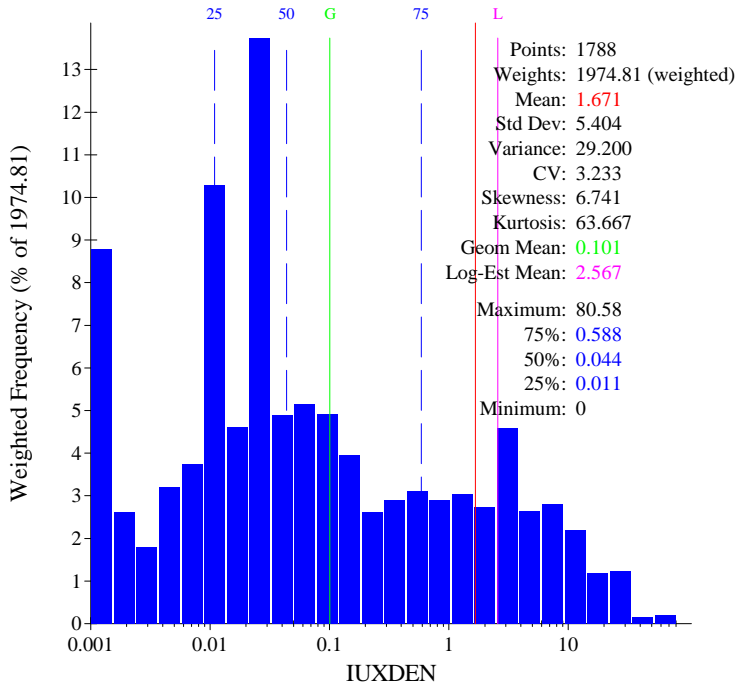


APPENDIX II

Histograms by Subzone or Zone

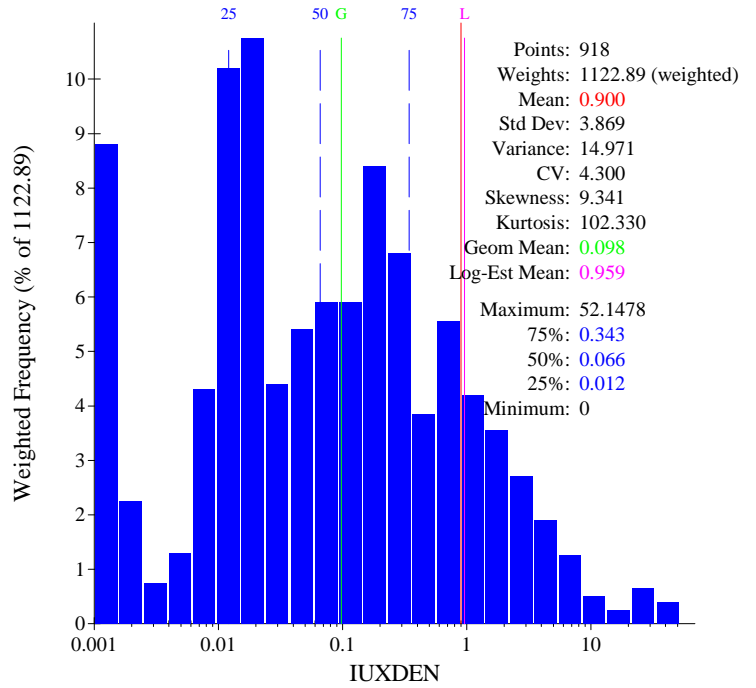
Log Histogram for IUXDEN

Domain AB1



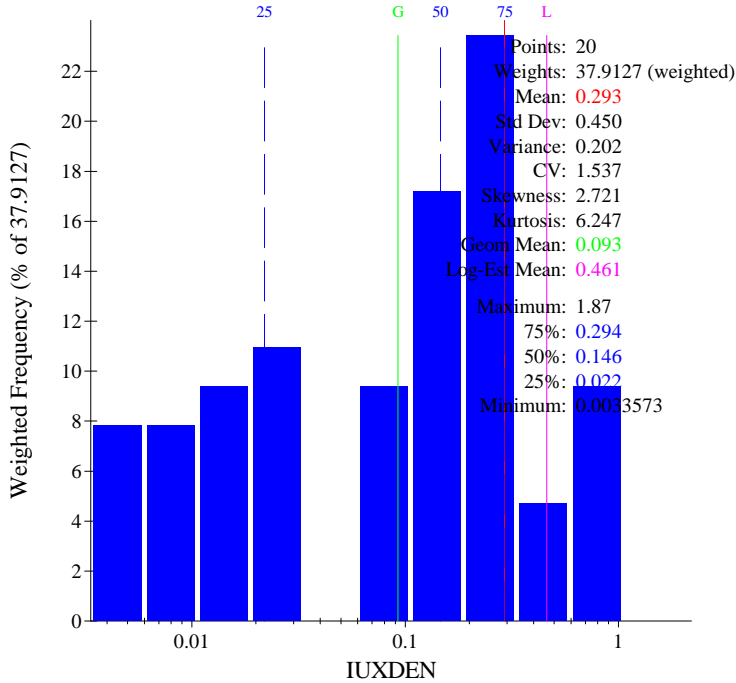
Log Histogram for IUXDEN

Domain AB2



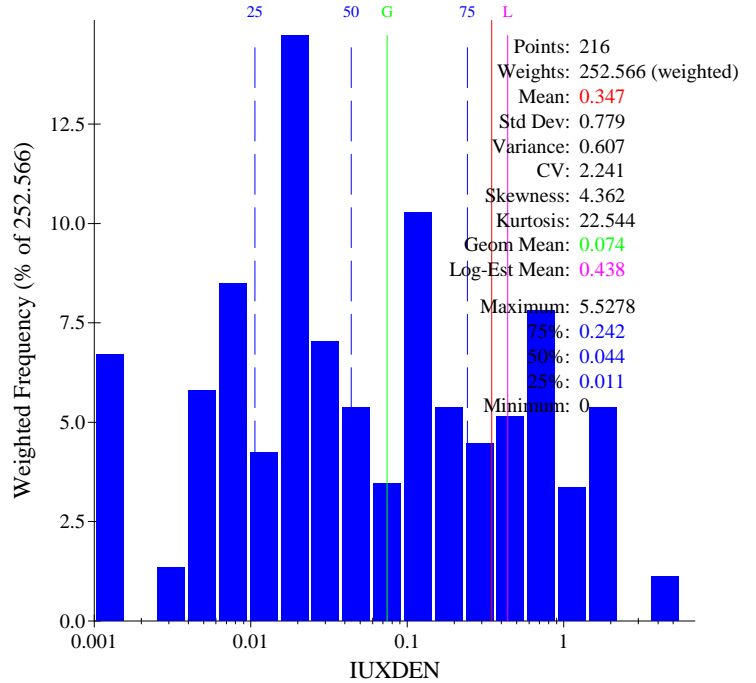
Log Histogram for IUXDEN

Domain AB4



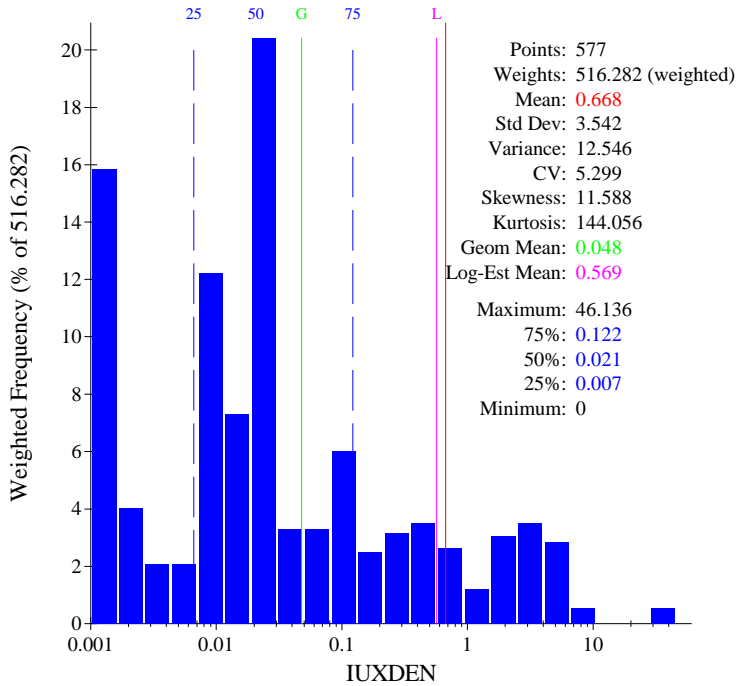
Log Histogram for IUXDEN

Domain AB5



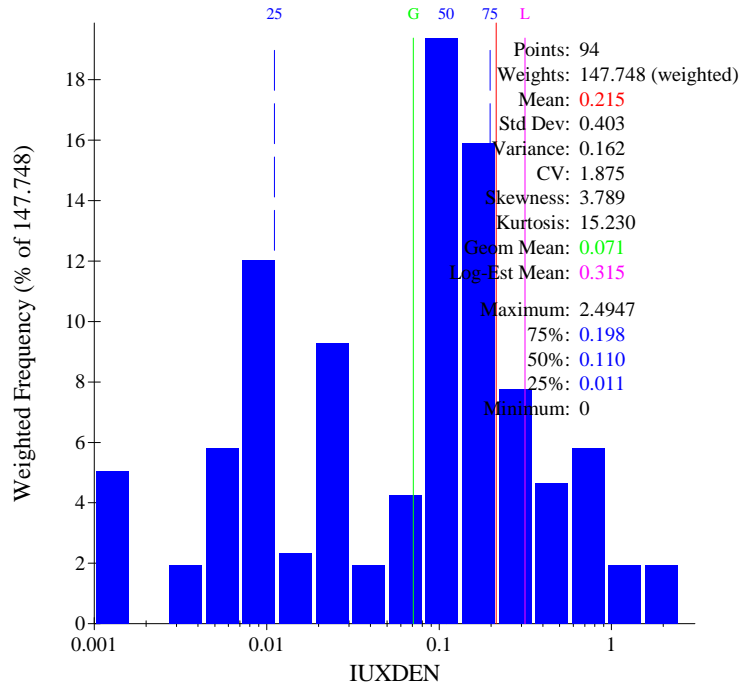
Log Histogram for IUXDEN

Domain AB6



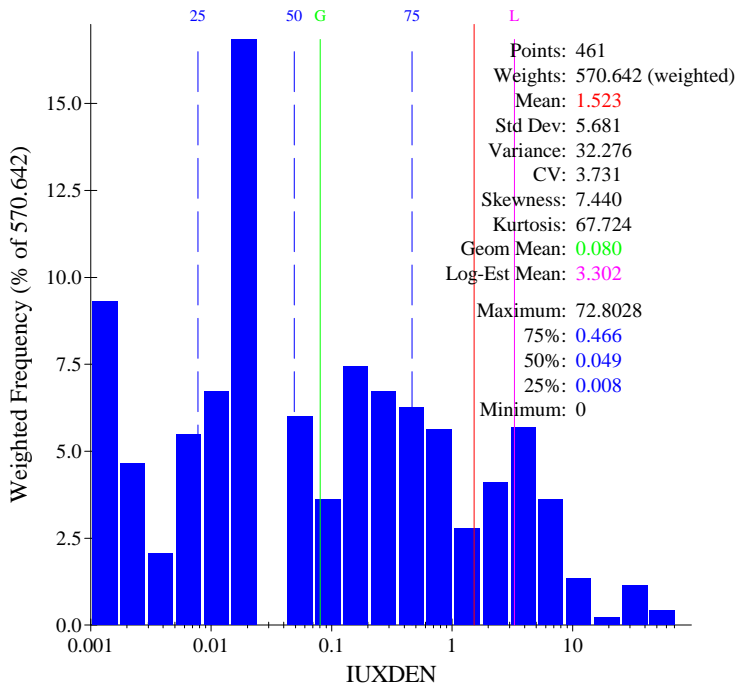
Log Histogram for IUXDEN

Domain AB7



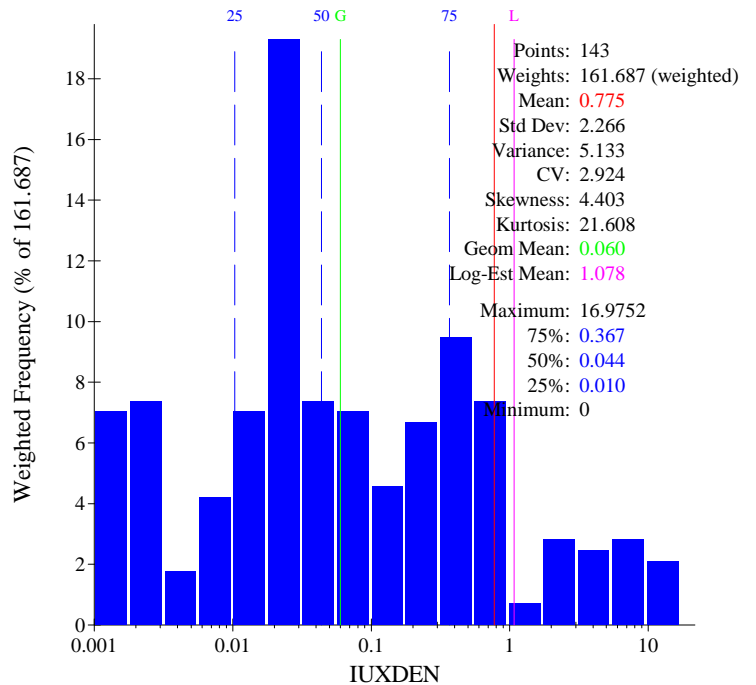
Log Histogram for IUXDEN

Domain AB8



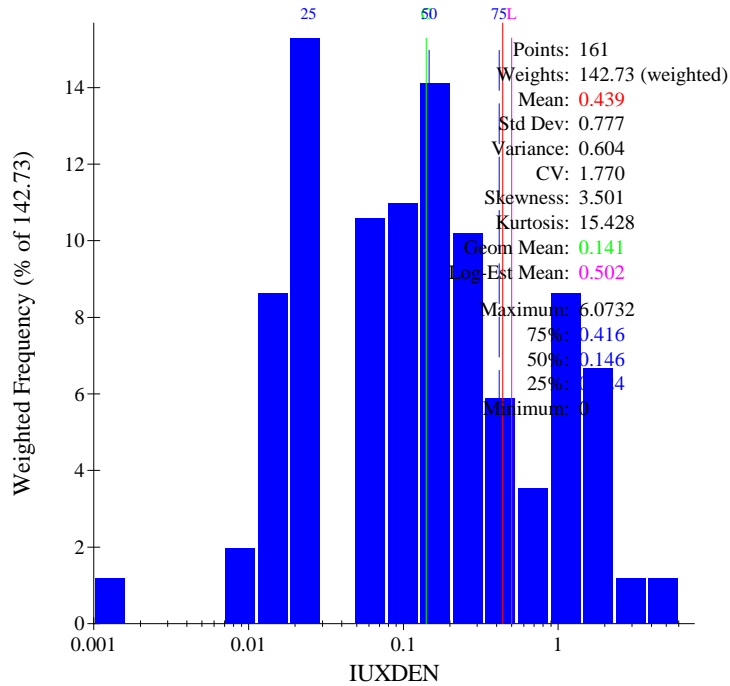
Log Histogram for IUXDEN

Domain AB9



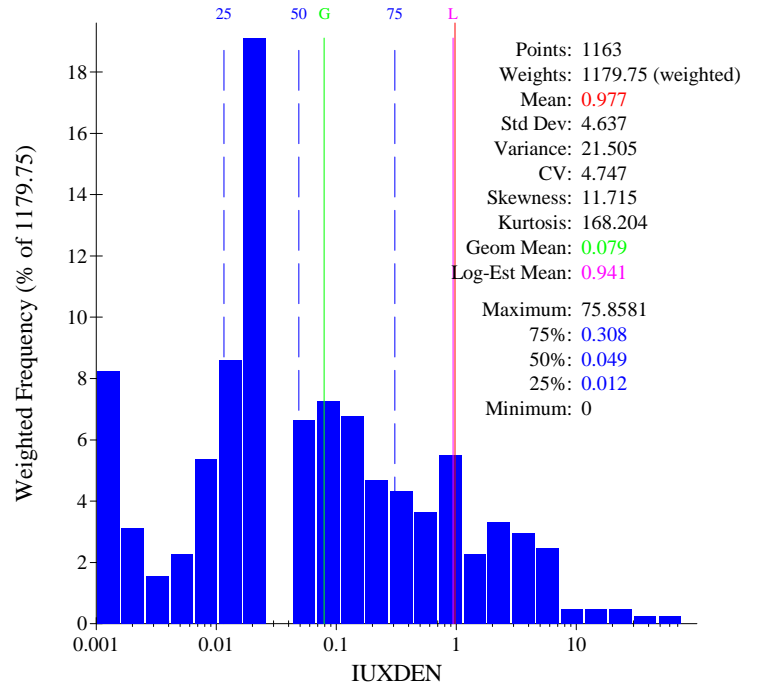
Log Histogram for IUXDEN

Domain AP1



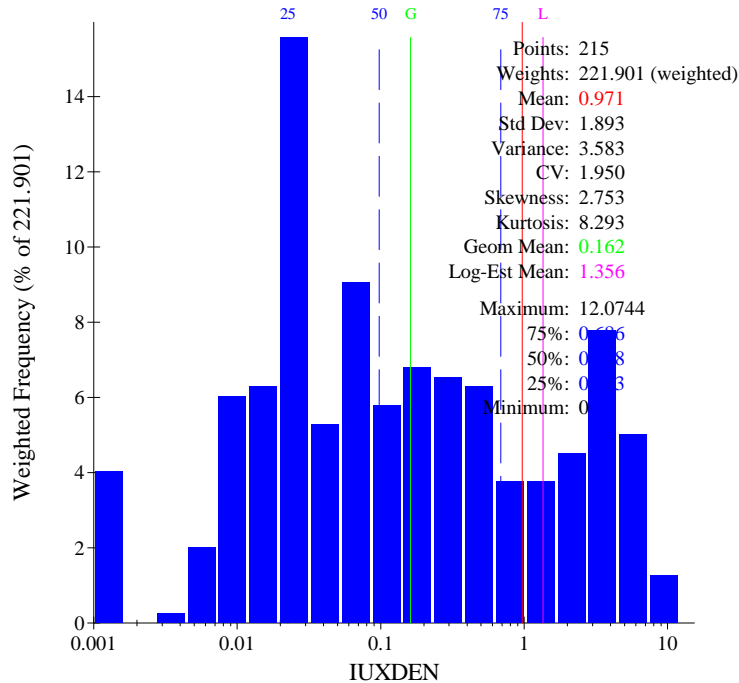
Log Histogram for IUXDEN

Domain CB1



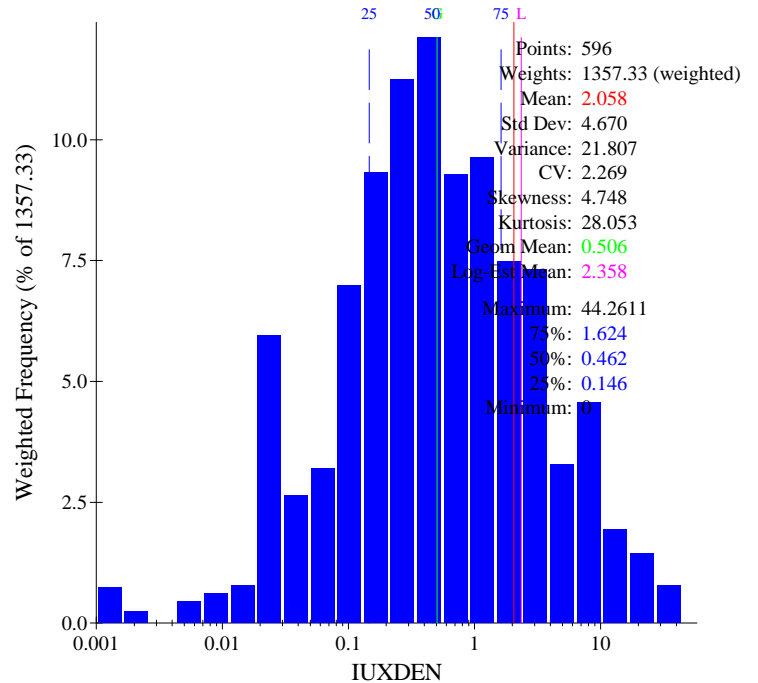
Log Histogram for IUXDEN

Domain CP1



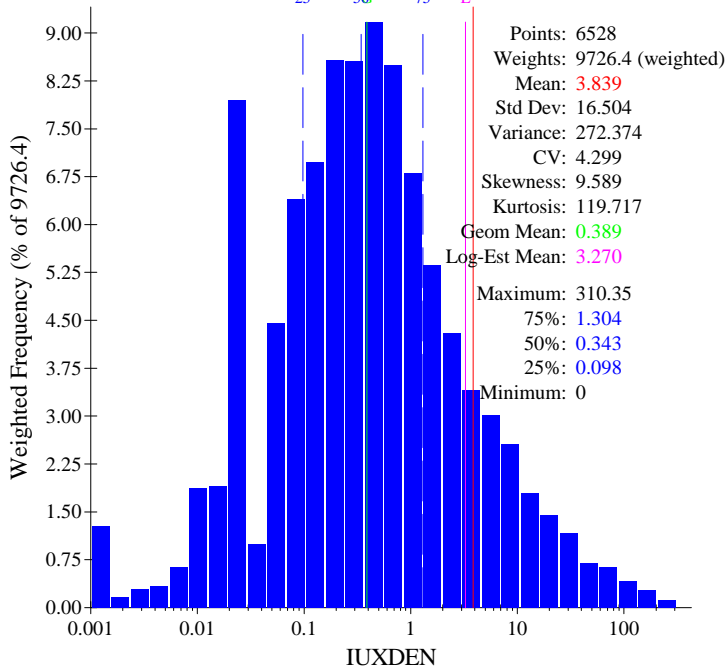
Log Histogram for IUXDEN

Domain CU1



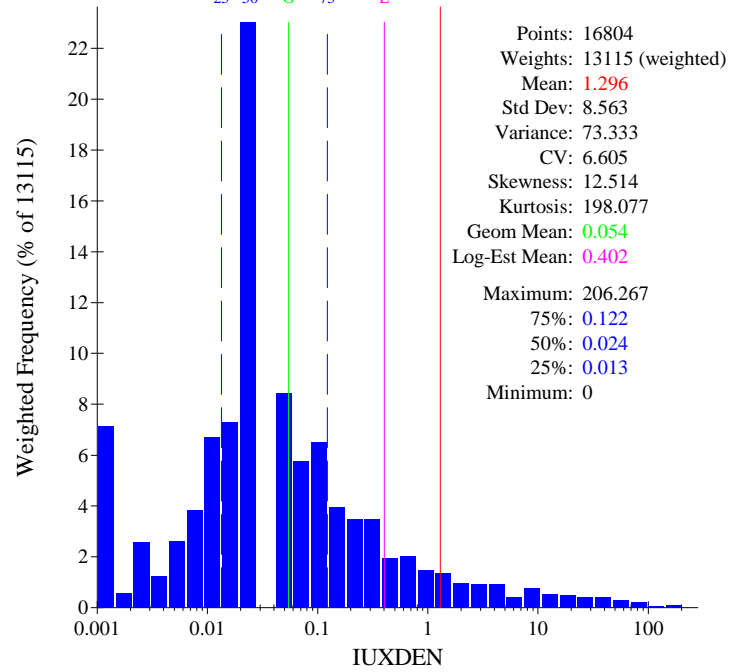
Log Histogram for IUxDEN

Domain KAU



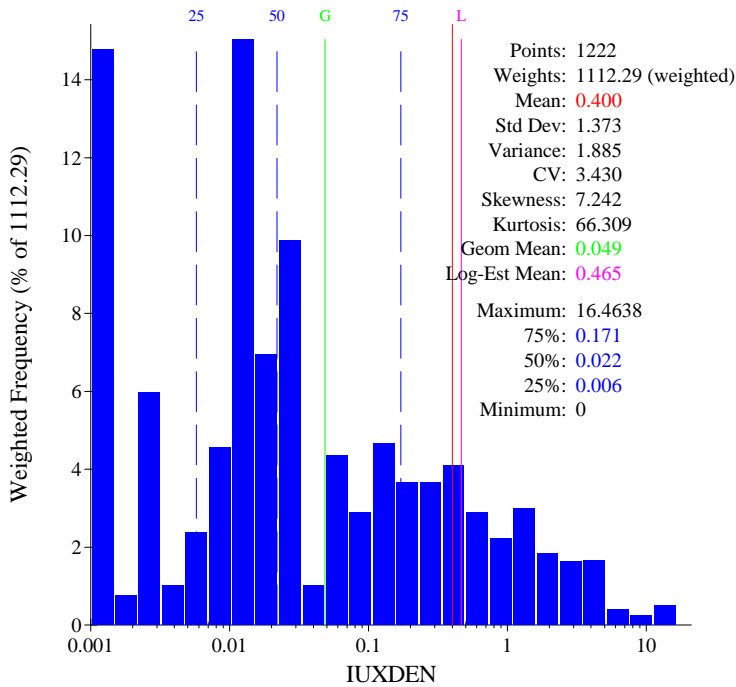
Log Histogram for IUxDEN

Domain KB1



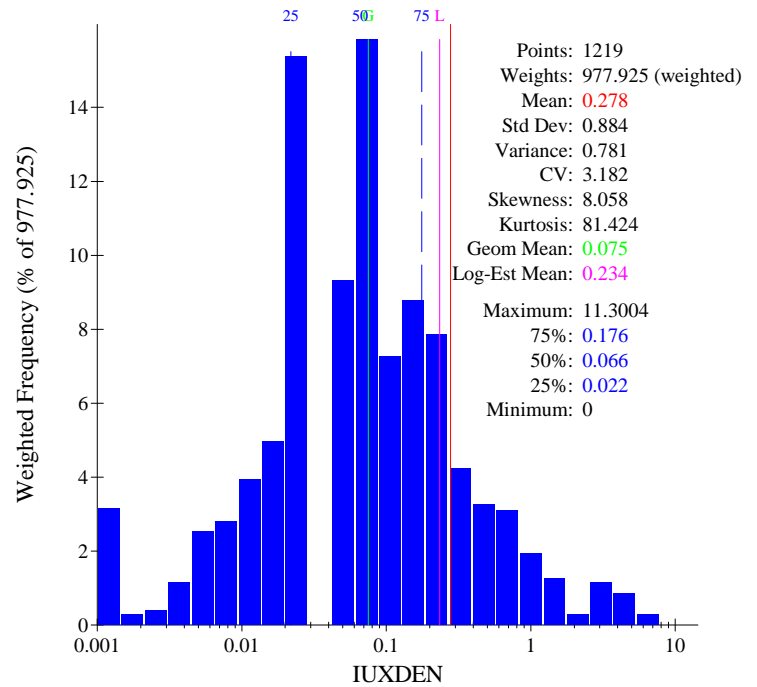
Log Histogram for IUxDEN

Domain KB2



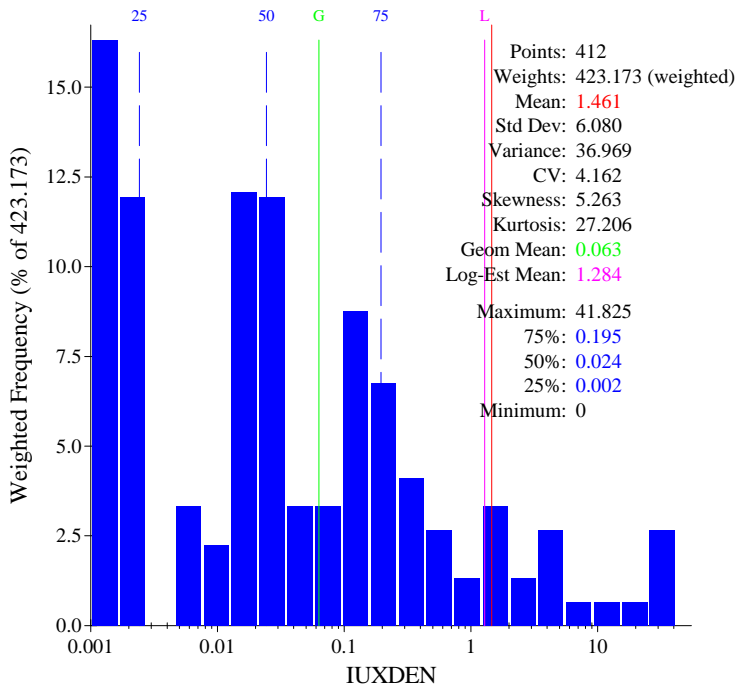
Log Histogram for IUxDEN

Domain KB3



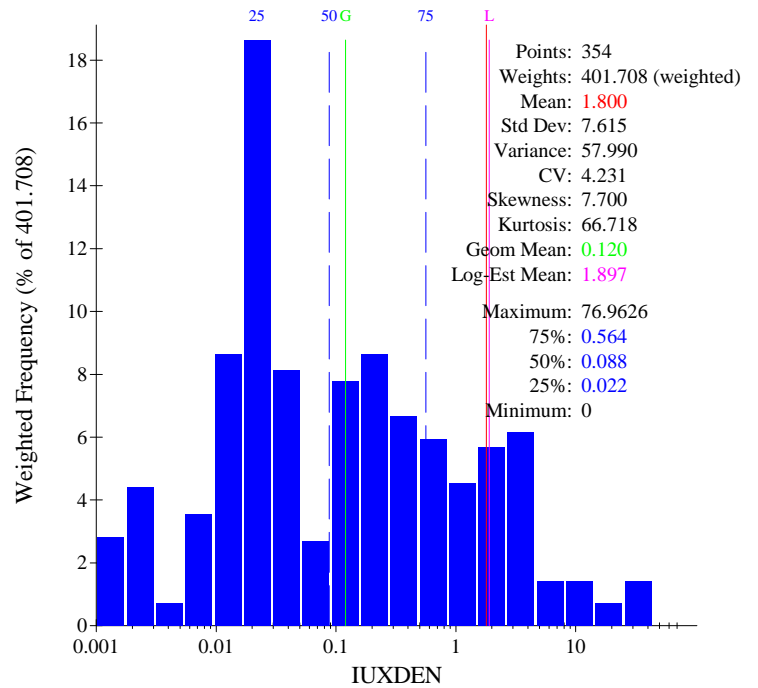
Log Histogram for IUXDEN

Domain KB4



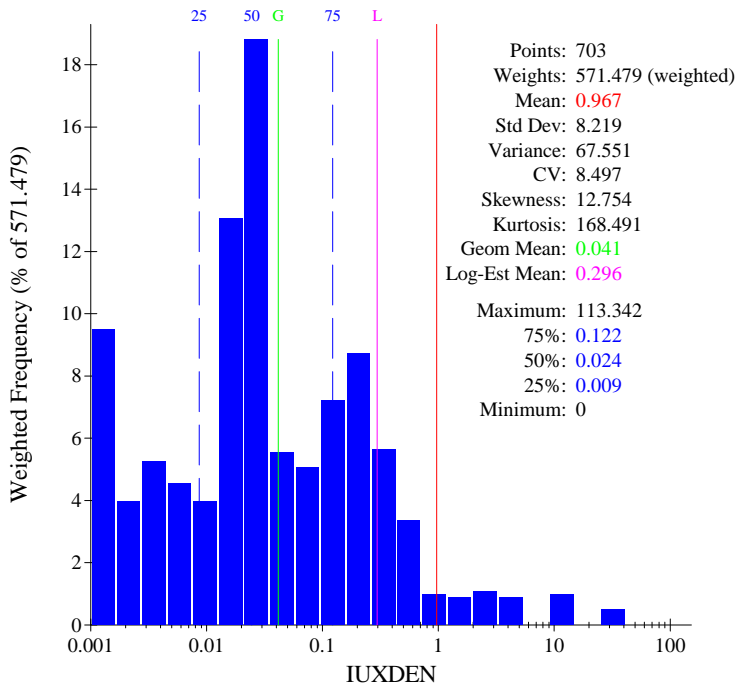
Log Histogram for IUXDEN

Domain KB5



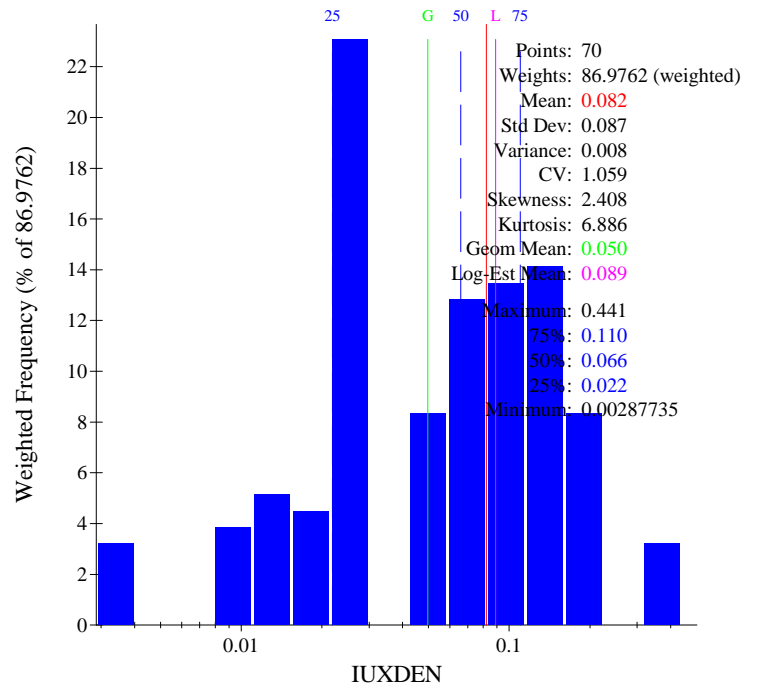
Log Histogram for IUXDEN

Domain KB6



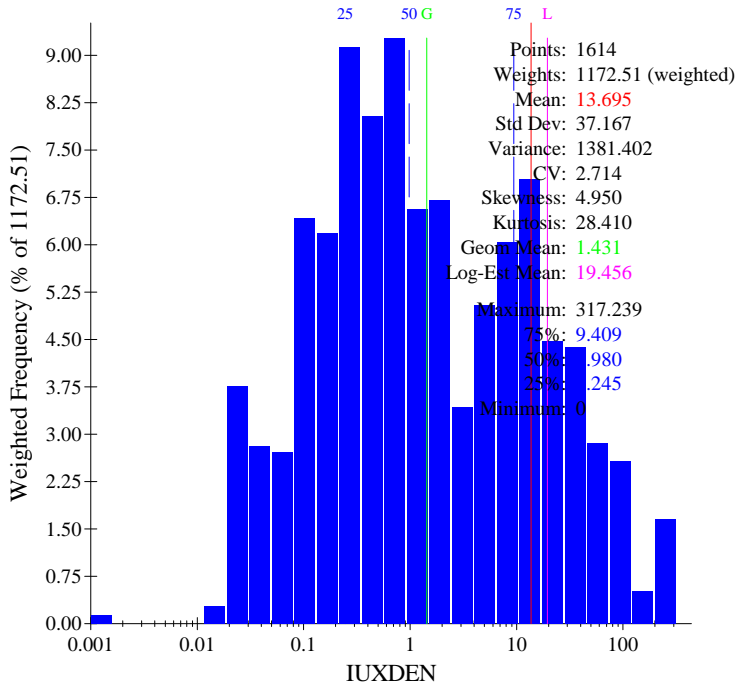
Log Histogram for IUXDEN

Domain KB7



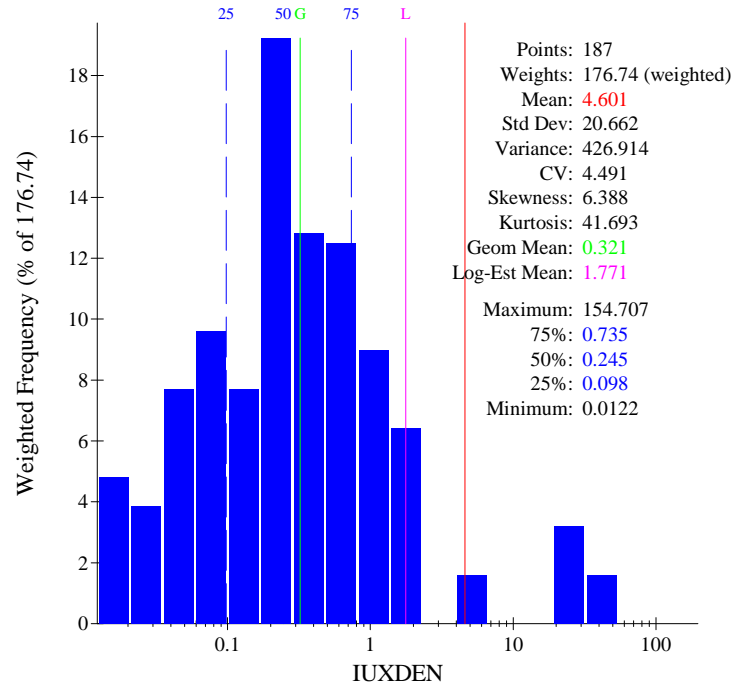
Log Histogram for IUXDEN

Domain KP1



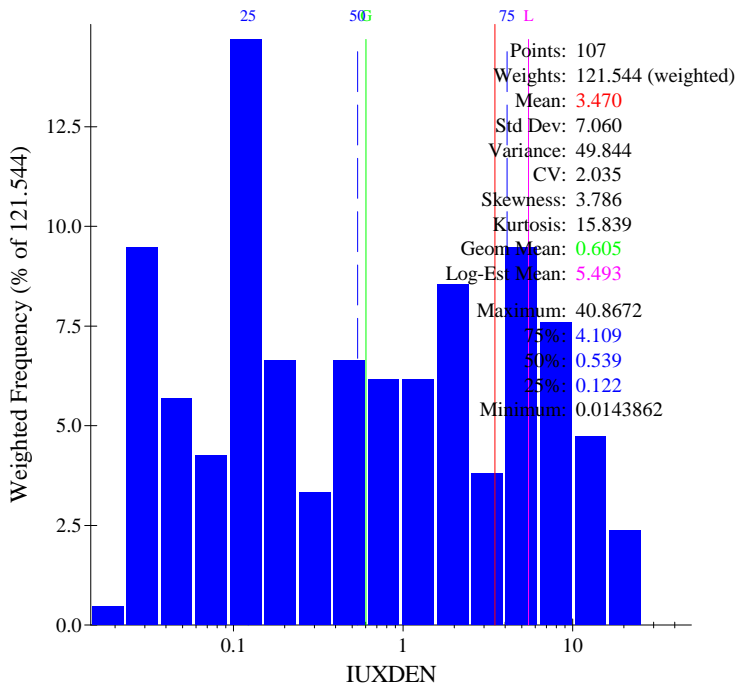
Log Histogram for IUXDEN

Domain KP2



Log Histogram for IUXDEN

Domain KP3



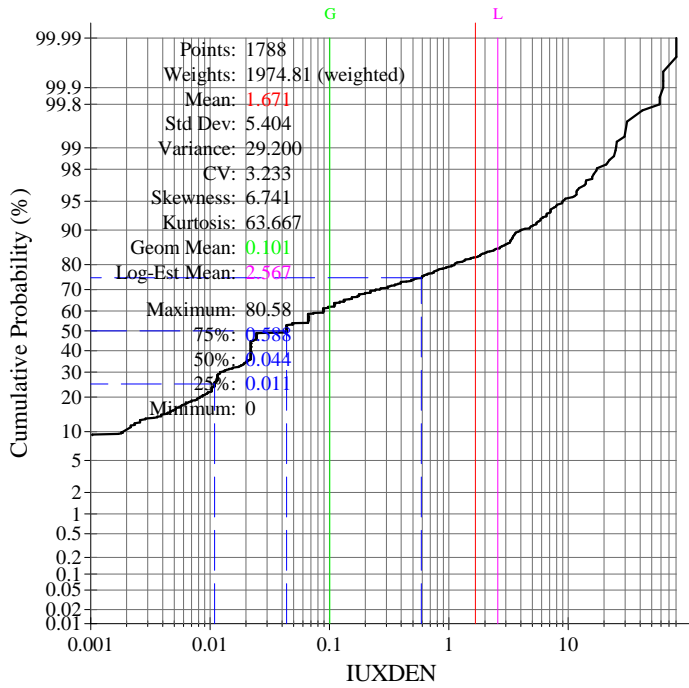


APPENDIX III

Log Probability Plots by Subzone or Zone

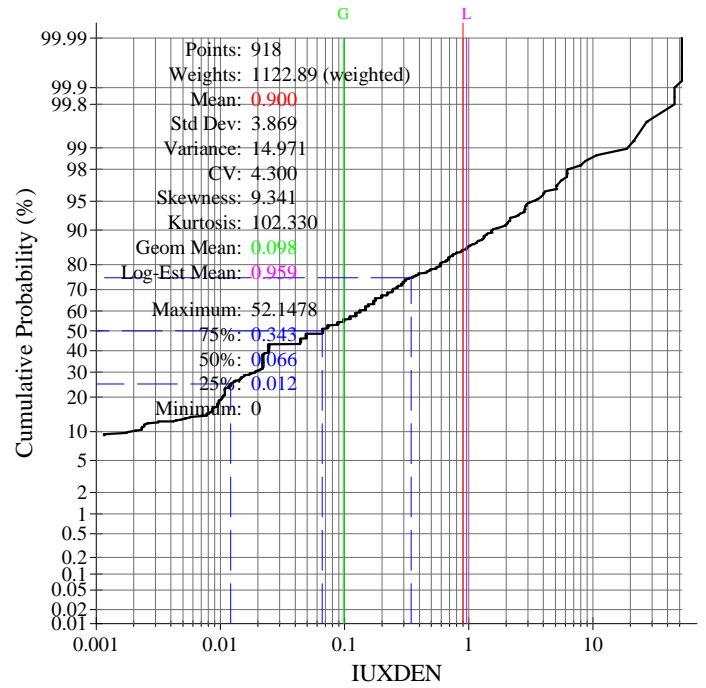
Log Probability Plot for IUxDEN

Domain AB1



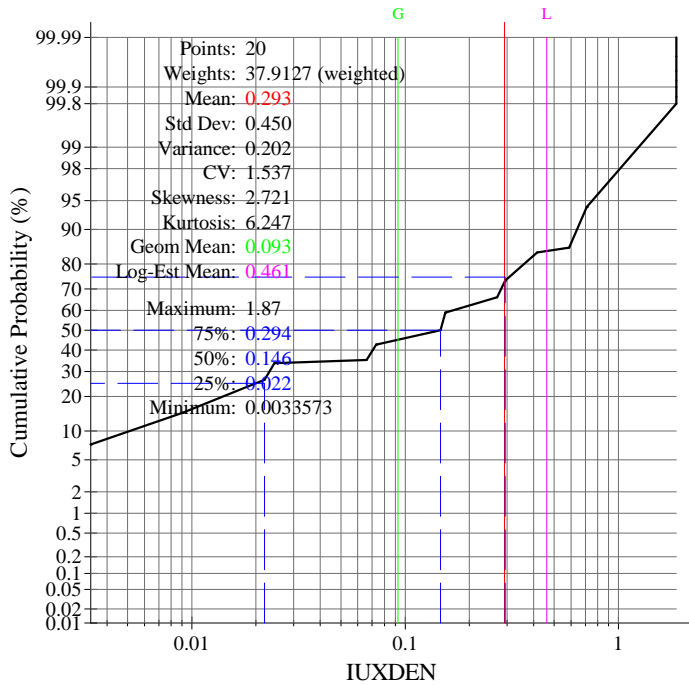
Log Probability Plot for IUxDEN

Domain AB2



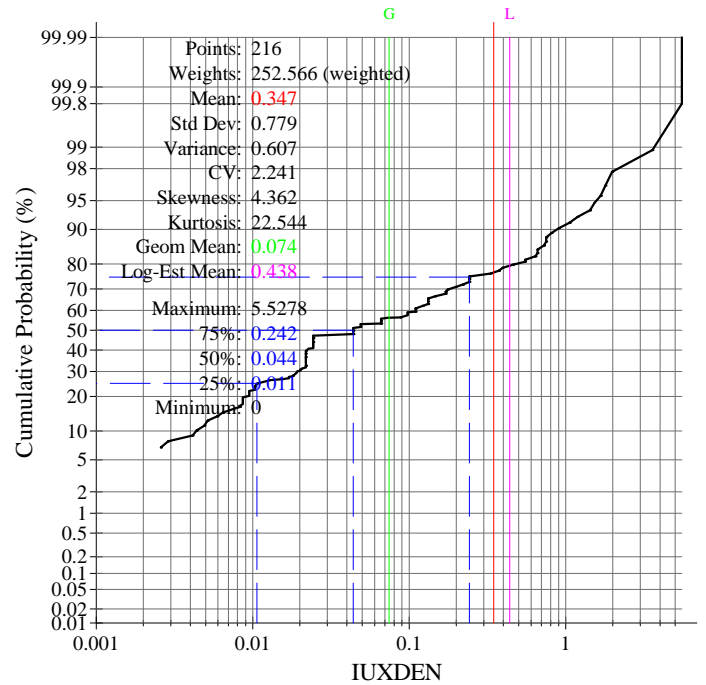
Log Probability Plot for IUxDEN

Domain AB4



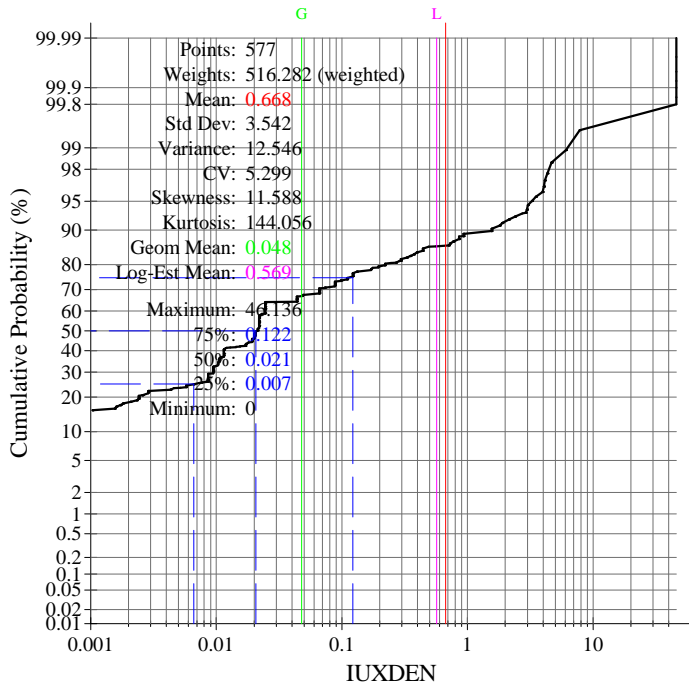
Log Probability Plot for IUxDEN

Domain AB5



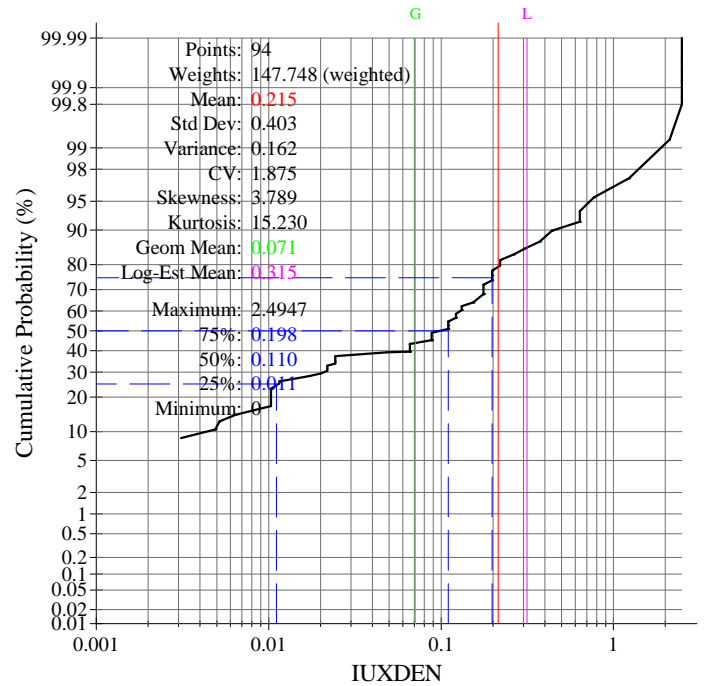
Log Probability Plot for IUXDEN

Domain AB6



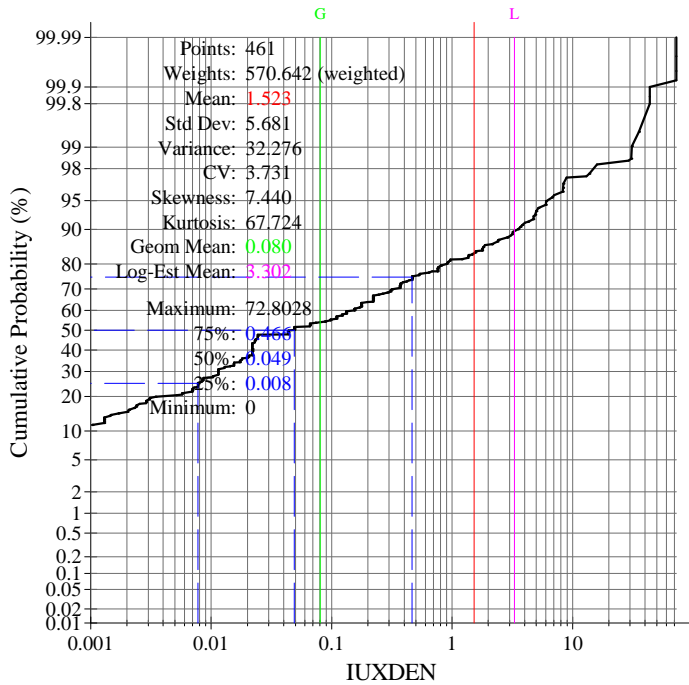
Log Probability Plot for IUXDEN

Domain AB7



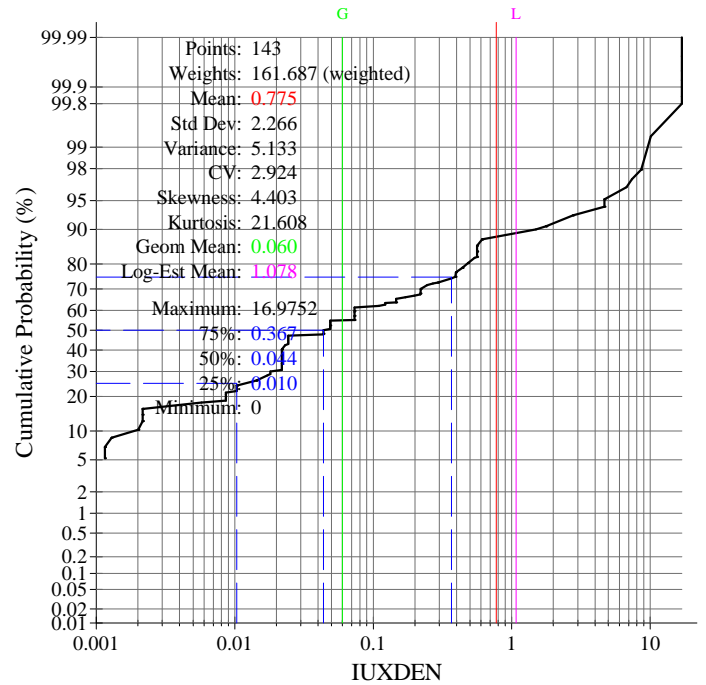
Log Probability Plot for IUXDEN

Domain AB8



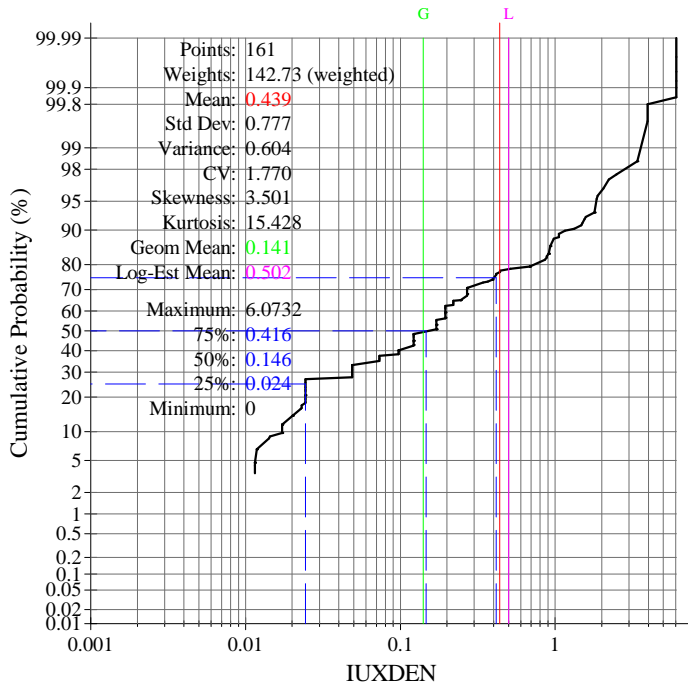
Log Probability Plot for IUXDEN

Domain AB9



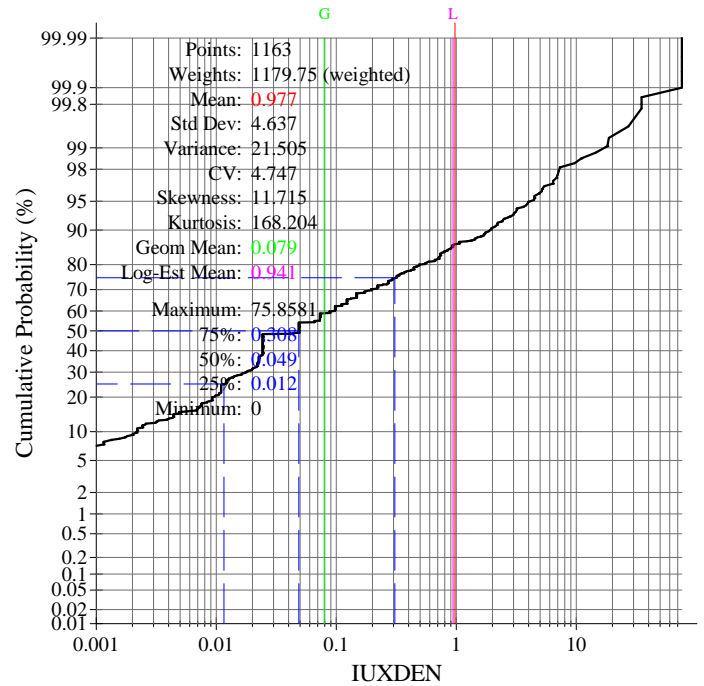
Log Probability Plot for IUXDEN

Domain AP1



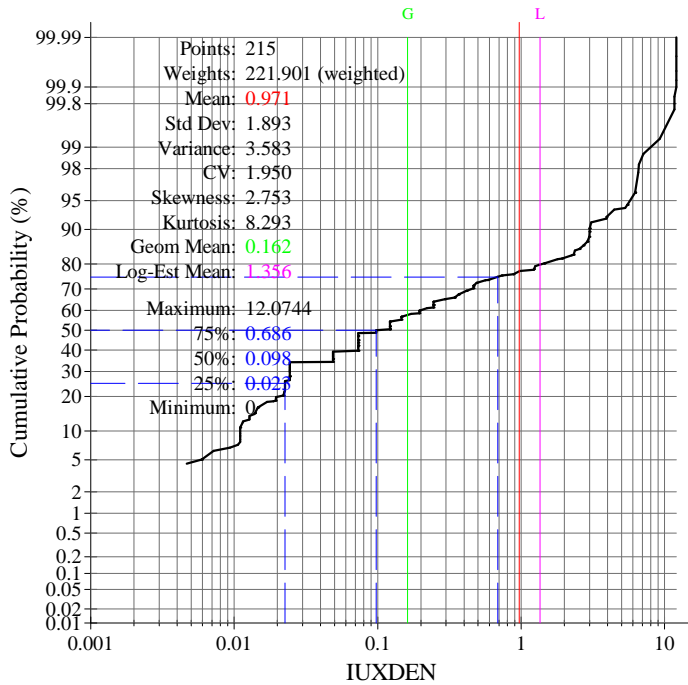
Log Probability Plot for IUXDEN

Domain CB1



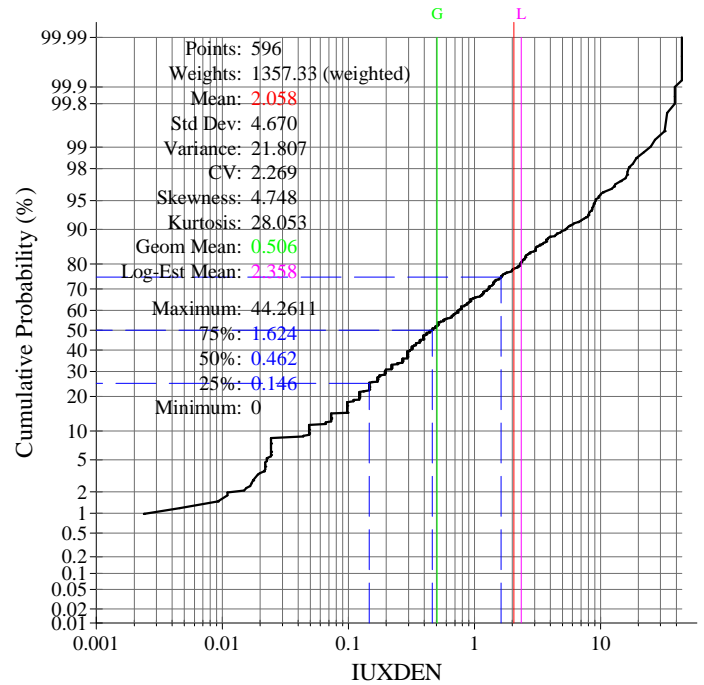
Log Probability Plot for IUXDEN

Domain CP1



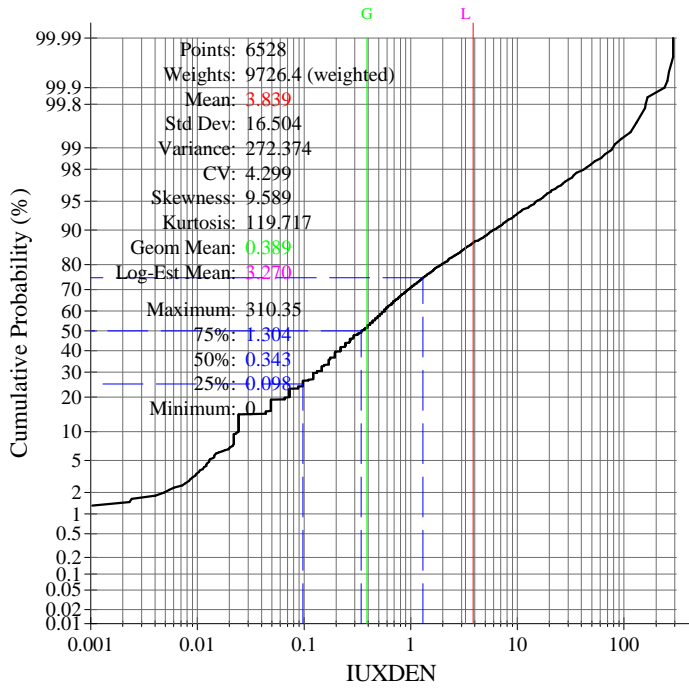
Log Probability Plot for IUXDEN

Domain CU1



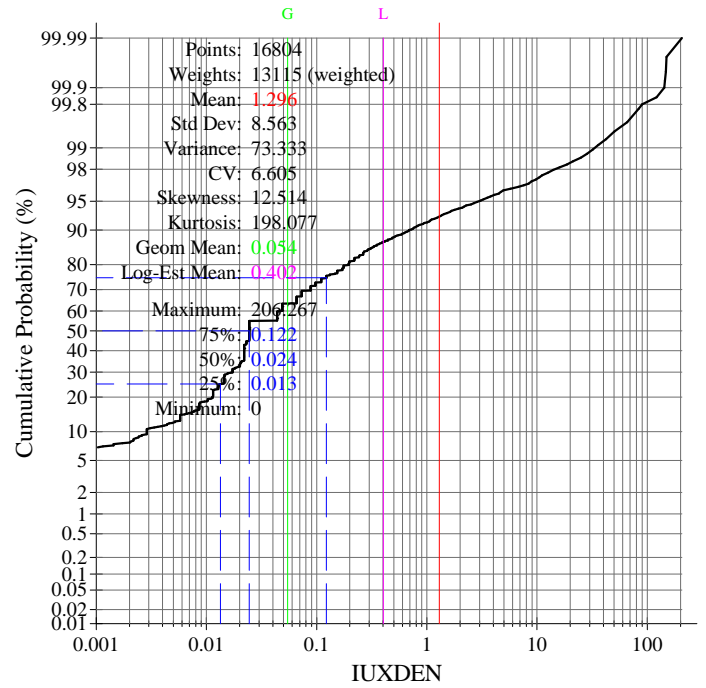
Log Probability Plot for IUXDEN

Domain KAU



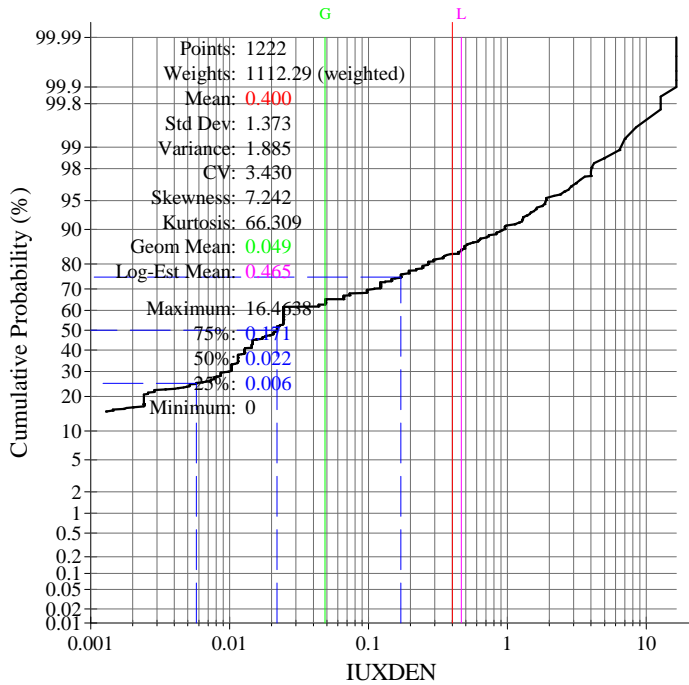
Log Probability Plot for IUXDEN

Domain KB1



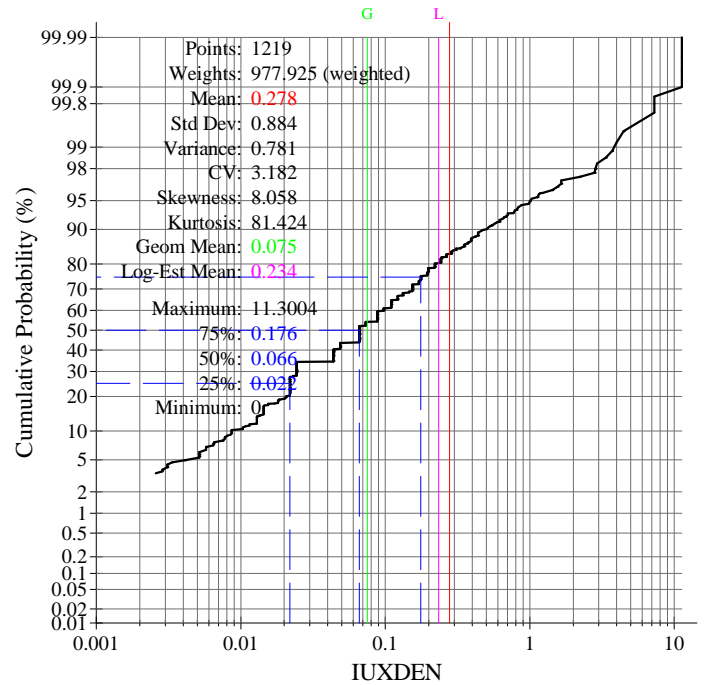
Log Probability Plot for IUXDEN

Domain KB2



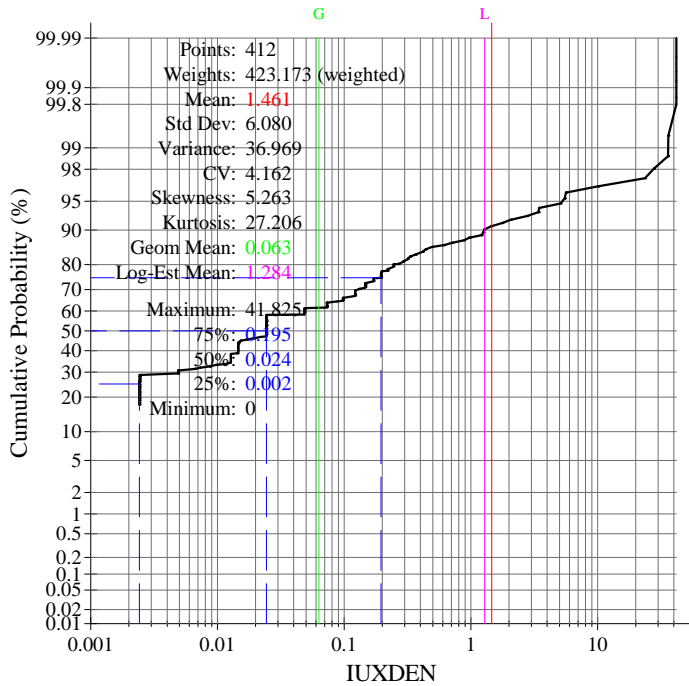
Log Probability Plot for IUXDEN

Domain KB3



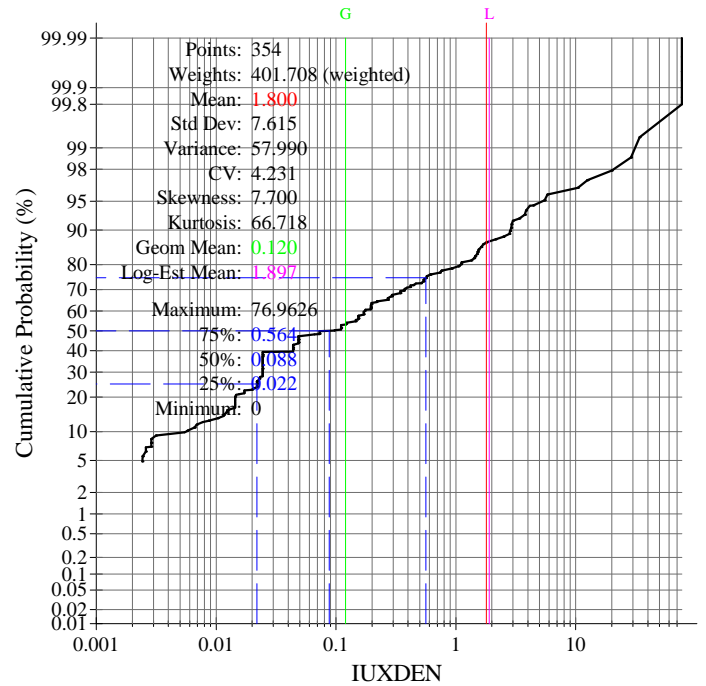
Log Probability Plot for IUXDEN

Domain KB4



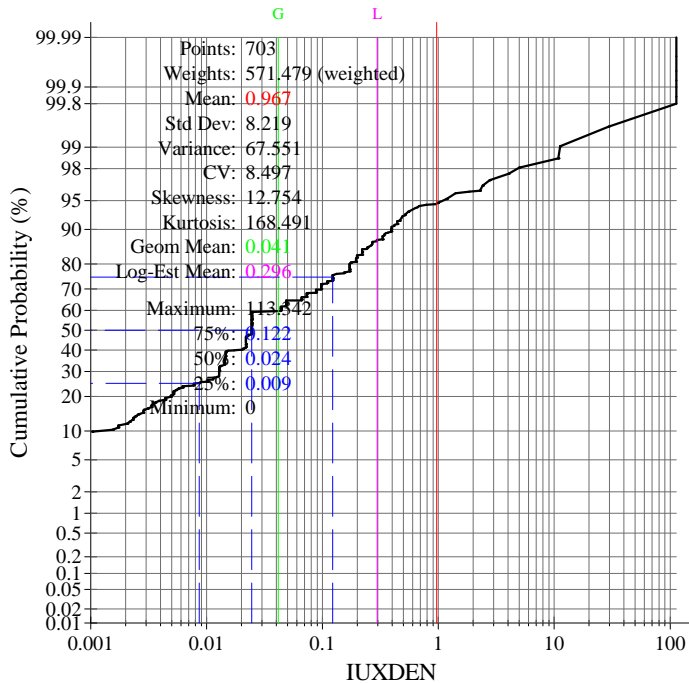
Log Probability Plot for IUXDEN

Domain KB5



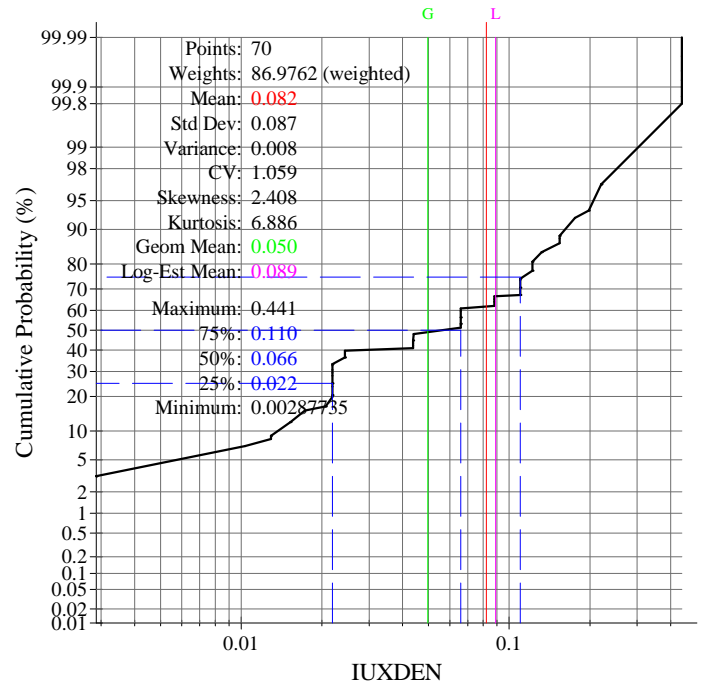
Log Probability Plot for IUXDEN

Domain KB6



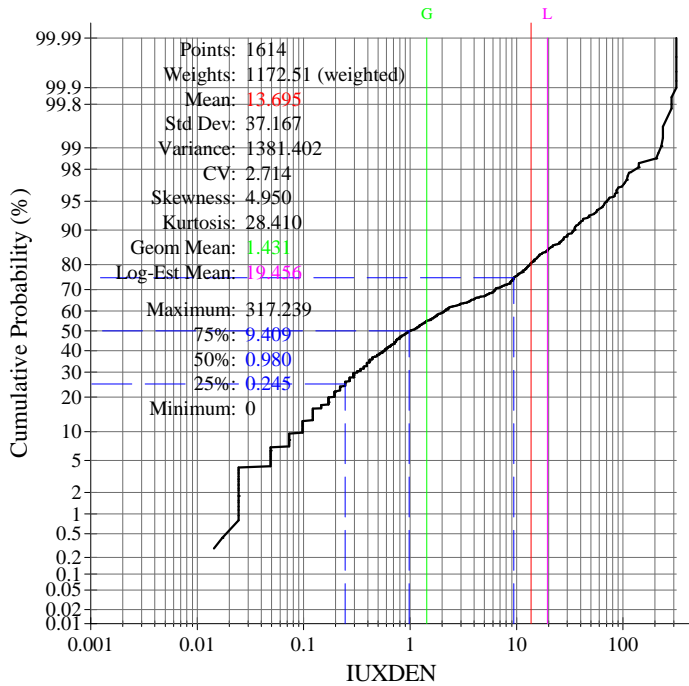
Log Probability Plot for IUXDEN

Domain KB7



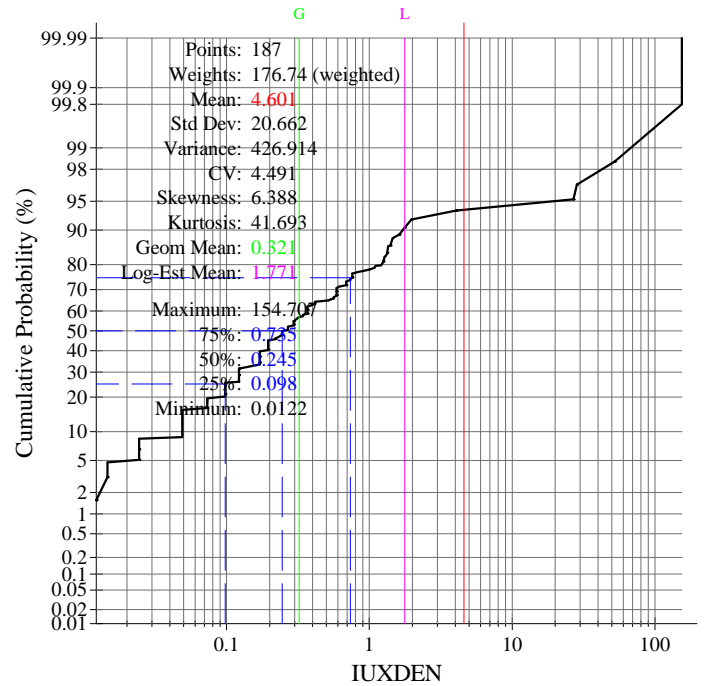
Log Probability Plot for IUXDEN

Domain KP1



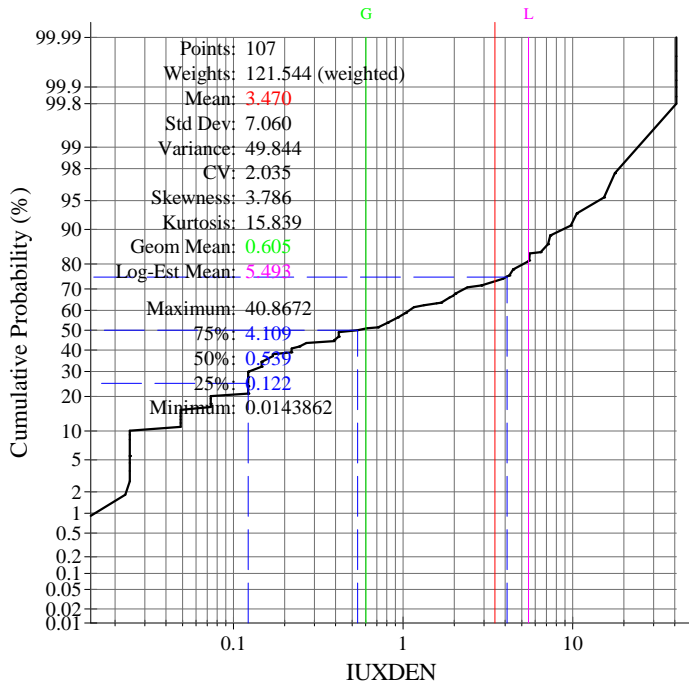
Log Probability Plot for IUXDEN

Domain KP2



Log Probability Plot for IUXDEN

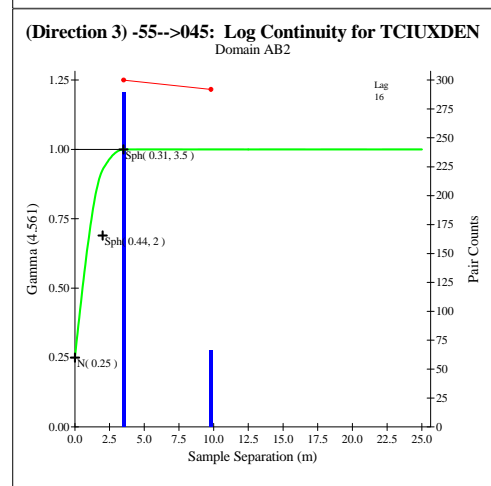
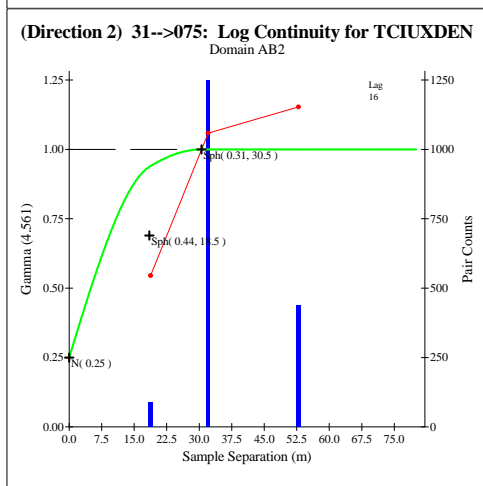
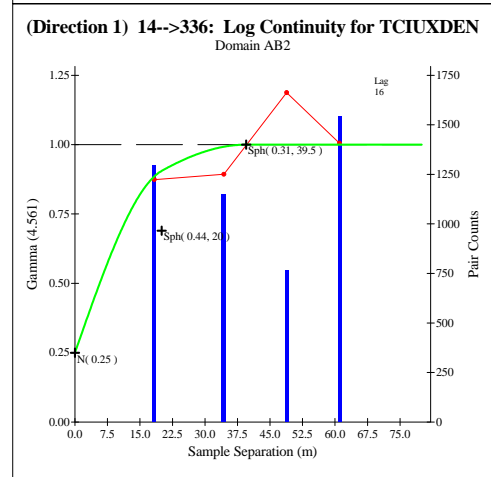
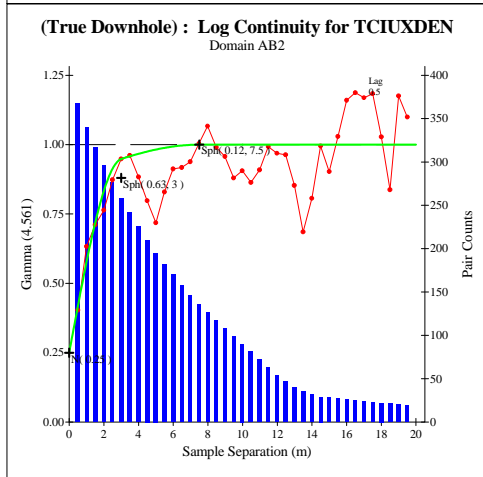
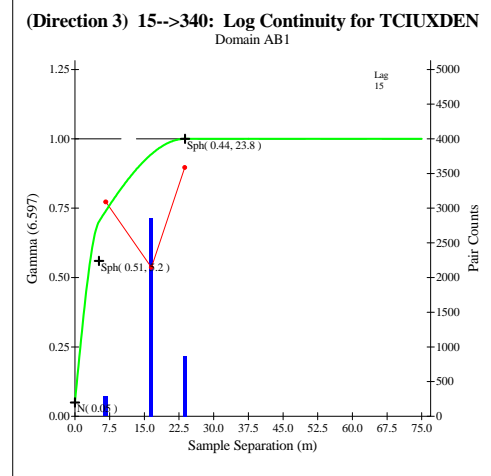
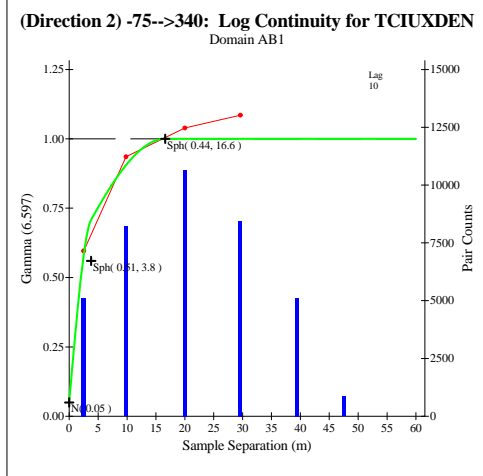
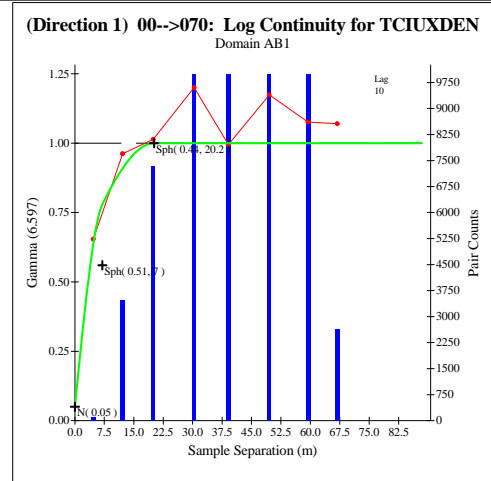
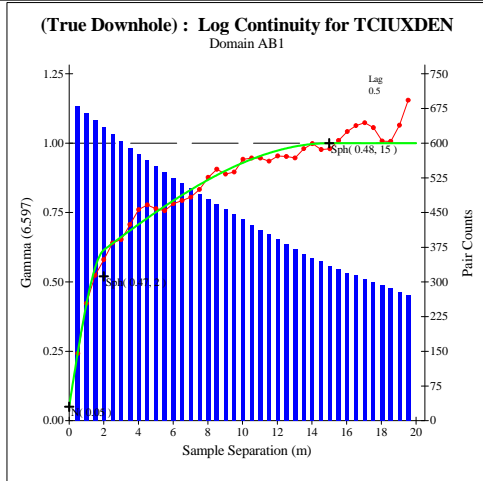
Domain KP3

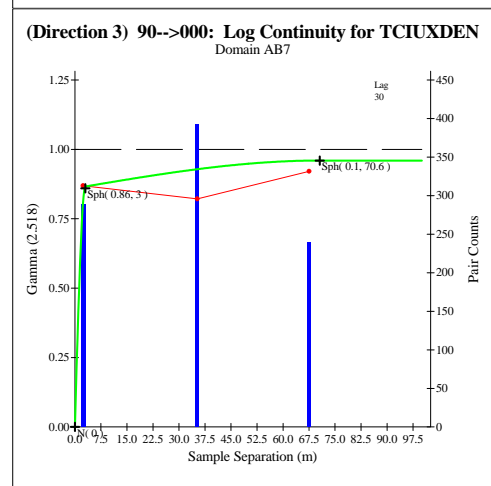
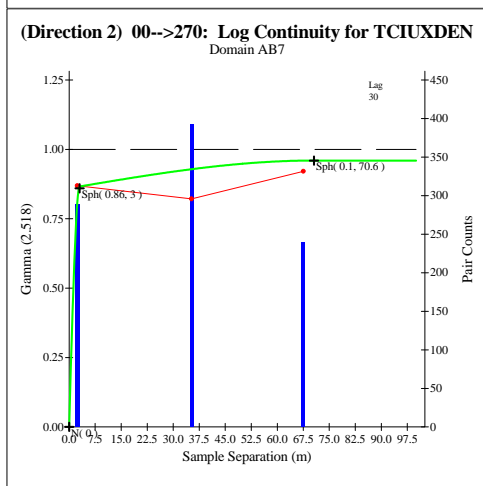
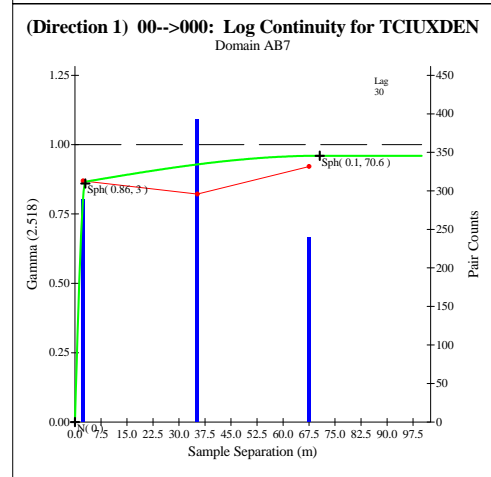
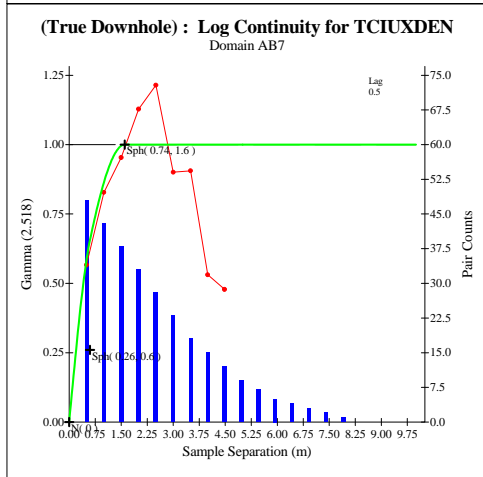
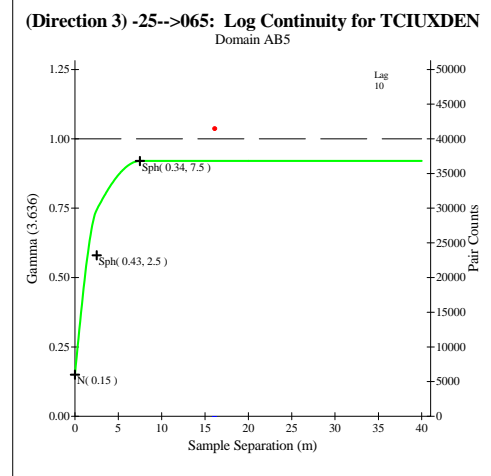
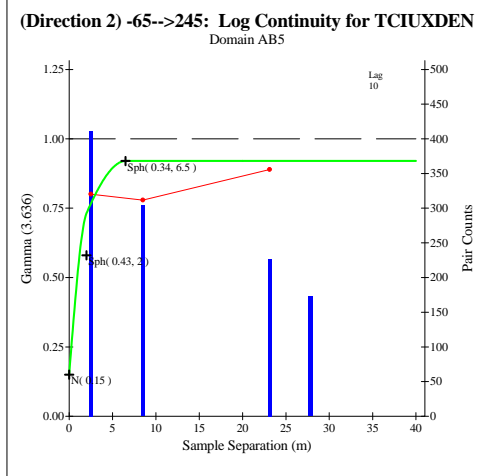
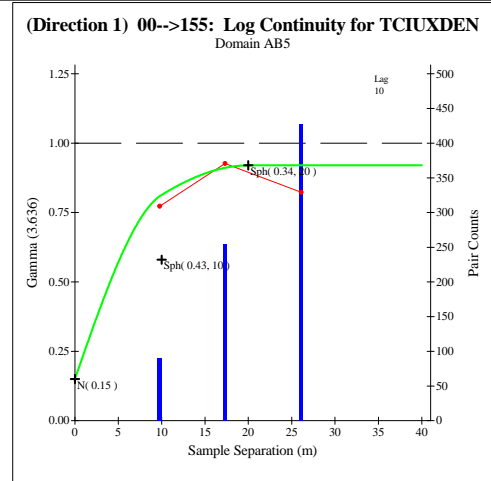
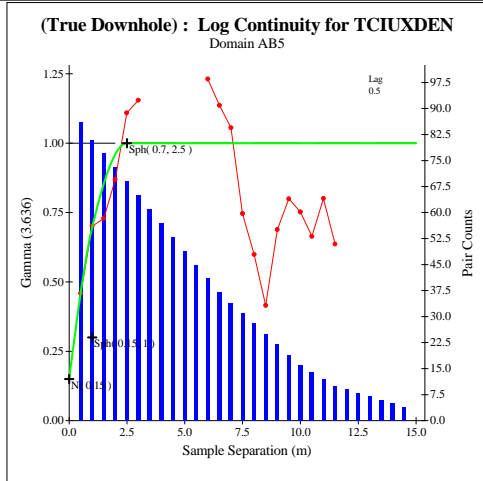


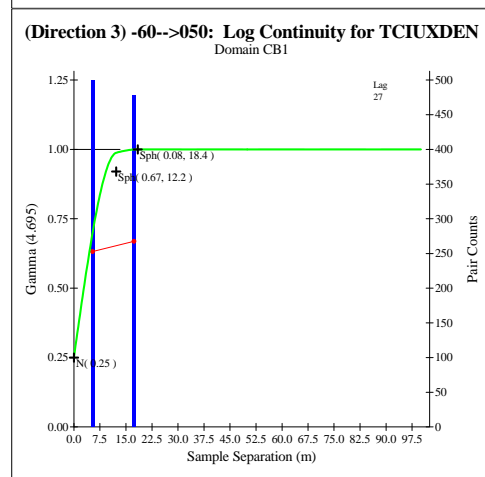
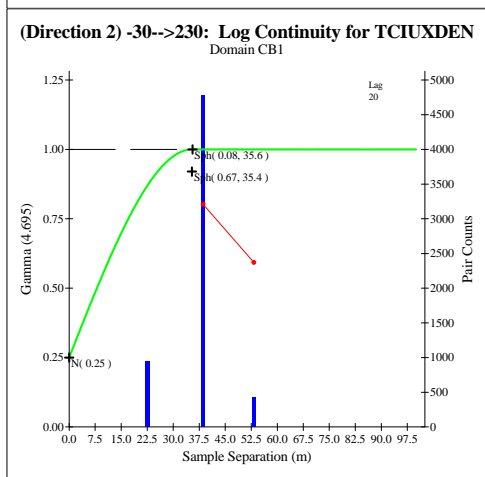
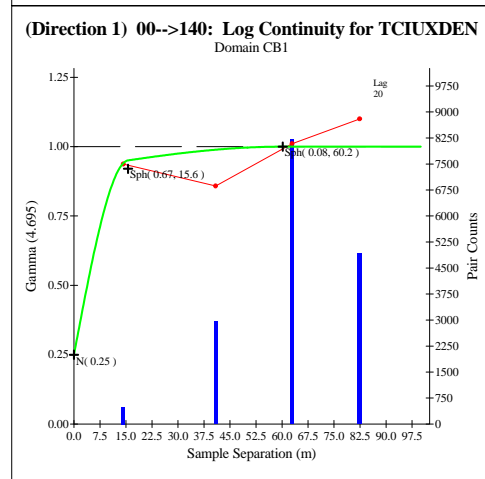
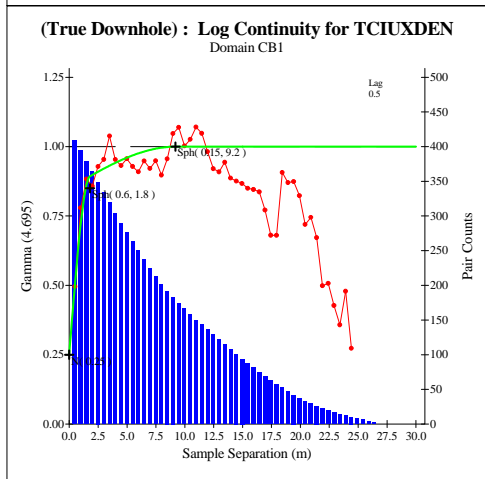
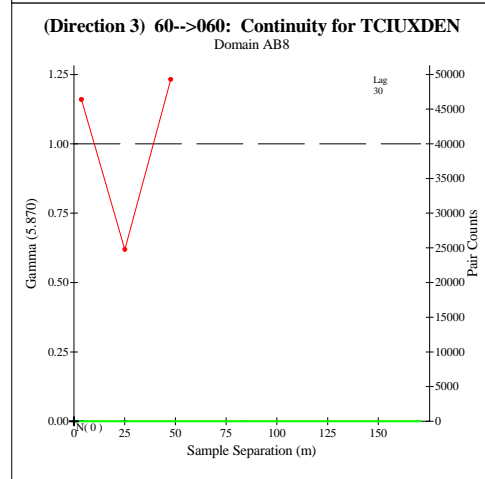
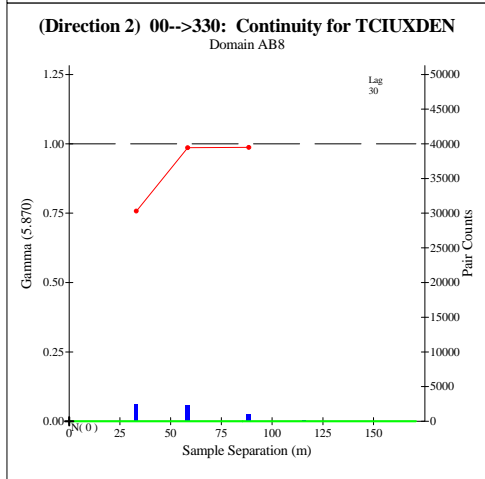
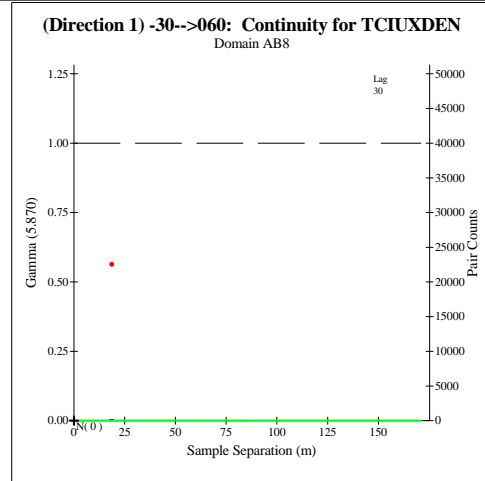
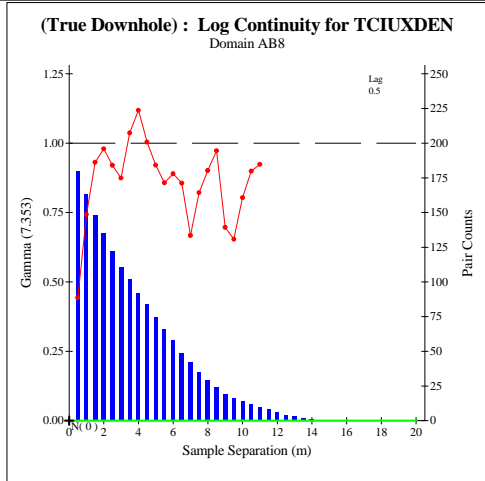


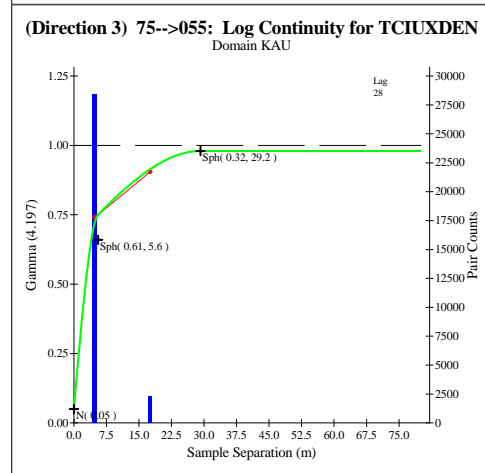
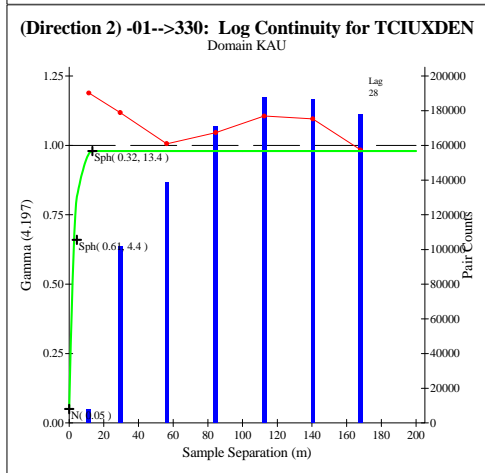
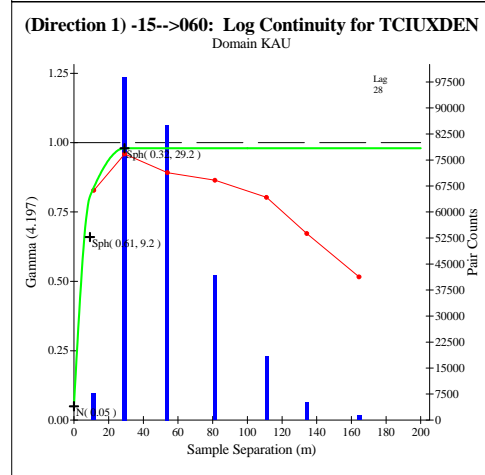
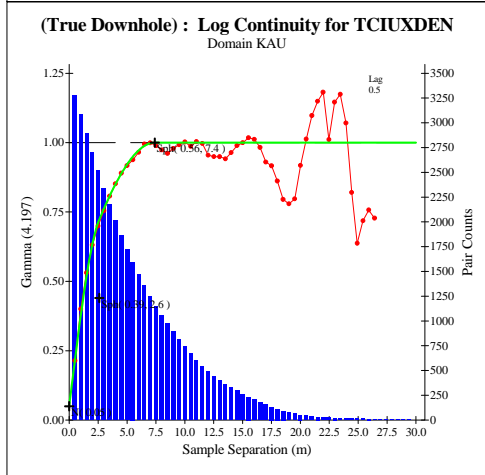
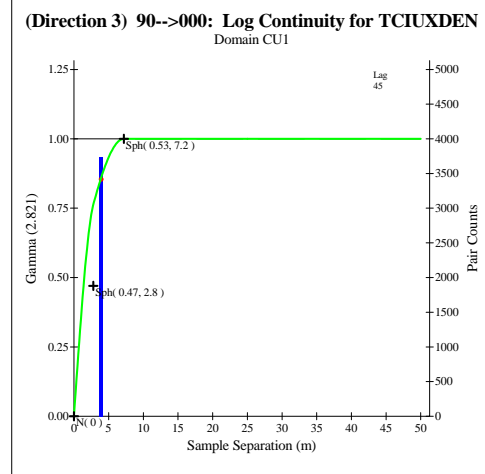
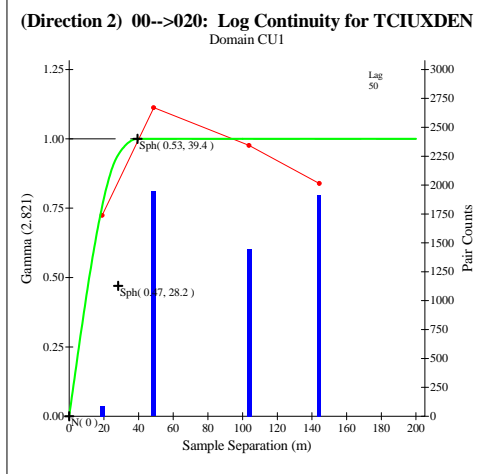
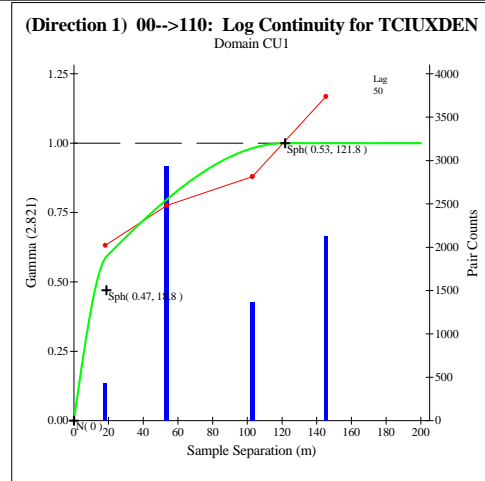
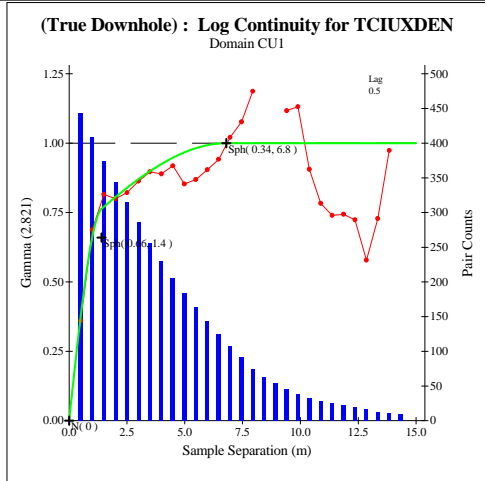
APPENDIX IV

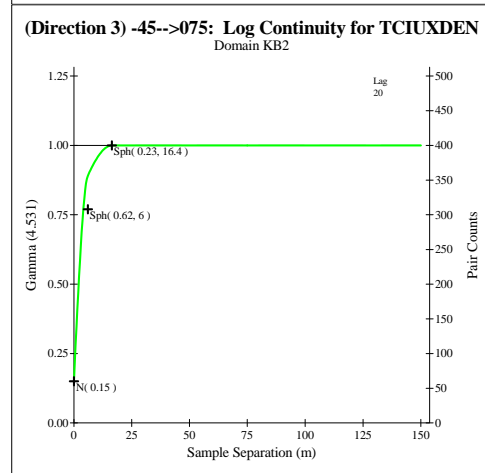
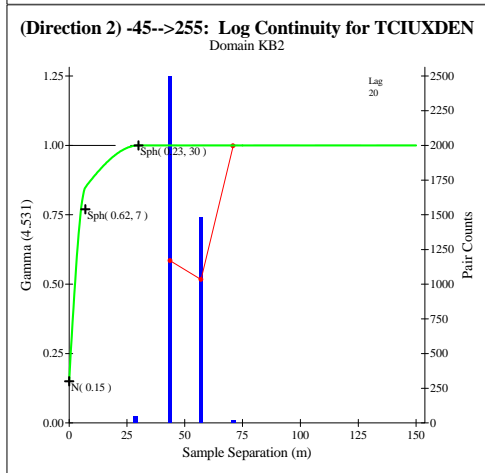
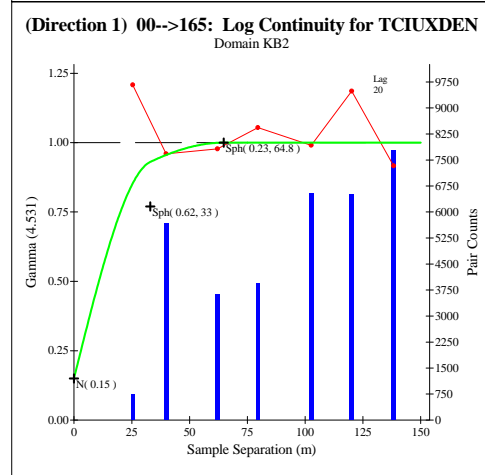
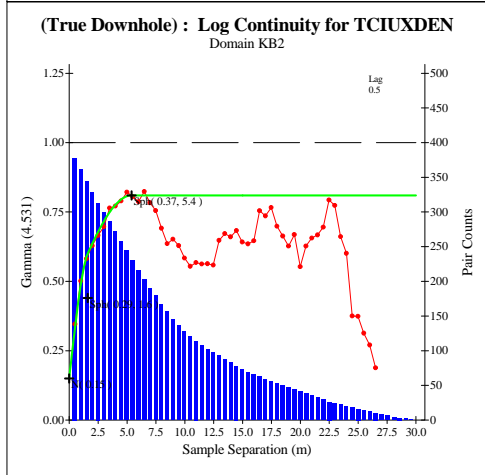
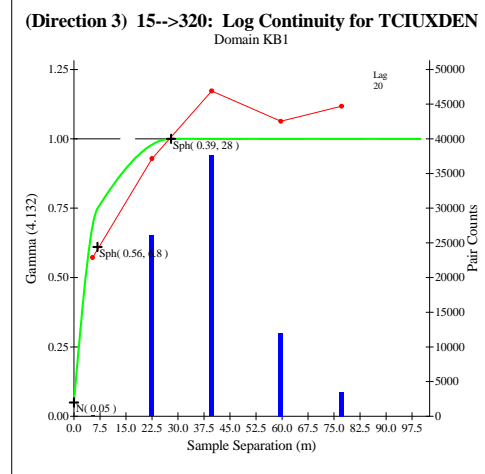
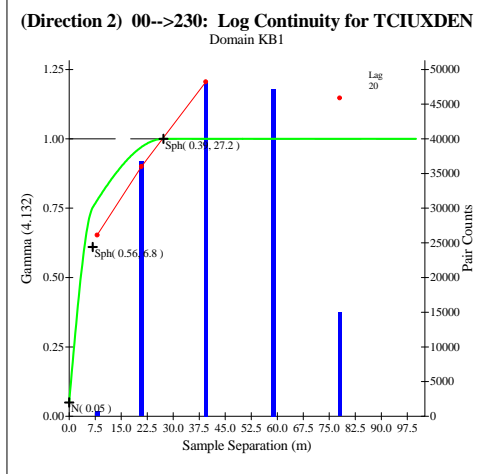
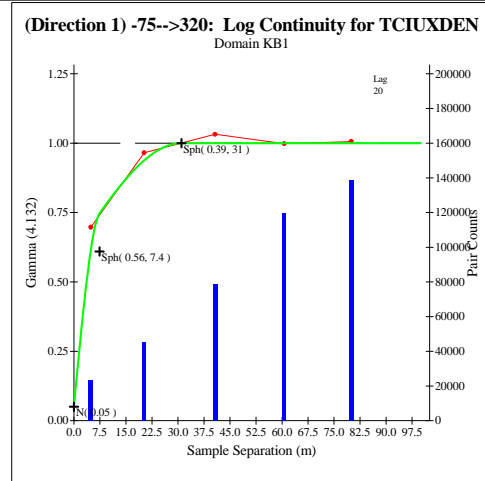
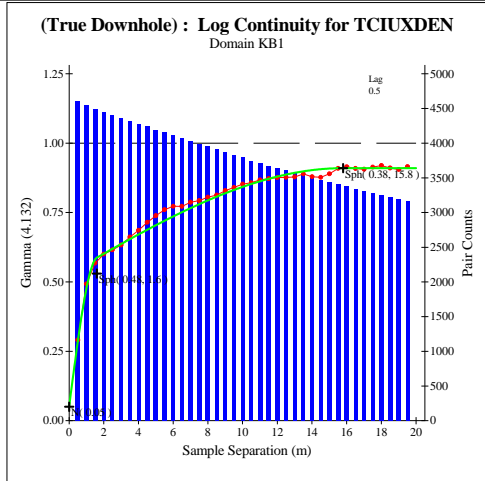
Modelled Variograms by Subzone or Zone

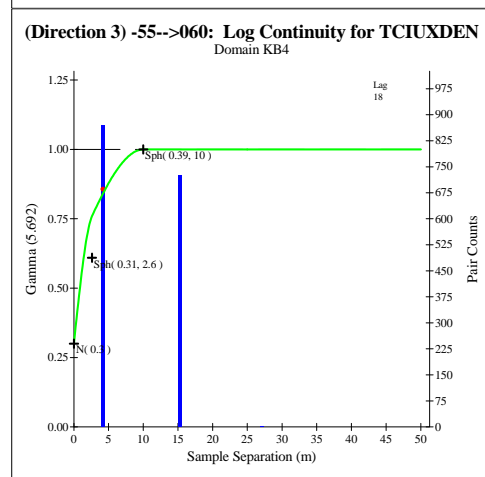
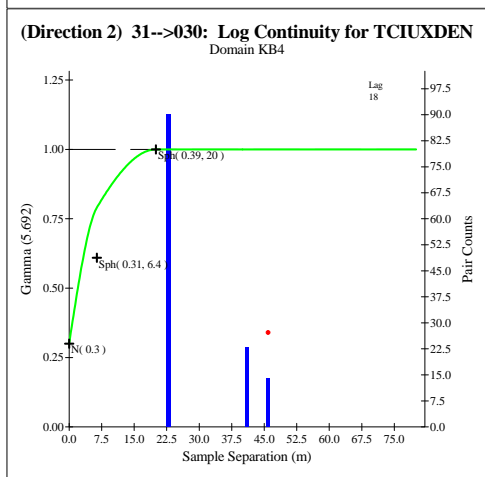
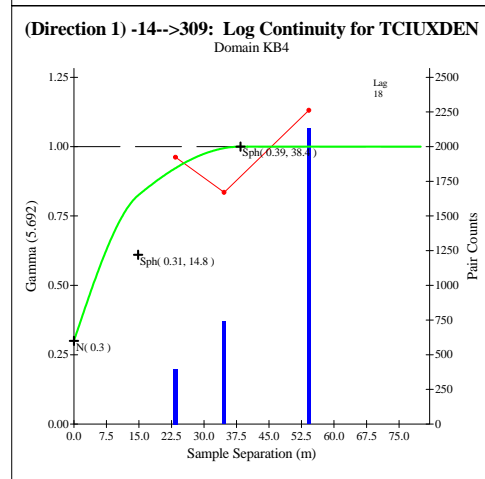
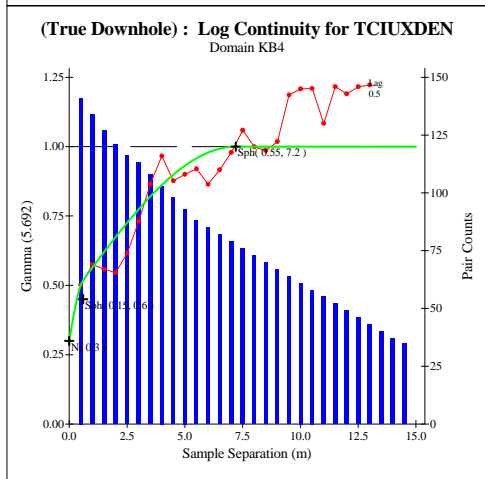
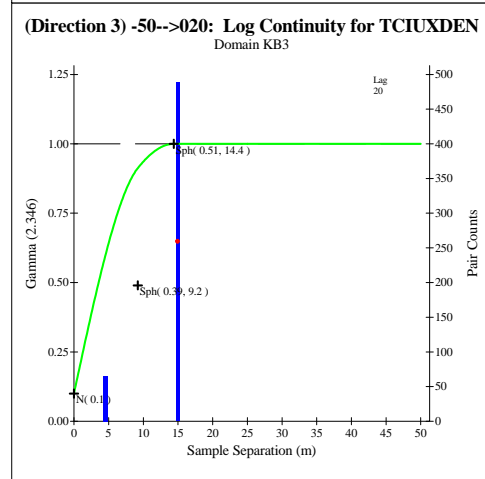
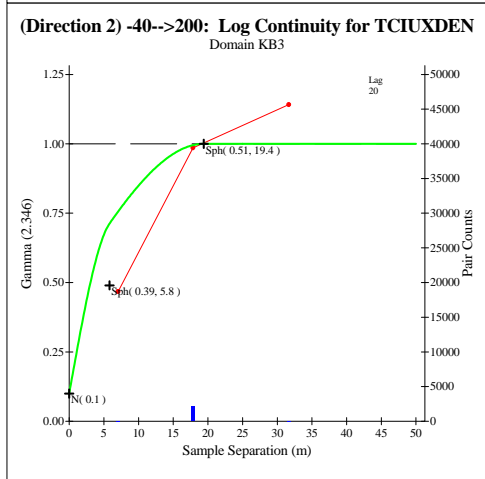
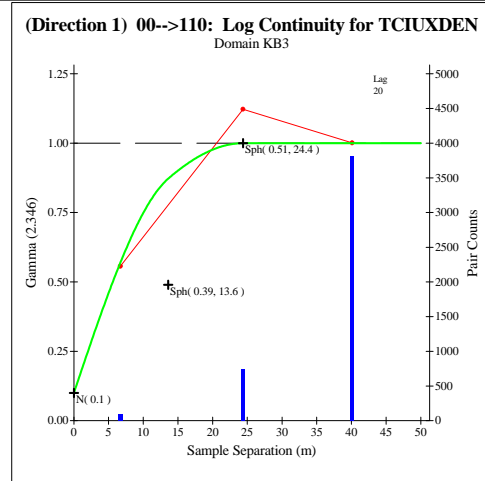
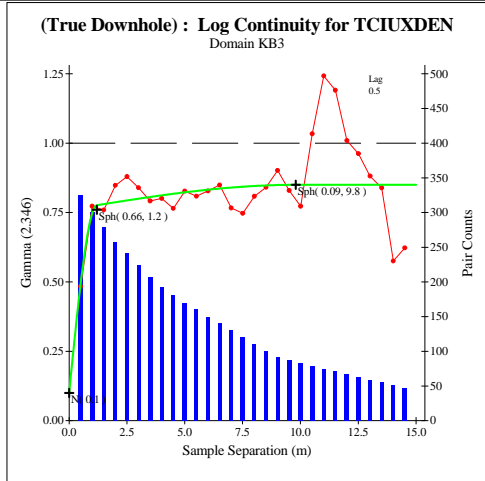


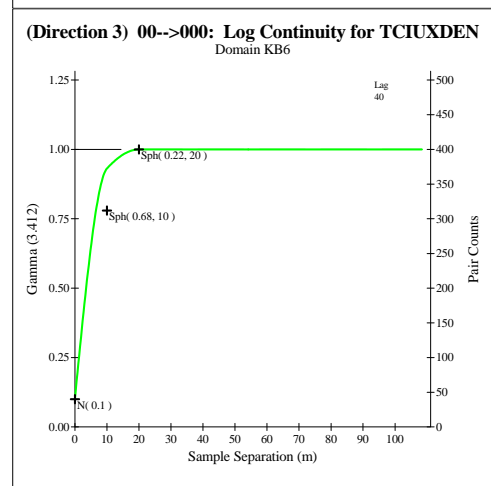
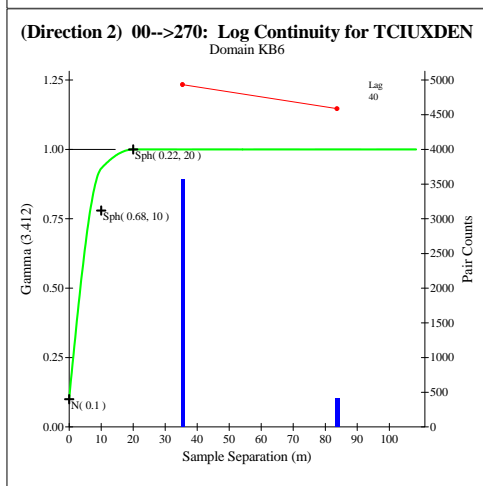
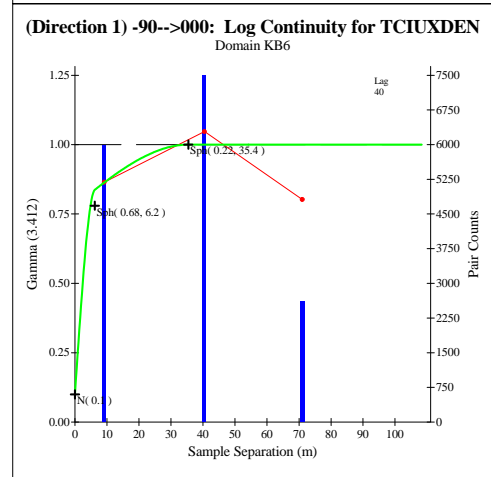
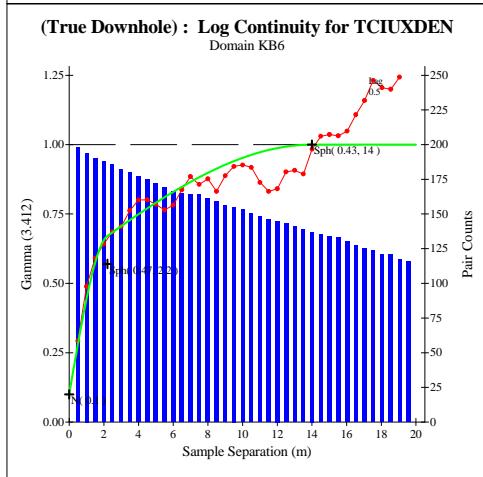
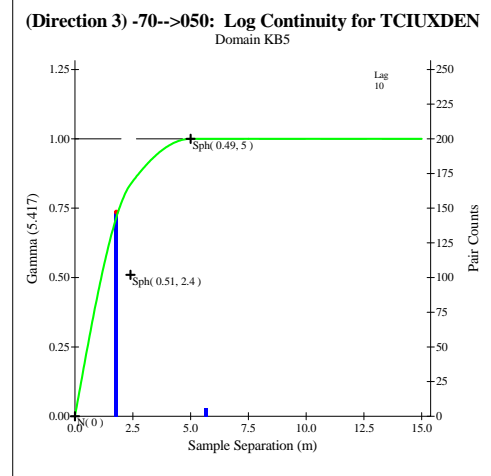
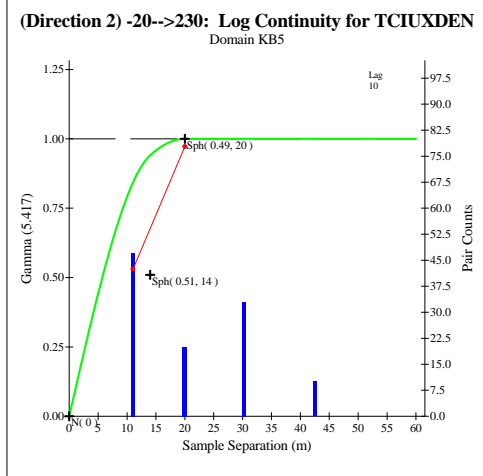
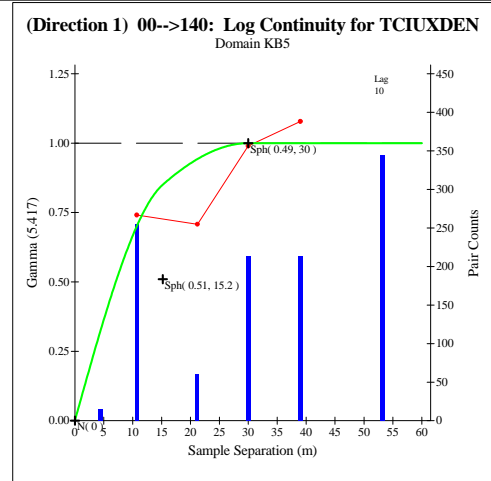
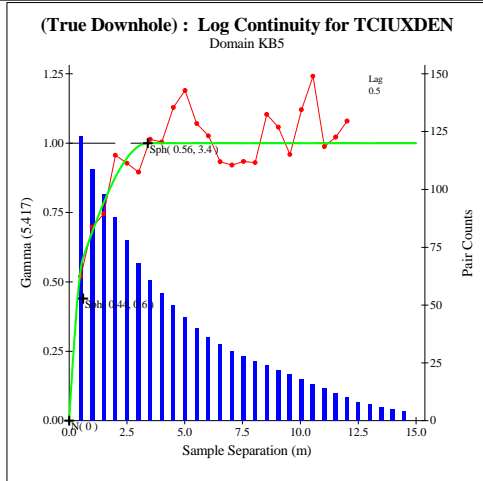


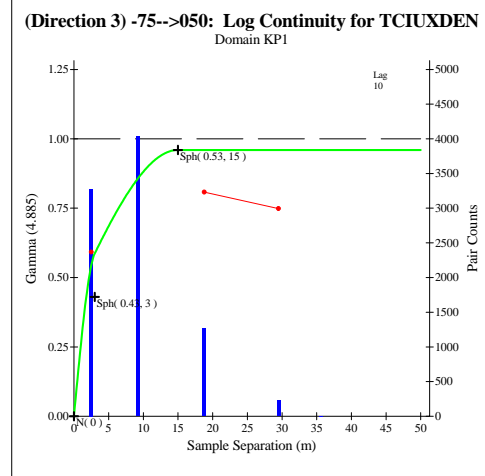
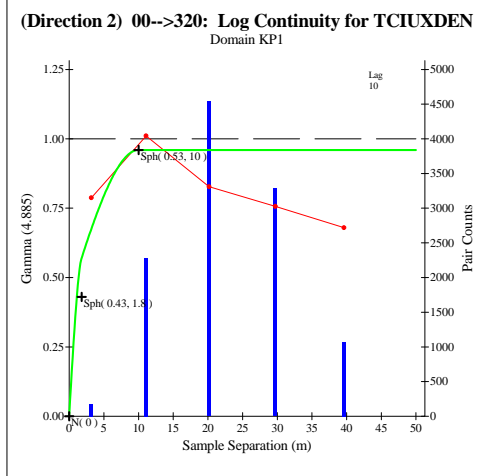
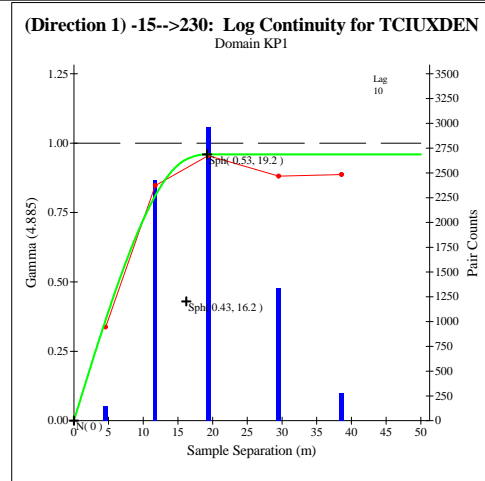
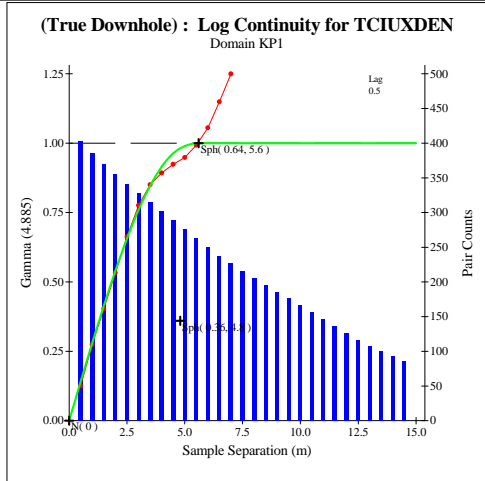














APPENDIX V

Mineral Resource Summaries Total Capped and Uncapped and Summarized by Deposit

Shea Creek total mineral resources at various cut-offs, capped and uncapped.

Capped

Category	Cut-off	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)
Indicated	0.10	2,733,900	1.118	67,414,000
	0.20	2,307,900	1.296	65,955,000
	0.30	1,872,600	1.540	63,572,000
	0.40	1,603,000	1.741	61,525,000
	0.50	1,383,000	1.946	59,342,000
	0.60	1,216,400	2.137	57,320,000
	0.70	1,076,100	2.332	55,316,000
	0.80	960,900	2.521	53,410,000
	0.90	863,700	2.710	51,594,000
	1.00	785,200	2.885	49,948,000
	1.50	509,500	3.786	42,527,000
Inferred	0.10	1,862,800	0.674	27,688,000
	0.20	1,364,000	0.869	26,128,000
	0.30	1,068,900	1.041	24,525,000
	0.40	886,100	1.185	23,156,000
	0.50	746,700	1.323	21,776,000
	0.60	596,200	1.520	19,973,000
	0.70	500,900	1.686	18,615,000
	0.80	424,500	1.854	17,350,000
	0.90	363,800	2.022	16,215,000
	1.00	322,700	2.159	15,360,000
	1.50	188,700	2.829	11,771,000

Uncapped

Category	Cut-off	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)
Indicated	0.10	2,733,900	1.143	68,915,000
	0.20	2,307,900	1.326	67,456,000
	0.30	1,875,900	1.574	65,091,000
	0.40	1,609,300	1.778	63,068,000
	0.50	1,391,100	1.986	60,901,000
	0.60	1,230,200	2.174	58,954,000
	0.70	1,090,500	2.369	56,959,000
	0.80	978,400	2.555	55,105,000
	0.90	882,800	2.739	53,314,000
	1.00	807,000	2.908	51,729,000
	1.50	542,100	3.729	44,565,000
Inferred	0.10	1,863,000	0.732	30,046,000
	0.20	1,382,900	0.936	28,542,000
	0.30	1,091,500	1.121	26,969,000
	0.40	926,300	1.260	25,733,000
	0.50	800,900	1.387	24,489,000
	0.60	657,500	1.571	22,767,000
	0.70	559,900	1.732	21,374,000
	0.80	480,500	1.894	20,060,000
	0.90	417,500	2.051	18,883,000
	1.00	375,600	2.175	18,011,000
	1.50	231,600	2.772	14,152,000

Shea Creek mineral resources by deposit at various cut-offs, capped.

Capped

0.1 % U ₃ O ₈	Subzone	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)	0.1 % U ₃ O ₈	Subzone	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)
Indicated	COL	962,700	0.797	16,923,000	Inferred	COL	240,000	0.585	3,097,000
	KEA	1,079,500	1.021	24,294,000		KEA	1,094,600	0.795	19,181,000
	ANN	691,600	1.718	26,194,000		ANN	528,300	0.465	5,411,000
0.2 % U ₃ O ₈	Subzone	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)	0.2 % U ₃ O ₈	Subzone	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)
Indicated	COL	833,900	0.897	16,492,000	Inferred	COL	225,100	0.614	3,046,000
	KEA	896,300	1.197	23,663,000		KEA	740,700	1.108	18,091,000
	ANN	577,700	2.026	25,801,000		ANN	398,300	0.569	4,993,000
0.3 % U ₃ O ₈	Subzone	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)	0.3 % U ₃ O ₈	Subzone	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)
Indicated	COL	675,100	1.049	15,613,000	Inferred	COL	196,500	0.668	2,893,000
	KEA	713,000	1.442	22,665,000		KEA	573,100	1.360	17,184,000
	ANN	484,500	2.368	25,295,000		ANN	299,300	0.674	4,448,000
0.4 % U ₃ O ₈	Subzone	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)	0.4 % U ₃ O ₈	Subzone	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)
Indicated	COL	573,800	1.174	14,846,000	Inferred	COL	160,700	0.744	2,635,000
	KEA	601,000	1.647	21,820,000		KEA	494,500	1.522	16,592,000
	ANN	428,300	2.633	24,863,000		ANN	230,900	0.772	3,929,000
0.5 % U ₃ O ₈	Subzone	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)	0.5 % U ₃ O ₈	Subzone	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)
Indicated	COL	500,600	1.279	14,112,000	Inferred	COL	127,900	0.818	2,306,000
	KEA	508,900	1.864	20,913,000		KEA	441,600	1.651	16,071,000
	ANN	373,500	2.953	24,316,000		ANN	177,200	0.870	3,399,000
0.6 % U ₃ O ₈	Subzone	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)	0.6 % U ₃ O ₈	Subzone	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)
Indicated	COL	436,800	1.385	13,332,000	Inferred	COL	71,500	1.037	1,635,000
	KEA	446,700	2.047	20,162,000		KEA	388,800	1.801	15,437,000
	ANN	332,900	3.246	23,825,000		ANN	135,900	0.968	2,900,000
0.7 % U ₃ O ₈	Subzone	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)	0.7 % U ₃ O ₈	Subzone	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)
Indicated	COL	380,400	1.493	12,524,000	Inferred	COL	45,800	1.259	1,272,000
	KEA	397,100	2.222	19,454,000		KEA	354,500	1.912	14,946,000
	ANN	298,600	3.545	23,339,000		ANN	100,600	1.081	2,397,000
0.8 % U ₃ O ₈	Subzone	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)	0.8 % U ₃ O ₈	Subzone	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)
Indicated	COL	335,300	1.593	11,775,000	Inferred	COL	31,200	1.499	1,031,000
	KEA	356,500	2.390	18,785,000		KEA	313,000	2.066	14,257,000
	ANN	269,200	3.851	22,855,000		ANN	80,300	1.165	2,062,000
0.9 % U ₃ O ₈	Subzone	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)	0.9 % U ₃ O ₈	Subzone	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)
Indicated	COL	290,500	1.707	10,934,000	Inferred	COL	26,200	1.626	939,000
	KEA	326,200	2.534	18,222,000		KEA	281,000	2.205	13,660,000
	ANN	246,900	4.121	22,431,000		ANN	56,600	1.294	1,615,000
1.0 % U ₃ O ₈	Subzone	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)	1.0 % U ₃ O ₈	Subzone	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)
Indicated	COL	255,600	1.811	10,205,000	Inferred	COL	23,600	1.700	884,000
	KEA	297,400	2.687	17,621,000		KEA	256,000	2.329	13,143,000
	ANN	232,300	4.321	22,130,000		ANN	43,100	1.402	1,332,000
1.5 % U ₃ O ₈	Subzone	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)	1.5 % U ₃ O ₈	Subzone	Tonnes	U ₃ O ₈ (%)	U ₃ O ₈ (lbs)
Indicated	COL	132,500	2.370	6,922,000	Inferred	COL	10,200	2.361	531,000
	KEA	204,700	3.345	15,095,000		KEA	165,100	2.935	10,684,000
	ANN	172,300	5.399	20,510,000		ANN	13,400	1.882	556,000

Shea Creek mineral resources by deposit at various cut-offs, uncapped.

Uncapped

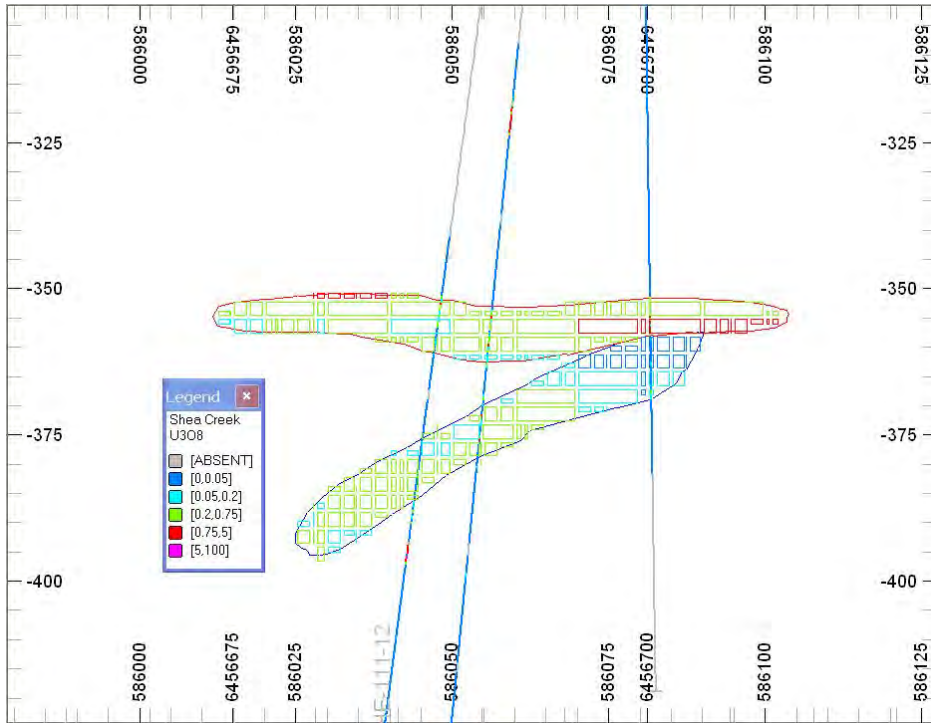
0.1 % U₃O₈	Subzone	Tonnes	U₃O₈ (%)	U₃O₈ (lbs)	0.1 % U₃O₈	Subzone	Tonnes	U₃O₈ (%)	U₃O₈ (lbs)
Indicated	COL	962,700	0.838	17,781,000	Inferred	COL	240,000	0.585	3,097,000
	KEA	1,079,500	1.046	24,891,000		KEA	1,094,800	0.840	20,280,000
	ANN	691,600	1.721	26,241,000		ANN	528,300	0.573	6,671,000
0.2 % U₃O₈	Subzone	Tonnes	U₃O₈ (%)	U₃O₈ (lbs)	0.2 % U₃O₈	Subzone	Tonnes	U₃O₈ (%)	U₃O₈ (lbs)
Indicated	COL	833,900	0.944	17,349,000	Inferred	COL	225,100	0.614	3,046,000
	KEA	896,300	1.228	24,259,000		KEA	741,400	1.174	19,188,000
	ANN	577,700	2.030	25,848,000		ANN	416,400	0.687	6,308,000
0.3 % U₃O₈	Subzone	Tonnes	U₃O₈ (%)	U₃O₈ (lbs)	0.3 % U₃O₈	Subzone	Tonnes	U₃O₈ (%)	U₃O₈ (lbs)
Indicated	COL	675,800	1.106	16,474,000	Inferred	COL	196,500	0.668	2,893,000
	KEA	713,000	1.480	23,262,000		KEA	579,800	1.433	18,319,000
	ANN	487,100	2.361	25,356,000		ANN	315,200	0.828	5,757,000
0.4 % U₃O₈	Subzone	Tonnes	U₃O₈ (%)	U₃O₈ (lbs)	0.4 % U₃O₈	Subzone	Tonnes	U₃O₈ (%)	U₃O₈ (lbs)
Indicated	COL	575,200	1.239	15,711,000	Inferred	COL	160,700	0.744	2,635,000
	KEA	601,000	1.692	22,417,000		KEA	512,200	1.577	17,809,000
	ANN	433,100	2.612	24,940,000		ANN	253,400	0.947	5,289,000
0.5 % U₃O₈	Subzone	Tonnes	U₃O₈ (%)	U₃O₈ (lbs)	0.5 % U₃O₈	Subzone	Tonnes	U₃O₈ (%)	U₃O₈ (lbs)
Indicated	COL	503,300	1.351	14,992,000	Inferred	COL	127,900	0.818	2,306,000
	KEA	508,900	1.917	21,510,000		KEA	467,300	1.686	17,367,000
	ANN	378,900	2.921	24,401,000		ANN	205,700	1.062	4,817,000
0.6 % U₃O₈	Subzone	Tonnes	U₃O₈ (%)	U₃O₈ (lbs)	0.6 % U₃O₈	Subzone	Tonnes	U₃O₈ (%)	U₃O₈ (lbs)
Indicated	COL	446,600	1.452	14,301,000	Inferred	COL	71,500	1.037	1,635,000
	KEA	446,700	2.108	20,758,000		KEA	416,800	1.824	16,759,000
	ANN	336,900	3.217	23,895,000		ANN	169,200	1.172	4,373,000
0.7 % U₃O₈	Subzone	Tonnes	U₃O₈ (%)	U₃O₈ (lbs)	0.7 % U₃O₈	Subzone	Tonnes	U₃O₈ (%)	U₃O₈ (lbs)
Indicated	COL	394,000	1.560	13,549,000	Inferred	COL	45,800	1.259	1,272,000
	KEA	397,100	2.290	20,050,000		KEA	377,800	1.945	16,198,000
	ANN	299,400	3.539	23,359,000		ANN	136,300	1.299	3,905,000
0.8 % U₃O₈	Subzone	Tonnes	U₃O₈ (%)	U₃O₈ (lbs)	0.8 % U₃O₈	Subzone	Tonnes	U₃O₈ (%)	U₃O₈ (lbs)
Indicated	COL	351,600	1.657	12,841,000	Inferred	COL	31,200	1.499	1,031,000
	KEA	356,500	2.466	19,382,000		KEA	331,200	2.112	15,424,000
	ANN	270,200	3.840	22,877,000		ANN	118,000	1.384	3,601,000
0.9 % U₃O₈	Subzone	Tonnes	U₃O₈ (%)	U₃O₈ (lbs)	0.9 % U₃O₈	Subzone	Tonnes	U₃O₈ (%)	U₃O₈ (lbs)
Indicated	COL	308,200	1.770	12,029,000	Inferred	COL	26,200	1.626	939,000
	KEA	326,200	2.617	18,819,000		KEA	299,200	2.248	14,831,000
	ANN	248,500	4.102	22,472,000		ANN	92,100	1.533	3,113,000
1.0 % U₃O₈	Subzone	Tonnes	U₃O₈ (%)	U₃O₈ (lbs)	1.0 % U₃O₈	Subzone	Tonnes	U₃O₈ (%)	U₃O₈ (lbs)
Indicated	COL	276,400	1.864	11,361,000	Inferred	COL	23,600	1.700	884,000
	KEA	297,400	2.778	18,217,000		KEA	272,500	2.377	14,280,000
	ANN	233,200	4.309	22,153,000		ANN	79,600	1.625	2,851,000
1.5 % U₃O₈	Subzone	Tonnes	U₃O₈ (%)	U₃O₈ (lbs)	1.5 % U₃O₈	Subzone	Tonnes	U₃O₈ (%)	U₃O₈ (lbs)
Indicated	COL	165,100	2.298	8,363,000	Inferred	COL	10,200	2.361	531,000
	KEA	204,700	3.477	15,692,000		KEA	182,400	2.944	11,840,000
	ANN	172,300	5.399	20,510,000		ANN	39,100	2.072	1,786,000



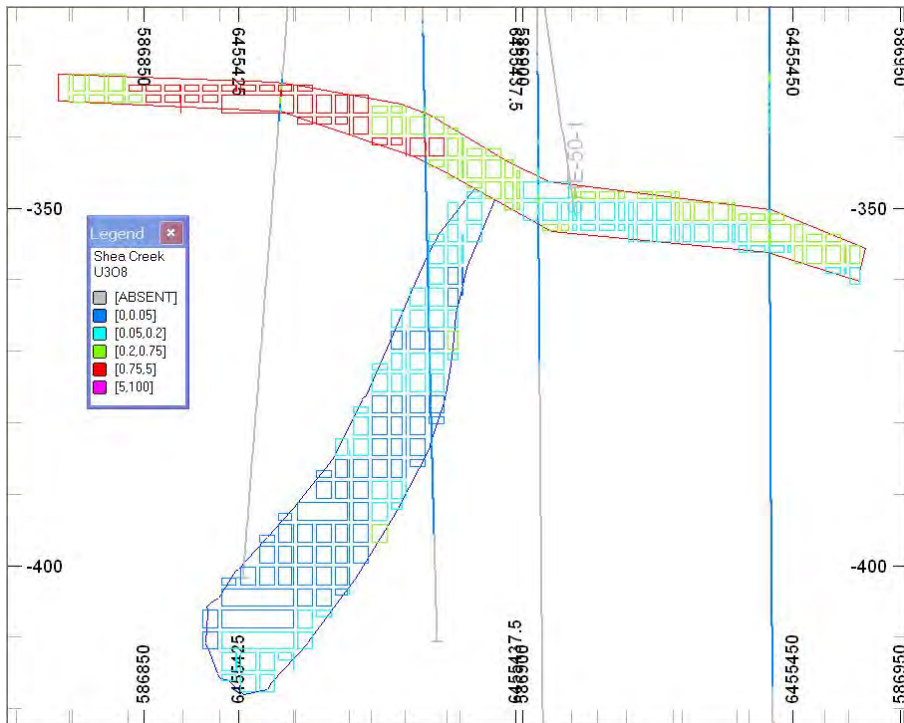
APPENDIX VI

Sections through Block Model with Drill Holes

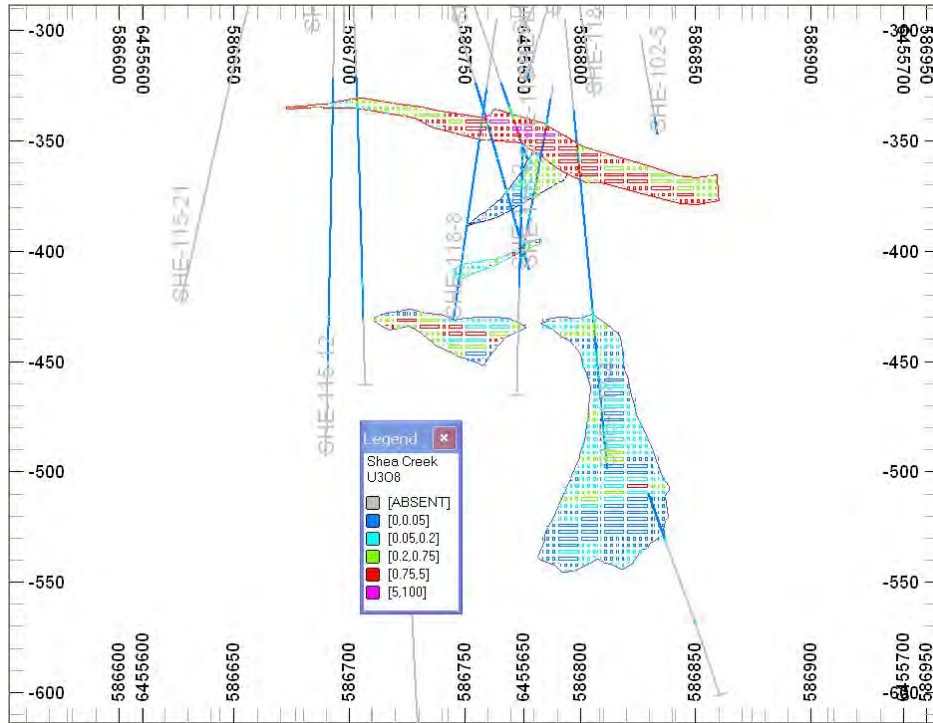
A section through Colette , WSW- ENE, looking NNW, showing unconformity and basement mineralization.



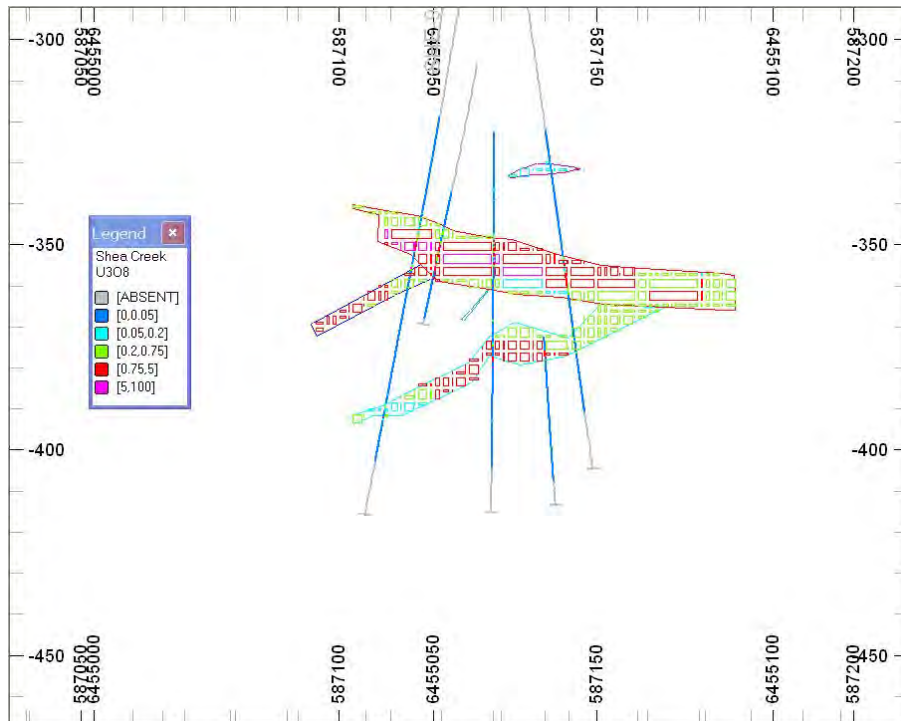
A section through Kianna , WSW- ENE, looking NNW, showing unconformity and basement mineralization.



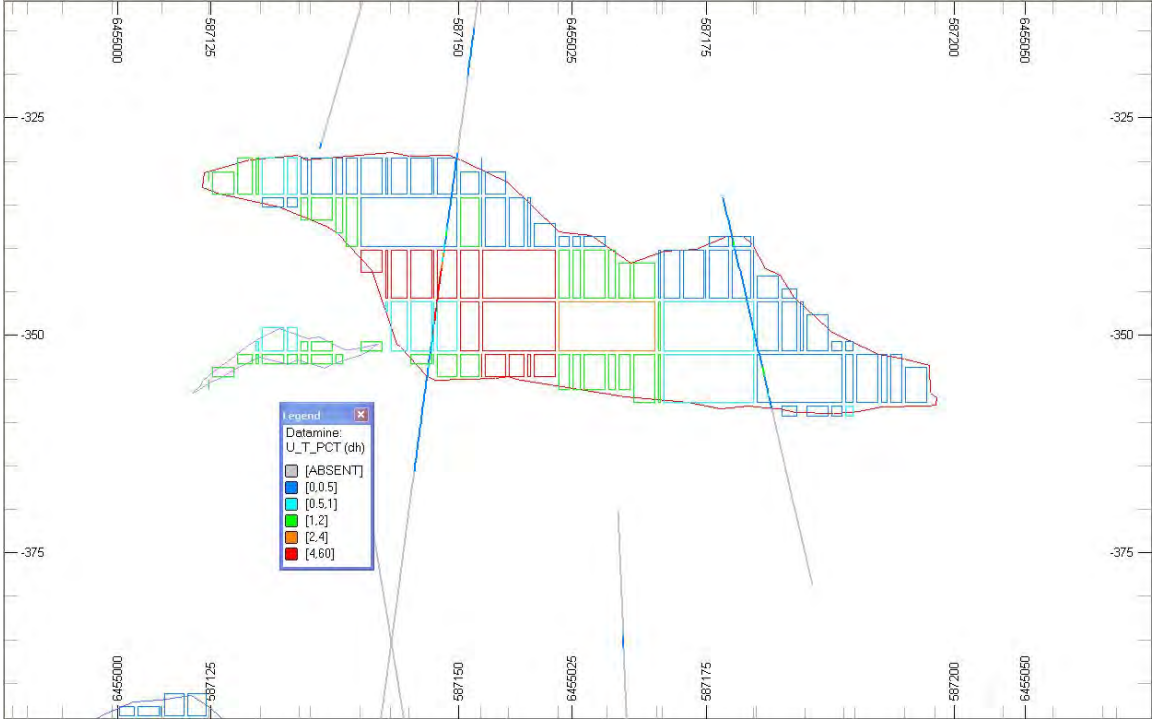
A section through Kianna , WSW- ENE, looking NNW, showing unconformity and basement mineralization.



A section through Anne , WSW- ENE, looking NNW, showing perched, unconformity and basement mineralization.



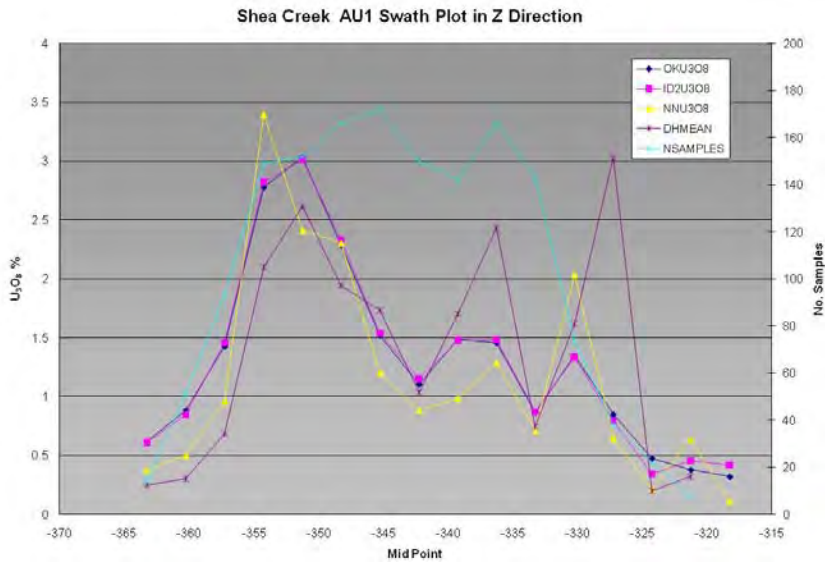
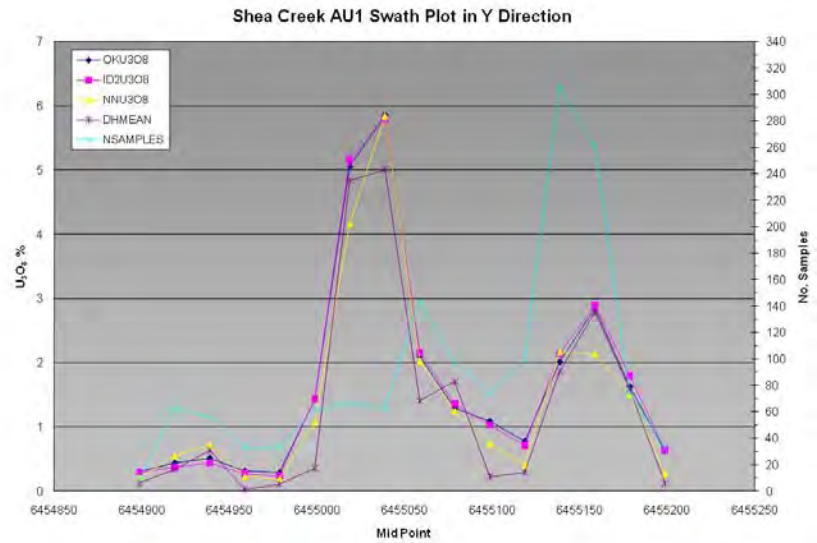
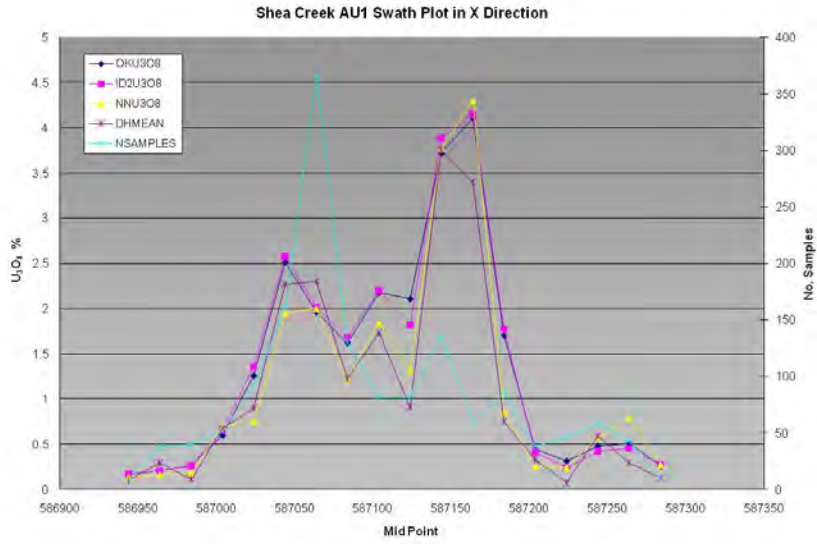
A section through Anne , WSW- ENE, looking NNW, showing unconformity and basement mineralization.

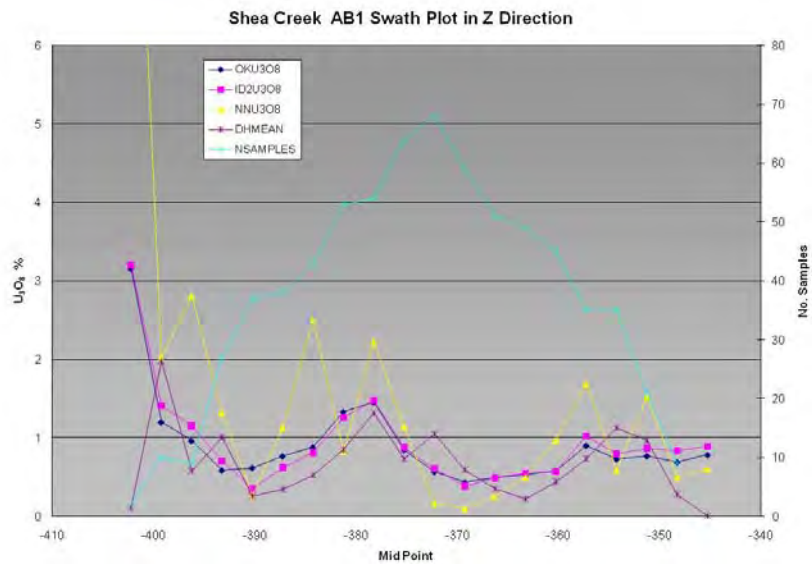
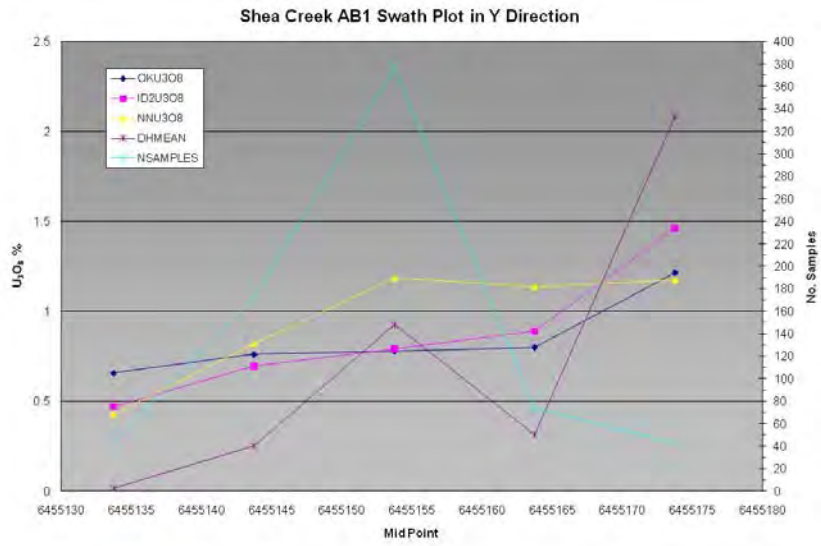
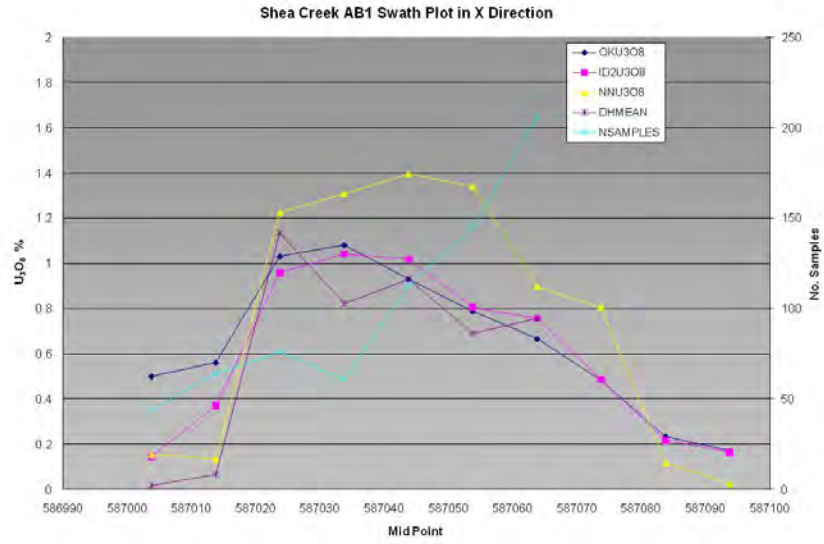


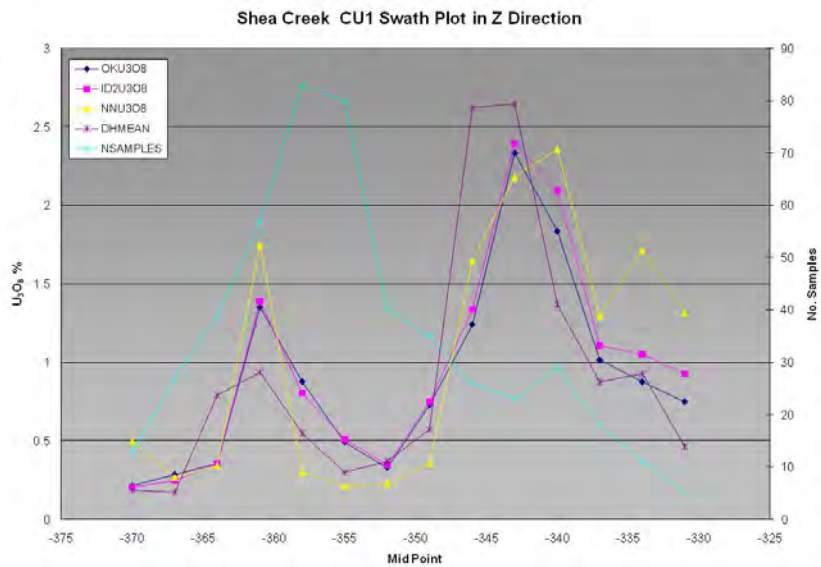
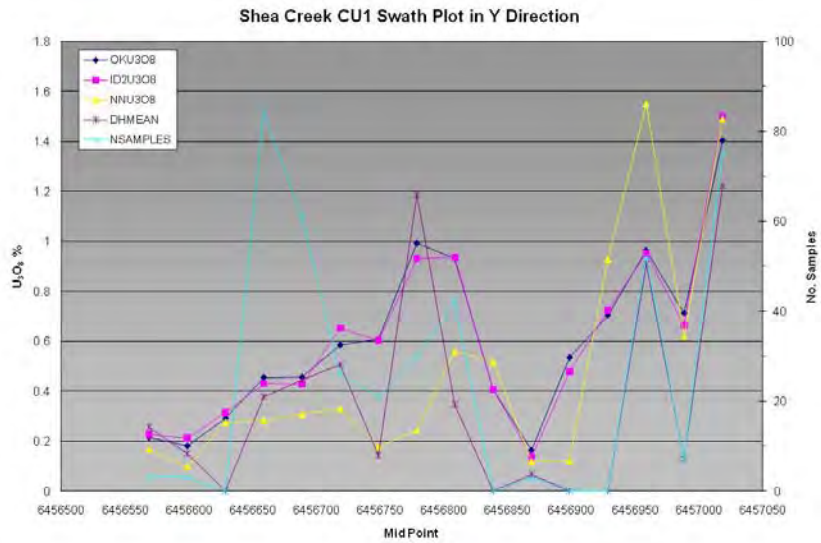
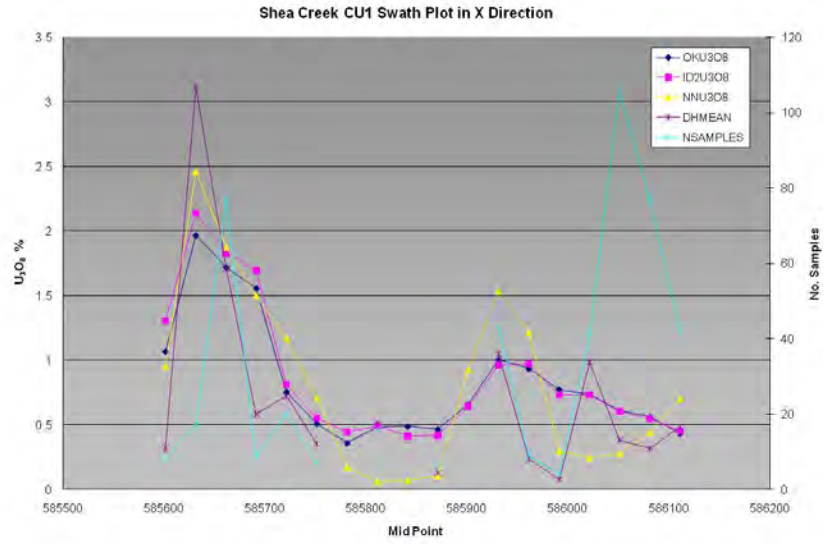


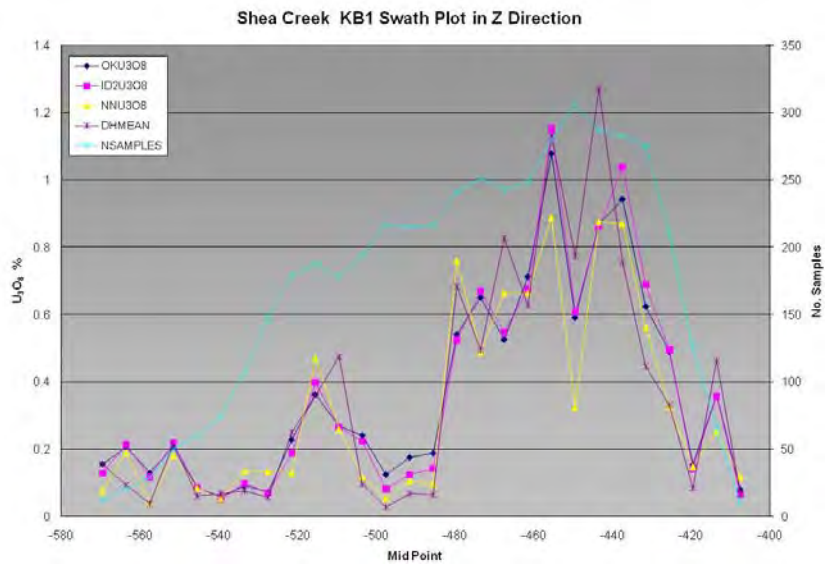
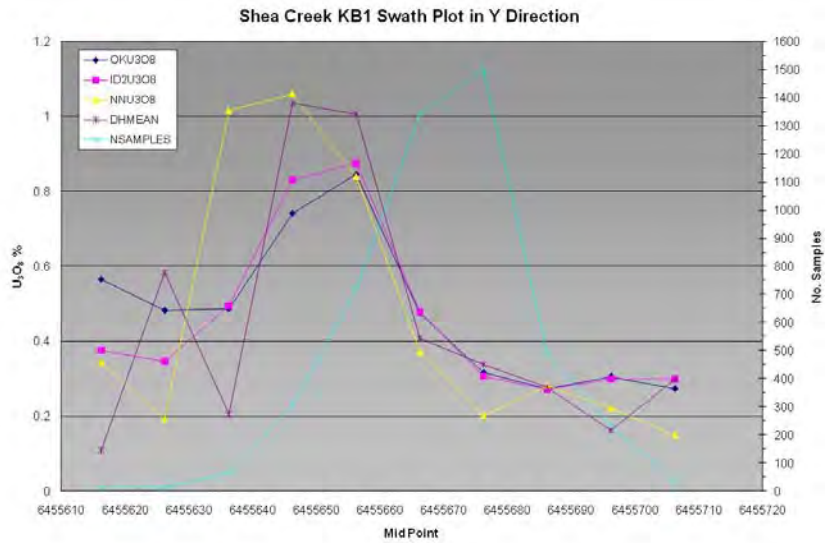
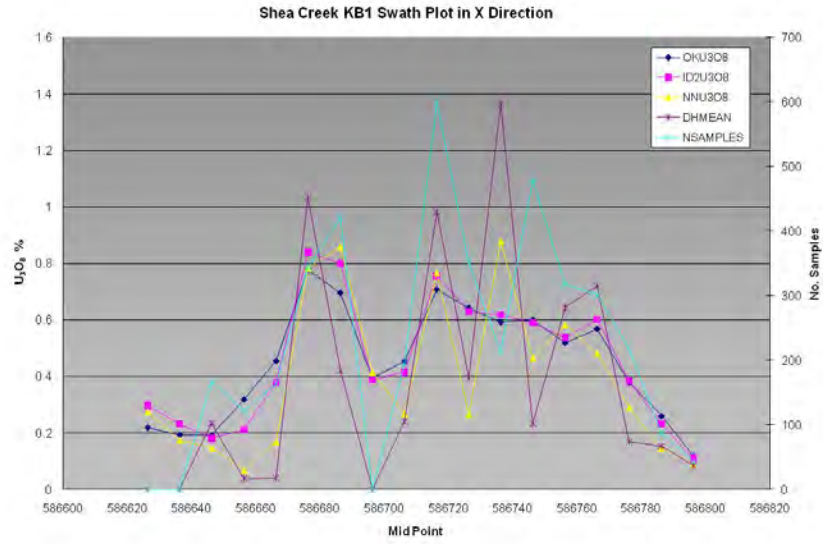
APPENDIX VII

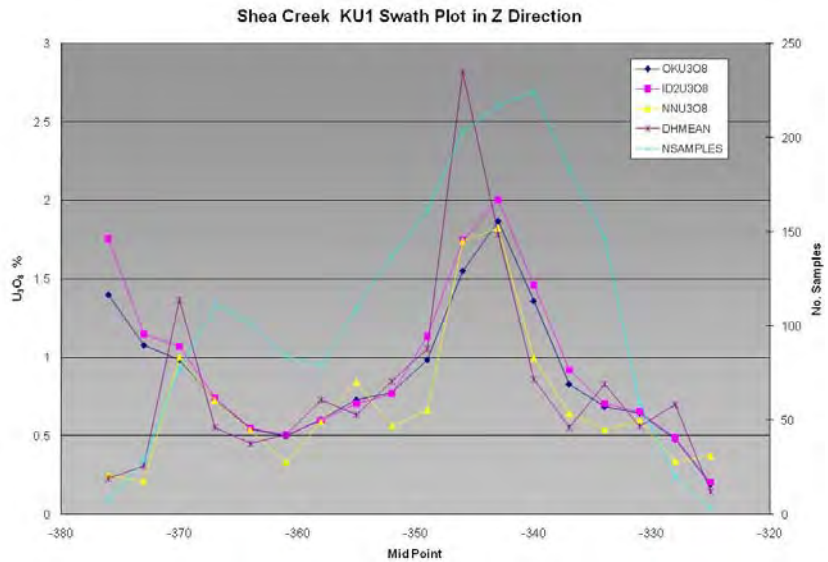
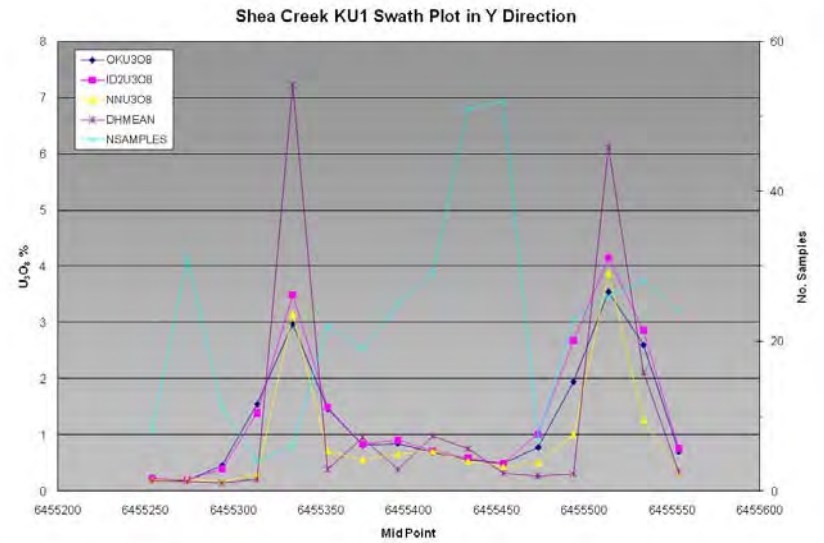
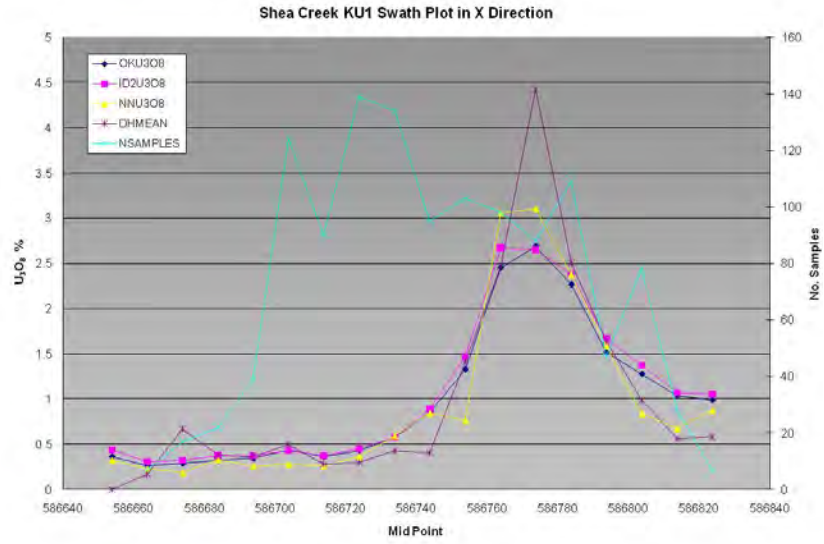
Swath Plots for Selected Subzones or Zone











At Golder Associates we strive to be the most respected global group of companies specializing in ground engineering and environmental services. Employee owned since our formation in 1960, we have created a unique culture with pride in ownership, resulting in long-term organizational stability. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees now operating from offices located throughout Africa, Asia, Australasia, Europe, North America and South America.

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