

# **Technical Report on the Larocque East Project, Northern Saskatchewan, Canada**

**IsoEnergy Ltd.**

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# 1.0 SUMMARY

## 1.1 Executive Summary

SLR Consulting (Canada) Ltd (SLR) was retained by IsoEnergy Ltd. (IsoEnergy) to prepare an independent Technical Report on IsoEnergy's Larocque East Project (Larocque East, the Property, or the Project), located in the Eastern Athabasca Basin, Northern Saskatchewan, Canada. The purpose of this Technical Report is to support the disclosure of an initial Larocque East Mineral Resource estimate. This Technical Report conforms to NI 43-101 Standards of Disclosure for Mineral Projects and replaces the technical report filed on SEDAR on July 19, 2022, which has been revised to correct the typographical error related to the Indicated  $U_3O_8$  grades in Table 14-11, which summarizes the block model sensitivity to cut-off grade. Additional typographical errors have been corrected to align the descriptions of historical drilling in Section 6 with Table 10-1. The recommended work plan has been revised.

IsoEnergy is a Canadian exploration company headquartered in Saskatoon, Canada, primarily engaged in the acquisition, evaluation, and exploration of uranium mineral properties with a view to commercial production. In February 2016, IsoEnergy was incorporated under the Business Corporations Act (British Columbia) as a wholly owned subsidiary of NexGen Energy Ltd. (NexGen). In October 2016, IsoEnergy was listed on the Toronto Stock Exchange Venture Exchange (TSXV: ISO). As of the effective date of this Technical Report NexGen holds 50.1% of the outstanding IsoEnergy common shares.

IsoEnergy currently holds 25 properties in its growing portfolio. Of these, five were transferred by NexGen, three were acquired by IsoEnergy, and a further 17 were acquired through staking. Twenty-four of IsoEnergy's properties are located in the Athabasca Basin region of Saskatchewan, Canada, where the company is primarily focused on exploring its Larocque East, Geiger, Radio, and Thorburn Lake properties.

The Property consists of 32 contiguous and one non-contiguous mineral claims totaling 16,782 hectares (ha). Currently, the major asset associated with the Project is the Hurricane zone. The Property is immediately adjacent to the north end of IsoEnergy's Geiger property and 40 km northwest of the Orano Canada (Orano) McClean Lake uranium mine and mill.

The Property covers a 15 kilometre (km) long northeast extension of the Larocque Lake conductor system, a trend of graphitic metasedimentary basement rocks associated with significant uranium mineralization at the Hurricane zone and in several occurrences to the southwest of the Property. The discovery of the Hurricane zone in July 2018 was followed by six drill campaigns in 2019 through 2022. The best intersection to date is 7.5 m averaging 38.8%  $U_3O_8$ , including 3.5 m averaging 74.0%  $U_3O_8$ . Dimensions of the Hurricane zone are currently 375 m along-strike, up to 125 m wide, and up to 12 m thick.

The SLR Qualified Person (QP), Mr. Mark B. Mathisen, C.P.G., SLR Principal Geologist, visited the Property from March 20 to 21, 2022. Mr. Mathisen toured the operational areas and camp offices, inspected various parts of the Property, examined core from several drill holes, visited active drill sites and infrastructure, reviewed logging and sampling methods, and conducted discussions with IsoEnergy Project geologists on the current and future plans of operations.

A Mineral Resource estimate for the Project, based on 52 drillholes totaling 20,387 m was completed by SLR. Table 1-1 summarizes Mineral Resources based on a \$65/lb uranium price using a cut-off grade of 1.0%  $U_3O_8$ . The effective date of the Mineral Resource estimate is July 8, 2022.

The SLR QP is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.



**Table 1-1: Mineral Resource Statement – July 8, 2022  
IsoEnergy Ltd. – Larocque East Project**

Category	Tonnage (000 t)	Metal Grade (% U <sub>3</sub> O <sub>8</sub> )	Contained Metal (Mlb U <sub>3</sub> O <sub>8</sub> )
Indicated	63.8	34.5	48.61
Inferred	54.3	2.2	2.66

Notes:

1. CIM (2014) definitions were followed for all Mineral Resource categories.
2. Mineral Resources are estimated at uranium cut-off grade of 1.00% U<sub>3</sub>O<sub>8</sub>.
3. Tonnes are based on bulk density weighting.
4. Mineral Resources are estimated using a long-term uranium price of US\$65 per pound U<sub>3</sub>O<sub>8</sub>.
5. Minimum grade width of one metre was applied to the resource domain wireframes.
6. Bulk density was interpolated using values derived from regression curve based on U<sub>3</sub>O<sub>8</sub> assay values
7. Numbers may not add due to rounding.

### 1.1.1 Conclusions

SLR offers the following interpretations and conclusions on the Project:

- There has been considerable exploration conducted on the Property, particularly over the Hurricane zone, including seven drilling campaigns completed by IsoEnergy between 2018 and 2022. While most drill holes were completed in the vicinity of the Hurricane zone, significant exploration drilling has also been completed to the east of the Hurricane zone. As of April 1, 2022, IsoEnergy has completed 138 holes totalling 57,932 m.
- Drilling results confirm that the Hurricane zone is a significant new discovery of unconformity associated uranium mineralization in the Athabasca Basin.
- Larocque East exploration, drilling, core logging, and quality assurance/quality control (QA/QC) procedures are reasonable and consistent with industry standard practices.
- Drill hole databases for the Hurricane zone are appropriate and acceptable for Mineral Resource estimation.
- Indicated Mineral Resources for the Hurricane zone are highly insensitive to cut-off grade due to the high grade and compact nature of the deposit.

### 1.1.2 Recommendations

SLR offers the following recommendations regarding advancement of the Project. IsoEnergy has proposed a total budget of C\$4.49 million, as presented in Table 1-2, to advance the Hurricane zone and explore the remainder of the Project. The two categories of work are independent of each other.

#### 1.1.2.1 Exploration of the Larocque East Property

1. Conduct further drilling on the easternmost portion of the Larocque Lake trend, which remains underexplored, to follow up the 2021 direct current (DC) resistivity survey results. This work is expected to require two to six drill holes.
2. Conduct geophysical testing on the eastern Kernaghan trend to upgrade historical conductors for drill testing. Complete a drilling program including two to 10 drill holes to test the Kernaghan trend at reconnaissance spacing.

3. Conduct an exploration program on the Western Block, including the western Kernaghan and Bell Lake trends. Include, as part of the exploration program, relogging the historical core and updating the geological modelling, followed by DC resistivity surveying to supplement historical electromagnetic (EM) survey coverage and prioritize strike segments for drill testing.
4. Complete a drilling program including at least 12 holes to test the western Kernaghan and Bell Lake trends at reconnaissance spacing.

#### **1.1.2.2 Advancement of the Hurricane zone**

1. Complete a Scoping Study for the Hurricane zone.
2. Complete additional infill/delineation work to upgrade a portion of the MG Domain of the Inferred Resources to Indicated. SLR expects the program to comprise five to eight drill holes totalling approximately 2,500 m.
3. Revisit the hydrogeological and geotechnical recommendations outlined in the SRK 2021 test program (SRK 2021.)
4. Continue to revise and improve the Larocque East data collection and QA/QC program through the continued collection of bulk density measurements across lithology types, the incorporation of a very high-grade Certified Reference Material (CRM), and the investigation of poor field duplicate sample performance, which could result in process improvements and may require additional coarse and pulp duplicate sample collection.

**Table 1-2: Exploration Budget  
IsoEnergy Ltd. – Larocque East Project**

Category	Item	Budget (C\$)
Exploration	Drill testing of Larocque Lake Trend	619,000
	Drill testing of eastern Kernaghan Trend	385,000
	Geophysical surveys over western Kernaghan and Bell Lake Trends	750,000
	Relogging Bell Lake Trend drilling	30,000
	Drill testing of western Kernaghan and Bell Lake Trends	1,539,000
	<b>Exploration Subtotal</b>	<b>3,323,000</b>
Hurricane Zone	Scoping Study	400,000
	Infill and Delineation drilling	770,000
	<b>Hurricane Zone Subtotal</b>	<b>1,170,000</b>
<b>Total</b>		<b>4,493,000</b>

## 1.2 Technical Summary

### 1.2.1 Property Description and Location

The Project, which includes the Hurricane zone discovered in 2018, is located 40 km northwest of the Orano Canada (Orano) McClean Lake uranium mine and mill and is immediately adjacent to, but not contiguous with, the north end of IsoEnergy's Geiger property. The Property covers a 15 km long northeast extension of the Larocque Lake conductor system, a trend of graphitic metasedimentary basement rocks associated with significant uranium mineralization in several occurrences to the southwest of the Property. The Property is informally divided into the Main and Western Blocks, with the Main Block generally comprising the claims covering the Larocque Lake Trend and eastern Kernaghan Trend and the Western Block comprising claims covering the Bell Lake Trend and western Kernaghan Trend.

The geographic coordinates for the approximate center of the Project are latitude 58° 32' 17" N and longitude 104° 35' 20" W. All surface data coordinates are NAD83 UTM Zone 13.

### 1.2.2 Land Tenure

The Property consists of 32 contiguous and one non-contiguous mineral claims, totaling 16,782.3 hectares (ha). All dispositions are subject to the Crown Minerals Act (Saskatchewan), and the Mineral Dispositions Regulations (Saskatchewan), which grant to the owner of a claim the right to explore for minerals.

Mineral dispositions were either acquired from Cameco Corporation (Cameco), staked by IsoEnergy in 2019 and 2020, or purchased from Eagle Plains Resources Ltd. in 2021.

IsoEnergy holds a 100% interest in the Project mineral dispositions. IsoEnergy has not acquired the surface rights for the Project area.

### 1.2.3 Existing Infrastructure

There is no permanent infrastructure on the Property. Field operations are currently conducted from IsoEnergy's camp, 400 m south of the Hurricane zone, on a mineral claim currently controlled by Cameco and Orano. The camp, which is operated by IsoEnergy, provides accommodations for up to 25 exploration personnel. Fuel and miscellaneous supplies are stored in existing warehouse and storage facilities at the camp. The site generates its own power. Abundant water is available from the numerous lakes and rivers in the area.

The Property has sufficient space for an open pit or underground mining operation including space for waste rock piles, milling facilities, and tailings facilities. Water is readily available in the Project area. A surface lease would be required from the Provincial government in advance of construction of permanent surface facilities on the Property.

Electrical power is available from the provincial grid, with a switching station at Points North Landing. It is not known if there is sufficient capacity on that grid to operate a mining and milling operation at Project. Cameco's Cigar Lake Mine is connected to the provincial grid with a 138-kV power line.

### 1.2.4 History

The Property was originally staked in 1976 by Urangesellschaft Canada Ltd (Urangesellschaft) in partnership with the Saskatchewan Mining Development Corporation (SMDC). Most of the claims in the Project area were allowed to lapse in 1989 due to a failure to intersect significant uranium mineralization in the prior years.

In the early 1990s, Cameco restaked the Project area, renaming it the Kernaghan Lake project.

On May 3, 2018, IsoEnergy announced that it had entered into an agreement with Cameco to acquire a 100% interest in six mineral claims constituting the 3,200 ha Larocque East uranium exploration property. IsoEnergy subsequently expanded the Property area to 16,782 ha through staking and additional acquisitions.

### 1.2.5 Geology and Mineralization

The Project area lies near the northeastern edge of the Athabasca Basin, a middle Proterozoic clastic basin containing a relatively undeformed sequence of unmetamorphosed clastic rocks, predominantly sandstones, known as the Athabasca Group. These clastic rocks in the eastern half of the Athabasca Basin lie unconformably on the highly deformed and metamorphosed rocks of the Hearne Craton of the Western Churchill Province of the Canadian Shield.

The Hurricane zone and other exploration targets on the Property belong to the unconformity associated class of uranium deposits. The Athabasca Basin hosts deposits of unconformity associated uranium mineralization defined as pods, veins, and semi-massive replacements, consisting primarily of uraninite close to basal unconformities, particularly those between relatively undisturbed Proterozoic conglomeratic sandstone basins and metamorphosed basement rocks.

In the Athabasca Basin, unconformity associated uranium mineralization is observed at or near the unconformity between the Athabasca sandstones and the older Aphebian metasedimentary rocks. The metasediments are usually graphitic, or there are graphitic rocks nearby. Mineralization is always associated with basement-reactivated brittle faults, which are often rooted in graphitic rocks.

The most significant zone of uranium mineralization intersected to date is the Hurricane zone, which was discovered in July 2018. Mineralization intersected at the Hurricane zone occurs as a mix of fracture hosted and disseminated pitchblende in the basal sandstone grading toward matrix replacement and massive pitchblende at the unconformity and is associated with intense hydrothermal and illitic clay alteration. Uraninite is the primary uranium mineral with minor clay altered uraninite. Approximately 33% of uraninite is observed being greater than 90% liberated, irrespective of grain size. Uraninite is associated mainly with complex minerals (45%) followed by clay minerals (14%), arsenic minerals (3.6%), and iron-oxides (1.9%). Quartz and calcite are weakly associated with uraninite.

### **1.2.6 Exploration Status**

Diamond drilling on the Property is the principal method of exploration and delineation of uranium mineralization after initial targeting using geophysical surveys. Drilling can generally be conducted year-round on the Property.

As of the effective date of this Technical Report, IsoEnergy and its predecessor companies have completed 74,264 m of drilling in 188 holes over the Project.

The easternmost portion of the Larocque Lake trend remains underexplored and warrants further drilling to follow-up the 2021 DC resistivity survey results.

The Kernaghan trend is a package of conductive basement which is known to be associated with significant unconformity topography on a neighbouring project. The Main Block of the Project contains 3.5 km of the Kernaghan trend tested by only two drill holes which defined 45 m of unconformity topography over a 250 m horizontal distance and intersected elevated geochemistry in the sandstone.

The northern portion of the Western Block contains an additional 11 km of the Kernaghan trend which is untested. Evaluation of the Kernaghan trend within the Project will require geophysical surveying to upgrade historical conductors for drill testing.

The Western Block contains approximately 14 km of the Bell Lake trend, a package of conductive basement rocks where historical drilling has intersected weak mineralization. Existing drilling along this trend within the Project is mainly a series of single hole fences at one kilometre to 1.7 km spacing, some of which failed to intersect conductive basement rock. Initial work should include relogging of historical core and geological modelling, followed by DC resistivity surveying to supplement historical EM coverage and prioritize strike segments for drill testing.

### **1.2.7 Mineral Resources**

Mineral Resources have been classified in accordance with the definitions for Mineral Resources with Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves dated May 10, 2014 (CIM, 2014). The Mineral Resource estimate is summarized in Table 1-3.

**Table 1-3: Summary of Attributable Mineral Resources – Effective July 8, 2022  
IsoEnergy Ltd. – Larocque East Project**

Category	Zone	Tonnage (000 t)	Metal Grade (% U <sub>3</sub> O <sub>8</sub> )	Contained Metal (Mlb U <sub>3</sub> O <sub>8</sub> )
Indicated	MG Domain (5.0% U <sub>3</sub> O <sub>8</sub> )	25.6	8.4	4.72
	HG Domain (25.0% U <sub>3</sub> O <sub>8</sub> )	38.2	52.1	43.89
<b>Indicated Total</b>		<b>63.8</b>	<b>34.5</b>	<b>48.61</b>
Inferred	LG Domain (0.5% U <sub>3</sub> O <sub>8</sub> )	50.3	1.5	1.66
	MG Domain (5.0% U <sub>3</sub> O <sub>8</sub> )	4.0	11.2	1.00
<b>Inferred Total</b>		<b>54.3</b>	<b>2.2</b>	<b>2.66</b>

Notes:

1. CIM (2014) definitions were followed for all Mineral Resource categories.
2. Mineral Resources are estimated at uranium cut-off grade of 1.00% U<sub>3</sub>O<sub>8</sub>.
3. Tonnes are based on bulk density weighting.
4. Mineral Resources are estimated using a long-term uranium price of US\$65/lb U<sub>3</sub>O<sub>8</sub>.
5. Minimum grade width of one metre was applied to the resource domain wireframes.
6. Bulk density was interpolated using values derived from regression curve based on U<sub>3</sub>O<sub>8</sub> assay values
7. Numbers may not add due to rounding.

The SLR QP is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate

### 1.2.8 Mineral Reserves

There are no current Mineral Reserves at the Larocque East Project Hurricane Zone.

## 2.0 INTRODUCTION

SLR Consulting (Canada) Ltd (SLR) was retained by IsoEnergy Ltd. (IsoEnergy) to prepare an independent Technical Report on IsoEnergy's Larocque East Project (Larocque East, the Property, or the Project), located in the Eastern Athabasca Basin, Northern Saskatchewan, Canada. The purpose of this Technical Report is to support the disclosure of an initial Larocque East Mineral Resource estimate. This Technical Report conforms to NI 43-101 Standards of Disclosure for Mineral Projects and replaces the technical report filed on SEDAR on July 19, 2022, which has been revised to correct the typographical error related to the Indicated  $U_3O_8$  grades in Table 14-11, which summarizes the block model sensitivity to cut-off grade. Additional typographical errors have been corrected to align the descriptions of historical drilling in Section 6 with Table 10-1. The recommended work plan has been revised.

IsoEnergy is a Canadian exploration company headquartered in Saskatoon, Canada, primarily engaged in the acquisition, evaluation, and exploration of uranium mineral properties with a view to commercial production. In February 2016, IsoEnergy was incorporated under the Business Corporations Act (British Columbia) as a wholly owned subsidiary of NexGen Energy Ltd. (NexGen). In October 2016, IsoEnergy was listed on the Toronto Stock Exchange Venture Exchange (TSXV: ISO). As of the effective date of this Technical Report NexGen holds 50.1% of the outstanding IsoEnergy common shares.

IsoEnergy currently holds 25 properties in its growing portfolio. Of these, five were transferred by NexGen, three were acquired by IsoEnergy, and a further 17 were acquired through staking. Twenty-four of IsoEnergy's properties are located in the Athabasca Basin region of Saskatchewan, Canada, where the company is primarily focused on exploring its Larocque East, Geiger, Radio, and Thorburn Lake properties.

The Property consists of 32 contiguous and one non-contiguous mineral claims totaling 16,782 hectares (ha). Currently, the major asset associated with the Project is the Hurricane zone. The Property is immediately adjacent to the north end of IsoEnergy's Geiger property and 40 km northwest of the Orano Canada (Orano) McClean Lake uranium mine and mill.

The Property covers a 15 kilometre (km) long northeast extension of the Larocque Lake conductor system, a trend of graphitic metasedimentary basement rocks that is associated with significant uranium mineralization at the Hurricane zone and in several occurrences to the southwest of the Property. The discovery of the Hurricane zone in July 2018 was followed by six drill campaigns in 2019 through 2022. The best intersection to date is 7.5 m averaging 38.8%  $U_3O_8$ , including 3.5 m averaging 74.0%  $U_3O_8$ . Dimensions of the Hurricane zone are currently 375 m along-strike, up to 125 m wide, and up to 12 m thick.

### 2.1 Sources of Information

Sources of information and data contained in this Technical Report or used in its preparation are from publicly available sources in addition to confidential information owned by IsoEnergy, including that of past property owners.

This Technical Report was prepared by Mark B. Mathisen, C.P.G., SLR Principal Geologist, with assistance from Renan Lopes, M.Sc., MAusIMM CP(Geo), SLR Consulting Geologist, and Dorota El Rassi, M. Sc., P.Eng, SLR Consulting Geologist.

Mr. Mathisen visited the Property from March 20 to 21, 2022. Mr. Mathisen toured the operational areas and camp offices, inspected various parts of the Property, examined core from several drill holes, visited active drill sites and infrastructure, reviewed logging and sampling methods, and conducted discussions

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with IsoEnergy Project geologists on the current and future plans of operations. Mr. Mathisen is a Qualified Person (QP) in accordance with NI 43-101 and is responsible for all sections of this Technical Report.

During the preparation of this Technical Report, discussions were held with the following IsoEnergy personnel:

- Andy Carmichael, Vice President Exploration, IsoEnergy Ltd.
- Justin Rodko, Senior Geologist, IsoEnergy Ltd.
- Faizan Shah, Project Geologist, IsoEnergy Ltd.
- Stephanie LeRuyet-Loziak, Geologist, IsoEnergy Ltd.
- Keane Baseden, Geologist, IsoEnergy Ltd.
- Ashton Chaykowski, Geologist, IsoEnergy Ltd.

The documentation reviewed, and other sources of information, are listed at the end of this Technical Report in Section 27 References.



## 2.2 List of Abbreviations

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

$\mu$	micron	kVA	kilovolt-amperes
$\mu\text{g}$	microgram	kW	kilowatt
a	annum	kWh	kilowatt-hour
A	ampere	L	litre
bbl	barrels	lb	pound
Btu	British thermal units	L/s	litres per second
$^{\circ}\text{C}$	degree Celsius	m	metre
C\$	Canadian dollars	M	mega (million); molar
cal	calorie	$\text{m}^2$	square metre
cfm	cubic feet per minute	$\text{m}^3$	cubic metre
cm	centimetre	MASL	metres above sea level
$\text{cm}^2$	square centimetre	$\text{m}^3/\text{h}$	cubic metres per hour
d	day	mi	mile
dia	diameter	min	minute
dmt	dry metric tonne	$\mu\text{m}$	micrometre
dwt	dead-weight ton	mm	millimetre
$^{\circ}\text{F}$	degree Fahrenheit	mph	miles per hour
ft	foot	MVA	megavolt-amperes
$\text{ft}^2$	square foot	MW	megawatt
$\text{ft}^3$	cubic foot	MWh	megawatt-hour
$\text{ft}/\text{s}$	foot per second	oz	Troy ounce (31.1035g)
g	gram	oz/st, opt	ounce per short ton
G	giga (billion)	ppb	part per billion
Gal	Imperial gallon	ppm	part per million
g/L	gram per litre	psia	pound per square inch absolute
Gpm	Imperial gallons per minute	psig	pound per square inch gauge
g/t	gram per tonne	RL	relative elevation
$\text{gr}/\text{ft}^3$	grain per cubic foot	s	second
$\text{gr}/\text{m}^3$	grain per cubic metre	st	short ton
ha	hectare	stpa	short ton per year
hp	horsepower	stpd	short ton per day

hr	hour	t	metric tonne
Hz	hertz	tpa	metric tonne per year
in.	inch	tpd	metric tonne per day
in <sup>2</sup>	square inch	US\$	United States dollar
J	joule	USg	United States gallon
k	kilo (thousand)	Usgpm	US gallon per minute
kcal	kilocalorie	V	volt
kg	kilogram	W	watt
km	kilometre	wmt	wet metric tonne
km <sup>2</sup>	square kilometre	wt%	weight percent
km/h	kilometre per hour	yd <sup>3</sup>	cubic yard
kPa	kilopascal	yr	year

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## 3.0 RELIANCE ON OTHER EXPERTS

This Technical Report has been prepared by SLR for IsoEnergy Ltd. The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to SLR at the time of preparation of this Technical Report
- Assumptions, conditions, and qualifications as set forth in in this Technical Report
- Data, reports, and other information supplied by IsoEnergy and other third party sources

For this Technical Report, the SLR QP has relied on ownership information provided by IsoEnergy. IsoEnergy has relied on an opinion by MLT Aikins dated May 9, 2022, entitled IsoEnergy Ltd. – Review of Certain Saskatchewan Mineral Dispositions. The SLR QP has not researched property title or mineral rights for the Property as we consider it reasonable to rely on IsoEnergy’s legal counsel who is responsible for maintaining this information.

The SLR QP has taken all appropriate steps, in his professional opinion, to ensure that the above information from IsoEnergy is sound.

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

## 4.0 PROPERTY DESCRIPTION AND LOCATION

### 4.1 Location

The Project, which includes the Hurricane zone discovered in 2018, is located 40 km northwest of the Orano Canada (Orano) McClean Lake uranium mine and mill in the Athabasca Basin, as illustrated in Figure 4-1, and is immediately adjacent to, but not contiguous with, the north end of IsoEnergy's Geiger property. The Property covers a 15 km long northeast extension of the Larocque Lake conductor system, a trend of graphitic metasedimentary basement rocks associated with significant uranium mineralization in several occurrences to the southwest of the Property. The Property is informally divided into the Main and Western Blocks, with the Main Block generally comprising the claims covering the Larocque Lake Trend and eastern Kernaghan Trend and the Western Block comprising claims covering the Bell Lake Trend and western Kernaghan Trend.

The geographic coordinates for the approximate center of the Project are latitude 58° 32' 17" N and longitude 104° 35' 20" W. All surface data coordinates are NAD83 UTM Zone 13.

### 4.2 Land Tenure

The Property consists of 32 contiguous and one non-contiguous mineral claims, as summarized in Table 4-1 and presented in Figure 4-2, totaling 16,782.3 ha. All dispositions are subject to the Crown Minerals Act (Saskatchewan), and the Mineral Dispositions Regulations (Saskatchewan), which grant to the owner of a claim the right to explore for minerals.

Mineral dispositions were either acquired from Cameco Corporation (Cameco), staked by IsoEnergy in 2019 and 2020, or purchased from Eagle Plains Resources Ltd in 2021.

IsoEnergy holds a 100% interest in the Project mineral dispositions. IsoEnergy has not acquired the surface rights for the Project area.

Any surface facilities and mine workings constructed would be located on Provincial lands. The right to use and occupy Provincial lands is acquired under a surface lease from the Province of Saskatchewan. A claim in good standing can be converted to a lease upon application and with the completion of a boundary survey. Leases are for a term of ten years and are renewable. A lease grants the holder the exclusive right to explore for, mine, recover, and dispose of any minerals within the lease lands. Annual expenditures of the lease for years 1 to 10 are C\$25/ha, C\$50/ha for years 11 to 20, and C\$75/ha annually thereafter. A surface lease is for a maximum of thirty-three years.

To maintain the Property in good standing, exploration on the Property with annual expenditures of C\$15/ha to C\$25/ha is required.

**Table 4-1: Mineral Disposition Status  
IsoEnergy Ltd. – Larocque East Project**

Mineral Disposition	Owner	Effective Date	Good Standing Date	Area (ha)
MC00012972	IsoEnergy Ltd.: 100%	29-May-19	27-Aug-42	463.824
MC00012973	IsoEnergy Ltd.: 100%	29-May-19	27-Aug-42	49.541
MC00012977	IsoEnergy Ltd.: 100%	29-May-19	27-Aug-42	628.666
MC00012978	IsoEnergy Ltd.: 100%	29-May-19	27-Aug-42	627.044
MC00012983	IsoEnergy Ltd.: 100%	29-May-19	27-Aug-42	847.923
MC00012986	IsoEnergy Ltd.: 100%	29-May-19	27-Aug-42	1,190.698
MC00013003	IsoEnergy Ltd.: 100%	30-May-19	28-Aug-42	432.827
MC00013011	IsoEnergy Ltd.: 100%	30-May-19	28-Aug-42	48.709
MC00013017	IsoEnergy Ltd.: 100%	31-May-19	29-Aug-42	99.134
MC00013023	IsoEnergy Ltd.: 100%	31-May-19	29-Aug-42	65.819
MC00013024	IsoEnergy Ltd.: 100%	31-May-19	29-Aug-42	65.817
MC00013025	IsoEnergy Ltd.: 100%	31-May-19	29-Aug-42	116.109
MC00013026	IsoEnergy Ltd.: 100%	31-May-19	29-Aug-42	82.069
MC00013042	IsoEnergy Ltd.: 100%	31-May-19	29-Aug-42	131.519
MC00013560	IsoEnergy Ltd.: 100%	30-Jan-20	30-Apr-43	164.944
MC00013747	IsoEnergy Ltd.: 100%	1-Apr-20	30-Jun-43	739.212
MC00013750	IsoEnergy Ltd.: 100%	1-Apr-20	30-Jun-42	1,985.738
MC00013755	IsoEnergy Ltd.: 100%	6-Apr-20	5-Jul-42	1,685.496
MC00013770	IsoEnergy Ltd.: 100%	7-Apr-20	6-Jul-43	1,541.275
MC00013776	IsoEnergy Ltd.: 100%	7-Apr-20	6-Jul-43	1,175.692
MC00013777	IsoEnergy Ltd.: 100%	7-Apr-20	6-Jul-43	528.59
MC00013983	IsoEnergy Ltd.: 100%	17-Jun-20	15-Sep-43	129.571
MC00013990	IsoEnergy Ltd.: 100%	17-Jun-20	15-Sep-43	115.13
MC00013992	IsoEnergy Ltd.: 100%	17-Jun-20	15-Sep-43	196.374
MC00014006	IsoEnergy Ltd.: 100%	17-Jun-20	15-Sep-43	394.106
MC00014031	IsoEnergy Ltd.: 100%	18-Jun-20	16-Sep-43	104.371
MC00014048	IsoEnergy Ltd.: 100%	18-Jun-20	16-Sep-43	17.097
S- 97679	IsoEnergy Ltd.: 100%	15-Mar-93	12-Jun-43	42
S- 97680	IsoEnergy Ltd.: 100%	15-Mar-93	12-Jun-43	158
S-100193	IsoEnergy Ltd.: 100%	14-May-90	11-Aug-43	415
S-100194	IsoEnergy Ltd.: 100%	14-May-90	11-Aug-42	465
S-101078	IsoEnergy Ltd.: 100%	14-May-90	11-Aug-42	1760
S-105491	IsoEnergy Ltd.: 100%	22-Apr-92	20-Jul-43	315

### 4.3 Required Permits

To carry out the proposed exploration on the ground (including drilling) the following permits are required:

- A general use permit, which lists all the rules and regulations to be followed
- A forest product permit if trees are to be cut
- A camp permit if there will be a camp on the Property
- Water use permit(s) for camp use and drilling use

A review of the Ministry of Environment areas of endangered or threatened species and a review of archeological sites at the Heritage Conservation Branch is also required, but no permit is required to be issued.

IsoEnergy confirmed that they have obtained all required permits for their proposed exploration work aside from additional water use permits, which will be acquired prior to the commencement of drilling.

There are no significant factors or risks known that may affect access, title, or the right or ability to perform work on the Property.

### 4.4 Encumbrances

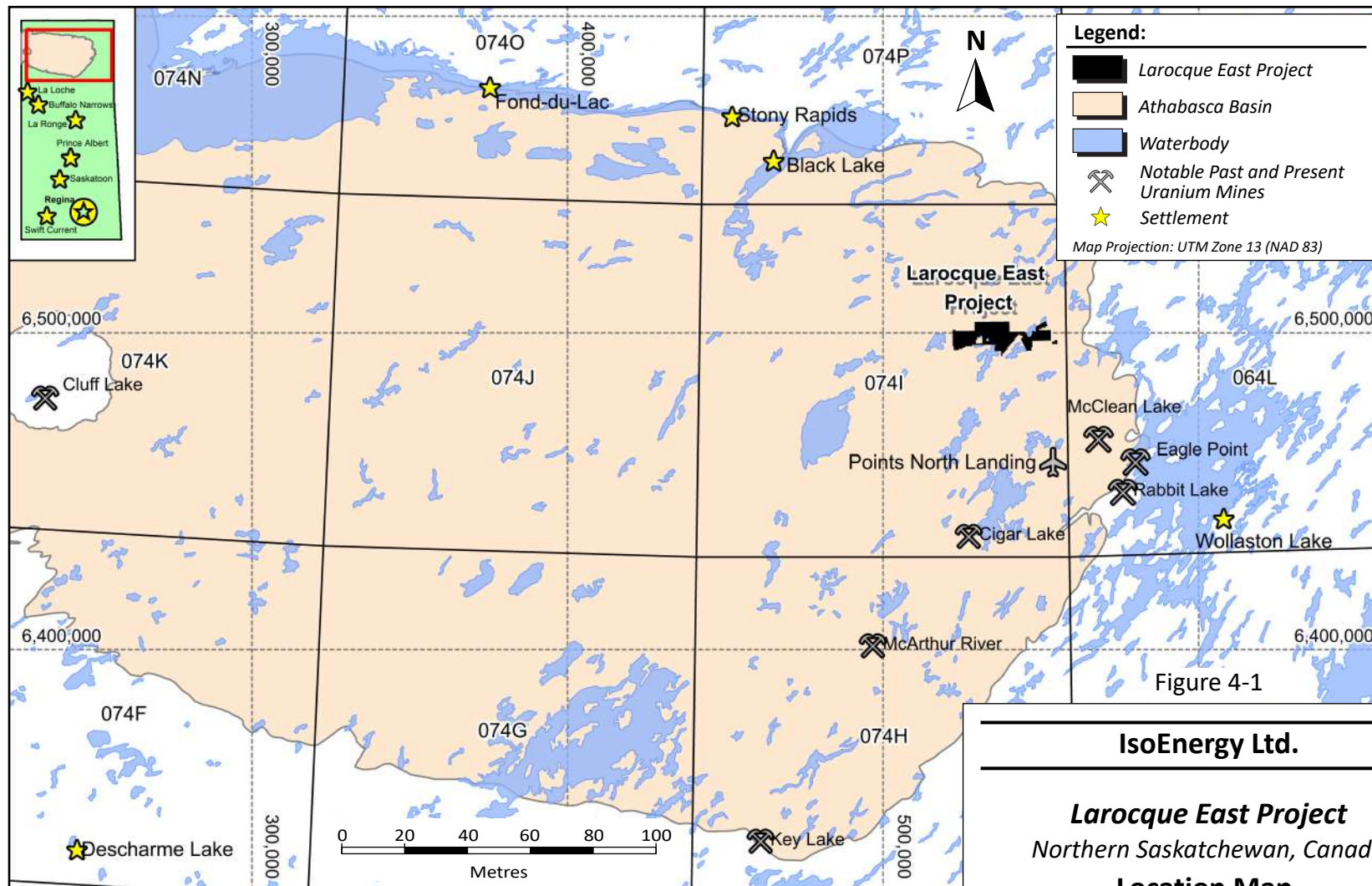
SLR is not aware of any significant encumbrances to the Project including current and future permitting requirements and associated timelines, permit conditions, and violations and fines.

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

No obvious disturbance was noted during the site inspection, except for cut lines for geophysical work, drill pads, and drill roads.

### 4.5 Royalties

Claims MC00013747 and MC00013560, distal to the Hurricane zone, are subject to a 2% Net Smelter Returns (NSR) royalty, which can be reduced to 1% with a payment of C\$1,000,000 to the royalty holder.



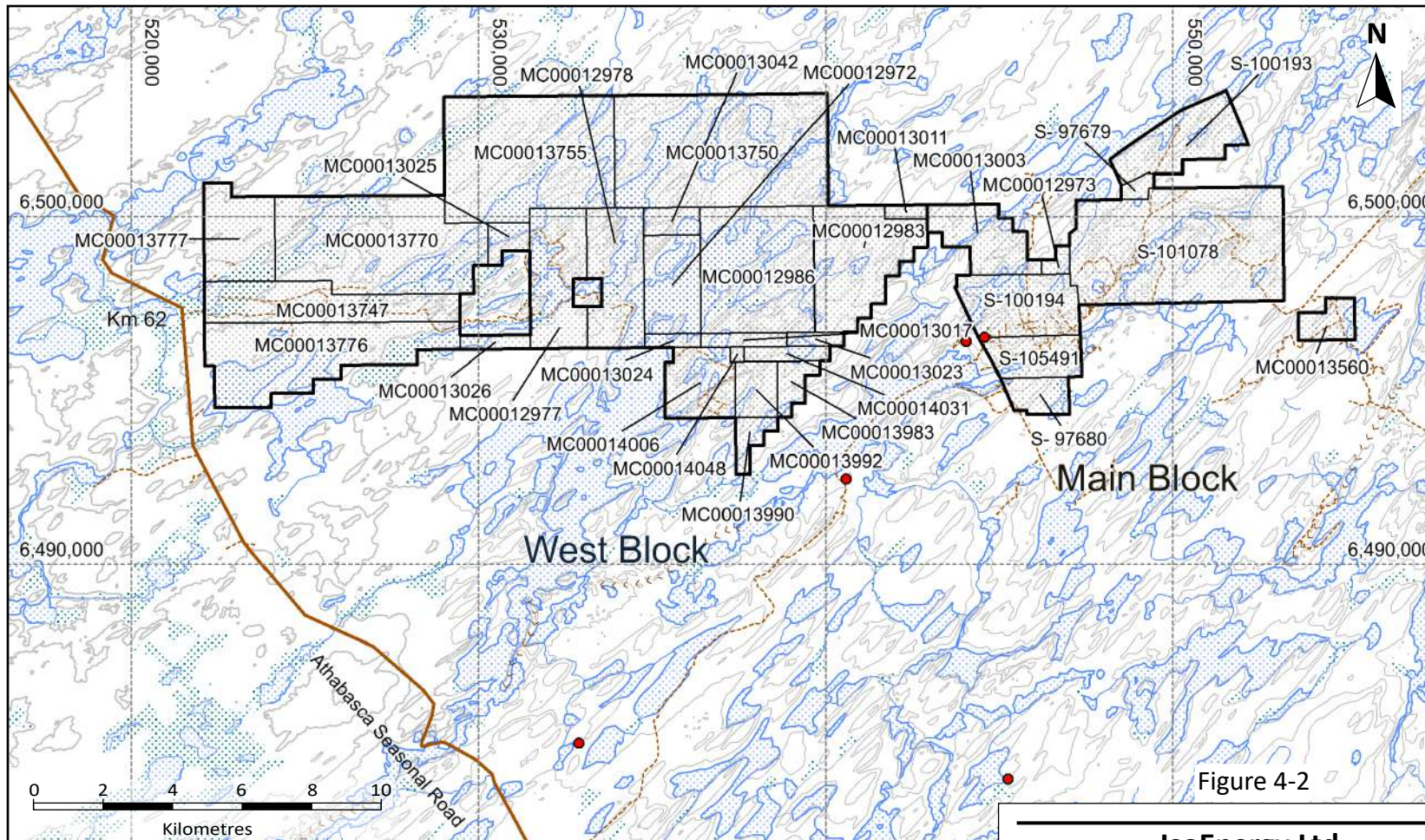


Figure 4-2

**IsoEnergy Ltd.**

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**Larocque East Project**  
Northern Saskatchewan, Canada

**Claim Location and Physical Geography**

**Legend:**

Larocque East Project	Watercourse	Esker
Waterbody	4 Season Road	Topographic Contour (20 m)
Wetland	Winter Access Road	Uranium Occurrence

Map Projection: UTM Zone 13 (NAD 83)

August 2022

Source: IsoEnergy Ltd., 2022.



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## 5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

### 5.1 Accessibility

The Project is located near the eastern margin of the Athabasca Basin of Northern Saskatchewan. Access trails located at kilometre 40.2 and kilometre 62.4 on the four-season Athabasca Seasonal Road provide winter access to the Main and Western blocks of the Property, respectively. The access trail at kilometre 40.2 extends northeast to the Hurricane zone and is accessible by truck and heavy equipment only during frozen winter conditions as several lakes, streams, and muskegs must be crossed.

Outside of winter, access to the Property is by float plane via several small lakes within or proximal to the Property, or by helicopter. Points North Landing, a privately-owned airstrip and service centre, is located 38 km south of the Project. Points North Landing is serviced by regular commercial flights from Saskatoon. La Ronge, a supply centre for northern Saskatchewan, and is 460 km by road to the south of Points North Landing.

### 5.2 Vegetation

The ground surface is approximately 30% lakes and wetlands with the remaining vegetation dominated by spruce and pine trees less than 15 m in height. Ground cover includes reindeer lichen, Labrador tea, and blueberry.

### 5.3 Climate

The climate is typical of mid-latitude continental areas. The climate of the Project area has a high seasonal variability with temperatures ranging from lows of -45°C in the winter to 30°C in the summer. Summers are hot, may be dry or wet, and thunderstorms are common. Winters are cold and long, with daytime temperatures below 0°C from mid-October through mid-April. Precipitation typically falls an average of 10 to 20 days per month with the heaviest precipitation occurring between June and September. Break-up occurs typically in April and May, and freeze-up in December. Large ground geophysical surveys and drilling programs are commonly completed in the winter due to the increased ease of access provided by frozen lakes and muskegs, but operations can be completed year round.

### 5.4 Local Resources

La Ronge is the nearest community of any size where exploration supplies and services can be obtained, although some services are available at Points North Landing, including accommodation, meals, bulk fuel, trucking, and heavy equipment rental. Skilled labour for a mining operation would likely be sourced from several local northern communities, as well as communities in southern Saskatchewan. Saskatoon, approximately 700 km south, is a major population centre in Saskatchewan, with highway, rail, and air links to the rest of North America.

Fuel oil and propane are available at Points North Landing. Water is readily available in the area.

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## 5.5 Infrastructure

There is no permanent infrastructure on the Property. Field operations are currently conducted from IsoEnergy's camp, 400 m south of the Hurricane zone, on a mineral claim currently controlled by Cameco and Orano. The camp, which is operated by IsoEnergy, provides accommodations for up to 25 exploration personnel. Fuel and miscellaneous supplies are stored in existing warehouse and tank facilities at the camp. The site generates its own power. Abundant water is available from the numerous lakes and rivers in the area.

The Property has sufficient space for an open pit or underground mining operation including space for waste rock piles, milling facilities, and tailings facilities. Water is readily available in the Project area. A surface lease would be required from the Provincial government in advance of construction of permanent surface facilities on the Property.

Electrical power is available from the provincial grid, with a switching station at Points North Landing. It is not known if there is sufficient capacity on that grid to operate a mining and milling operation at Project. Cameco's Cigar Lake Mine is connected to the provincial grid with a 138-kV power line.

## 5.6 Physiography

Glaciation in the Project area has resulted in a northeast-southwest trend for most topographic features in the region including lakes, drumlins, and eskers. The lowest elevation on the Property is 395 MASL, with drumlins reaching a maximum elevation of approximately 465 MASL.

## 6.0 HISTORY

### 6.1 Prior Ownership

The Property was originally staked in 1976 by Urangesellschaft Canada Ltd (Urangesellschaft) in partnership with the Saskatchewan Mining Development Corporation (SMDC). Most of the claims in the Project area were allowed to lapse in 1989 due to a failure to intersect significant uranium mineralization in the prior years.

In the early 1990s Cameco restaked the Project area, renaming it the Kernaghan Lake project.

On May 3, 2018, IsoEnergy announced that it had entered into an agreement with Cameco to acquire a 100% interest in six mineral claims constituting the 3,200 ha Larocque East uranium exploration property. IsoEnergy subsequently expanded the Property area to 16,782 ha through staking and additional acquisitions.

The Property covers the northeast extension of the Larocque Lake conductor system, a trend of graphitic metasedimentary basement rocks associated with significant uranium mineralization in several occurrences on neighbouring properties to the southwest.

### 6.2 Exploration and Development History

#### 6.2.1 Larocque East – Main Block

##### 6.2.1.1 Urangesellschaft – SMDC (1976 to 1989)

Exploration of the Project Main block originally began in 1976 when Urangesellschaft explored the Hatchet Lake project in partnership with SMDC until 1981 (Yackulic, 2010). From 1977 to 1984, several airborne geophysical (INPUT, HLEM, and DEEPEM) surveys were completed in the area over the much larger Hatchet Lake project operating at that time. Most of the claims in the area lapsed in 1989 due to a failure to intersect significant uranium mineralization.

##### 6.2.1.2 Cameco (1990 to 2009)

In 1990 and 1993, Cameco restaked the area, renaming it as the Kernaghan Lake project (Yackulic, 2010).

No exploration work was completed in the area between 1984 and 1991, at which time a boulder sampling program was completed that identified weakly illitic sandstone boulders over much of the conductive Larocque Lake trend (Matthews, 1992). During the winter of 1992, Cameco contracted Quantec Consulting Inc. to complete 49.2 line-kilometres (line-km) of fixed loop time-domain electromagnetic (TDEM) survey over the Chain, Chain East, and Kernaghan grids. The survey increased the known extent of conductors in all three areas and outlined several potential drill targets.

Exploration in 1993 comprised diamond drilling and 23.1 line-km of fixed loop electromagnetic (EM) 37 surveying over the Chain Lake West grid. Drilling totaled 1,848 m in drill holes KERN-1 through KERN-6. EM surveying further delineated the Larocque Lake trend in the Chain Lake area and identified a previously unknown conductive trend south of the Chain Lake West grid. Drilling intersected graphite and sulphide rich pelitic gneisses, however, no significant uranium mineralization, pathfinder geochemistry, structure, or hydrothermal alteration were intersected (Forand et al., 1993). KERN series drill holes were later renamed with the prefix KER.

In 1997, one diamond drill hole was completed on the non-contiguous eastern claim to follow up results from a 1992 TDEM survey. HT-130 was drilled to 233 m and intersected 56.8 ppm uranium at 183.8 m, just above the unconformity (Halaburda et al., 1997).

In 1998, diamond drill holes HT-131 and HT-133 were drilled on the non-contiguous eastern claim. Drilling totaled 510.0 m and both drill holes intersected graphitic pelitic units in the basement. HT-133 intersected elevated radioactivity up to 870 counts per second (cps) at the unconformity (Halaburda and Nimeck, 1998).

Diamond drill holes KER-7, KER-8, and KER-9 were completed during February 1999 and totaled 1,005 m within the Chain West and Chain grids. KER-7, located near the southwestern margin of the Property, intersected modest structure and hydrothermal alteration as well as strongly graphitic rocks with zones of elevated radioactivity (Jiricka et al., 1999). Drill holes KER-8 and KER-9 both intersected graphitic basement lithologies and zones of hydrothermal alteration and significant structure near the unconformity. Geophysical coverage in 1999 consisted of 18.0 line-km and 16.0 line-km of fixed loop EM survey over the Chain West and Chain grids, respectively, and 7.1 line-km and 8.65 line-km of moving loop EM survey over the Chain West and Chain grids, respectively.

The 2003 exploration program comprised 10.2 line-km of moving loop EM coverage along the western border of the Main Block, and completion of diamond drill holes KER-10 and KER-11, which totaled 733 m (Michayluk, 2003). KER-10 intersected weakly elevated uranium and highly anomalous lead up to 222 ppm through a zone of faulted and bleached sandstone from 153.6 m to 161.1 m. Further west, drill hole KER-11 intersected significant hydrothermal alteration, structure, and anomalous geochemistry in the illite rich sandstone column. Weak fracture hosted uranium mineralization up to 518 ppm U was intersected at 331.7 m, roughly three metres above the unconformity. Basement lithologies were dominated by weakly to strongly graphitic augen gneiss and a paleoweathering profile that had been overprinted by late alteration.

Exploration reported by Hamel et al. in 2005 consisted of 9.7 line-km of TDEM surveying and the completion of three drill holes, KER-12 through KER-14, totaling 953 m. Roughly 250 line-km of airborne versatile time-domain electromagnetic (VTEM) surveying was also completed. KER-12 did not intersect uranium mineralization while following up KER-11 to the south but intersected significant structure throughout the illitic sandstone column plus chloritic and pyritic alteration and anomalous uranium geochemistry in the basal sandstone. An unconformity offset or paleotopography of roughly 41 m was recognized on the Kernaghan trend between KER-13 and KER-14, located roughly 250 m apart in the northernmost region of the Property. Both drill holes failed to intersect significant alteration or structure and no follow up exploration work has been conducted. Updated VTEM coverage over the entire Property confirmed the extent of known graphitic lithologies and identified multiple areas of increased conductivity.

Work in 2008 consisted of 5.0 line-km of TDEM surveying within the Chain and Deschain grids. The primary purpose of the survey was to characterize the conductive nature of the sandstone with relation to possible alteration. Surveying identified high priority drill targets on both grids (Milne et al., 2009).

Following the results of 2008, a four hole diamond drilling exploration program was completed over the Chain (KER-15, KER-16) and Deschain (KER-17, KER-18) grids. KER-15 and KER-16 failed to intersect uranium mineralization. KER-17 and KER-18 were targeted to test the extent of an arcuate conductive packaged wrapping around a magnetic high in the eastern portion of the Property. KER-17 targeted the apparent fold nose and intersected 656 ppm U over 0.5 m in the basal sandstone. KER-18, drilled in the southeastern corner of the Property, intersected weak unconformity style mineralization up to 353 ppm U

over 0.6 m (Yackulic, 2010). Both drill holes intersected moderately graphitic lithologies with brittle reactivation noted in KER-17.

Work in 2016 comprised 900 line-km of Airborne very-low frequency (VLF) 16 (Barrie, 2016) and 6.6 line-km of pole-dipole resistivity surveying (Grunerud, 2016). The geophysical programs further delineated conductive trends at the Kernaghan Lake Project and characterized the resistivity profile at two sections along the Larocque Lake trend.

## **6.2.2 Larocque East – Western Block**

### **6.2.2.1 Various Operators (1969 to 1990)**

Early exploration from the late 1960s to the late 1970s included airborne radiometric, magnetic, and EM surveys, surficial geology and hydrogeological studies, and lake water and sediment sampling by various companies including Ensign Oil, Merland Oil, Asamera Oil, and SMDC.

The earliest known drilling was completed in 1980 by Jodi Resources, following up on an INPUT airborne EM survey conducted in 1979. Of the seven drill holes completed, Bell-1A, Bell-4, Bell-5, and Bell-6 reached the unconformity and contained anomalous concentrations of uranium at or near the unconformity (Wall, 1980).

### **6.2.2.2 Cameco (1990 to 1996)**

In 1990, Cameco completed a boulder sampling program over the central portion of the Western Block. No anomalous results were identified (Ogryzlo, 1991).

In 1992 Cameco completed 40.4 km of fixed loop EM37 surveying to define basement conductors which was followed up with 1,565 m of drilling in drill holes BE-1 to BE-5 (Ogryzlo and Matthews, 1992). Drill hole BE-3 was drilled to a depth of 342.0 m and intersected graphitic pelite basement rocks (Ogryzlo and Matthews, 1992). Drill hole BE-4 intersected 0.07%  $U_3O_8$  over 0.5 m immediately above the unconformity. Although collared inside the Property, the BE-4 unconformity intercept is located outside of the Project.

### **6.2.2.3 Uranerz Exploration and Mining (1997)**

In 1997 Uranerz Exploration and Mining (UEM) completed a boulder sample survey and ground EM surveying over the northeastern portion of the Western Block (Belyk and Leppin, 1997). Boulder sampling outlined a subtle zone of anomalous clay composition and geochemistry. EM surveys defined a curvilinear conductive system that is 50% contained by the current Project. No drilling was completed to follow up the results of the boulder and EM surveys.

### **6.2.2.4 JNR Resources and Denison Mines (1998 to 2019)**

In 1998 through 2000, JNR Resources (JNR) completed boulder geochemistry surveying, airborne magnetic and EM surveying, ground EM surveying, and diamond drilling over the eastern portions of the Western Block (Billiard, 2000). Drill hole BL00-01 and BL00-02 were collared 150 m apart on Durrant Lake, testing the eastern end of the Bell Lake trend magnetic low. Zones of structure and alteration intersected in the sandstone and basement included metasedimentary and granitic gneisses.

In 2006 and 2007, Denison Mines (Denison) completed ground EM surveying over the western half of the Western Block (Petrie, 2007, Hopfengartner et al., 2008). This work identified a seven kilometre long, lenticular zone of conductive basement along the western Bell Lake trend.

In 2007 Denison and JNR completed widespread boulder sampling across much of the Western Block.

One diamond drill hole, BL-07-02, was drilled on the Bell Lake trend in summer 2007 to target conductors identified by historical transient electromagnetic (TEM) surveys. Drilled by Denison to a depth of 456.0 m, BL-07-02 intersected limited structure in the sandstone and very weakly graphitic pelite in the basement (Kocay and Burry, 2007).

In 2008, drilling was carried out by Denison and targeted several TEM conductors in the Western Block identified from the surveys completed in 2006 and 2007. A total of 1,480.5 m was drilled in four drill holes, with two abandoned in the lower sandstone. BL-08-04 intersected moderate structure in the sandstone, and BL-08-06 intersected weakly graphitic pelite units in the basement (Hopfengaertner et al., 2008).

In 2011 Denison completed 60.8 km of ground magnetic and 60.1 km of fixed-loop time domain EM surveying near the center of the Western Block, extending the 2006/2007 Bell Lake grid to the east (Petrie and Donmez, 2011). Survey work defined a lenticular zone of conductivity in the basement extending east from the previous surveys.

In 2012, Denison completed two drill holes near the center of the Western Block to follow up on anomalous results in earlier drilling by Jodi Resources (Petrie and Donmez, 2012). All drill holes completed to basement intersected variably graphitic and pyritic, cordierite-bearing pelitic gneisses.

In 2013, Denison completed small moving loop EM surveying near the center of the Western block in the vicinity of historical drill holes BE-4 and Bell-4. Portions of this work cover a small claim not held by IsoEnergy. Surveying mapped two sub-parallel, east-northeast trending conductors over a 1.2 km strike length using survey lines at 400 m intervals (Petrie and Donmez, 2013).

In 2014, a 14.4 line-km moving loop EM survey was completed just inside the western limit of the Western Block (Goulet and Donmez, 2015). The survey identified an east-west trending conductor over a 1.6 km strike length using three survey lines at 800 m spacing. Denison also completed drill holes BL-14-16 through BL-14-18. Most notably, BL-14-16 intersected a 0.1 m interval of elevated radioactivity in the sandstone beginning at 268.1 m above structured graphitic basement.

Work in 2016 comprised drill holes BL-16-29 through BL-16-31, which targeted conductors identified by the 2014 Bell Lake EM survey. Both drill holes intersected graphitic pelite in the basement, and BL-16-29 intersected a radiometric peak of 700 cps less than one metre above the unconformity (Goulet and Donmez, 2016).

### 6.3 Historical Resource Estimates

No resource estimates have been previously completed on the Property.

### 6.4 Past Production

No production has occurred on the Property.

## 7.0 GEOLOGICAL SETTING AND MINERALIZATION

### 7.1 Regional Geology

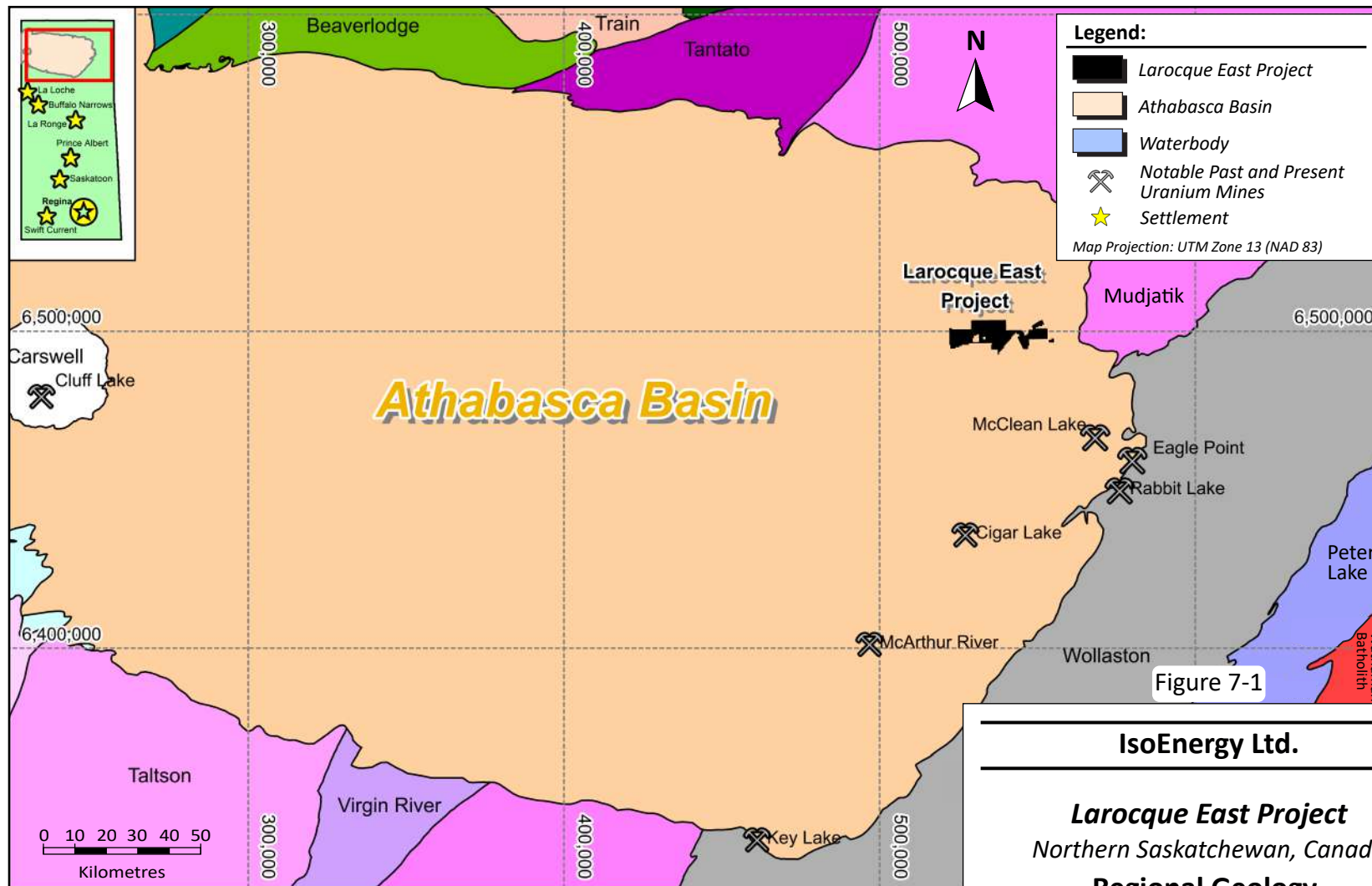
The Project area lies near the northeastern edge of the Athabasca Basin, a middle Proterozoic clastic basin containing a relatively undeformed sequence of unmetamorphosed clastic rocks, predominantly sandstones, known as the Athabasca Group. These clastic rocks in the eastern half of the Athabasca Basin lie unconformably on the highly deformed and metamorphosed rocks of the Hearne Craton of the Western Churchill Province of the Canadian Shield (Jefferson et al., 2007). The basement rocks of the Hearne Craton consist of Archean orthogneiss, overlain by the Paleoproterozoic Wollaston Supergroup sedimentary rocks. The basement rocks were metamorphosed to amphibolite facies and structurally intercalated and deformed during the Trans-Hudson orogeny, resulting in a strong north-easterly linear fabric (Annesley et al., 2005). Other significant structural orientations run east-northeast (such as the Collins Bay Thrust and Tent-Seal structure), north-south (the Tabbernor Fault system), and northwest (diabase dikes).

The central part of the Hearne Province can be divided into three lithostructural domains. From east to west these are:

- The Eastern Wollaston Domain, with the Wollaston Supergroup metasediments in this domain derived from pelitic to psammitic sedimentary rocks
- The Western Wollaston Domain, where the stratigraphy of the Wollaston Supergroup is dominated by lower Wollaston stratigraphy, and consists of pelitic, usually graphitic, rocks, lesser psammitic rocks, quartzites, and calc-silicate lithologies
- The Mudjatik Domain, which has lesser amounts of the Wollaston Supergroup metasediments and, instead of a linear fabric, has an arcuate basin and dome pattern. The Project area is in the Mudjatik Domain where it transitions into the eastern Wollaston Domain.

The Trans-Hudson orogeny ended approximately 1.8 billion years ago. Prior to deposition of the Athabasca Group sediments, the metamorphic rocks were eroded and deeply weathered. Most “basement” rocks of the Wollaston Supergroup show lateritic weathering (MacDonald, 1980): a thin, bleached zone at the Athabasca unconformity, then hematite-stained (red zone), weathered metamorphic rocks, grading down to a green zone where mafic minerals have been altered to chlorite. Athabasca Group sedimentation started as early as 1,730 million years (Ma) ago (Jefferson et al., 2007).

The Athabasca Group consists of eight formations with provenance, at different times, from the east, south, and northwest (Ramaekers et al., 2007). In the eastern half of the basin only one formation is present, the Manitou Falls Formation, consisting of four units (MFa to MFd) of fluvial sandstones with interbedded pebbly beds and conglomerates. MFc and MFb members underlie the Project. The MFc member is almost entirely quartz arenite with some regions containing pebbly quartz arenite. The MFb member consists of conglomeratic quartz arenite (Bosman and Korness, 2007). The MFb member hosts the Cigar Lake deposit. Figure 7-1 illustrates the position of the Project area within the Athabasca Basin and relative to selected uranium mines.





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## 7.2 Local Geology

### 7.2.1 Quaternary Geology

Quaternary geology (overburden) consists primarily of glacial till as blankets, drumlins, and eskers. Below the overburden lies Athabasca sandstone, which unconformably overlies Paleoproterozoic basement rocks. Drilling has intersected various granitic orthogneisses, paragneisses, and late cross-cutting pegmatite intrusions throughout the Property.

In the vicinity of the Project area, glaciation has imparted a northeast-southwest elongation to most significant topographic features. The Project hosts several sizeable drumlins, the largest of which rises more than 65 m above the base elevation. Till blankets the bedrock surface over most of the Property and, in the region, typically comprises a mixture of sandstone and basement boulders set in a sandy matrix. Within flatter portions of the Project, glacial tills are likely overlain by veneers of aeolian sands, fluvial sands and gravels, and other sediments derived from glacial outwash processes.

Based on results from the 163 completed drill holes on the Project to date, Quaternary deposits are expected to be up to 50 m thick beneath drumlins and can be less than 10 m thick between the drumlins.

### 7.2.2 Athabasca Group

Drilling results indicate the true vertical thickness of Athabasca Group sandstones on the Project is between 125 m and 439 m. The Athabasca Group sandstones in the area are dominated by the Manitou Falls Formation Bird (MFb) and Collins (MFc) Members, which underlie the glacial overburden and unconformably overlie the crystalline basement. Some historical drill holes are reported to have intersected up to 90 m of the Manitou Falls Dunlop (MFd) member, a quartz arenite rich in clay intraclasts (Bosman and Ramaekers, 2015).

### 7.2.3 Crystalline Basement

Depth from surface to the top of the crystalline basement (the sub-Athabasca unconformity) ranges between 150 m and 456 m in drill holes on the Property. To date, drilling has largely focused on the Larocque Lake trend, an approximately 30 km long, northeast to east-northeast trending magnetic low corridor which hosts several uranium occurrences along strike to the south and southwest of Larocque East. Within the Project, the Larocque Lake trend stretches across most of the central portion of the Property and wraps around an arcuate magnetic high in the eastern portion of the Property. The Larocque Lake trend extension on the Property comprises a metasedimentary assemblage of sulphide-rich graphitic pelitic and semi-pelitic gneiss interlayered with non-graphitic garnetiferous and or sillimanite rich pelitic to semipelitic gneisses with local psammitic, quartzitic, and calcsilicate gneisses. Graphite-rich lithologies are often made up of augen (cordierite) gneiss with mild to moderate shearing. Several graphite rich concordant faults have been intersected on the Larocque Lake trend, including those associated with uranium mineralization at the Hurricane zone. Strongly faulted sandstone intersected in several drill holes on the Property suggests additional offsetting faults may be present.

Upper basement rocks often host a typical paleoweathering profile consisting of variable amounts of bleached, red, red-green, and green zones intersected in earlier drill holes. The paleoweathering profile can extend 25 m to 50 m below the unconformity but may penetrate deeper along structures. Drill holes that intersect mineralization at Hurricane typically lack any paleoweathering profile due to overprinting by later hydrothermal activity.

The regional foliation on the Property trends roughly northeast-southwest with variable dips to the southeast or northwest. In the immediate vicinity of the Hurricane zone, the foliation strikes west and dips roughly 70° to 85° to the north due to a series of stepwise bends along strike. Many structures are noted to be concordant with the basement foliation and host up to decametre-scale brittle fault zones, occasionally enriched in graphite, and often flanked by envelopes of hydrothermal alteration. Drilling during the 2018 to 2021 programs intersected a series of steeply dipping, concordant, graphite-rich, cataclastic faults which are interpreted to control the mineralization at the Hurricane zone. Outside of the Hurricane zone, the foliation generally strikes south-west to west and dips roughly 65 to 85° to the north. Several outliers have been noted dipping approximately 46° to 50° and can vary from southwest to southeast.

Basement generally strikes east-west along the Bell Lake trend within the Western Block. Figure 7-2 illustrates the general overall local stratigraphy.

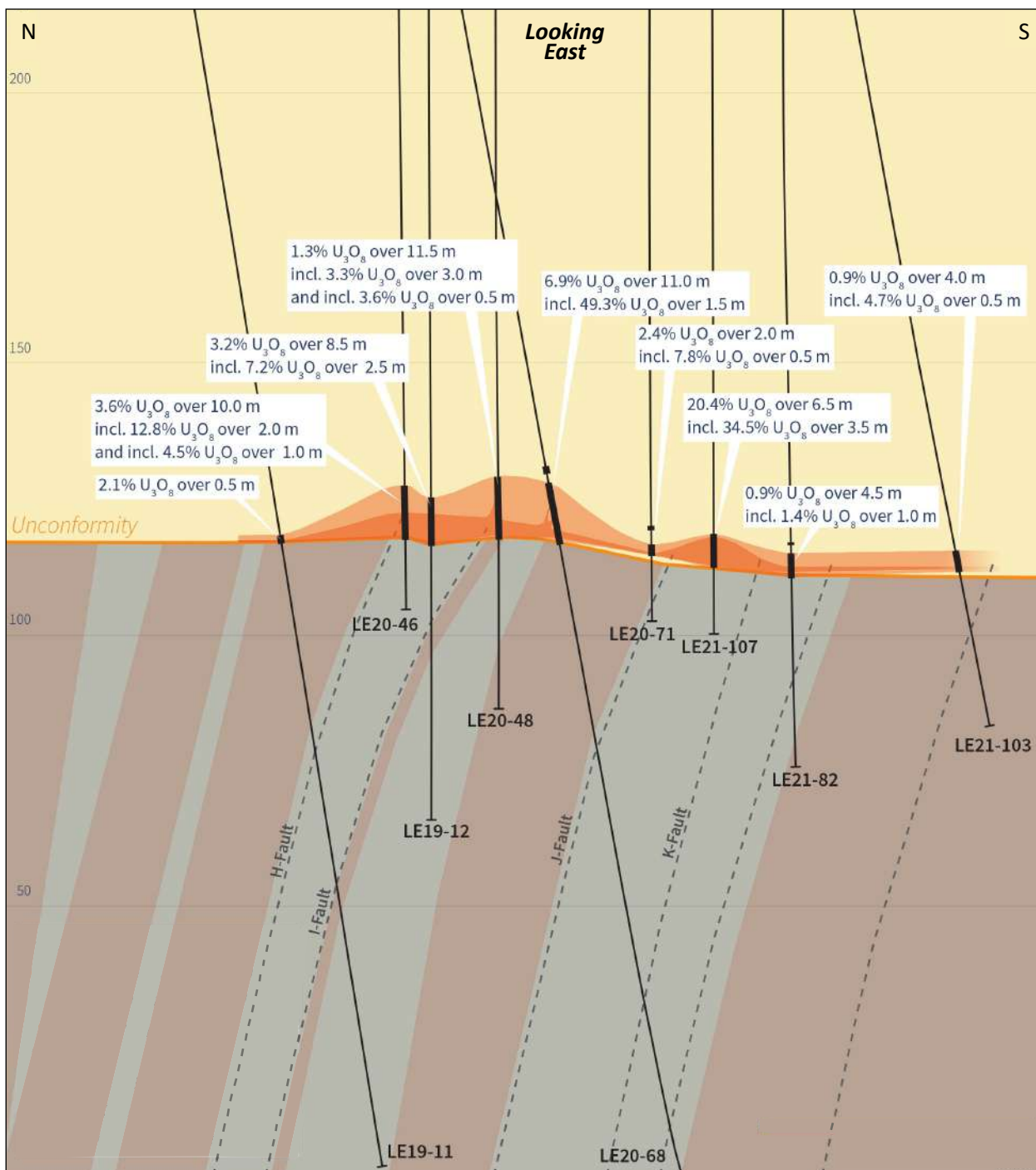


Figure 7-2

**Legend:**

- Drill Trace
- Strong Mineralization (>5,000 cps)
- Weak Mineralization (<5,000 cps)
- Unconformity
- Faults
- Athabasca Sandstone
- Pelitic Gneiss
- Graphitic Pelitic Gneiss

0 10 20 30 40 50  
Metres

**IsoEnergy Ltd.**

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**Larocque East Project**  
Northern Saskatchewan, Canada

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**Local Stratigraphy,  
Cross Section 4485E**

August 2022

Source: IsoEnergy Ltd., 2022.

### 7.3 Mineralization

The most significant zone of uranium mineralization intersected to date is the Hurricane zone, which was discovered in July 2018. The first drill hole completed by IsoEnergy on the Property, LE18-01A, intersected a broad, 8.5 m long interval of uranium mineralization at an average grade of 1.26%  $U_3O_8$  (above a cut-off grade of 0.1%  $U_3O_8$ ) that includes a higher-grade subinterval of 3.58%  $U_3O_8$  over 2.5 m. Within the higher-grade subinterval is a zone that averages 6.45%  $U_3O_8$  over one metre. Mineralization at Hurricane occurs at the sub-Athabasca unconformity approximately 325 m vertically below surface and is essentially horizontal. East-west trending, steeply north-dipping basement rocks underlying Hurricane host centimetre- to metre-scale fault zones preferentially occurring at contacts between graphitic and non-graphitic units. Mineralization is controlled by the intersection of these fault zones with the sub-Athabasca unconformity resulting mineralization elongated in its east-west dimension.

Drilling during the exploration programs from 2019 through 2022 extended the Hurricane zone mineralization up to 375 m long, 125 m wide, and 12.0 m thick. Drill hole LE20-76, considered the best mineralized drill hole to date, intersected 38.8%  $U_3O_8$  over 7.5 m, including a higher-grade subinterval averaging 74.0% over 3.5 m. Several other drill holes from 2019 through 2021 intersected high-grade uranium mineralization up to 12.0 m thick. Drill hole LE21-78c1 identified a smaller zone of high-grade uranium mineralization approximately 10.0 m south of the main high-grade zone. Further drilling indicated the southern high-grade zone to be up to 65 m long, 20 m wide, and 12.0 m thick. Drill hole LE21-107 intersected the best results to date within this zone, with 3.5 m averaging 34.5%  $U_3O_8$  within a 6.5 m interval of continuous mineralization averaging 20.4%  $U_3O_8$ . Drill holes LE21-101 and LE22-115A intersected uranium mineralization 20 m to the southeast of the main Hurricane zone, with a 4.5 m interval averaging 0.6%  $U_3O_8$  in LE21-101. Mineralization intersected at the Hurricane zone occurs as a mix of fracture hosted and disseminated pitchblende in the basal sandstone grading toward matrix replacement and massive pitchblende at the unconformity and is associated with intense hydrothermal and illitic clay alteration.

Several historical drill holes on the Property have intersected weak uranium mineralization at the unconformity or within basement hosted fractures. KER-07 was the first drill hole on the Property to intersect mineralization on the Larocque Lake trend, where it intersected 0.124%  $U_3O_8$  over 0.1 m at 320.0 m depth within a limonitized anatectic sweat bordered by graphitic and pyritic semipelitic gneiss. Roughly 380 m along trend to the west, drill hole KER-11 intersected fracture-hosted mineralization of 0.061%  $U_3O_8$  over 0.5 m in the basal sandstone. The mineralization intersected in KER-11 lies within a zone of chlorite and sulphide alteration including fracture hosted sooty pyrite and chalcopyrite. Near the eastern border of the Property, KER-17 was drilled to test the nose of the Larocque Lake trend where it wraps around the arcuate magnetic high. At a depth of 187.0 m, roughly one metre above the unconformity, drill hole KER-17 intersected 0.086%  $U_3O_8$  over 0.5 m in an interval of blebby pitchblende mineralization associated with chlorite, sooty pyrite, and hematitic clay coatings on nearby fractures and gouge. Approximately one kilometre southwest of KER-17, KER-18 targeted the southern limb of the interpreted fold in the Larocque Lake trend. Immediately underlying the unconformity, the drill hole intersected 0.047%  $U_3O_8$  over 0.4 m from 209.3 m to 209.7 m. The mineralization intersected in KER-18 is hosted within moderately bleached semipelitic gneiss coincident with patchy hydrothermal hematite and small scale limonitic redox fronts.

Approximately 365 m to the west of the Larocque East Main Block boundary and 450 m southwest of the Hurricane zone is Cameco's Larocque Lake North uranium showing, where drill hole Q22-16 intersected 0.93%  $U_3O_8$  over 1.4 m just above the unconformity. Mineralization intersected in Q22-16 is associated with strongly elevated amounts of nickel, cobalt, arsenic, lead, and gold. (Jiricka et al., 1999).

Approximately 5.5 km southwest of Q22-16, and less than six kilometres from the Property boundary is Cameco's Larocque Lake showing. At Larocque Lake, drill hole Q22-17 intersected 0.17%  $U_3O_8$  over a 3.8 m interval at 288.8 m in the basal sandstone. Several other drill holes have intersected uranium mineralization in that area, including 29.87%  $U_3O_8$  over seven metres in Q22-40 (Jiricka et al., 1999). Along the Bell Lake trend within the Western Block, drill hole BL-14-16 intersected 0.07%  $U_3O_8$  over 0.9 m.

## 8.0 DEPOSIT TYPES

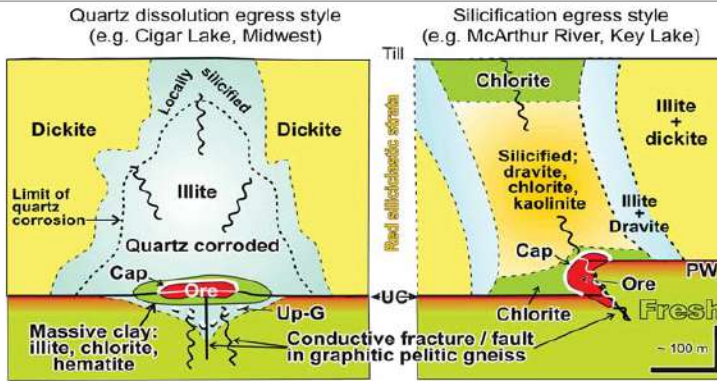
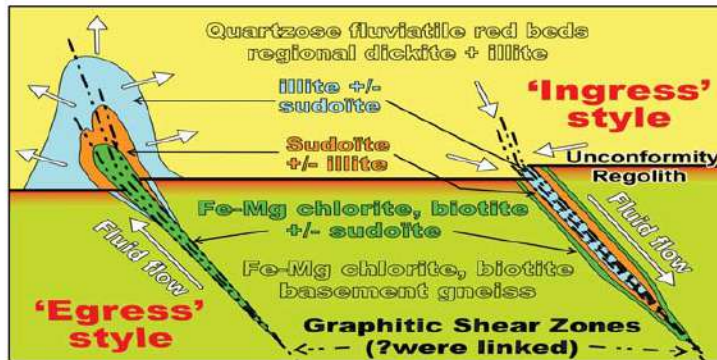
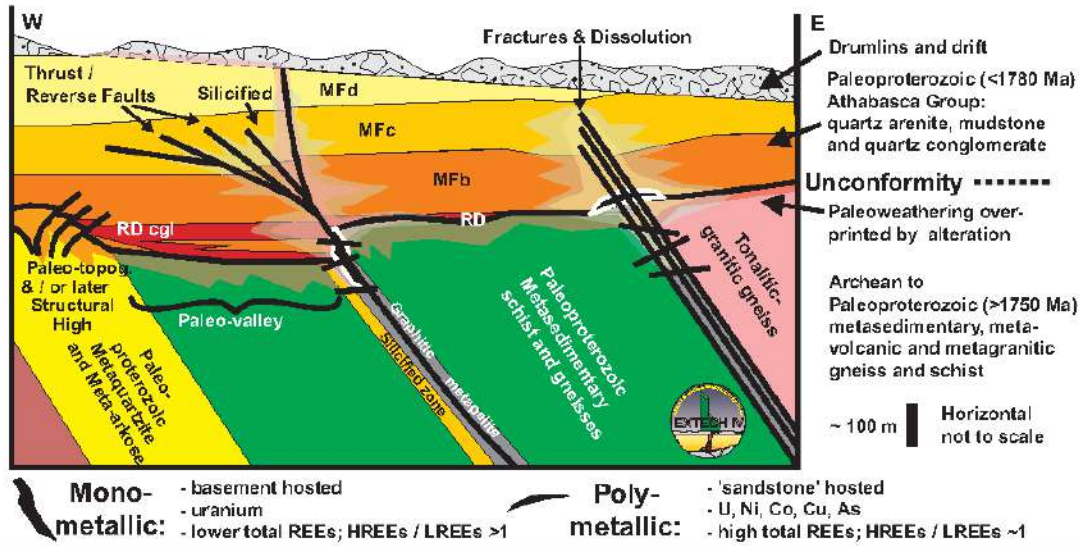
The Hurricane zone and other exploration targets on the Property belong to the unconformity associated class of uranium deposits. The Athabasca Basin hosts deposits of unconformity associated uranium mineralization defined by Jefferson et al. (2007) as pods, veins, and semi-massive replacements, consisting primarily of uraninite close to basal unconformities, particularly those between relatively undisturbed Proterozoic conglomeratic sandstone basins and metamorphosed basement rocks.

In the Athabasca Basin, unconformity associated uranium mineralization is observed at or near the unconformity between the Athabasca sandstones and the older Aphebian metasedimentary rocks. The metasediments are usually graphitic, or there are graphitic rocks nearby. Mineralization is always associated with basement-reactivated brittle faults, which are often rooted in graphitic rocks.

Two endmembers of the deposit model have been defined (Quirt, 2003), and are illustrated in Figure 8-1. A sandstone-hosted egress-type (e.g., Midwest A) involved the mixing of oxidized, sandstone brine with relatively reduced fluids issuing from the basement into the sandstone. Basement-hosted, ingress-type deposits formed by fluid-rock reactions between oxidizing sandstone brine entering basement fault zones and the wall rock. Both types of mineralization and associated host rock alteration occurred at sites of basement-sandstone fluid interaction where a spatially stable redox gradient/front was present. Egress-type deposits tend to be polymetallic (U-Ni-Co-Cu-As) and typically follow the trace of the underlying graphitic gneisses and associated faults, along the unconformity. Ingress-type, essentially monomineralic uranium deposits, can have more irregular geometry. Although either type of deposit can be high grade, ranging from a few percent to +50%  $U_3O_8$ , they are not typically large volumetrically, often only a few hundred metres long (up to 2,000 m), and a few metres to 40 m thick and/or wide. Mineralization can occur hundreds of metres into the basement or can be perched up to 100 m above in the sandstone, as illustrated in Figure 8-2.

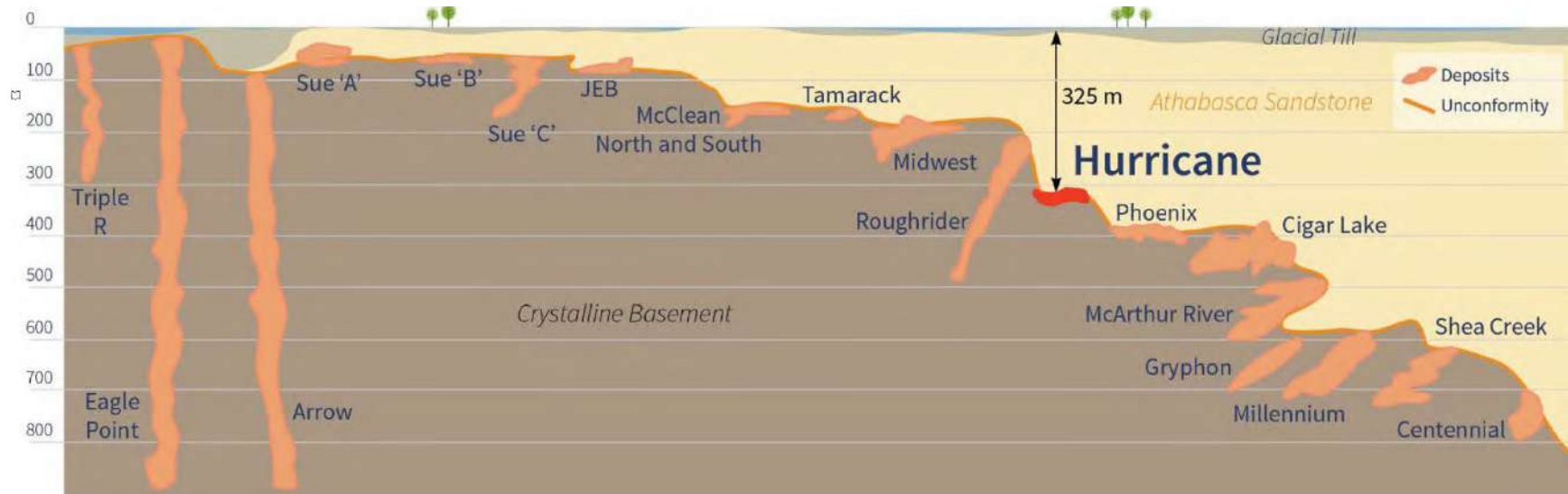
The faulting associated with mineralization propagates upward and fluid movement into the sandstone can result in extensive alteration envelopes above mineralization. Alteration consists of variable chlorite, tourmaline, hematite, illite, silicification, and desilicification. The alteration zone and trace amounts of uranium can extend more than 400 m vertically from the unconformity (Jefferson et al., 2007).

In most exploration programmes, geophysical techniques are used to explore for uranium mineralization, and the aim is to detect alteration (typically a resistivity low, or a resistivity high for silicification), and/or the faulted basement rocks (EM anomalies over graphitic rocks), rather than directly testing for uranium.



Source: Jefferson et al., 2007

Figure 8-1: Illustrations of Various Models for Unconformity Type Deposits of the Athabasca Basin



Source: IsoEnergy, 2022

Figure 8-2: Athabasca Basin Deposit Depths



## 9.0 EXPLORATION

Exploration completed by IsoEnergy on the Property includes diamond drilling, geophysical surveying, and surficial geochemistry work. Historical exploration on the Property, including drilling, is outlined in Section 6, and IsoEnergy's drilling campaigns are detailed in Section 10.

### 9.1 2019 Ground Exploration

2019 ground exploration on the Property consisted of a direct current resistivity and induced polarization (DC/IP) survey, a passive seismic survey, and a soil geochemistry survey.

#### 9.1.1 DC/IP Resistivity Surveys

A DC/IP survey was completed between April and June of 2019, focusing on the Hurricane zone and the Larocque Lake trend immediately east-northeast. The survey totalled 53.1 line-km and was completed over 20 lines spaced at 200 m to 400 m and oriented at 345°. The primary objective of the survey was to define the resistivity signature associated with graphitic basement lithologies and hydrothermal alteration at the Hurricane zone. A secondary objective was to identify analogous signatures east-northeast and south of the Hurricane zone along the Larocque Lake and Crooked Lake conductive trends.

From June to July of 2021, a 54.95 line-km DC resistivity survey was completed to complete coverage over the remaining Larocque Lake trend within the project. A total of 19 lines were surveyed at 200 m spacing and oriented north-south. The objective of this survey was to identify resistivity anomalies potentially related to hydrothermal alteration and/or uranium mineralization.

The survey identified sandstone hosted resistivity lows in several areas. Basement resistivity lows were identified along most of the Larocque Lake trend, likely due to graphite and/or pyrite rich rocks.

Below the Hurricane zone, a resistivity low was mapped below the Athabasca unconformity within the crystalline basement rocks, as illustrated in Figure 9-1. This resistivity low correlates well with strongly graphitic and pyritic rocks which underly the Hurricane zone. A secondary resistivity low was also identified south of the Larocque Lake trend and north of the Crooked Lake trend, indicating a potential parallel conductor or alteration system which had not been previously tested.

The survey successfully characterized the resistivity anomaly at the Hurricane zone. The sandstone resistivity low extends at least 225 m above the Athabasca unconformity and correlates well with hydrothermal alteration observed in drill core, as illustrated in Figure 9-2. The survey also identified resistivity lows extending vertically into the sandstone along much of the Larocque Lake trend, indicating potential for significant hydrothermal alteration 'chimneys' along section. No significant sandstone anomalies were identified south of the Hurricane zone along the Crooked Lake trend.

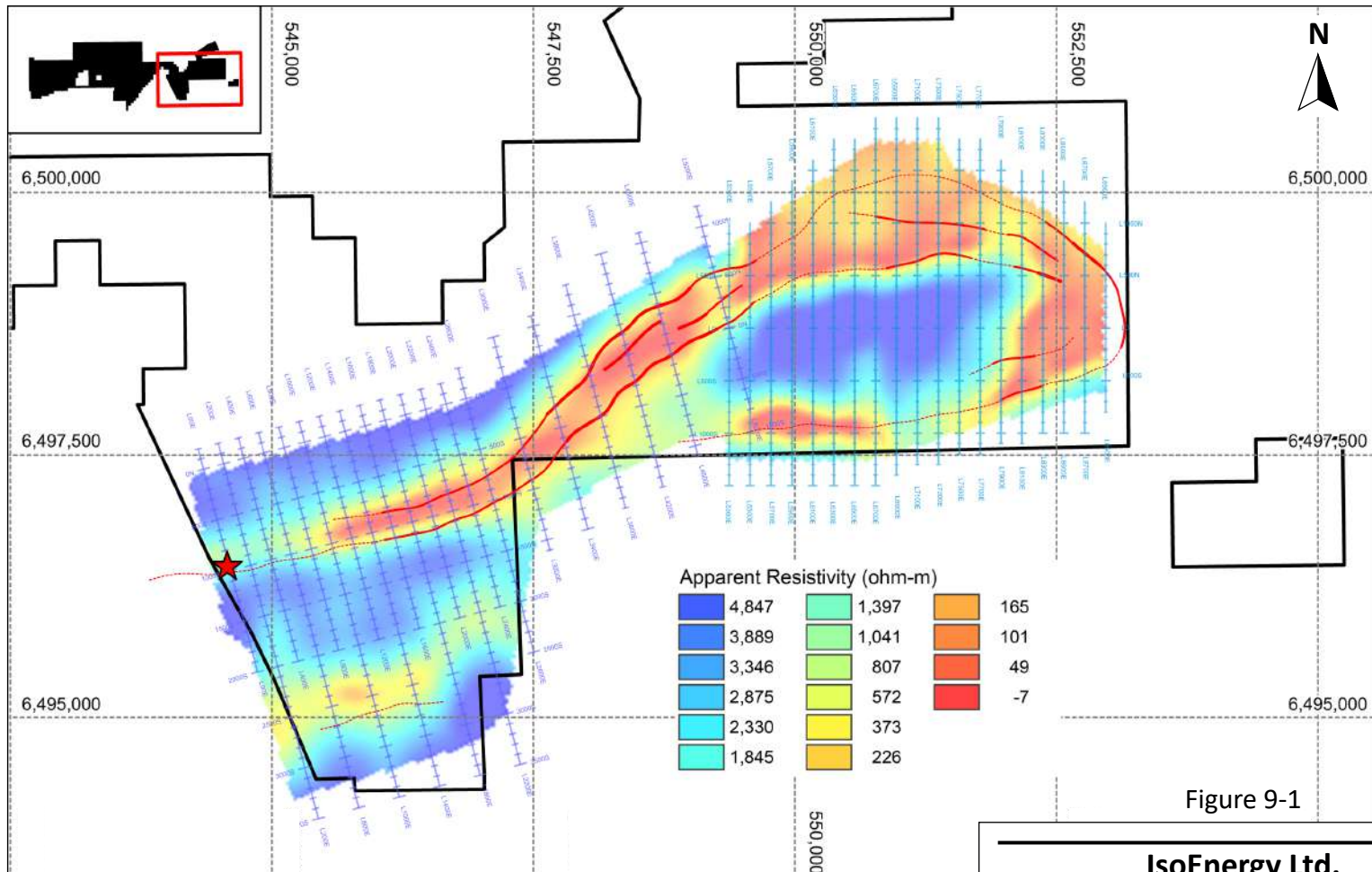


Figure 9-1

**Legend:**

- Larocque East Project
- 2019 Survey Line
- 2018 Survey Line
- Hurricane Zone (Approximation)
- VTEM Conductor Weak
- VTEM Conductor Moderate
- VTEM Conductor Strong

Map Projection: UTM Zone 13 (NAD 83)

0 0.5 1.0 1.5 2.0 2.5  
Kilometres

**IsoEnergy Ltd.**

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**Larocque East Project**  
Northern Saskatchewan, Canada

**2019 and 2021 DC/IP Resistivity**  
**100 m Below the Unconformity**

Source: IsoEnergy Ltd., 2022.

August 2022

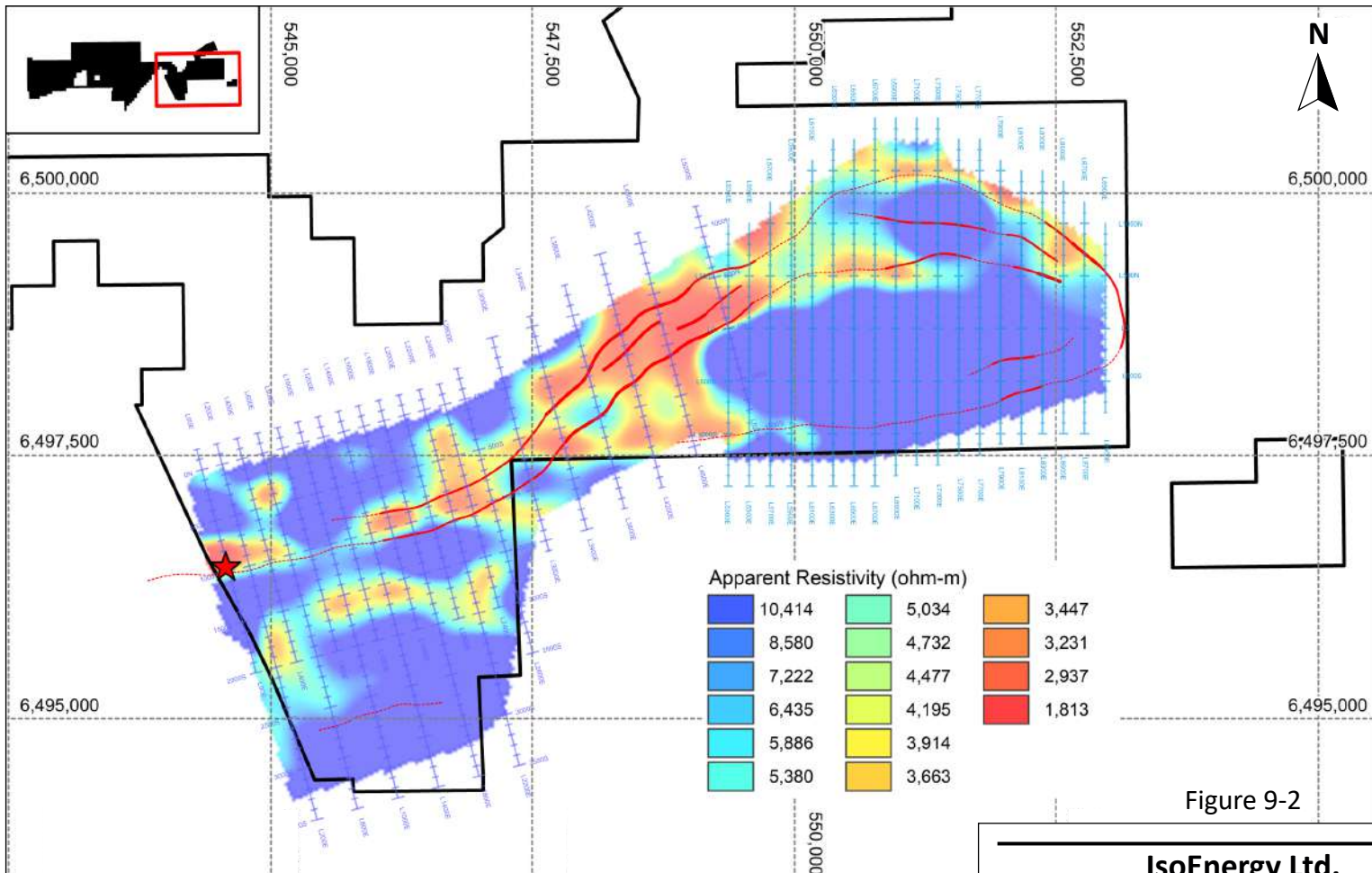


Figure 9-2

**Legend:**

- Larocque East Project
- 2019 Survey Line
- 2018 Survey Line
- Hurricane Zone (Approximation)
- VTEM Conductor Weak
- Moderate
- Strong

Map Projection: UTM Zone 13 (NAD 83)

0 0.5 1.0 1.5 2.0 2.5  
Kilometres

**IsoEnergy Ltd.**

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**Larocque East Project**  
Northern Saskatchewan, Canada

**2019 and 2021 DC/IP Resistivity**  
**100 m Above the Unconformity**

Source: IsoEnergy Ltd., 2022.

August 2022

### 9.1.2 Passive Seismic Survey

In July 2019, a passive seismic survey was completed using two TROMINO 3G ZERO seismometers. Data was collected from a total of 459 stations along lines parallel to the resistivity survey conducted in spring 2019 (Figure 9-3). Station spacing was 25 m x 400 m. An additional two lines were surveyed near the eastern border of the Property, where the Larocque Lake trend wraps around an arcuate magnetic high.

The purpose of the survey was to interpret the thickness of the glacial overburden overlying the bedrock east-northeast of the Hurricane zone and map the bedrock elevation. An orientation line was surveyed in an area of known overburden thickness to establish seismic velocities used in the interpretation of data. Historical drill hole data from elsewhere on the Property was also used to constrain overburden and bedrock seismic velocities where available. Data were analyzed in-house by manually isolating vertical component peaks for each station and directly inferring the overburden thickness based on fixed shear wave velocities. Accurate depth to bedrock picks could not be interpreted for many stations; this could be due to several factors including varying till composition, broken bedrock at the unconformity surface, varying water saturation, or poor contact with the ground surface where soil cover was sparse.

The survey is interpreted to have identified the bedrock contact over much of the Larocque Lake trend. The interpreted overburden thickness generally demonstrated a good correlation with topographic contours as well as with the general understanding of the quaternary landforms in the area. Overburden thicknesses from Hurricane drill holes as well as historical drill hole data further confirmed the accuracy of the depth to bedrock picks, often providing results within a few metres of what has been determined by drilling. Drill holes completed after the passive seismic survey continue to show good correlation with predicted overburden depth. The interpretation indicated several topographic features on the bedrock surface coincident with known features such as resistivity anomalies; some features could indicate faulted or rubbly bedrock near surface.

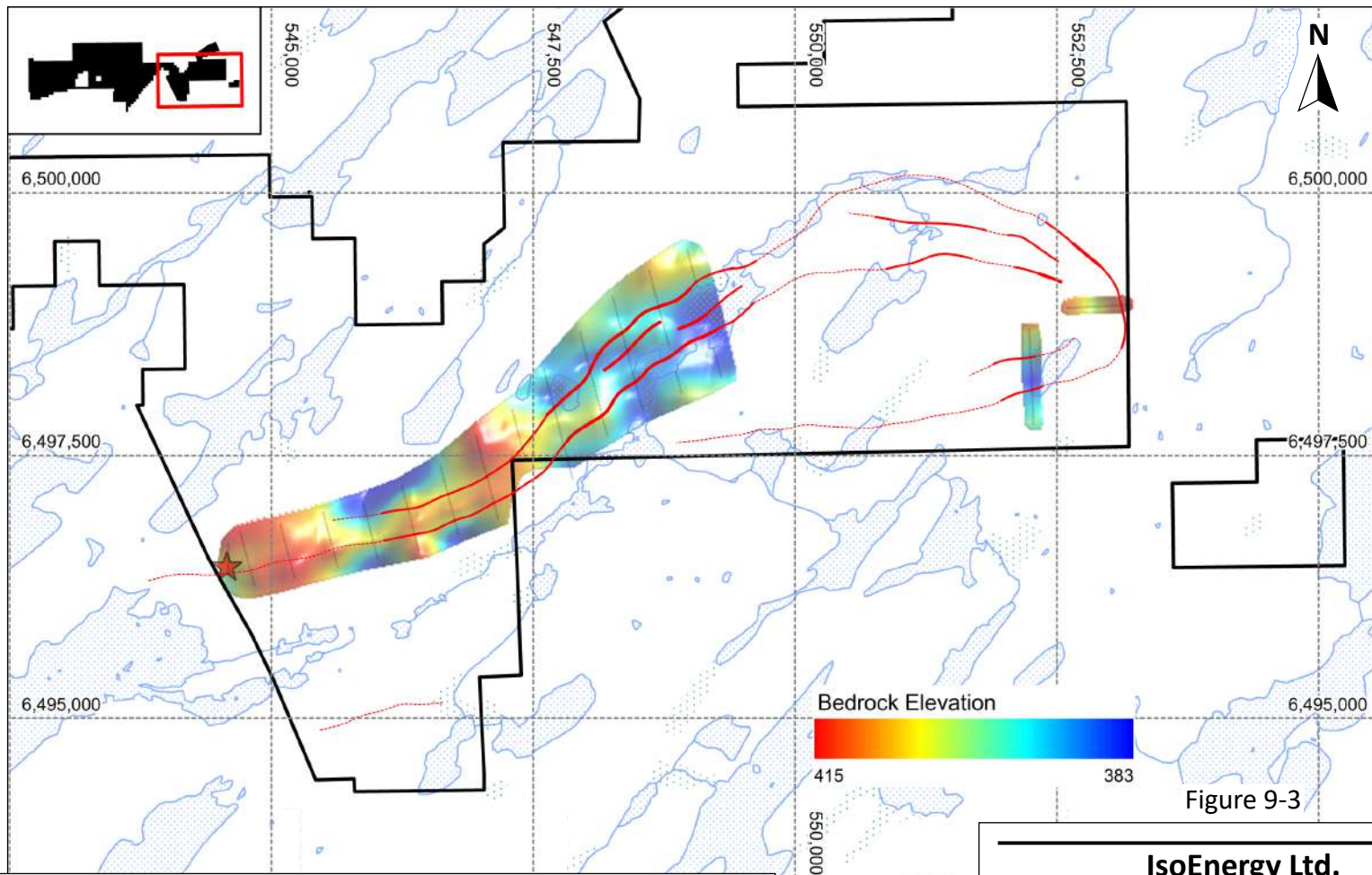


Figure 9-3

**IsoEnergy Ltd.**

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**Larocque East Project**  
Northern Saskatchewan, Canada  
**2019 Passive Seismic Survey**

**Legend:**

Larocque East Project	Watercourse	Hurricane Zone (Approximation)
Waterbody	<b>VTEM Conductor</b>	
Wetland	Weak	
	Moderate	
	Strong	

0 0.5 1.0 1.5 2.0 2.5  
Kilometres

Map Projection: UTM Zone 13 (NAD 83)

August 2022

Source: IsoEnergy Ltd., 2022.

### 9.1.3 Soil Geochemistry Survey

A soil geochemistry survey was completed in July and August of 2019. The survey covered much of the eastern half of the Property over the Larocque, Kernaghan-Bell, and Crooked Lake trends. A total of 492 samples were collected at 100 m station spacing along 200 m to 400 m spaced lines oriented perpendicular to ice flow direction indicators (drumlins) in the area, as presented in Figure 9-4. The soil geochemistry survey was initiated following the intersection of anomalous concentrations of uranium and uranium pathfinder elements at the top of bedrock directly over the Hurricane zone, leading to the hypothesis that this anomalous geochemistry may be detectable in soils above or down-ice of the Hurricane zone or other, undiscovered zones of mineralization.

The survey targeted the A1 horizon which was generally observed to be within 0.5 m of surface. Samples were analyzed by ALS Minerals of Vancouver, British Columbia, who completed quality assurance and quality control (QA/QC) protocols to ensure data integrity.

The survey did not define consistently increased concentrations of uranium or uranium pathfinder elements near the Hurricane zone, which could be due to a widely spaced sampling grid and limited samples being taken directly above the mineralized zone. A general trend of increasing uranium and uranium pathfinder element abundance toward the northeast could be the reflection of decreasing sandstone thickness in this direction. Increased nickel and uranium content is also seen down-ice of the northern arm of the Larocque Lake trend, suggesting a potential source along the Larocque Lake conductor(s) in an area of flexure. Elevated to anomalous uranium content also appeared in several samples near the Kernaghan-Bell trend. Elevated uranium content is seen flanking some waterbodies and wetlands potentially reflecting a geochemical trap, resulting in uranium enrichment that is not related to a nearby unconformity type deposit.

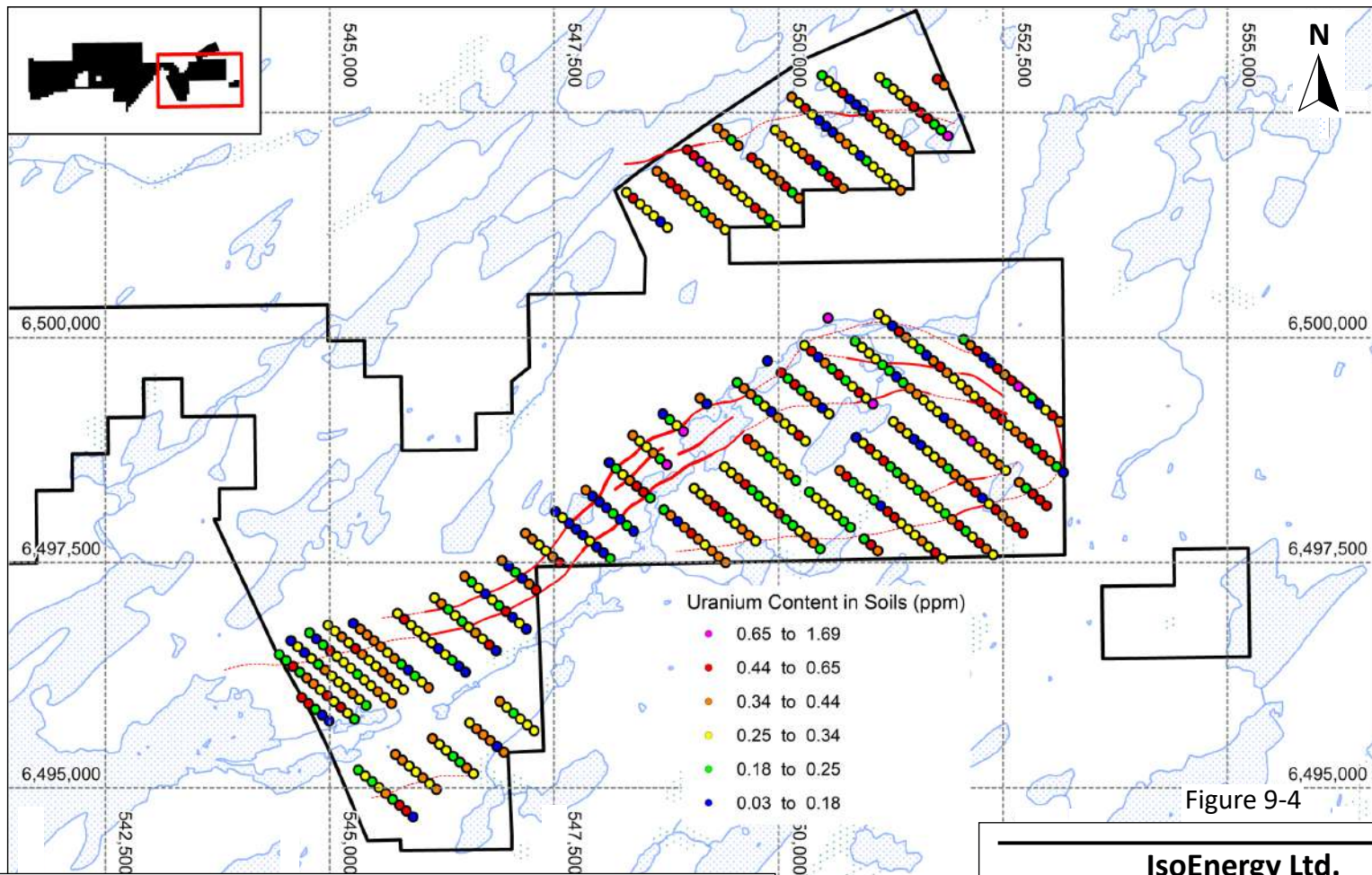


Figure 9-4

**Legend:**

Larocque East Project	Watercourse
Waterbody	VTEM Conductor
Wetland	Weak
	Moderate
	Strong

Map Projection: UTM Zone 13 (NAD 83)

0 0.5 1.0 1.5 2.0 2.5  
Kilometres

**IsoEnergy Ltd.**

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**Larocque East Project**  
Northern Saskatchewan, Canada  
**2019 Soil Geochemistry Survey**

Source: IsoEnergy Ltd., 2022.

August 2022

## 9.2 Exploration Potential

The easternmost portion of the Larocque Lake trend remains underexplored and warrants further drilling to follow-up the 2021 DC resistivity survey results.

The Kernaghan trend is a package of conductive basement which is known to be associated with significant unconformity topography on a neighbouring project. The Main Block of the Project contains 3.5 km of the Kernaghan trend tested by only two drill holes which defined 45 m of unconformity topography over a 250 m horizontal distance and intersected elevated geochemistry in the sandstone.

The northern portion of the Western Block contains an additional 11 km of the Kernaghan trend which is untested. Evaluation of the Kernaghan trend within the Project will require geophysical surveying to upgrade historical conductors for drill testing.

The Western Block contains approximately 14 km of the Bell Lake trend, a package of conductive basement rocks where historical drilling has intersected weak mineralization. Existing drilling along this trend within the Project is mainly a series of single hole fences at one kilometre to 1.7 km spacing, some of which failed to intersect conductive basement rock. Initial work should include relogging of historical core and geological modelling, followed by DC resistivity surveying to supplement historical EM coverage and prioritize strike segments for drill testing.



## 10.0 DRILLING

Diamond drilling on the Property is the principal method of exploration and delineation of uranium mineralization after initial targeting using geophysical surveys. Drilling can generally be conducted year-round on the Property.

As of the effective date of this Technical Report, IsoEnergy and its predecessor companies have completed 74,264 m of drilling in 188 holes over the Property, as summarized in Table 10-1. Figure 10-1, Figure 10-2, and Figure 10-3 illustrate the locations of the drill holes. Sample acquisition, preparation, security, and analysis were essentially the same for all drill programs and are described in Section 11.

**Table 10-1: Drill Hole Parameters  
IsoEnergy Ltd. – Larocque East Project**

Year	Season	Company	Contractor	No. of Holes	Metres Drilled <sup>1</sup> (m)
1980	Winter	Jodi Energy Resources	-	7	1,675
1983	Winter	SMDC	-	3	765
1984	Winter	SMDC	-	3	509
1992	Winter	Cameco	-	1	342
1993	Winter	Cameco	-	6	1,848
1997	Winter	Cameco	-	1	233
1998	Winter	Cameco	-	2	510
1999	Winter	Cameco	-	3	1,005
2000	Winter	JNR Resources	-	2	722
2003	Winter	Cameco	-	2	733
2005	Winter	Cameco	-	3	953
2007	Summer	Denison	-	1	456
2008	Winter	Denison	-	4	1,481
2009	Winter	Cameco	-	4	1,380
2012	Winter	Denison	-	2	789
2014	Winter	Denison	-	3	1,227
2016	Winter	Denison	-	3	1,704
2018	Summer	IsoEnergy	Bryson <sup>2</sup>	1	494
2019	Winter	IsoEnergy	Bryson <sup>2</sup>	12	5,046
2019	Summer	IsoEnergy	Bryson <sup>2</sup>	17	7,648
2020	Winter	IsoEnergy	Bryson <sup>2</sup>	24	10,325
2020	Summer	IsoEnergy	Bryson <sup>2</sup>	24	9,578
2021	Summer	IsoEnergy	Bryson <sup>2</sup>	30	12,694
2022	Winter	IsoEnergy	Bryson <sup>2</sup>	30	12,147
<b>Total</b>				<b>188</b>	<b>74,264</b>

Notes:

1. Metres drilled include abandoned drill holes
2. Bryson Drilling Ltd. (Bryson)

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Seven drilling campaigns have been carried out by IsoEnergy at the Project from 2018 to 2022. While most drill holes were completed in the vicinity of the Hurricane zone, significant exploration drilling has been completed to the east. As of April 1, 2022, IsoEnergy has completed 138 holes totalling 57,932 m. More than 95% of the metres drilled were NQ (47.6 mm).

Drill core was transported from all drill sites to the Larocque East camp located at UTM NAD83 Zone 13 544,430 mE / 6,496,040 mN via pick-up trucks in the winter and by skidder or helicopter in the summer. Core was logged, photographed, sampled, and stored at the Larocque East camp core logging facility. Core is stored in cross piles (upper sandstone) and core racks (basal sandstone and basement).

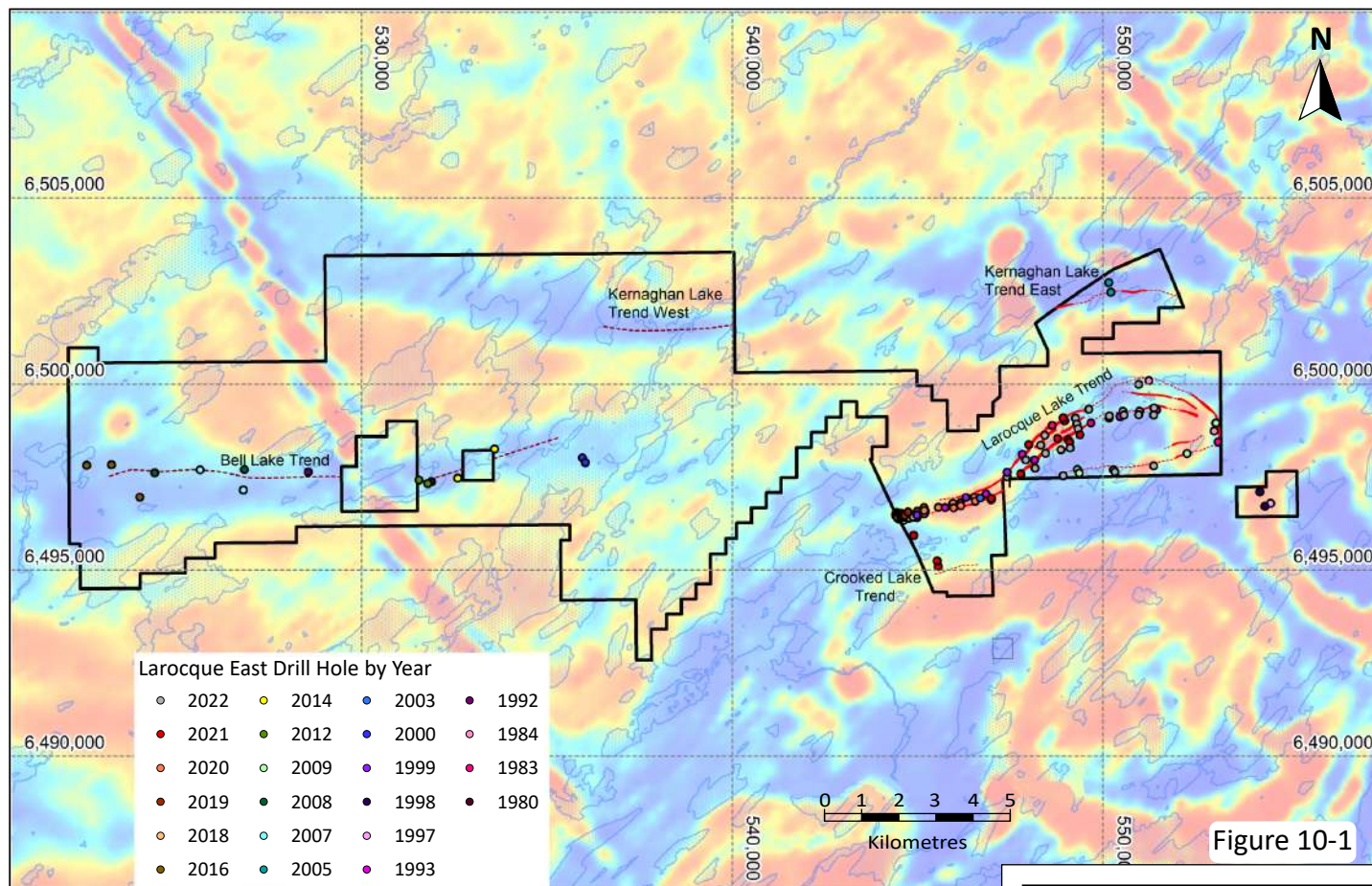


Figure 10-1

**Legend:**

Larocque East Project	Conductor (Weak)	<b>First Vertical Derivative Magnetics (nT/m)</b> 0.143     -0.042 0.022     -0.071 -0.0138     -5.768
Waterbody	Conductor (Moderate)	
	Conductor (Strong)	
	Conductor - Historical	

Map Projection: UTM Zone 13 (NAD 83)

**IsoEnergy Ltd.**

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**Larocque East Project**  
Northern Saskatchewan, Canada

**Drill Hole Locations**

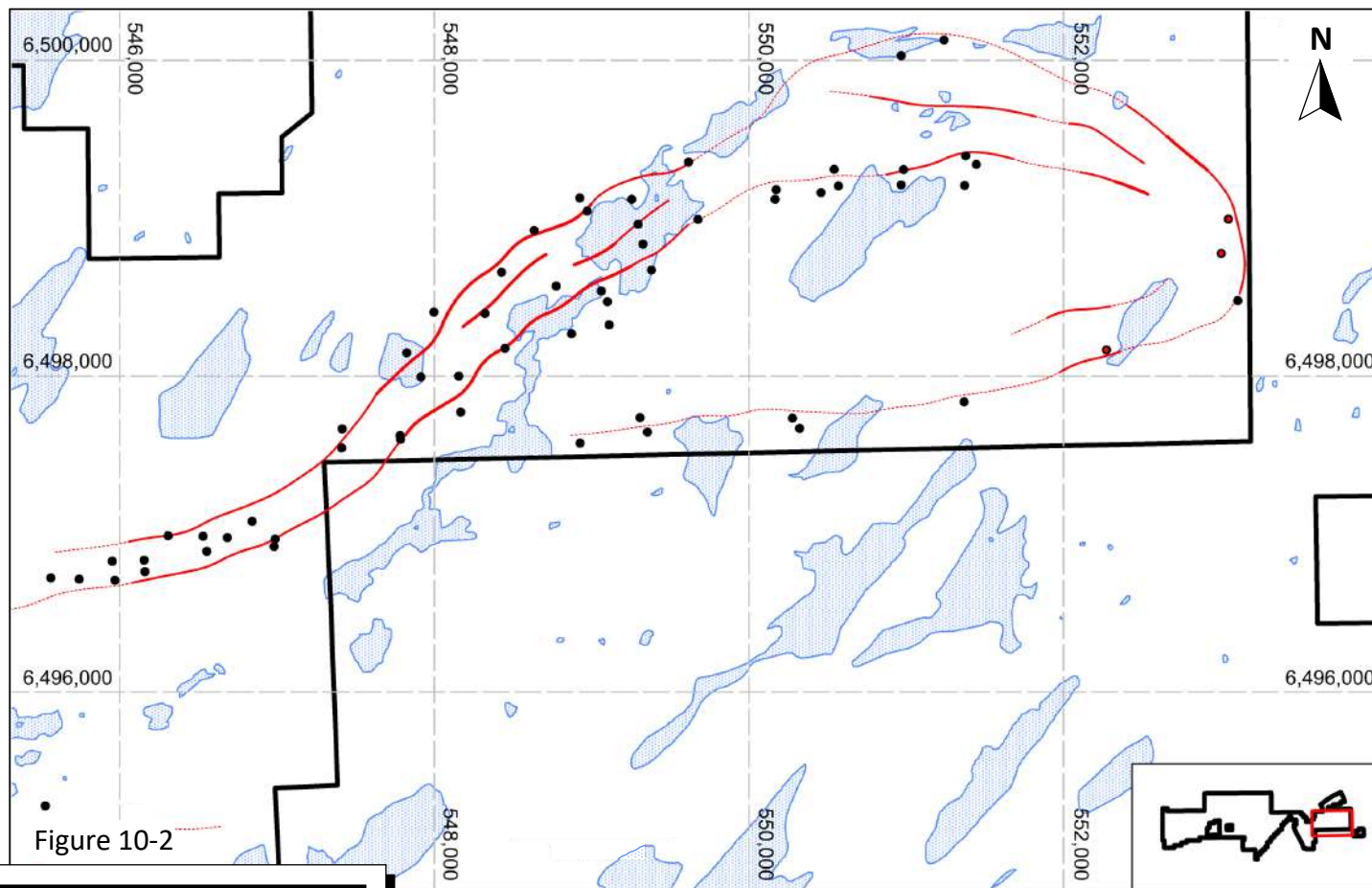


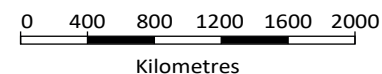
Figure 10-2

**IsoEnergy Ltd.**

**Larocque East Project**  
 Northern Saskatchewan, Canada  
**Exploration Drill Hole Locations**

**Legend:**

- Larocque East Project
- Waterbody
- Conductor (Weak)
- Conductor (Moderate)
- Conductor (Strong)
- DDH UC Intercept (Mineralized)
- DDH UC Intercept (Unmineralized)



Map Projection: UTM Zone 13 (NAD 83)

Source: IsoEnergy Ltd., 2022.

August 2022

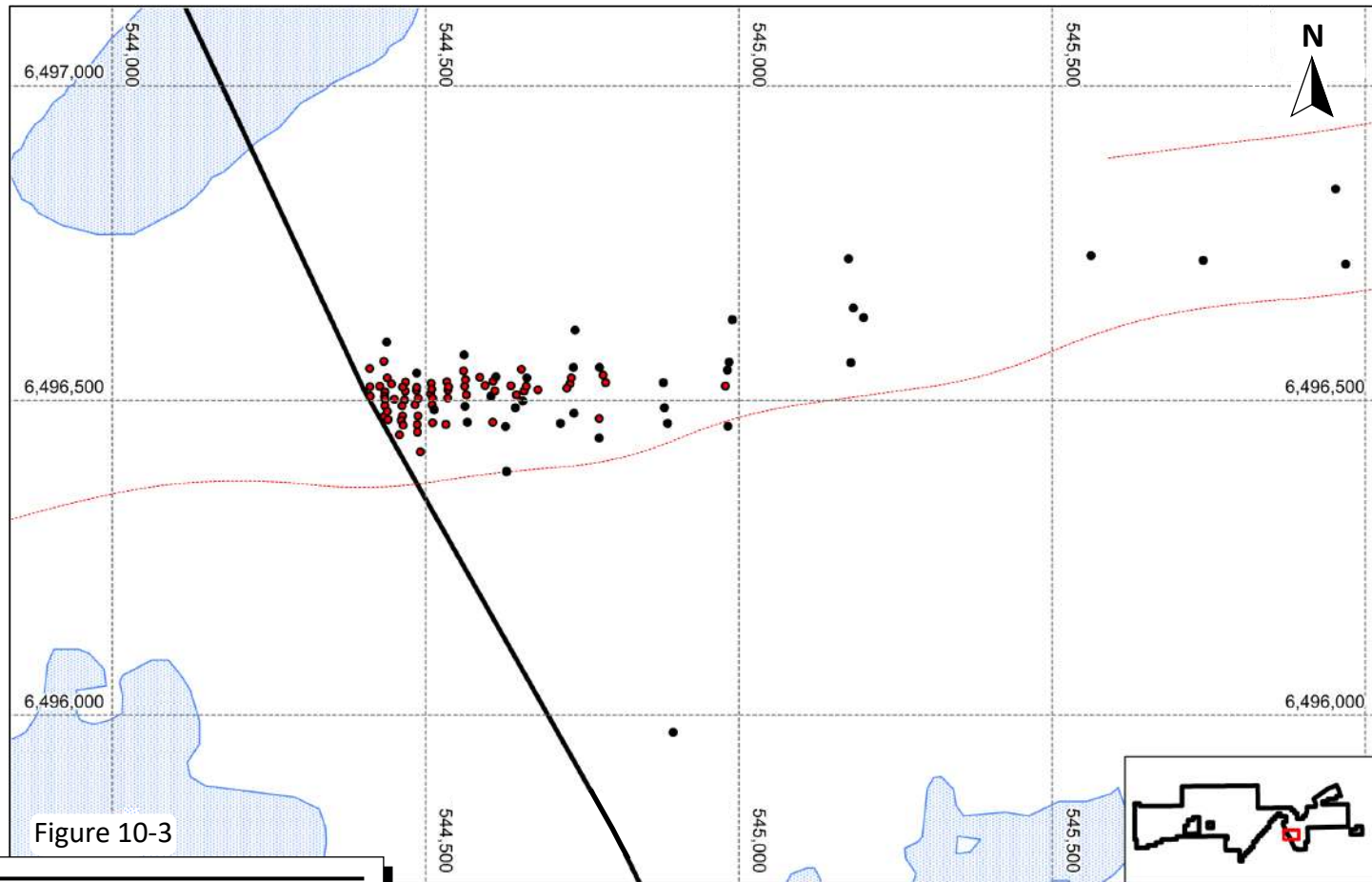


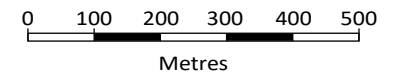
Figure 10-3

**IsoEnergy Ltd.**

**Larocque East Project**  
 Northern Saskatchewan, Canada  
**Hurricane Zone Drill Hole Locations**

**Legend:**

- Larocque East Project
- Waterbody
- Conductor (Weak)
- Conductor (Moderate)
- Conductor (Strong)
- DDH UC Intercept (Mineralized)
- DDH UC Intercept (Unmineralized)



Map Projection: UTM Zone 13 (NAD 83)

Source: IsoEnergy Ltd., 2022.

August 2022

All drilling programs were contracted to Bryson Drilling of Archerwill, Saskatchewan, who utilized Zinex A5 diamond drills to produce NQ or BQ (when required by conditions) core. Fuel was obtained at Points North Landing or from La Ronge. Except for the discovery program in summer 2018, all exploration programmes have been operated out of the Larocque East camp.

## 10.1 2018 Diamond Drill Program

Drilling during summer 2018 was helicopter supported. Drilling was conducted from July 17 to July 21 and comprised one drill hole totalling 494 m.

Given the limited nature of the 2018 summer drill program, drilling at the Project was completed in conjunction with a larger summer drill program at the IsoEnergy's Geiger Project, which operated from mid-June to late July 2018. Drill hole intercepts for LE18-01A are presented in Table 10-2. All structural measurements herein are presented as strike/dip and follow the right-hand rule.

Drill hole LE18-01A was designed to follow up anomalous uranium and encouraging structure and hydrothermal alteration intersected in the sandstone in drill holes KER-11 and KER-12. LE18-01A was drilled parallel to KER-12 and intersected the unconformity roughly 55 m north of the KER-12 unconformity intercept. LE18-01A intersected moderate to strongly altered and structured sandstone and basement. Measurements of drill core with a hand-held SRAT SPP2 scintillometer indicated an 8.5 m long interval of elevated radioactivity:

**Table 10-2: Drill Hole Intercepts for LE018-01A  
IsoEnergy Ltd. – Larocque East Project**

Hole ID	From (m)	To (m)	Length (m)	SPP2 cps	Grade (% U <sub>3</sub> O <sub>8</sub> )
LE18-01A	338.5	347.0	8.5	>500	1.26
Incl.	344.5	347.0	2.5	>2,500	3.58
Incl.	345.0	346.0	1.0	>15,000	6.45

LE18-01A intersected significant alteration in the basement with rocks immediately below the unconformity being pervasively altered by strong clay which tapered to pervasive weak alteration with depth. Basement comprised graphitic and pyritic cordierite-bearing pelitic gneiss with lesser semipelitic gneiss. Several metre scale graphitic fault zones cored by decimetre to metre scale graphitic cataclases were intersected. LE18-01A was terminated at 494 m in fresh, non-graphitic pelitic gneiss. Oriented core measurements indicated basement dipped 70° to 75° to the north.

## 10.2 Winter 2019 Drill Program

From January 11 to March 14, IsoEnergy completed 5,046 m in 12 drill holes. Drilling was skidder supported and access to the Project was via a series of bush trails and ice roads. At the beginning of the 2019 winter program, IsoEnergy switched from using an SRAT SPP2 scintillometer to a Radiation Solutions RS-125 handheld gamma-ray spectrometer due to the RS-125 having a higher detection limit and the ability to determine if radioactivity is caused by uranium, thorium, and/or potassium.

Drilling during winter 2019 followed-up mineralization intersected by LE18-01A and expanded the mineralization at the Hurricane zone to 150 m long, 38 m wide and up to 8.5 m thick. Eleven of the 12 drill holes intersected uranium mineralization. Mineralized intercepts from the winter drilling are detailed in Table 10-3.

**Table 10-3: Intercepts from Winter 2019 Drilling  
IsoEnergy Ltd. – Larocque East Project**

Hole ID	From (m)	To (m)	Length (m)	RS-125 cps	Grade (% U <sub>3</sub> O <sub>8</sub> )
LE19-02	316.5	320.0	3.5	>1,000	0.2
and	326.5	330.0	3.5	>1,000	10.4
incl.	328.5	330.0	1.5	>20,000	23.6
incl.	329.0	329.5	0.5	>50,000	38.2
LE19-03	324.0	324.5	0.5	>1,000	0.2
and	326.5	329.5	3.0	>1,000	2.7
incl.	328.5	329.5	1.0	>5,000	7.6
incl.	329.0	329.5	0.5	>20,000	13.3
LE19-04	329.0	329.5	0.5	>1,000	0.1
	333.0	333.5	0.5	>1,000	0.4
LE19-06	328.0	330.0	2.0	>1,000	0.4
and	332.0	336.0	4.0	>5,000	3.8
incl.	333.5	335.5	2.0	>10,000	5.5
incl.	333.5	334.0	0.5	>20,000	13.7
LE19-07	325.0	331.0	6.0	>1,000	0.4
incl.	328.0	328.5	0.5	>5,000	1.0
LE19-08	326.5	327.0	0.5	>1,000	0.4
and	333.0	336.5	3.5	>1,000	0.8
incl.	335.5	336.0	0.5	>10,000	3.7
LE19-09	325.0	329.5	4.5	>1,000	4.2
incl.	327.0	329.0	2.0	>20,000	6.8
LE19-10	331.5	333.0	1.5	>1,000	0.6
LE19-11	333.0	333.5	0.5	>5,000	2.1
LE19-12	320.5	329.0	8.5	>1,000	3.2
incl.	324.5	327.0	2.5	>10,000	7.2
incl.	324.5	325.0	0.5	>20,000	3.5
incl.	326.0	327.0	1.0	>20,000	14.3
incl.	328.5	329.0	0.5	>20,000	12.8
LE19-13	320.0	320.5	0.5	>1,000	0.2
and	321.5	324.0	2.5	>1,000	0.6
incl.	322.5	323.0	0.5	>10,000	1.6

### 10.3 Summer 2019 Drill Program

From June to August 2019, a total of 7,648 m of drilling was completed in 17 drill holes on the Property. Drill holes of the summer 2019 program were primarily designed to test specific structures at the unconformity and expand the Hurricane zone to the east with step-outs along-strike. Drilling was skidder supported.

Drilling extended the Hurricane zone mineralization to up to 500 m long, 40 m wide, and 10 m thick. Results of summer 2019 drilling program are highlighted by drill hole LE19-16A which intersected 5.4% U<sub>3</sub>O<sub>8</sub> over seven metres including 15.9% over two metres. Mineralized intercepts from the summer campaign are detailed in Table 10-4.

**Table 10-4: Intercepts from Summer 2019 Drilling  
IsoEnergy Ltd. – Larocque East Project**

Hole ID	From (m)	To (m)	Length (m)	RS-125 cps	Grade (% U <sub>3</sub> O <sub>8</sub> )
LE19-14B	323.0	325.0	2.0	>1,000	0.2
and	327.5	331.0	3.5	>1,000	0.3
incl.	327.5	328.0	0.5	>5,000	0.6
incl.	329.0	329.5	0.5	>5,000	0.7
LE19-16A	315.5	322.5	7.0	>1,000	5.4
incl.	318.0	320.0	2.0	>10,000	15.9
and incl.	320.5	321.0	0.5	>10,000	3.2
LE19-18	323.0	326.0	3.0	>1,000	1.5
incl.	325.0	325.5	0.5	>10,000	6.0
LE19-18C1 <sup>1</sup>	261.0	266.0	5.0	>1,000	1.2
incl.	261.5	262.0	0.5	>10,000	3.9
LE19-22	326.5	327.0	0.5	1,000	0.1
LE19-23	321.0	322.0	1.0	>1,000	2.3
incl.	321.0	321.5	0.5	>10,000	3.9
and	325.5	326.0	0.5	>1,000	0.3
LE19-25	323.5	324.0	0.5	>1,000	1.8
and	331.5	333.0	1.5	>1,000	0.5
incl.	332.5	333.0	0.5	>5,000	0.9
LE19-28	321.0	331.5	10.5	>1,000	1.6
Incl.	322.0	322.5	0.5	>5,000	1.3
and incl.	326.5	327.0	0.5	>5,000	1.0
and incl.	329.5	331.5	2.0	>5,000	7.1
incl.	330.5	331.5	1.0	>20,000	12.6



Hole ID	From (m)	To (m)	Length (m)	RS-125 cps	Grade (% U <sub>3</sub> O <sub>8</sub> )
LE19-29	337.5	339.5	2.0	>1,000	4.6
incl.	338.5	339.5	1.0	>5,000	8.7
incl.	338.5	339.0	0.5	>20,000	16.6

Notes:

1. LE19-18C1 is a wedged offcut from LE19-18 at 59 m.

## 10.4 Winter 2020 Drill Program

From January to March 2020, a total of 10,325 m of drilling was completed in 24 drill holes. The primary objectives of the winter 2020 campaign were to expand and delineate mineralization at the Hurricane zone and to explore for additional mineralization along trend to east. Two Zinex A5 diamond drills were utilized at the project. Drilling at Hurricane comprised 5,630 m in 14 drill holes. Exploration drilling east of Hurricane comprised of 4,695 m in 10 drill holes and tested a strike length of roughly 1.2 km.

Drilling extended the Hurricane zone mineralization to 575 m long, 40 m wide, and up to 11.5 m thick. Exploration drilling did not intersect any mineralization though Hurricane style structure and alteration was intersected in several drill holes.

Several drill holes intersected very high grade uranium mineralization. Drill hole LE20-34 intersected 33.9% U<sub>3</sub>O<sub>8</sub> over 8.5 m, including a higher-grade subinterval of up to 57.1% U<sub>3</sub>O<sub>8</sub> over five metres. Within the higher-grade subinterval is a zone that averages 62.8% over two metres. Drill hole LE20-40 intersected mineralization 8.5 m south of LE20-34, averaging 20.5% U<sub>3</sub>O<sub>8</sub> over four metres. Drill hole LE20-51, LE20-52, and LE20-53, the final three drill holes of the 2020 season, intersected high-grade uranium mineralization up to 10.5 m in estimated true vertical thickness. Intense alteration and structure associated with mineralization increases towards the western edge of the Property.

Results of exploration drilling are highlighted by drill hole LE20-39, LE20-41, LE20-45A and LE20-50, which intersected strongly graphitic faults in the basement and modest sandstone alteration, as presented in Table 10-5.

**Table 10-5: Intercepts from Winter 2020 Drilling  
IsoEnergy Ltd. – Larocque East Project**

Hole ID	From (m)	To (m)	Length (m)	RS-125 cps	Grade (% U <sub>3</sub> O <sub>8</sub> )
LE20-30	330.0	335.5	5.5	>500	7.1
incl.	331.0	331.5	0.5	>10,000	3.4
and incl.	332.0	333.5	1.5	>20,000	24.0
LE20-32A	329.5	338.0	8.5	>500	19.6
incl.	334.5	337.0	2.5	>20,000	63.6
incl.	335.0	336.5	1.5	Off-scale <sup>1</sup>	76.7
LE20-34	326.0	334.5	8.5	>500	33.9
incl.	328.0	333.0	5.0	>20,000	57.1

Hole ID	From (m)	To (m)	Length (m)	RS-125 cps	Grade (% U <sub>3</sub> O <sub>8</sub> )
incl.	329.5	331.5	2.0	Off-scale <sup>1</sup>	62.8
LE20-36	332.5	333.5	1.0	>500	3.7
incl.	332.5	333.0	0.5	>20,000	5.5
LE20-38	319.5	327.0	7.5	>500	2.0
incl.	325.0	325.5	0.5	>20,000	3.5
and incl.	326.0	326.5	0.5	>20,000	9.8
LE20-40	319.5	320.5	1.0	>500	0.1
and	322.5	326.5	4.0	>500	20.5
incl.	323.0	324.5	1.5	>20,000	53.8
incl.	323.0	323.5	0.5	Off-scale <sup>1</sup>	64.9
LE20-42	326.0	329.0	3.0	>500	0.4
LE20-44	325.5	326.0	0.5	>500	0.2
and	327.5	329.0	1.5	>500	0.3
LE20-46	318.0	328.0	10.0	>500	3.6
Incl.	323.0	325.0	2.0	>20,000	12.8
and incl.	326.0	327.0	1.0	>10,000	4.5
LE20-48	316.0	327.5	11.5	>500	1.3
Incl.	321.0	321.5	0.5	>10,000	3.6
and incl.	324.0	327.0	3.0	>10,000	3.3
incl.	324.5	325.0	0.5	>20,000	5.1
LE20-49	320.5	329.5	9.0	>500	1.1
incl.	326.5	327.5	1.0	>10,000	3.4
LE20-51	322.5	330.0	7.5	>500	14.5
incl.	325.5	329.0	3.5	>10,000	30.9
Incl.	326.0	329.0	3.0	>30,000	35.2
LE20-52	312.5	313.0	0.5	>500	0.6
and	318.5	326.0	7.5	>500	22.7
incl.	322.5	325.0	2.5	>10,000	67.2
incl.	322.5	324.0	1.5	Off-scale <sup>1</sup>	79.9
LE20-53	317.5	328.0	10.5	>500	11.7
incl.	324.5	327.5	3.0	>20,000	40.4
incl.	326.0	326.5	0.5	Off-scale <sup>1</sup>	62.7

## Notes:

- 'Off scale' radioactivity is defined as exceeding 65,535 cps, the maximum measurable by an RS-125 spectrometer

## 10.5 Summer/Fall 2020 Drill Program

From August to October 2020, 9,578 m of drilling was completed in 24 drill holes which included three dual purpose diamond drill holes to collect geotechnical and hydrogeological data. The primary objective of the program was to expand very strong uranium mineralization intersected in winter 2020 drilling. Two Zinex A5 diamond drill rigs were used to complete the drilling program.

Drilling successfully extended Hurricane zone mineralization to up to 575 m along strike, 75 m wide, and up to 11.5 m thick. Results of drilling are highlighted by drill hole LE20-76 and LE20-64. LE20-76 intersected 38.8% U<sub>3</sub>O<sub>8</sub> over 7.5 m and LE20-64 intersected 48.8 % U<sub>3</sub>O<sub>8</sub> over a five metres interval. Several other drill holes intersected significant mineralization and strong alteration which are included in Table 10-6.

**Table 10-6: Intercepts from Summer/Fall 2020 Drilling  
IsoEnergy Ltd. – Larocque East Project**

Hole ID	From (m)	To (m)	Length (m)	RS-125 cps	Grade (% U <sub>3</sub> O <sub>8</sub> )
LE20-54	329.5	338.5	9.0	>500	12.8
incl.	332.0	337.0	5.0	>10,000	22.6
incl.	333.0	337.0	4.0	>30,000	27.1
incl.	334.0	334.5	0.5	Off-scale <sup>1</sup>	52.5
LE20-56	351.0	358.5	7.5	>500	0.1
LE20-57	335.8	336.8	1.0	>500	
and	338.8	339.3	0.5	>500	0.1
and	341.3	341.8	0.5	>500	0.0
and	343.8	353.8	10.0	>500	11.7
incl.	347.3	349.8	2.5	>40,000	46.0
incl.	347.8	348.3	0.5	Off-scale <sup>1</sup>	65.9
LE20-58C1	138.5	139.0	0.5	>500	0.1
and	144.0	146.5	2.5	>500	0.2
LE20-59	338.5	339.0	0.5	>500	1.0
and	339.5	340.0	0.5	>500	0.0
and	342.0	347.0	5.0	>500	0.2
incl.	345.0	345.5	0.5	>5,000	0.9
LE20-61	312.0	312.5	0.5	>500	0.0
and	313.0	322.0	9.0	>500	0.3
incl.	321.5	322.0	0.5	>10,000	1.4
LE20-62	314.0	316.5	2.5	>500	0.2
and	321.0	325.5	4.5	>500	6.2
incl.	323.0	325.5	2.5	>30,000	11.1
incl.	324.5	325.0	0.5	Off-scale <sup>1</sup>	29.0

Hole ID	From (m)	To (m)	Length (m)	RS-125 cps	Grade (% U <sub>3</sub> O <sub>8</sub> )
and	328.0	328.5	0.5	>500	0.1
LE20-64	308.0	308.5	0.5	>500	0.2
and	316.5	320.0	3.5	>500	0.3
and	324.0	329.0	5.0	>500	48.8
incl.	324.5	328.5	4.0	>30,000	57.5
LE20-66	323.0	324.0	1.0	>500	0.2
LE20-67	327.5	329.5	2.0	>500	0.2
LE20-68	320.0	321.5	1.5	>500	0.1
and	323.0	334.0	11.0	>500	6.9
incl.	332.0	333.5	1.5	>50,000	49.3
LE20-69	318.5	319.0	0.5	>500	0.2
and	322.5	329.0	6.5	>500	0.9
incl.	325.0	326.0	1.0	>5,000	2.4
LE20-70	332.5	333.0	0.5	>500	0.0
LE20-71	324.0	325.0	1.0	>500	0.2
and	327.5	329.5	2.0	>500	2.4
incl.	329.0	329.5	0.5	>20,000	7.8
LE20-72	306.5	307.0	0.5	>500	0.2
and	320.5	326.5	6.0	>500	6.2
incl.	323.0	323.5	0.5	>20,000	7.9
and incl.	324.5	326.0	1.5	>40,000	20.7
LE20-73	326.5	332.0	5.5	>500	0.2
and	338.5	339.0	0.5	>500	0.5
LE20-74	320.5	325.5	5.0	>500	0.7
incl.	322.0	323.5	1.5	>5,000	2.0
and	328.5	329.0	0.5	>500	0.9
LE20-76	308.0	309.0	1.0	>500	0.3
and	312.5	319.0	6.5	>500	0.1
and	320.0	320.5	0.5	>500	0.1
and	322.5	330.0	7.5	>500	38.8
incl.	324.0	327.5	3.5	Off-scale <sup>1</sup>	74.0
LE20-77	322.5	330.5	8.0	>500	2.6
incl.	324.0	326.5	2.5	>5,000	2.5
and incl.	329.0	330.0	1.0	>10,000	9.7

## Notes:

- 'Off scale' radioactivity is defined as exceeding 65,535 cps, the maximum measurable by an RS-125 spectrometer

## 10.6 Summer/Fall 2021 Drill Program

From October to November 2021, 12,694 m of drilling was completed in 30 drill holes. The drilling campaign had three main objectives: expansion of Hurricane zone, infill drilling to test the continuity of the high grade uranium mineralization, and exploration of areas outlined by 2019 DC resistivity survey.

Two Zinex A5 drills, one skidder supported and one heli-supported, were utilized to complete the drilling. Most of the exploration drill holes were helicopter supported as several waterbodies needed to be crossed to access the target area.

Results of 2021 drilling are highlighted by drill hole LE21-107 which intersected 20.4% U<sub>3</sub>O<sub>8</sub> over 6.5 m including 34.5% over 3.5 m. Several other holes intersected significant mineralization and are summarized in Table 10-7. Exploration drill holes did not intersect any mineralization, however, significant alteration in the sandstone and graphitic structure in the basement were intersected.

**Table 10-7: Intercepts from Summer/Fall 2021 Drilling  
IsoEnergy Ltd. – Larocque East Project**

Hole ID	From (m)	To (m)	Length (m)	RS-125 cps	Grade (% U <sub>3</sub> O <sub>8</sub> )
LE21-78C1	248.5	260.5	12.0	>500	5.2
incl.	253.0	254.0	1.0	>5,000	1.5
and incl.	254.5	255.0	0.5	>5,000	1.7
and incl.	257.5	259.5	2.0	>30,000	27.6
and incl.	260.0	260.5	0.5	>5,000	1.9
and	266.0	266.5	0.5	>5,000	1.9
LE21-80	325.0	325.5	0.5	>500	0.1
and	326.0	329.5	3.5	>500	2.3
incl.	326.0	328.0	2.0	>5,000	4.0
incl.	326.5	327.0	0.5	>30,000	9.0
LE21-82	326.5	327.0	0.5	>500	0.2
and	328.5	333.0	4.5	>500	0.9
incl.	331.0	332.0	1.0	>5,000	1.4
LE21-84	326.5	329.5	3.0	>500	0.5
incl.	328.0	328.5	0.5	>5,000	1.9
LE21-85	321.5	322.5	1.0	>500	0.2
and	327.0	327.5	0.5	>500	0.2
LE21-87A	331.0	338.5	7.5	>500	4.5
incl.	331.5	332.0	0.5	>5,000	1.5
and incl.	333.5	338.0	4.5	>5,000	6.8
incl.	334.0	335.0	1.0	>20,000	8.1

Hole ID	From (m)	To (m)	Length (m)	RS-125 cps	Grade (% U <sub>3</sub> O <sub>8</sub> )
and incl.	336.0	338.0	2.0	>20,000	9.2
LE21-91	336.0	341.0	5.0	>500	0.7
incl.	337.5	338.0	0.5	>5,000	1.7
and incl.	338.5	339.0	0.5	>5,000	1.5
LE21-93	316.0	316.5	0.5	>500	0.1
LE21-101	324.5	329.0	4.5	>500	0.6
incl.	327.5	328.0	0.5	>5,000	3.1
LE21-103	330.0	330.5	0.5	>500	1.1
and	331.0	331.5	0.5	>500	0.1
and	334.5	338.5	4.0	>500	0.9
incl.	337.5	338.0	0.5	>5,000	4.7
LE21-105	339.5	340.0	0.5	>500	0.1
LE21-107	325.5	332.0	6.5	>500	20.4
incl.	326.0	326.5	0.5	>10,000	6.6
and incl.	327.5	331.0	3.5	>30,000	34.5

## 10.7 Winter 2022 Drill Program

From January to March 2022, 12,147 m of drilling was completed in 30 drill holes. Winter drilling was skidder supported and two Zinex A5 diamond drill rigs were utilized.

The primary objective of program was to explore Larocque Lake conductive trend with both follow-ups drilling and the drilling of the new geophysical target outline by 2021 DC resistivity survey. Five drill holes were drilled in the vicinity of Hurricane zone for potential southern expansion of uranium mineralization.

Approximately 25% of the geochemical assays from 2022 winter drill holes are pending. Although no significant mineralization was intersected, significant alteration and structure were intersected in several holes. Intercepts from the Winter 2022 drilling program are presented in Table 10-8.

**Table 10-8: Intercepts from Winter 2022 Drilling  
IsoEnergy Ltd. – Larocque East Project**

Hole ID	From (m)	To (m)	Length (m)	RS-125 cps	Grade (% U <sub>3</sub> O <sub>8</sub> )
LE22-115A	335	337	2.0	>500	1.03
incl.	335.5	336	0.5	>5,000	3.26
LE22-116	282	282.5	0.5	>500	0.35

Assays received after the effective date of this report were in other areas of the Larocque East property excluding the Hurricane Zone and were not included in the Mineral Resource estimate.

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## 11.0 SAMPLE PREPARATION, ANALYSES, AND SECURITY

This section references the Standard Operating Procedure (SOP) for Drill Hole Sampling Protocols for core drilling at the Project, prepared by IsoEnergy in December 2019 (IsoEnergy, 2019)

### 11.1 Sampling Procedure

Composite geochemistry (COMP) samples consist of roughly one centimetre long chips of core collected every 1.5 m through the mineralized sandstone and basement. Through the unmineralized sandstone, composite sample lengths are 10 m until roughly 50 m above the unconformity followed by five metre intervals to the unconformity. Unmineralized basement composite samples are collected using the same technique, however, are generally limited to a maximum length of five metres, not allowed to overlap lithological boundaries, and occasionally extend to 10 m through zones of fresh and relatively homogenous rock. Where core loss is significant, samples are taken at three metre intervals between depth marker blocks to maintain confidence in sample intervals.

Unmineralized split core (SPOT) samples are collected through zones of significant alteration and/or structure. Spot sample length varies depending on the width of the feature of interest but are generally 0.3 m to 1.5 m in length; features of interest greater than 1.5 m are sampled with multiple samples. Half-metre shoulder samples are collected on the flanks of SPOT sample intervals.

Mineralized split-core (MINZ) samples are collected through zones of elevated radioactivity exceeding 350 cps measured via RS-125 handheld spectrometer. MINZ samples are generally 0.5 m in length and occasionally one metre in length where radioactivity is consistent across broader intervals. Mineralized intervals equal to or less than one metre in length are sampled with single 0.5 m shoulder samples above and below the mineralized interval. Mineralized intervals greater than one metre are sampled with two 0.5 m shoulder samples above and below the mineralized interval. In late 2019, MINZ sampling protocols were simplified to a universal 0.5 m sample length though mineralized zones flanked above and below by one metre shoulders comprising two 0.5 m samples each.

Systematic short-wave infrared (SWIR) reflectance (REFL) samples are collected from approximately the middle of each composite sample for analysis of clays, micas, and a suite of other generally hydrous minerals. Clay and other hydrous minerals exhibit distinct changes in abundance and species with proximity to unconformity related deposits, generally with dickite being a 'background' signature and increased proportions of illite, kaolinite, dravite, and chlorite indicating more favourable alteration. Spot reflectance samples are collected where warranted (i.e., fracture coatings). As REFL sample analysis provides only semi-quantitative results, no QA/QC duplicates are collected for reflectance samples. Reflectance samples are not collected where core was mineralized.

For litho-geochemistry samples, sample tags with the sample number are placed in the sample bags before they were sealed and shipped to Saskatchewan Research Council (SRC) Geoanalytical Laboratories in Saskatoon for sample preparation and analysis. SRC is an independent laboratory with ISO/IEC 17025:2005 accreditation for the relevant procedures.

A second set of sample tags with the depth interval and sample number are stapled in the core box at the end of each sample interval. A third set of sample tags with the drill hole number, sample depth interval, and sample number is retained in the sample book for archiving.

SWIR reflectance samples are tagged in a similar fashion before shipping to independent consultant Kim Heberlein in Maple Ridge, British Columbia, for reflectance spectrum collection using a TerraSpec Near

Infrared (NIR) device. Reflectance spectra are then submitted to AusSpec of Queenstown, New Zealand, for spectral analysis. AusSpec was subsequently acquired by IMDEX Ltd. (IMDEX) in 2020.

Geologists enter all sample data into IsoEnergy's proprietary drill hole database during core logging. Table 11-1 summarizes the number of geochemical and reflectance samples collected at Larocque East by IsoEnergy.

**Table 11-1: Summary of Samples Collected  
IsoEnergy Ltd. – Larocque East Project**

Sample Type	Number Collected
COMP	5,677
SPOT	766
MINZ	1,524
<b>Total Lithochemistry</b>	<b>7,967</b>
RSPO	17
REFL	5,596
<b>Total Reflectance</b>	<b>5,613</b>

## 11.2 Sample Preparation and Analysis

COMP and SPOT samples were shipped to the SRC. The samples were then dried, crushed, and pulverized as part of the ICPMS Exploration Package (codes ICPMS1 and ICPMS2) plus boron (code Boron). Samples were analyzed for uranium content, a variety of pathfinder elements, rare earth elements, and whole rock constituents with the ICPMS Exploration Package (plus boron). The Exploration Package consists of three analyses using a combination of inductively coupled plasma - mass spectrometry (ICP-MS), inductively coupled plasma - optical emission spectrometry (ICP-OES), and partial or total acid digestion of one aliquot of representative sample pulp per analysis (SRC, 2022). Total digestion (herein designated by the suffix -t) is performed via a combination of hydrofluoric, nitric, and perchloric acids while partial digestion (herein designated by the suffix -p) is completed via nitric and hydrochloric acids. In-house quality control performed by SRC consists of multiple instrumental and analytic checks using an in-house standard ASR316. Instrumental check protocols consist of two calibration blanks and two calibration standards. Analytical protocols require one blank, two QA/QC standards, and one replicate sample analysis.

Samples yielding over 400 ppm U-t or those with radioactivity over 350 cps (RS-125) were also shipped to SRC. Sample preparation procedures are the same as for the ICPMS Exploration Package, samples were analyzed by ICP-OES only (Code ICP1) and for triuranium octoxide ( $U_3O_8$ ) using hydrochloric and nitric acid digestion followed by ICP-OES finish, capable of detecting  $U_3O_8$  weight percent as low as 0.001%.

Selected high uranium samples were also analyzed for gold, and in some instances, platinum and palladium, by fire assay using aqua regia digestion with ICP-OES finish. Analytical protocols utilized replicate sample analysis; however, no in-house standards were used for these small batches.

Boron analysis has a lower detection limit of two ppm and is completed via ICP-OES after the aliquot is fused in a mixture of sodium superoxide ( $NaO_2$ ) and  $NaCO_3$ . SRC in-house quality control for boron analysis consists of a blank, QC standards and one replicate with each batch of samples (SRC, 2022).



Reflectance samples were shipped to independent consultant Kim Heberlein of Maple Ridge, British Columbia, for collection of spectra using a TerraSpec Near Infrared (NIR) device. These spectra were subsequently sent electronically to AusSpec (now IMDEX) of New Zealand for semi-quantitative determinations of clay mineralogy. In 2021, IsoEnergy began collecting SWIR spectra internally using an ARCOptix FT Rocket Spectrometer. Collected spectra continue to be processed by IMDEX through the proprietary aiSIRIS application.

### 11.3 Sample Security

Drill core was delivered from the drill to IsoEnergy's core handling facilities at the Geiger Property in 2018 and the Larocque Lake camp thereafter. Individual core samples were collected at the core facilities by manual splitting. They were tagged, bagged, and then packaged in five gallon plastic buckets or steel IP-2 drums for shipment to SRC Geoanalytical labs in Saskatoon. Shipment to the laboratory was completed by IsoEnergy's expeditor, Little Rock Enterprises of La Ronge, Saskatchewan. No issues were identified by IsoEnergy staff or SRC with sample security.

The SLR QP is of the opinion that the sample preparation, security, and analytical procedures used by IsoEnergy are consistent with standard industry best practices and that the data is adequate for the purposes used in this Technical Report.

### 11.4 Quality Assurance and Quality Control

Quality assurance (QA) is information collected to demonstrate and quantify the reliability of assay data. Quality control (QC) consists of procedures used to maintain a desired level of quality in the database (Long, 2009). Exploration usually requires high precision on low concentrations and is more frequently concerned with identifying anomalous values, which may be near the analytical detection limit.

QA in uranium exploration benefits from the use of down-hole gamma probes and hand-held scintillometers/spectrometers, as discrepancies between radioactivity levels and geochemistry can be readily identified.

IsoEnergy implemented its QA/QC program in 2019 and has two different workflows, depending on the sample type.

**Workflow 1:** Each drill hole that encounters significant mineralization and 'MINZ' samples will include:

- One Certified Reference Material (CRM) BLANK
- One duplicate (MDUP), selected from a suitable (homogenous) sample
- One of two possible CRM Standards:
  - OREAS 124 (O124) if maximum grade is <1% eU<sub>3</sub>O<sub>8</sub>
  - BL-5 (BL5) if maximum grade is >1% eU<sub>3</sub>O<sub>8</sub>.

Maximum grade refers to the most radioactive 0.5 m interval in the drill hole.

**Workflow 2:** For SPOT and COMP type samples, the following protocols will be followed:

- Sample IDs ending in 00 will be certified blanks (BLA1).
- Sample IDs ending in 25 and 75 will be duplicates (DUPL) of the preceding sample.
- Sample IDs ending in 50 will be CRM OREAS 120 (O120).

Table 11-2 shows the controls inserted by year (from 2018 to 2021) and by sample type, as well as the respective insertion rate.

**Table 11-2: Summary of QA/QC Submittals from 2018 to 2021  
IsoEnergy Ltd. – Larocque East Project**

Workflow 1: MINZ Samples								
Sample Type	2018		2019		2020		2021	
	Count	Insertion Rate	Count	Insertion Rate	Count	Insertion Rate	Count	Insertion Rate
Regular Samples	35	-	416	-	841	-	212	-
Blanks (BLA1)	-	-	20	4.81%	34	4.04%	7	3.30%
Duplicate (MDUP)	1	2.86%	22	5.29%	34	4.04%	9	4.25%
CRMs	-	-	21	5.05%	36	4.28%	14	6.60%

Workflow 2: SPOT and COMP Samples								
Sample Type	2018		2019		2020		2021	
	Count	Insertion Rate	Count	Insertion Rate	Count	Insertion Rate	Count	Insertion Rate
Regular Samples	87	-	1,702	-	2,297	-	1,428	-
Blanks (BLA1)	-	-	17	1.00%	20	0.87%	13	0.91%
Duplicates (DUPL)	3	3.45%	39	2.29%	49	2.13%	24	1.68%
CRMs	-	-	16	0.94%	25	1.09%	12	0.84%

In addition, SRC laboratory conducts an independent QA/QC program, and its laboratory repeats (REPT), non-radioactive laboratory standards (LSTD), and radioactive lab standards (BL2A, BL4A, BL5) were also tracked and monitored by IsoEnergy staff. Table 11-3 details the total number of analyzed QA/QC samples, including 2022 samples.

**Table 11-3: QA/QC Sample Summary**  
**IsoEnergy Ltd. – Larocque East Project**

IsoEnergy QA/QC	Number of Analyses	SRC QA/QC	Number of Analyses
DUPL	143	Non-RA LSTD	649
MDUP	70	REPT	886
BLA1	131	BL2A	43
BL5	54	BL4A	172
O120	64	BL5	56
O124	23	U02	50
<b>Total</b>	<b>485</b>	<b>Total</b>	<b>1,856</b>

#### 11.4.1 Certified Reference Materials

Results of the regular submission of CRMs are used to identify issues with specific sample batches, and biases associated with the laboratory. IsoEnergy obtained CRMs from three different international laboratories (Canadian Centre for Mineral and Energy Technology (CANMET), OREAS, and SRC) to account for different ranges of several chemical elements such as uranium, nickel, lead, and vanadium, as presented in Table 11-4. Results of the CRM sample analyses are plotted monthly in control charts with upper and lower limits of the acceptable values, defined as values above or below two and three standard deviations, and the certified value.

**Table 11-4: Expected Values and Standard Deviation of CRMs**  
**IsoEnergy Ltd. – Larocque East Project**

CRM	Grade (% U) <sup>1</sup>	Grade (% U <sub>3</sub> O <sub>8</sub> ) <sup>1</sup>	Standard Deviation (%)	Source
BL-2a	0.426	-	0.002	CANMET
BL-4a	0.1248	-	0.0007	CANMET
BL-5	7.09	-	0.03	CANMET
OREAS 120	0.00396	-	0.0002	OREAS
OREAS 124	0.18450	-	0.004	OREAS
SRCU02	-	1.58	0.02	SRC

Note:

1. Uranium values according to the official certificate document. For this Technical Report, U<sub>3</sub>O<sub>8</sub> transformed values are used.

Most of the CRMs cover the low-grade values, ranging between 0.0047% U<sub>3</sub>O<sub>8</sub> and 0.5024% U<sub>3</sub>O<sub>8</sub> (transformed values from U to U<sub>3</sub>O<sub>8</sub>), and BL-5 covers grades slightly above the average grade of the deposit. None of the CRMs cover high grades of over 9% U<sub>3</sub>O<sub>8</sub>.

A total of 26 CRMs were inserted in the 2021 sampling analysis, representing an insertion ratio of 1.59% considering all the samples. The SLR QP received the CRM results, prepared control charts, and analyzed

temporal and grade trends. Overall, the control charts indicate good and consistent laboratory precision. In most cases, no sample results were out of the two standard deviation limits. In all cases, no sample results were out of three standard deviation limits. Small biases can be identified, but without material impact or relevance for this Exploration Disclosure.

Figure 11-1 presents the results for the OREAS 120 and BL-2a CRMs, representing lower grade ranges. No results were out of the upper and lower two standard deviation limits for the O120 CRM, however, a positive bias of 2.17% is observed. A small negative bias is observed in the control chart for BL-2a, which also reports 13.64% samples outside of the two standard deviation limits, and 0% outside three standard deviation limits. These results indicate good and consistent laboratory precision. No results for any of the standards had values out of three standard deviation limits.

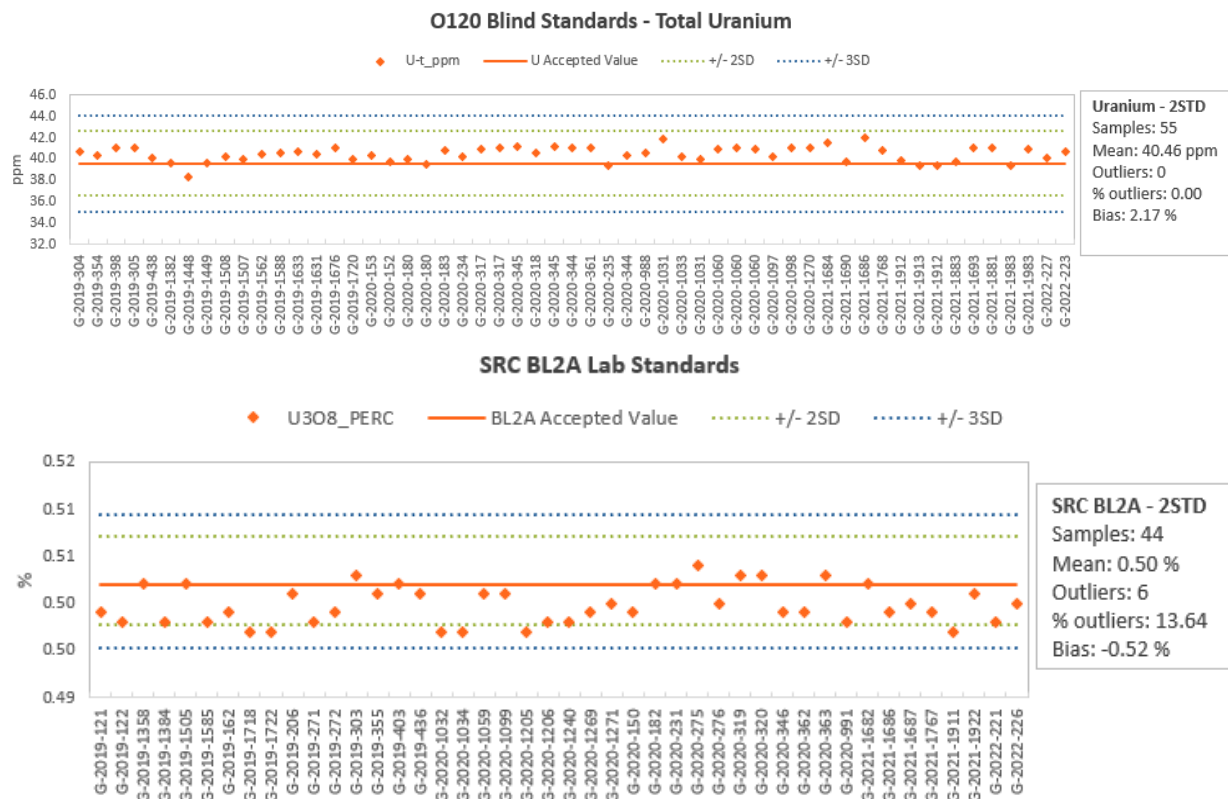
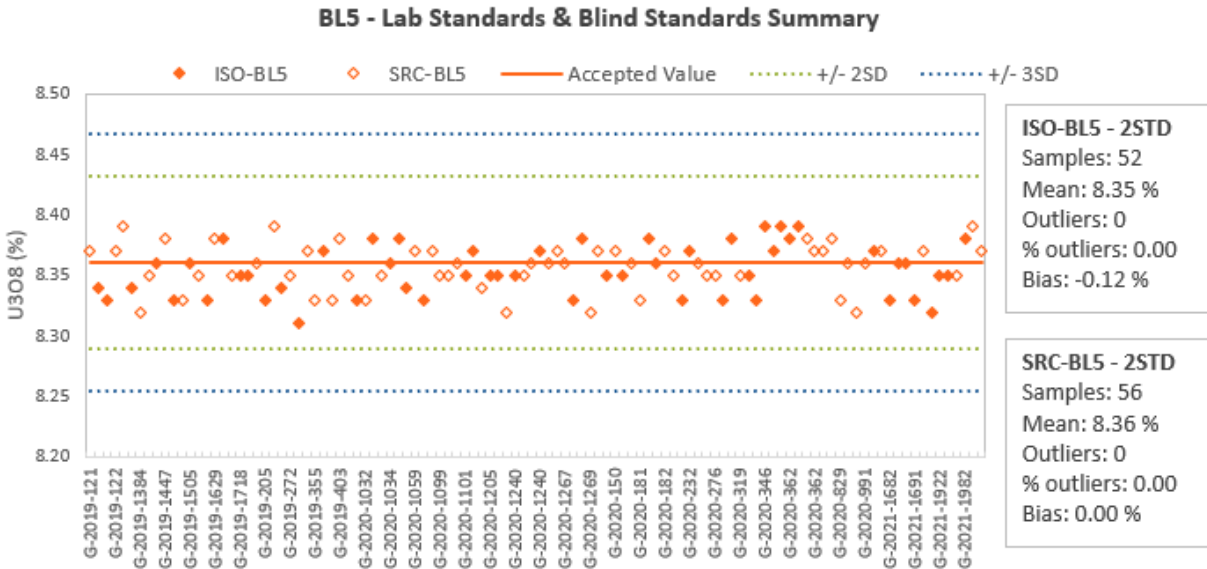


Figure 11-1: Control Chart for the O120 and BL-2a CRMs

Results of the BL-4a, OREAS 124, and SRCU02 also indicated good precision of the laboratory, without any samples out of the lower and upper limits and only small bias in some cases.

Figure 11-2 presents the results for the laboratory and blind BL-5 CRM inserted by the IsoEnergy staff and indicates a very low bias for both controls, with no results outside of two standard deviations.



**Figure 11-2: IsoEnergy and SRC BL-5 CRM Analysis**

The SLR QP recommends that IsoEnergy use CRMs that represent a wider range of uranium values to ensure the laboratory efficiency and precision for low grade, average grade, high grade, and very high grade. The SLR QP recommends adding a very high grade CRM, such as CANMET CUP-2 (88.94% U<sub>3</sub>O<sub>8</sub>), to the QA/QC protocols outlined by IsoEnergy.

**11.4.2 Blank Material**

Blank material is used to assess contamination or sample-cross contamination during sample preparation and to identify sample numbering errors. IsoEnergy uses a certified blank material (BLA-1) sourced at Analytical Solutions Ltd, which consists of a coarse material from an unconsolidated deposit of nearly pure silica. Blank material was inserted at a rate of 3.30% in the MINZ samples in 2021, with an average insertion rate of approximately 4.05% since 2018. SLR prepared charts of the blank sample results for uranium (as U<sub>3</sub>O<sub>8</sub>), nickel, vanadium, and lead, against the recommended upper limit set at five times the lower detection limit of the analytical method.

Results of the U<sub>3</sub>O<sub>8</sub> analysis are presented in Figure 11-3, and indicate few samples with contamination, with a failure rate of 3.74%.

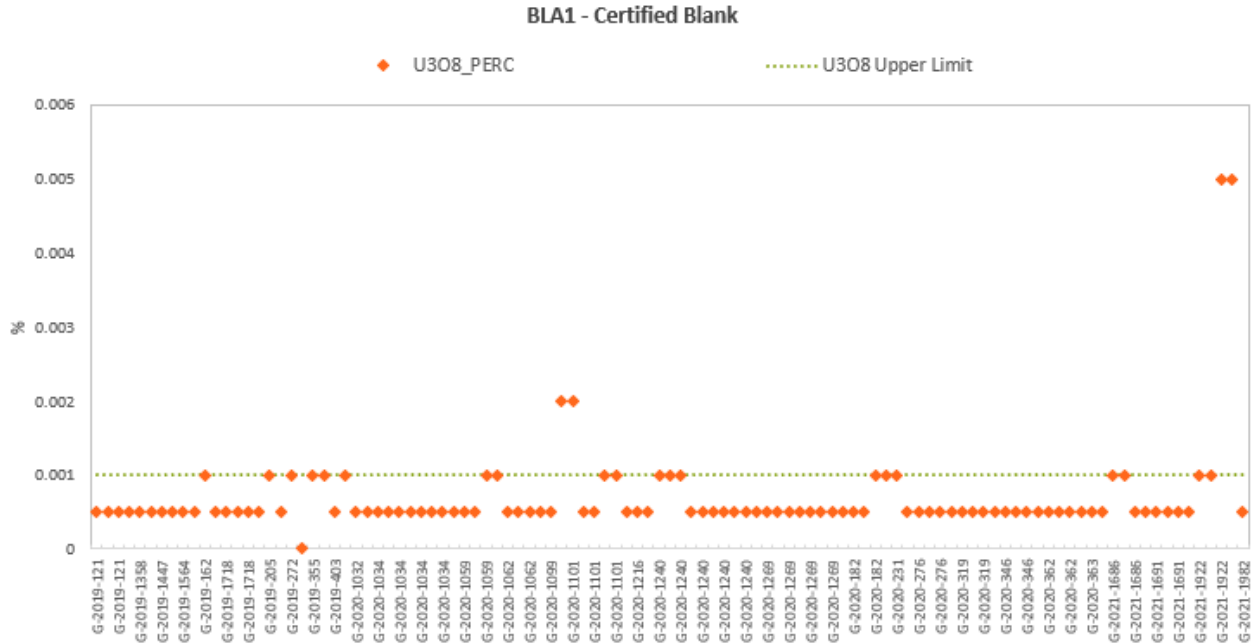


Figure 11-3: IsoEnergy Certified Blank Analyses

### 11.4.3 Duplicates

Duplicate samples are used to monitor preparation, assay precision, and grade variability as a function of sample homogeneity and laboratory error. As part of its quality control protocols, IsoEnergy uses field duplicates, which test the natural variability of the original core sample, as well as potential errors including core splitting, sample size reduction in the preparation laboratory, sub-sampling of the pulverized sample, and analytical error.

IsoEnergy staff has two types of field duplicate samples, DUPL and MDUP. DUPL is for unmineralized samples and would usually consist of replicating one of the composite chip samples. MDUP are duplicates of mineralized samples. The 50 cm core sample interval is cut in half; one half is returned to the box and the other half is split again to create two quarter-core samples. One of those quarter core samples is used as the assay value, and the other is used as a duplicate sample.

The SLR QP analyzed, using statistics, scatter plots and quantile-quantile plots, a database with the results of 170 pairs of samples of field duplicates compiled by IsoEnergy staff. The correlation coefficient is 0.99 and the chart shows a moderate dispersion. Eighty-four samples have a difference in results greater than 20%, which corresponds to an error rate of 49.41% (Figure 11-4).

Pulp duplicates, which provide a measure of the sample homogeneity at different stages of the preparation process, are not currently included in the IsoEnergy QA/QC program.

The SLR QP is of the opinion that the results of the field duplicates are moderate to poor, and recommends investigating the procedures in the core shed, as well as working with the preparation and analytical laboratory to conduct tests aimed at improving the field duplicate precision. SLR also recommends investigating whether the submission of two half core samples, instead of two quarter core samples improves the field duplicate precision. As part of this study, SLR recommends integrating pulp and coarse duplicates to facilitate a more complete understanding of the individual processes related to sampling and chemical analysis.

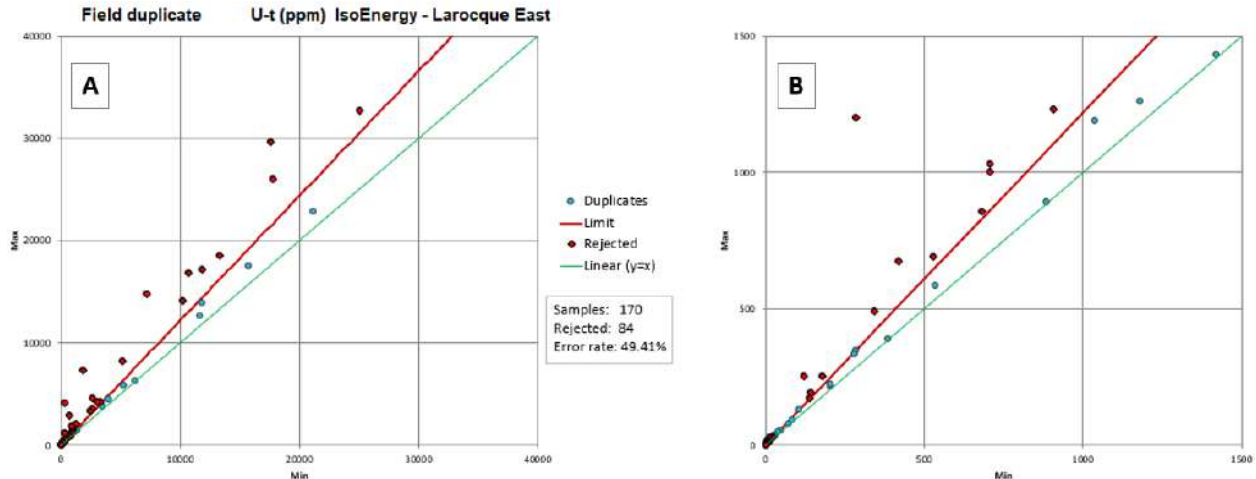


Figure 11-4: Scatter Plot of the Field Duplicate Samples

## 11.5 Density Analysis

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

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

A total of 115 bulk density samples were collected from the 2019 and 2021 drilling. Summary statistics are reported in Table 11-5 for bulk density and the corresponding  $U_3O_8\%$  grade.

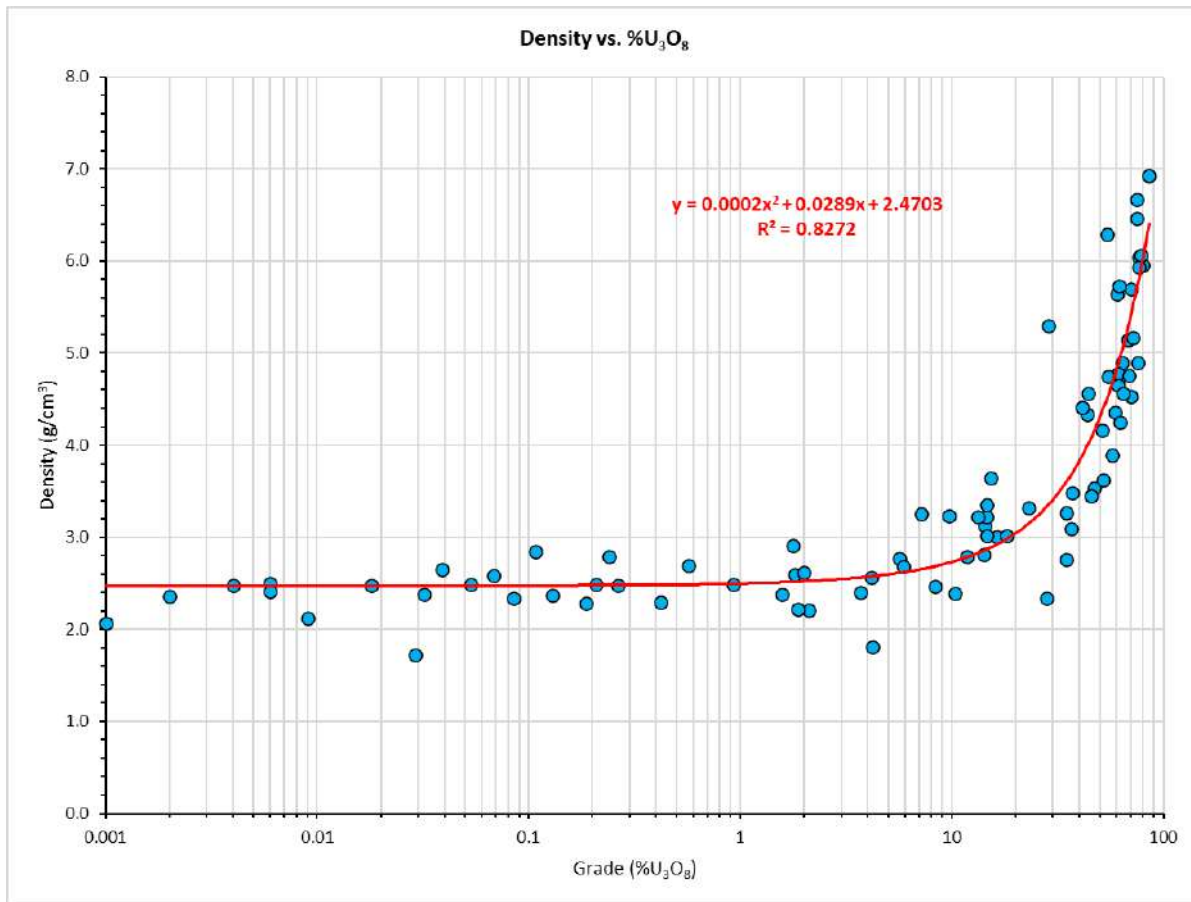
**Table 11-5: Bulk Density  
IsoEnergy Ltd. – Larocque East Project**

Variable	Units	Number of Samples	Minimum	Maximum	Average
Bulk Density	g/cm <sup>3</sup>	115	1.65	6.93	3.42
Grade	% U <sub>3</sub> O <sub>8</sub>	115	0.001	85.60	23.89

Correlation analyses of the bulk density values against uranium grades indicate that a strong relationship exists between density and uranium grade (%U<sub>3</sub>O<sub>8</sub>), as shown in Figure 11-5. The relationship at Larocque East can be represented by the following polynomial formula which is based on a regression fit.

$$y = 0.0002x^2 + 0.0289x + 2.4703$$

where y is dry bulk density (g/cm<sup>3</sup> which is equivalent to t/m<sup>3</sup>) and x is the uranium grade in %U<sub>3</sub>O<sub>8</sub>.



**Figure 11-5: Larocque East Bulk Density versus Uranium Grade**

## 11.6 Conclusions and Recommendations

The SLR QP is of the opinion that the sample preparation, security, analytical procedures, and QA/QC procedures used by IsoEnergy at Larocque East meet industry best practices and are adequate and assays



within the database are suitable to estimate Mineral Resources. Neither the SRC in-house quality control nor IsoEnergy's quality control yielded any indication of quality concerns.

For future drill programs, the SLR QP recommends the following:

1. Continue collecting specific gravity determinations that are representative of uranium mineralization host rock and waste rock during drill programs.
2. Track chain of custody for future QA/QC programs.
3. Add a very high-grade CRM, such as CANMET CUP-2 (88.94%  $U_3O_8$ ), to the suite of CRMs available within the QA/QC program at site.
4. Investigate the procedures in the core shed and chemical laboratory to improve the field duplicate precision, as well as include pulp and coarse duplicates to have a more complete understanding of the individual processes related to sampling and chemical analysis.

## 12.0 DATA VERIFICATION

Data verification is the process of confirming that data has been generated with proper procedures, is transcribed accurately from its original source into the project database and is suitable for use as described in this Technical Report.

Mr. Mark B. Mathisen, CPG, visited the Property on March 20 to 21, 2022, accompanied by Andy Carmichael (Vice President of Exploration) of IsoEnergy, during the final few days of the Winter 2022 drill program. The site visit was completed to obtain a general view of the Property and to determine if there were any obvious concerns with the exploration program. During the visit, Mr. Mathisen visited the location of discovery hole LE18-01A, indicated in Figure 12-1, and reviewed drill rig relocation and setup procedures, as well as core handling, logging, sampling, and storage procedures.

The SLR QP examined core from several drill holes and compared observations with assay results and descriptive log records made by IsoEnergy geologists. There are no known outcrops of significance on the Property to visit. Holes reviewed included, but were not limited to, LE20-30, LE20-44, LE21-87A located along drilling profile 4460E through the strongly mineralized portion of the Hurricane zone. During the drill core review, the SLR QP visually verified the occurrences of uranium mineralization and depth to the unconformity and basement contacts and verified radioactivity levels with an RS-125 hand-held spectrometer. The unconformity contact, scintillometer readings, rock quality designation (RQD) measurements, and sample tags were observed marked on the wood strip above the drill core.

As part of the data verification procedure, drill data was spot checked and audited by the SLR QP for completeness and validity using standard database validation tests. In addition, the SLR QP reviewed the QA/QC methods and results, verified assay certificates against the database assay table, and completed one site visit including drill core review. No limitations were placed on SLR's data verification process. The review of the QA/QC program and results is presented in Section 11, Sample Preparation, Analyses and Security.

The SLR QP performed the following digital queries. No significant issues were identified.

- Header table: searched for incorrect or duplicate collar coordinates and duplicate hole IDs.
- Survey table: searched for duplicate entries, survey points past the specified maximum depth in the collar table, and abnormal dips and azimuths.
- Core recovery table: searched for core recoveries greater than 100% or less than 80%, overlapping intervals, missing collar data, negative lengths, and data points past the specified maximum depth in the collar table.
- Lithology: searched for duplicate entries, intervals past the specified maximum depth in the collar table, overlapping intervals, negative lengths, missing collar data, missing intervals, and incorrect logging codes.
- Geochemical and assay table: searched for duplicate entries, sample intervals past the specified maximum depth, negative lengths, overlapping intervals, sampling lengths exceeding tolerance levels, missing collar data, missing intervals, and duplicated sample IDs.

The SLR QP is of the opinion that the database verification procedures for Larocque East comply with industry standards and are adequate for the purposes of Mineral Resource estimation.

## 12.1 Drill Hole LE18-01A

The unconformity was encountered at 344.9 m, and the hole ends at a final depth of 494.0 m. The Athabasca Group sandstones display pervasive bleaching to the unconformity. Moderate to strong grey alteration was noted below 332.0 m.

Several fault zones were noted throughout the sandstone column. The first zone of fault-hosted mineralization, 801 ppm U over one metre, was noted at 324.5 m.

Underlying the unconformity is a succession of gneisses and pegmatites. Moderate to strong bleaching and argillization is pervasive within 15 m of the unconformity. Fresh pegmatite and semipelitic gneiss are noted below 488 m. Intense-shearing of graphite and sulphide-rich gneiss is continuous through much of the basement.

Drill hole LE18-01A intersected a broad, 8.5 m long interval of elevated radioactivity averaging 1.26%  $U_3O_8$  (above a cut-off of 0.1%  $U_3O_8$ ), as illustrated in Figure 12-1, and including a higher-grade subinterval of 3.58%  $U_3O_8$  over 2.5 m. Within the higher-grade subinterval is a zone that averages 6.45%  $U_3O_8$  over one metre. The mineralization intersected is a mixture of fracture hosted and disseminated pitchblende in the basal sandstone and semi-massive pitchblende at the unconformity. The mineralization is associated with intense hydrothermal and illitic clay alteration.

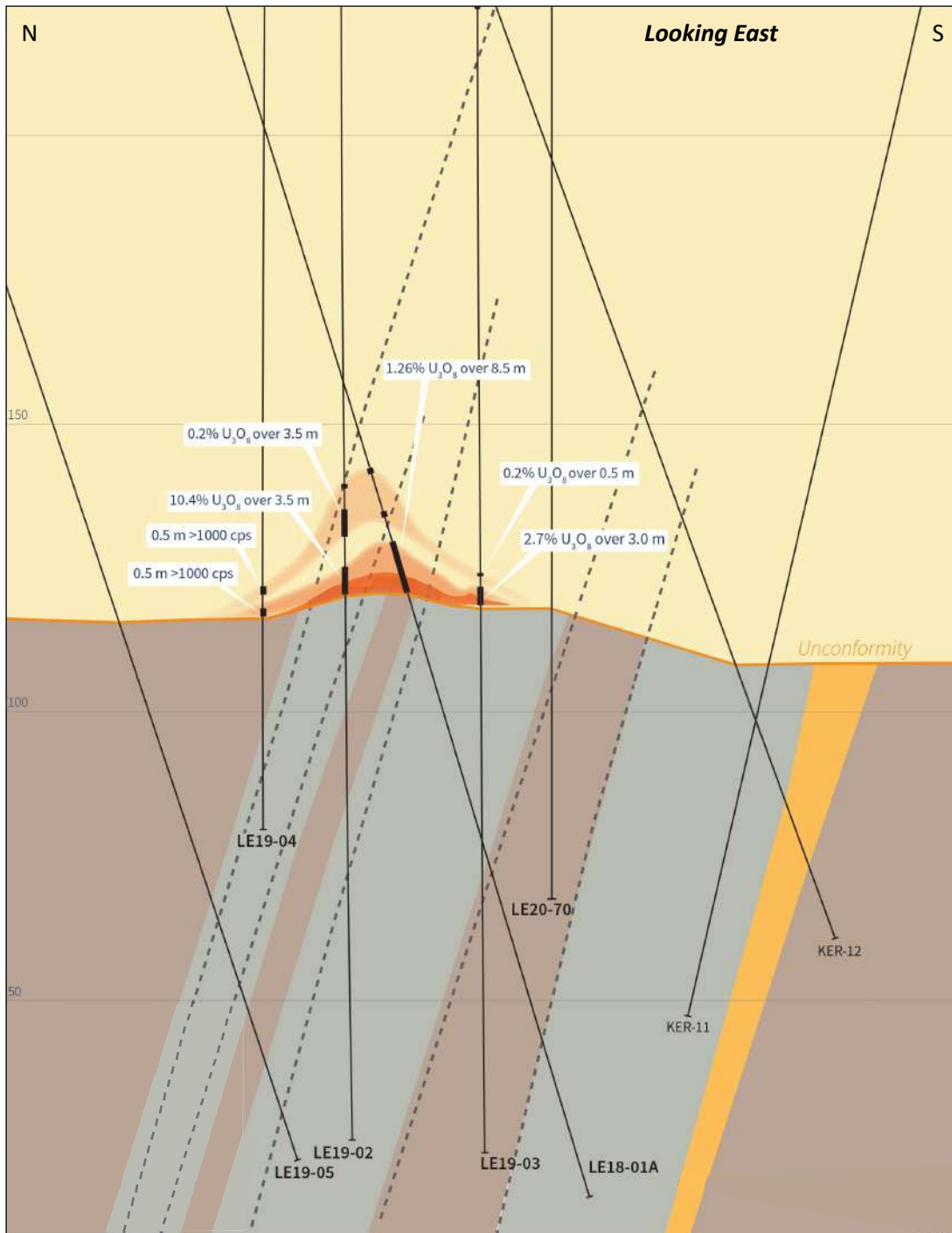


Figure 12-1

**Legend:**

- Drill Trace
- Unconformity
- Faults
- Graphitic Pelitic Gneiss
- Pegmatite
- Athabasca Sandstone
- Pelitic Gneiss

0 10 20 30 40 50  
Metres

**IsoEnergy Ltd.**

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**Larocque East Project**  
Northern Saskatchewan, Canada

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**Drill Hole LE18-01A,  
Cross Section 4560E**

August 2022

Source: IsoEnergy Ltd., 2022.

## 13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

In October 2020, IsoEnergy contracted the Saskatchewan Research Council (SRC) to complete a preliminary testing program on a composited uranium ore samples from the Hurricane zone (Zhao, 2020).

The objectives of the tests were to determine the preliminary leaching process, leach residue settling, raffinate composition, and purity of yellow cake. The tests included mineralogy analysis using quantitative evaluation of minerals by scanning electron microscopy (QEMSCAN), preliminary leaching tests, leach residue settling tests, solvent extraction tests, and a yellow cake precipitation test.

### 13.1 Metallurgical Tests

#### 13.1.1 Sample Preparation and Characterizations (QEMSCAN)

The composite sample was prepared from assay rejects and the samples were combined and homogenized. Approximately 23 kg of the composite sample was prepared with a target grade of 9.8%  $U_3O_8$  for metallurgical tests.

The prepared composite sample was riffled to 500 g subsamples for characterization and metallurgical testing. Head samples were taken for assay and QEMSCAN analysis.

#### 13.1.2 Preliminary Leaching Test

The fixed leach conditions for the five leach tests included 35% hydrogen peroxide ( $H_2O_2$ ) oxidant, 50% solids pulp density, 50°C temperature, atmospheric pressure, and residence time of 12 hr. For Tests L-1 to L-4, the grinding size was  $P_{100} = 300 \mu m$  with the target free acid of 25 g/L, 35 g/L, 25 g/L (with 1 g/L  $Fe_{3+}$  addition) and 15 g/L, respectively. For Test L-5, the grinding size was  $P_{100} = 500 \mu m$  with the target free acid of 25 g/L.

#### 13.1.3 Settling Test

The settling tests on the leach residue slurry were performed in one litre graduate cylinders immediately after the leaching was completed at the best leach conditions as in Test L-1 with the residence time of 12 hr. The leach residue slurry was diluted with pH 2 acidic deionized (DI) water targeting 10 g/L  $U_3O_8$  in the leaching solution. Two settling tests were performed in parallel: flocculant assisted settling test (S-3) and one free settling test (S-4). The flocculant Magnafloc 351 was used at a dosage of 200 g/t solids and was added at 0.03% dispersion.

#### 13.1.4 Solvent Extraction

The organic solution was composed of 6% Armeen 380, 3% isodecanol, and 91% diluent (CALUMET 400-500) by volume. The aqueous solution was prepared from the leaching filtrate by dilution with wash.

#### 13.1.5 Yellow Cake Precipitation Test

One ammonium diuranate (ADU) precipitation test was performed to determine a preliminary assessment of the product purity. The pH of the feed solution was adjusted, using 28% ammonium hydroxide solution, to pH 7.0 to 7.5 to precipitate the yellow cake. The solution was filtered after pH 7.0 to 7.5 was maintained for an hour. The produced yellow cake was rinsed with DI water and was calcined at 700°C for two hours. The calcined yellow cake sample was analyzed for major elements.

## 13.2 Conclusions

- The prepared composite sample contains 9.81%  $U_3O_8$  and significant other metals including Fe, Al, Si, Mo, As, Ni, Pb, Co, Cu, V, and Zn, most of which were higher than those in the typical uranium ore.
- Uraninite is the primary uranium mineral with minor clay altered uraninite. Approximately 33% of uraninite is observed being greater than 90% liberated, irrespective of grain size. Uraninite is associated mainly with complex minerals (45%) followed by clay minerals (14%), arsenic minerals (3.6%), and iron-oxides (1.9%). Quartz and calcite are weakly associated with uraninite.
- Leaching tests showed that over 98.5% uranium can be extracted in 10 to 12 hours depending on leaching conditions, except for the test of coarse grinding at P100 = 500  $\mu m$ , in which only 97.5% uranium was extracted. The following leaching conditions are recommended:
  - Temperature: 50°C
  - Pressure: atmospheric
  - Terminal Free Acid: 25 g/L
  - ORP:  $\geq 450$  mV
  - Residence Time: 10 hours
  - Oxidant: hydrogen peroxide
  - Acid:  $H_2SO_4$
  - Pulp Density: 50% solids.
- The acid consumption at the recommended leaching conditions was 133 kg/t ore.
- Magnafloc 351 did not accelerate the settling of tails in the solid/liquid separation.
- Solvent extraction (SX) is effective to selectively extract and purify uranium.
- The majority of Mo was extracted along with the extraction of uranium. Other impurities are typical for uranium raffinate, except for Ni and As, which were high in the raffinate due to their high content in the feed.

The analysis of the yellow cake sample shows that high purity yellow cake product can be produced through ammonium sulfate  $s_x$  stripping and ammonium hydroxide uranium precipitation.

## 13.3 Recommendations

Based on the preliminary results, SRC made the following recommendations for future metallurgical testing, and are included here for completeness. SLR did not conduct a formal review or audit of the metallurgical findings and recommendations as part of this Technical Report. Further investigations will be required during future resource estimation analysis.

5. Since flocculant Magnafloc 351 did not accelerate the settling of tails in the solid/liquid separation, flocculant screening tests should be completed
6. Further purification of the pregnant strip solution before yellow cake precipitation was also recommended, such as Mo removal by activated carbon or ion exchange (IX) treatment.

## 14.0 MINERAL RESOURCE ESTIMATE

### 14.1 Summary

Mineral Resources have been classified in accordance with the definitions for Mineral Resources in the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves dated May 10, 2014 (CIM, 2014).

Table 14-1 summarizes Mineral Resources based on a \$65/lb U<sub>3</sub>O<sub>8</sub> price at an equivalent uranium cut-off grade (COG) of 1.00% U<sub>3</sub>O<sub>8</sub> envisaging underground mining methods. Indicated Mineral Resources total 63.8 thousand t at an average grade of 34.5% U<sub>3</sub>O<sub>8</sub> for a total of 48.61 Mlb U<sub>3</sub>O<sub>8</sub>. Inferred Mineral Resources total 54.3 thousand t at an average grade of 2.2% U<sub>3</sub>O<sub>8</sub> for a total of 2.66 Mlb U<sub>3</sub>O<sub>8</sub>. Estimated block model grades are based on density weighted chemical assays only.

The cut-off date of the Mineral Resource database is March 22, 2022, which represents the date in which all assays were received from IsoEnergy's Winter 2022 drill program. The effective date of the Mineral Resource estimate is July 8, 2022.

The SLR QP is of the opinion that with consideration of the recommendations summarized in Section 1 and Section 26, any issues relating to all relevant technical and economic factors likely to influence the prospect of economic extraction can be resolved with further work.

The SLR QP is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

**Table 14-1: Mineral Resource Statement – July 8, 2022  
IsoEnergy Ltd. – Larocque East Project**

Category	Tonnage (000 t)	Metal Grade (% U <sub>3</sub> O <sub>8</sub> )	Contained Metal (Mlb U <sub>3</sub> O <sub>8</sub> )
Indicated	63.8	34.5	48.61
Inferred	54.3	2.2	2.66

Notes:

1. CIM (2014) definitions were followed for all Mineral Resource categories.
2. Mineral Resources are estimated at a uranium cut-off grade of 1.00% U<sub>3</sub>O<sub>8</sub>,
3. Tonnes are based on bulk density weighting.
4. Mineral Resources are estimated using a long-term uranium price of US\$65/lb U<sub>3</sub>O<sub>8</sub>.
5. Minimum grade width of one metre was applied to the resource domain wireframes.
6. Bulk density was interpolated using values derived from a regression curve based on U<sub>3</sub>O<sub>8</sub> assay values
7. Numbers may not add due to rounding.

### 14.2 Resource Database

IsoEnergy maintains a property-wide drill hole database in Microsoft Access. The Hurricane resource database, dated March 22, 2022, includes drill hole collar locations (including dip and azimuth), assay, alteration, geochemical, and lithology data from 106 drill holes totalling 37,875.3 m of drilling completed from 1983 through spring of 2022. The wireframe models representing the Hurricane low-grade (LG), medium-grade (MG) and high-Grade (HG) mineralized zones are intersected by 48 of 106 drill holes. A summary of records used to generate the Hurricane resource model is provided in Table 14-2.

**Table 14-2: Summary of Hurricane Drill Hole Data  
IsoEnergy Ltd. – Larocque East Project**

Table	Number of Records
Collar	106
Survey	889
Geology	1,115
Assay U <sub>3</sub> O <sub>8</sub>	1,504
Assay Ni and Co	1,495

### 14.3 Geological Interpretation

Uranium mineralization occurs at the unconformity surface and in the adjacent sandstone above and in the adjacent graphitic pelitic gneiss basement rocks below the unconformity. The Hurricane zone strikes approximately N82°E and is essentially horizontal.

Geological interpretations supporting the estimate were generated by SLR and reviewed by IsoEnergy personnel. Wireframe models of mineralized zones were used to constrain the block model grade interpolation process.

The models represent grade envelopes using the geological interpretation described above as guidance.

The wireframes consisted of a LG domain using a nominal COG of 0.05% U<sub>3</sub>O<sub>8</sub> and a minimum core length of one metre. SLR considers the selection of 0.05% U<sub>3</sub>O<sub>8</sub> to be appropriate for construction of mineralized wireframe outlines, as this value reflects the lowest COG that is expected to be applied for reporting of the Mineral Resources in an underground operating scenario and is consistent with other known deposits in the Athabasca Basin. Sample intervals with assay results less than the nominated COG were included within the mineralized wireframes if the core length was less than two metres or allowed for modelling of grade continuity. Wireframes of the MG and HG domains, illustrated in Figure 14-1, were created using a grade intercept limit equal to or greater than one metre with a minimum grade of 5% U<sub>3</sub>O<sub>8</sub> and 25% U<sub>3</sub>O<sub>8</sub>, respectively, although lower grades were incorporated in places to maintain continuity and to meet a minimum thickness of one metre. Dimensions of the HG domain are approximately 125 m long, 80 m wide, and up to 4.5 m in thickness.



# Looking Northeast

(Plunge +48° Azimuth 023°)

**Legend:**

- High Grade (25%  $U_3O_8$ )
- Medium Grade (5%  $U_3O_8$ )
- Low Grade (0.05%  $U_3O_8$ )

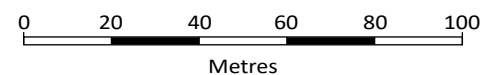
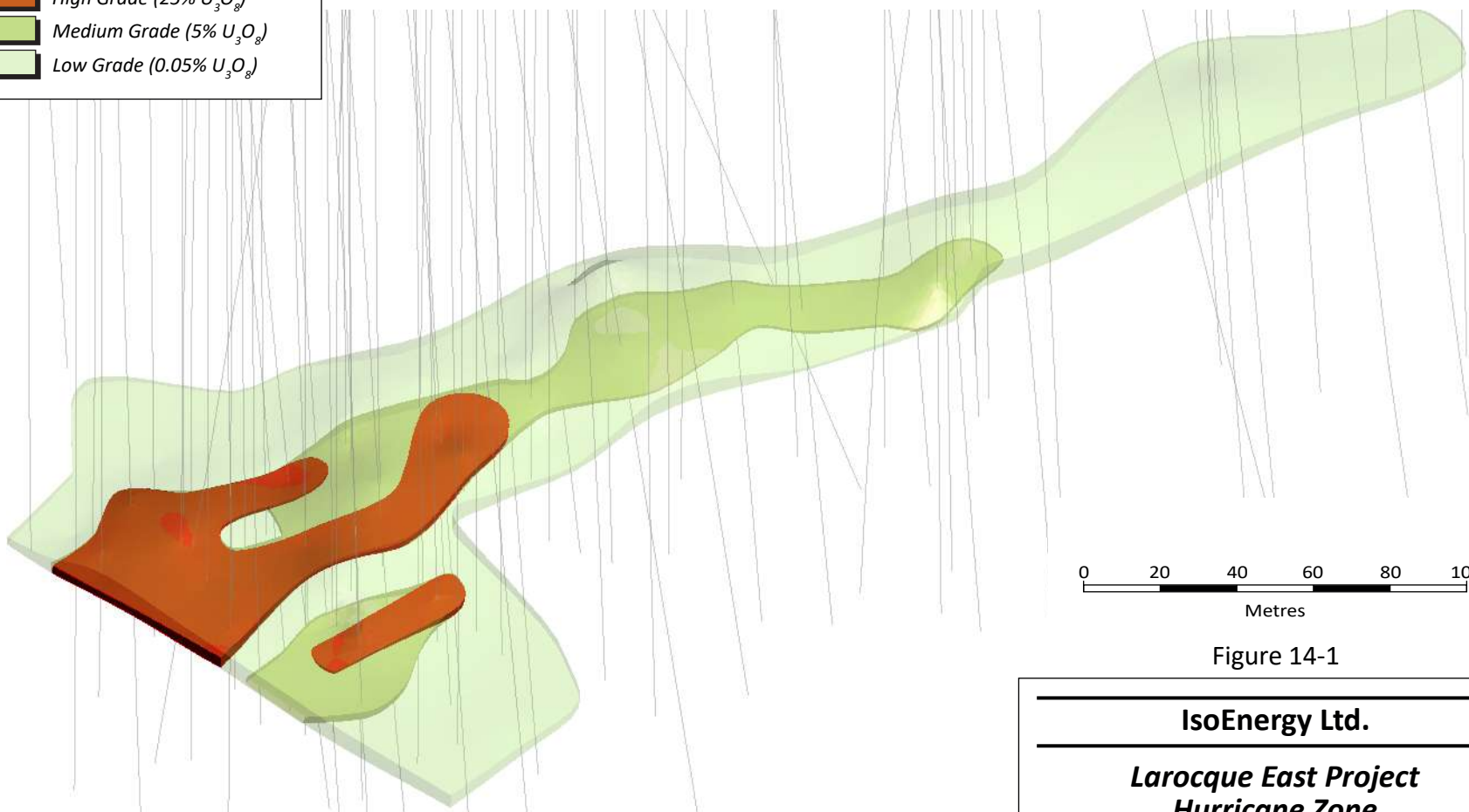


Figure 14-1

**IsoEnergy Ltd.**

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**Larocque East Project  
Hurricane Zone**

*Northern Saskatchewan, Canada*

**Mineralized Domains**

## 14.4 Resource Assays

The mineralization wireframe models were used to code the drill hole database and to identify samples within the mineralized wireframes. These samples were extracted from the database on a group-by-group basis, subjected to statistical analyses for their respective domains, and then analyzed by means of histograms and probability plots. A total of 785 samples of the 1,504 in the database were contained within the mineralized uranium wireframes. The sample statistics are summarized by zone in Table 14-3. The coefficient of variation (CV) is a measure of variability of the data.

**Table 14-3: Summary Statistics of Uncapped U<sub>3</sub>O<sub>8</sub> Assays  
IsoEnergy Ltd. – Larocque East Project**

Zone	Count	Minimum (% U <sub>3</sub> O <sub>8</sub> )	Maximum (% U <sub>3</sub> O <sub>8</sub> )	Mean <sup>1</sup> (% U <sub>3</sub> O <sub>8</sub> )	Variance <sup>1</sup>	SD <sup>1</sup> (% U <sub>3</sub> O <sub>8</sub> )	CV <sup>1</sup>
LG Domain	631	0.00	8.95	0.56	0.97	0.99	1.77
MG Domain	77	0.01	38.20	8.97	59.48	7.71	0.86
HG Domain	77	0.76	85.20	50.32	406.33	20.16	0.40
<b>ALL ZONES</b>	<b>785</b>	<b>0.00</b>	<b>85.20</b>	<b>6.07</b>	<b>255.87</b>	<b>16.00</b>	<b>2.63</b>

1. Length weighted

## 14.5 Treatment of High Grade Assays

### 14.5.1 Capping Levels

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

The SLR QP is of the opinion that the influence of high grade uranium assays must be reduced or controlled and used a number of industry best practice methods to achieve this goal, including capping of high grade values. The SLR QP employed a number of statistical analytical methods to determine an appropriate capping value including preparation of frequency histograms, probability plots, decile analyses, and capping curves. Using these methodologies, the SLR QP examined the selected capping values for the mineralized domains for the Project.

Uranium outliers were capped at 5% U<sub>3</sub>O<sub>8</sub> and 20% U<sub>3</sub>O<sub>8</sub> within the LG and MG domains, resulting in a total of 10 capped assay values, as summarized in Table 14-4. No capping was applied to the HG domain. The capped versus uncapped assays are compared in Table 14-5.

In the SLR QP’s opinion, the selected capping values are reasonable and have been correctly applied to the raw assay values for the Hurricane zone Mineral Resource estimate.

**Table 14-4: Capping of Resource Assay Values by Zone  
IsoEnergy Ltd. – Larocque East Project**

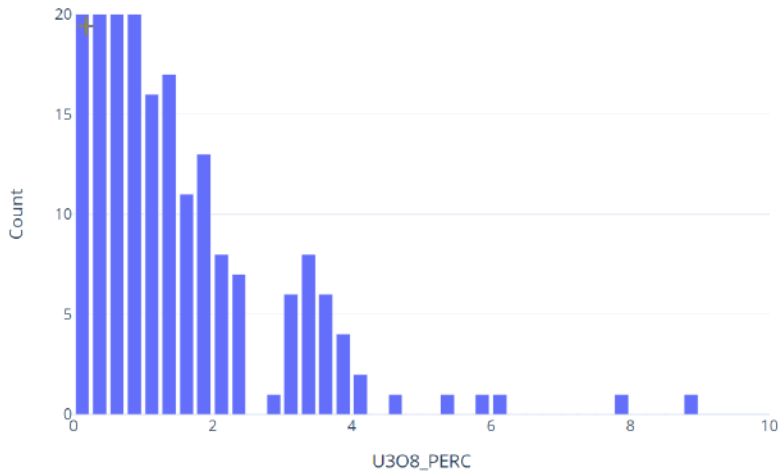
Zone	Cap Levels (%U <sub>3</sub> O <sub>8</sub> )	Number of Assays	Number Assays Capped	% Capped	% Metal Loss
LG Domain (0.05% U <sub>3</sub> O <sub>8</sub> )	5	631	5	0.8	2.47
MG Domain (5.0% U <sub>3</sub> O <sub>8</sub> )	20	77	5	6.5	6.16
HG Domain (25.0% U <sub>3</sub> O <sub>8</sub> )	No Cap	-	-	-	-

**Table 14-5: Summary Statistics of Uncapped versus Capped Assays  
IsoEnergy Ltd. – Larocque East Project**

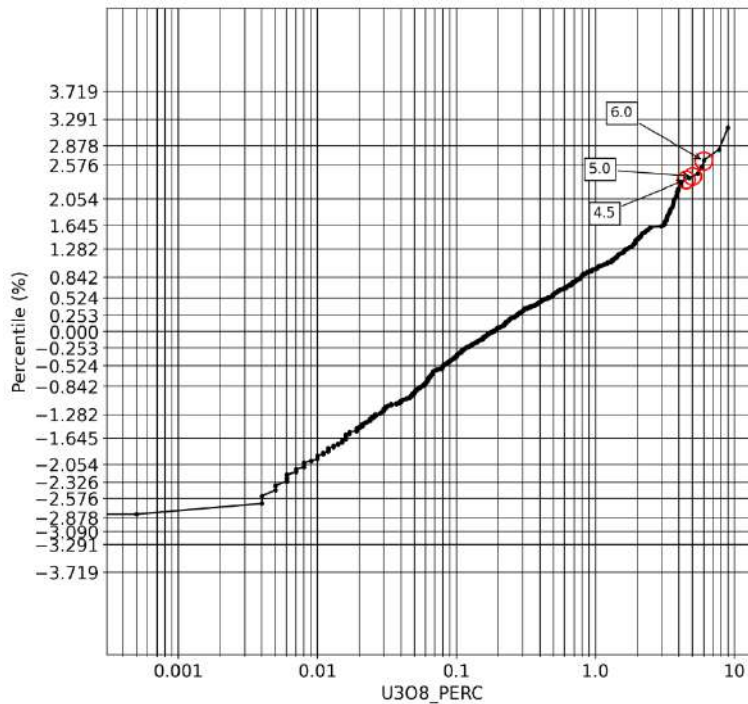
Zone	LG Domain (0.05% U <sub>3</sub> O <sub>8</sub> )		MG Domain (5.0% U <sub>3</sub> O <sub>8</sub> )		HG Domain (25.0% U <sub>3</sub> O <sub>8</sub> )	
	Uncapped	Capped	Uncapped	Capped	Uncapped	Capped
<b>Descriptive Statistics<sup>1</sup></b>						
Number of Samples	631	631	77	77	77	77
Minimum (%U <sub>3</sub> O <sub>8</sub> )	0.00	0.00	0.01	0.01	0.76	0.76
Maximum (%U <sub>3</sub> O <sub>8</sub> )	8.95	5.00	38.2	20.00	85.2	85.2
Mean (%U <sub>3</sub> O <sub>8</sub> )	0.56	0.54	8.97	8.41	50.32	50.32
Variance	0.97	0.81	59.48	38.20	406.33	406.33
SD (%U <sub>3</sub> O <sub>8</sub> )	0.99	0.90	7.71	6.18	20.16	20.16
CV	1.77	1.66	0.86	0.73	0.4	0.4
Number of Caps		5		5	-	-

1. Length weighted

Examples of the capping analysis are shown in Figure 14-2 and Figure 14-3 as applied to the data set for the mineralized domains.



**Figure 14-2: Histogram of U3O8 Resource Assays in LG Domain**



**Figure 14-3: Log Normal Probability Plot with Capping Grades in LG Domain**

### 14.5.2 High Grade Restriction

In addition to capping thresholds, a secondary approach to reducing the influence of high grade composites is to restrict the search ellipse dimension (high yield restriction) during the estimation process. The threshold grade levels, chosen from the basic statistics and from visual inspection of the apparent continuity of very high grades within each estimation domain, may indicate the need to further limit their

influence by restricting the range of their influence, which is generally set to approximately half the distance of the main search.

Upon reviewing the grade distribution in the block model SLR's QP chose to limit the influence of the higher grade composites by employing spatial restriction in the High Grade domain. SLR used the Leapfrog restrictive search tool "clamp" that reduces the high value to a threshold value once the maximum distance is reached rather than discarding the high grade composite completely. The maximum distance of influence was set to 15 m x 15 m x 1.5 m with a grade x density threshold value of 250 (approximately equivalent to 55% U<sub>3</sub>O<sub>8</sub>) in both estimation passes

## 14.6 Compositing

Composites were created from the capped, raw assay values using the downhole compositing function of Seequent Leapfrog Geo modelling software package. The composite lengths used during interpolation were chosen considering the predominant sampling length, the minimum mining width, style of mineralization, and continuity of grade, and ranged from 0.5 m to 3.0 m within the wireframe models, with 97.2% of the samples taken at 0.5 m intervals. Given this distribution, and considering the width of the mineralization, the SLR QP chose to composite to one metre lengths.

Assays within the wireframe domains were composited starting at the first mineralized wireframe boundary from the collar and resetting at each new wireframe boundary. Assays were capped prior to compositing. A small number of unsampled and missing sample intervals were ignored. Residual composites were maintained in the dataset. The capped composite statistics by zone are summarized in Table 14-6.

**Table 14-6: Summary of Capped Uranium Composite Data by Zone  
IsoEnergy Ltd. – Larocque East Project**

Zone	Count	Minimum (% U <sub>3</sub> O <sub>8</sub> )	Maximum (% U <sub>3</sub> O <sub>8</sub> )	Mean (% U <sub>3</sub> O <sub>8</sub> )	Variance	SD (% U <sub>3</sub> O <sub>8</sub> )	CV
LG Domain (0.05% U <sub>3</sub> O <sub>8</sub> )	351	0.00	5.00	0.54	0.59	0.77	1.41
MG Domain (5.0% U <sub>3</sub> O <sub>8</sub> )	45	0.39	20.00	8.41	25.82	5.08	0.60
HG Domain (25.0% U <sub>3</sub> O <sub>8</sub> )	43	10.58	81.00	50.32	348.86	18.68	0.37
<b>ALL ZONES</b>	439	0.00	5.00	1.30	3.09	1.76	1.35

## 14.7 Trend Analysis

### 14.7.1 Variography

SLR generated downhole, omni-directional, and directional variograms using the one metre U<sub>3</sub>O<sub>8</sub> composite values located within the LG and MG mineralized domains. The MG domain variogram was calculated using composites located within MG and HG wireframes to allow for more pairs in the analysis. The variograms were used to support search ellipsoid anisotropy, linear trends observed in the data, and Mineral Resource classification decisions. The downhole variograms suggests a relative nugget effect of approximately 10%. Long range directional variograms were focused in the primary plane of mineralization, which commonly strikes northeast and horizontally across the strike direction. Most

ranges were interpreted to be 27 m to 35 m. Figure 14-4 shows the calculated variogram for combined MG and HG zones.

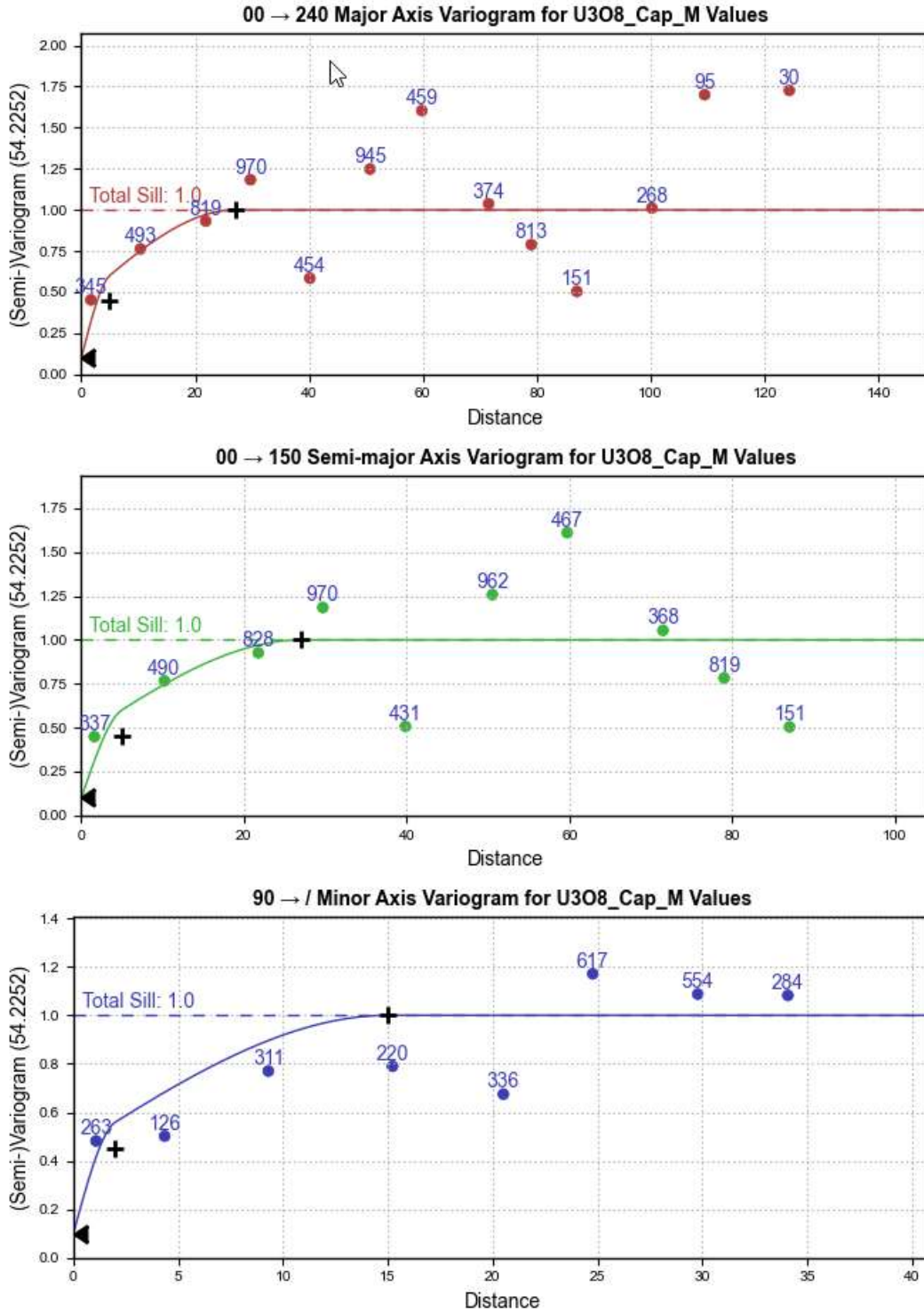


Figure 14-4: Variogram Models – MG Domain

## 14.8 Bulk Density

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

The uranium grade was used to estimate the density of each sample with the polynomial formula as described in Section 11.5. Densities were then interpolated into the block model to convert mineralized volumes to tonnage and were also used to weight the uranium grades interpolated into each block.

## 14.9 Block Models

All modelling work was carried out using Leapfrog Edge version 2021.2.4 software. The Hurricane block model has 5 m x 2 m x 1 m whole blocks and an origin at UTM NAD 83 Zone 13 coordinates 544,350 mE, 6,496,350mN, and -14 m elevation. The block model is not rotated and extends 560 m east-west, 352 m north-south and 484 m in elevation. A regularized whole block approach was used whereby the block was assigned to the domain where its centroid was located. A summary of the block model definitions is provided in Table 14-7.

**Table 14-7: Block Model Definition  
IsoEnergy Ltd. – Larocque East Project**

	X	Y	Z
Base Point	544,350	6,496,350	-14
Block Size (m)	5	2	1
Number of Blocks	112	176	484
Boundary Size	560	352	484
Rotation (°)	0		

## 14.10 Search Strategy and Grade Interpolation Parameters

The variables Grade, Density, and Grade x Density were interpolated for  $U_3O_8$  using the inverse distance cubed (ID<sup>3</sup>) methodology. Estimation of grades was controlled by mineralized wireframe zones. In order to reproduce the direction of the thin, folded, and faulted domains, SLR employed a variable orientation tool in Leapfrog Edge. The tool allows the search to be locally adjusted to the orientation of the mineralization, which results in improved local grade estimates. SLR used the hanging wall and footwall of each domain to guide the variable direction search. Hard boundaries were used to limit the use of composites between different mineralization domains for  $U_3O_8$  interpolation.

The interpolation strategy involved setting up search parameters in two nested estimation runs for the HG domain and three runs for MG and LG domains.

Most search ellipse dimensions were 30 m x 30 m x 3 m for a 10:10:1 anisotropic ratio in the first pass and 60 m x 60 m x 3 m for a 20:20:1 anisotropic ratio in the second and third passes. In the third pass in the

MG domain the search in the z direction was increased to four metres. Interpolation parameters are listed in Table 14-8 for the Mineral Resource domains in the Hurricane zone.

**Table 14-8: Interpolation Parameters  
IsoEnergy Ltd. – Larocque East Project**

Parameter	Pass 1	Pass 2	Pass 3 <sup>1</sup>
Search Ranges: X, Y, Z (m)	30, 30, 3	60, 60, 3	60, 60, 3 <sup>2</sup>
Min number composites – HG/MG/LG	3/3/3	2/3/3	-/1/2
Max number composites – HG/MG/LG	5/10/10	5/10/10	-/10/10
Max composites per hole – HG/MG/LG	2/2/2	-/2/2	-/-/-
Orientation of the search	Variable	Variable	Variable

Notes:

1. No third pass for HG domain
2. MG – Search parameter in third pass increased to four metres in the Z-direction

## 14.11 Block Model Validation

SLR validated the block model using the following methods:

- Swath plots of composite grades versus ID<sup>3</sup>, ordinary kriging (OK), and nearest neighbour (NN) grades in the X, Y, and Z
- Volumetric comparison of blocks versus wireframes
- Visual Inspection of block versus composite grades on plan, vertical, and long section
- Statistical comparison of block grades with assay and composite grades

SLR found grade continuity to be reasonable and confirmed that the block grades were reasonably consistent with local drill hole composite grades.

### 14.11.1 Swath Plots

The block model grades and the grades of the informing composites were compared by swath plots, examples of which are shown in Figure 14-5 to Figure 14-7. The swath plots show that there is good spatial correlation between the composite grades and block model grades.



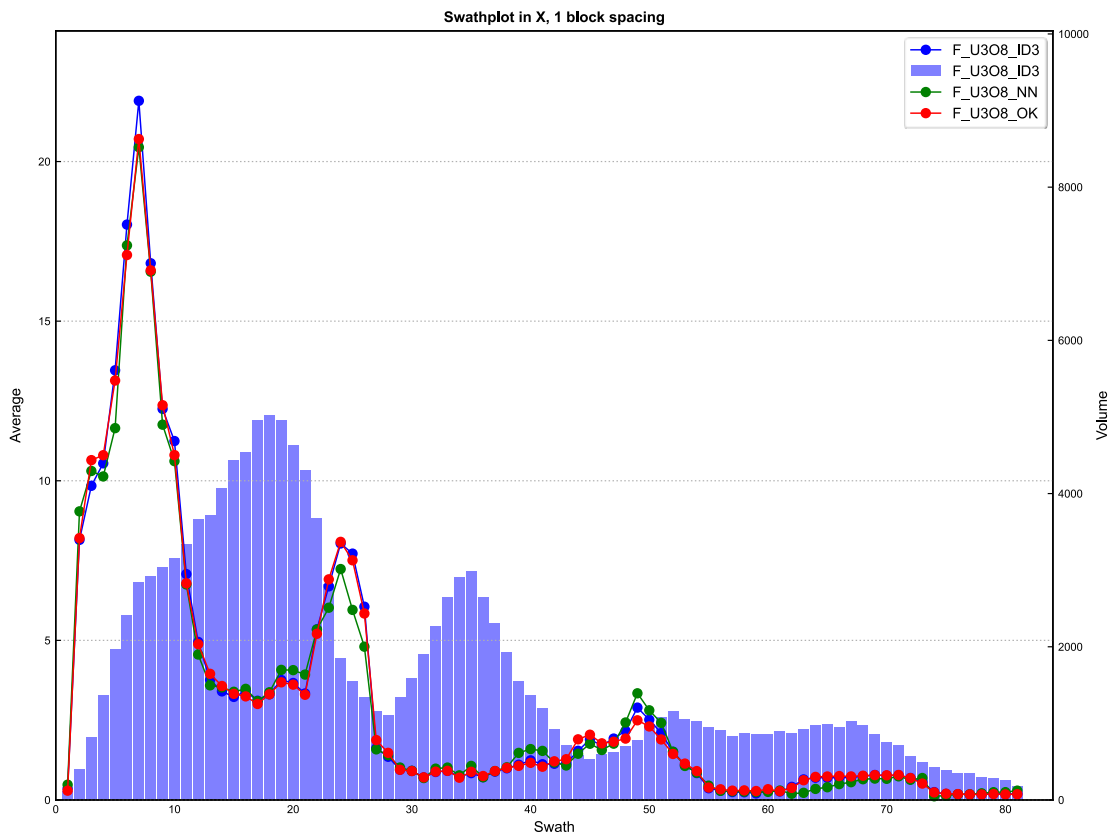


Figure 14-5: Swath Plot in X Direction - Density Weighted U<sub>3</sub>O<sub>8</sub> (All Domains)

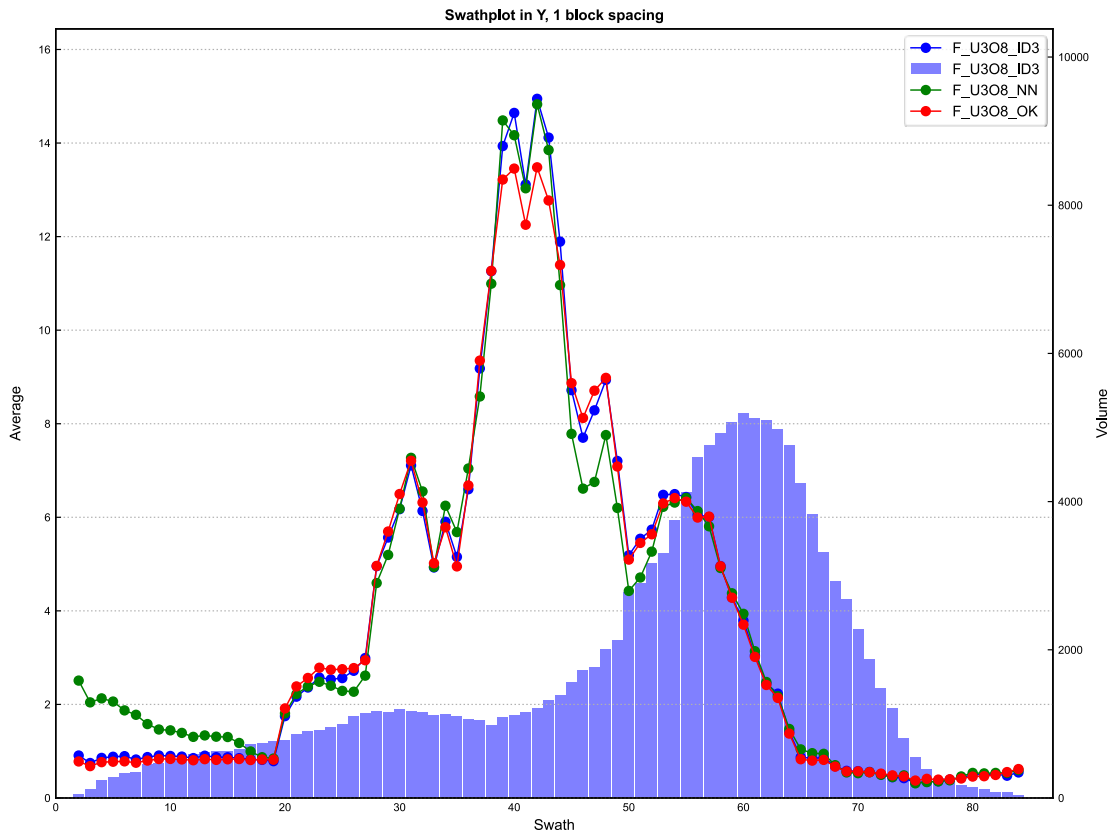


Figure 14-6: Swath Plot in Y Direction - Density Weighted  $U_3O_8$  (All Domains)

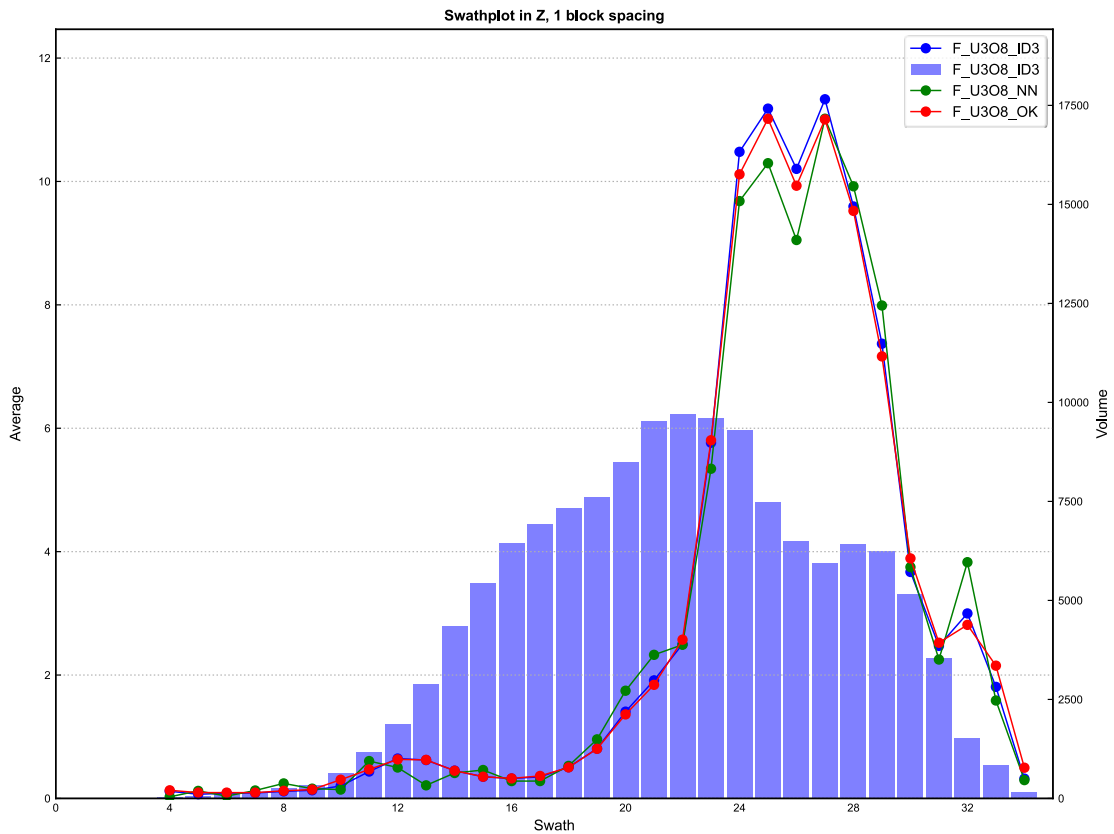


Figure 14-7: Swath Plot in Z Direction - Density Weighted U<sub>3</sub>O<sub>8</sub> (All Domains)

### 14.11.2 Volume Comparison

The estimated total volume of the wireframe models is 136,125 m<sup>3</sup>, while the volume of the block model at a zero-grade cut-off is 136,110 m<sup>3</sup> showing -0.01% difference. Results are listed by domain in Table 14-9.

**Table 14-9: Volume Comparison  
IsoEnergy Ltd. – Larocque East Project**

Domain	Wireframe Volume (m <sup>3</sup> )	Block Volume (m <sup>3</sup> )	Percent Differences (%)
LG	116,790	116,790	0.00%
MG	10,805	10,850	0.42%
HG	8,530	8,470	-0.70%
<b>Total</b>	<b>136,125</b>	<b>136,110</b>	<b>-0.01%</b>

### 14.11.3 Visual Comparison

Block grades were visually compared with drill hole composites on cross-sections, longitudinal sections, and plan views. The block grades and composite grades correlate very well visually within the Hurricane zone, as presented in Figure 14-8.

# Looking East

(Plunge 0° Azimuth 090°)

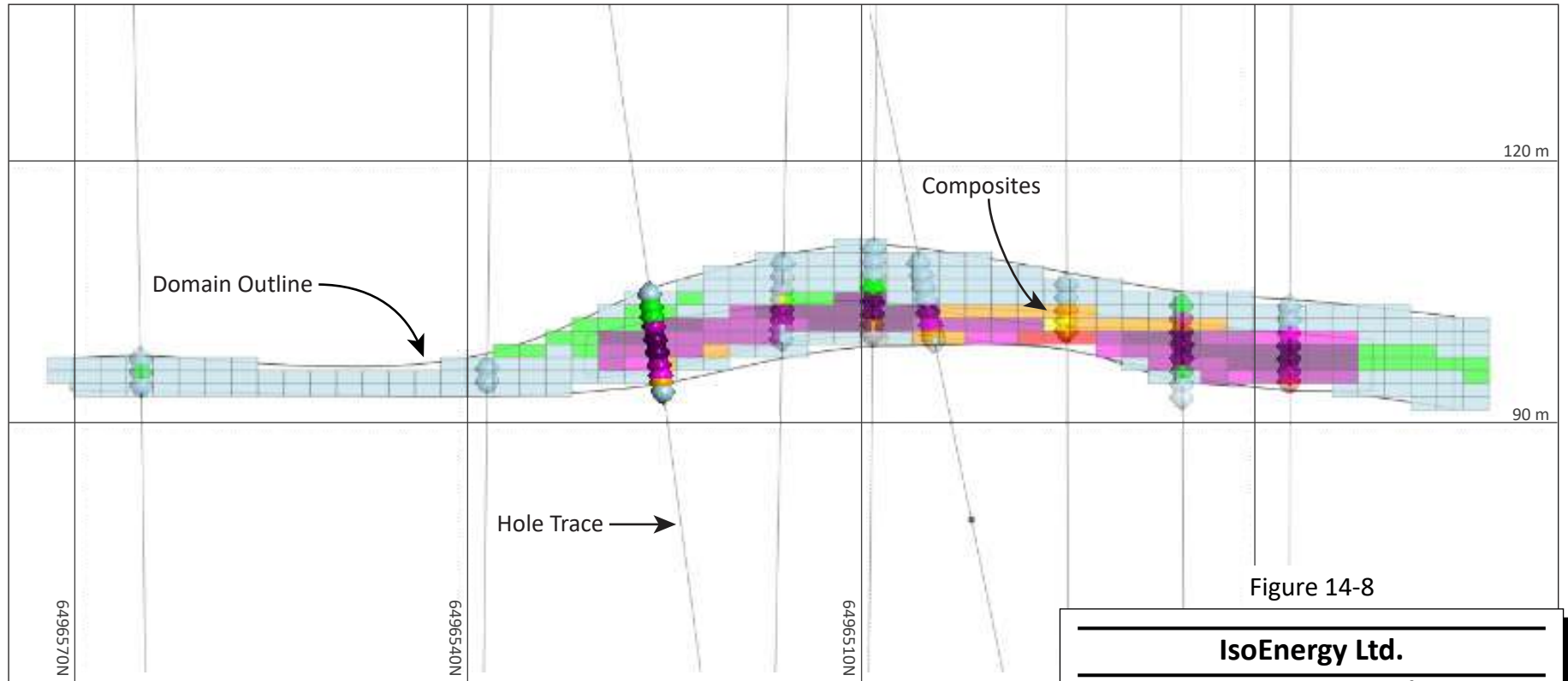
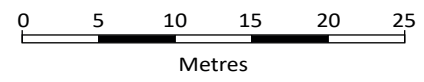


Figure 14-8

**IsoEnergy Ltd.**  
**Larocque East Project**  
**Hurricane Zone**  
 Northern Saskatchewan, Canada  
**Vertical Cross Section 544430E**  
**Showing Blocks and Composites**



#### 14.11.4 Statistical Comparison

Statistics of the block grades are compared with statistics of composite grades in Table 14-10 for all blocks and composites within the Hurricane zone.

**Table 14-10: Comparison of Block and Composite Uranium Grades  
IsoEnergy Ltd. – Larocque East Project**

Zone Descriptive Statistics	LG Domain (0.05% U <sub>3</sub> O <sub>8</sub> )		MG Domain (5.0% U <sub>3</sub> O <sub>8</sub> )		HG Domain (25.0% U <sub>3</sub> O <sub>8</sub> )	
	Comp	Block <sup>1</sup>	Comp	Block <sup>1</sup>	Comp	Block <sup>1</sup>
Number of Samples	351	11,679	45	1,085	43	847
Min (% U <sub>3</sub> O <sub>8</sub> )	0.00	0.02	0.39	1.50	10.58	14.67
Max (% U <sub>3</sub> O <sub>8</sub> )	5.00	4.95	20.00	19.95	81.00	80.13
Mean (% U <sub>3</sub> O <sub>8</sub> )	0.54	0.58	8.41	8.75	50.32	52.1
Variance	0.59	0.28	25.82	12.92	348.86	158.53
SD (% U <sub>3</sub> O <sub>8</sub> )	0.77	0.53	5.08	0.59	18.68	12.59
CV	1.41	0.91	0.60	0.41	0.37	0.24

1. Density weighted values

#### 14.12 Cut-Off Grade

To fulfill the NI 43-101 requirement of “reasonable prospects for eventual economic extraction (RPEEE)”, the SLR QP, in collaboration with other personnel from SLR, evaluated potential development concepts for the Hurricane zone. A review of other uranium development projects and operating mines in the Athabasca Basin was undertaken to ascertain certain operating parameters as they relate to the estimate of a cut-off grade (COG).

The following assumptions were used in the development of the COG for Hurricane.

- Hurricane would be developed using remote mining extraction methods similar to other development projects or operating mines in the Athabasca Basin.
- Metallurgical recovery is assumed to be similar to other past and present uranium mines in the Athabasca Basin.
- The long-term U<sub>3</sub>O<sub>8</sub> price is assumed to be US\$65/lb U<sub>3</sub>O<sub>8</sub>, and the exchange rate is assumed to be C\$/US\$ = 0.75.
- Provincial revenue royalties are based on guidelines published by the Saskatchewan government.
- Operating costs would be representative of a remote mining extraction method.

Applying these factors resulted in a COG of 1.00% U<sub>3</sub>O<sub>8</sub>.

#### 14.13 Classification

Classification of Mineral Resources as defined in Canadian Institute of Mining, Metallurgy and Petroleum definition Standards for Mineral Resources and Mineral Reserves (CIM 2014) were followed for classification of Mineral Resources.

A Mineral Resource is defined as a concentration or occurrence of material of economic interest in or on the Earth’s crust in such form, grade or quality, and quantity that there are reasonable prospects for

economic extraction. A mineral resource is a reasonable estimate of mineralization, considering relevant factors such as cut-off grade, likely mining dimensions, location, or continuity, that with the assumed and justifiable technical and economic conditions, is likely to, in whole or in part, become economically extractable. It is not merely an inventory of all mineralization drilled or sampled.

Based on this definition of Mineral Resources, the Mineral Resources estimated in this Technical Report have been classified according to the definitions below based on geology, grade continuity, and drill hole spacing.

**Measured mineral resource** is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of conclusive geological evidence and sampling. The level of geological certainty associated with a measured mineral resource is sufficient to allow a qualified person to apply modifying factors, as defined in this section, in sufficient detail to support detailed mine planning and final evaluation of the economic viability of the deposit. Because a measured mineral resource has a higher level of confidence than the level of confidence of either an indicated mineral resource or an inferred mineral resource, a measured mineral resource may be converted to a proven mineral reserve or to a probable mineral reserve.

**Indicated mineral resource** is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of adequate geological evidence and sampling. The level of geological certainty associated with an indicated mineral resource is sufficient to allow a qualified person to apply modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Because an indicated mineral resource has a lower level of confidence than the level of confidence of a measured mineral resource, an indicated mineral resource may only be converted to a probable mineral reserve.

**Inferred mineral resource** is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. The level of geological uncertainty associated with an inferred mineral resource is too high to apply relevant technical and economic factors likely to influence the prospects of economic extraction in a manner useful for evaluation of economic viability. Because an inferred mineral resource has the lowest level of geological confidence of all mineral resources, which prevents the application of the modifying factors in a manner useful for evaluation of economic viability, an inferred mineral resource may not be considered when assessing the economic viability of a mining project and may not be converted to a mineral reserve.

The SLR QP has considered the following factors that can affect the uncertainty associated with each classification of Mineral Resources: reliability of sampling data, confidence in interpretation and modelling of geological and estimation domains, and confidence in block grade estimates. The SLR QP offers the following conclusions related to each of these factors:

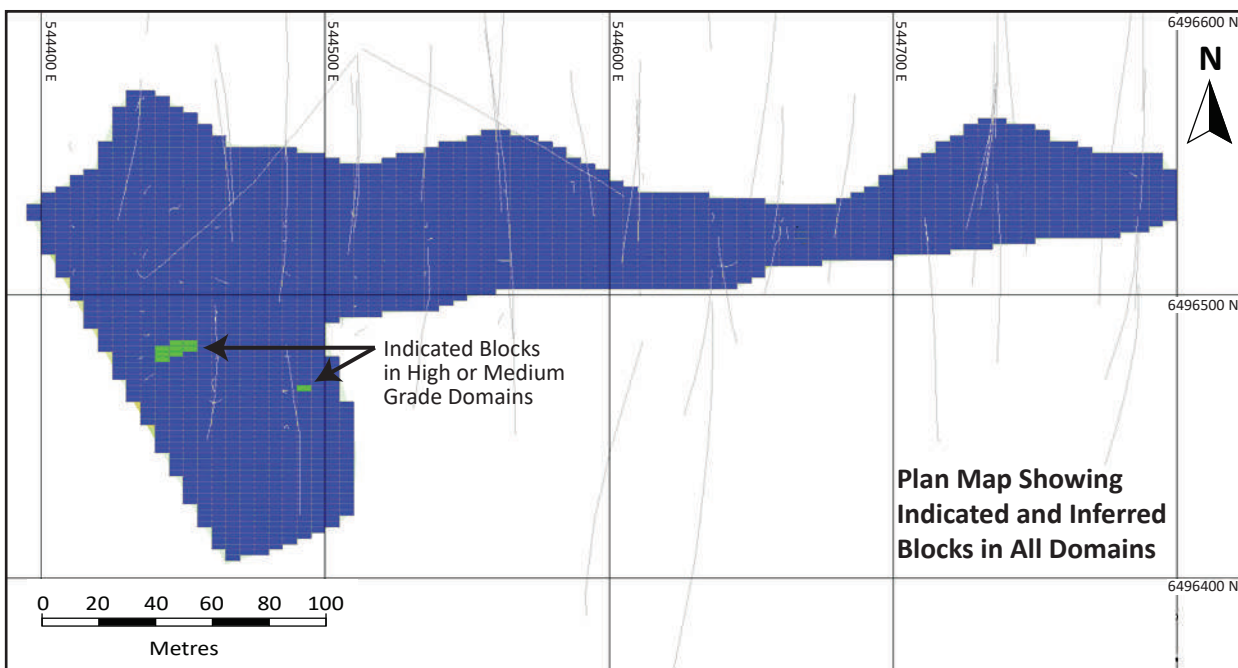
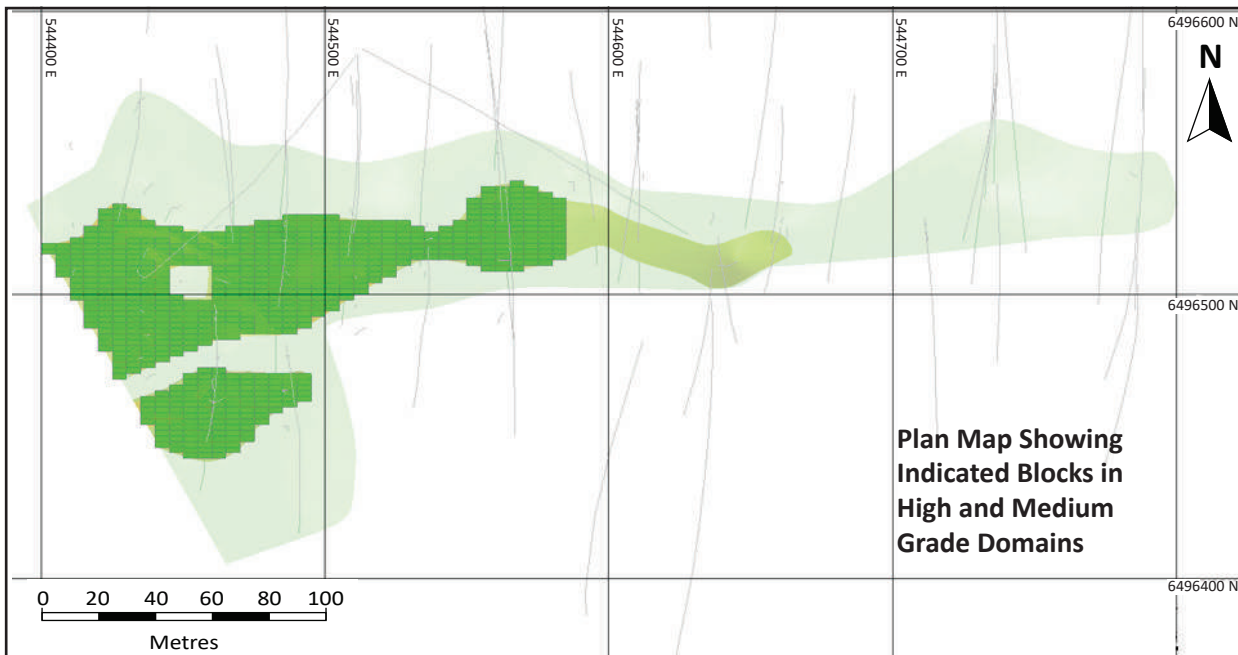
- Reliability of sampling data:
  - Drilling, sampling, sample preparation, and assay procedures follow industry standards.
  - Data verification and validation work confirm drill hole sample databases are reliable.
  - No significant biases were observed in the QA/QC analysis results.
- Confidence in interpretation and modelling of geological and estimation domains:
  - Mineralization domains are interpreted manually in cross-sections and refined in longitudinal sections by an experienced resource geologist.
  - There is good agreement between the drill holes and mineralization wireframe shapes.

- The mineralization wireframe shapes are well defined by sample data in areas classified as Indicated.
- Confidence in block grade estimates:
  - Indicated block grades correlate well, spatially and statistically, with composite data, both locally and globally.




Blocks were classified as Indicated or Inferred based on drill hole spacing, confidence in the geological interpretation, and apparent continuity of mineralization. All the blocks within the HG domains and blocks within the MG domain with apparent grade continuity from two or more holes were classified as Indicated. For the LG grade domain, blocks that did not meet the criteria of grade x thickness (GT) greater than or equal to 1.0%\*m were removed from the Mineral Resource reporting. All remaining blocks within the MG and LG domains were assigned an Inferred category, as illustrated in Figure 14-9.

Figure 14-10 shows the relationship between the distance of the classified blocks to the nearest composite where most of the Indicated blocks are within 30 m drill hole spacing (15 m distance).





**Legend:**

	Indicated Resource Block
	Inferred Resource Block
	Drill Hole Trace

**IsoEnergy Ltd.**

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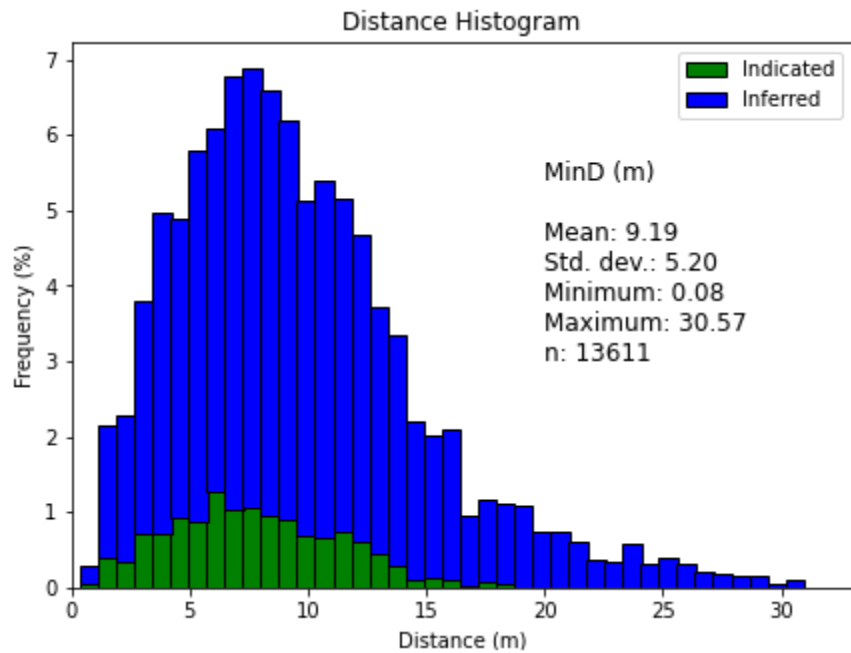
**Larocque East Project  
Hurricane Zone**

*Northern Saskatchewan, Canada*

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**Classified Mineral Resource Blocks**

Figure 14-9



**Figure 14-10: Histogram of Classified Blocks Versus Distance to the Composites**

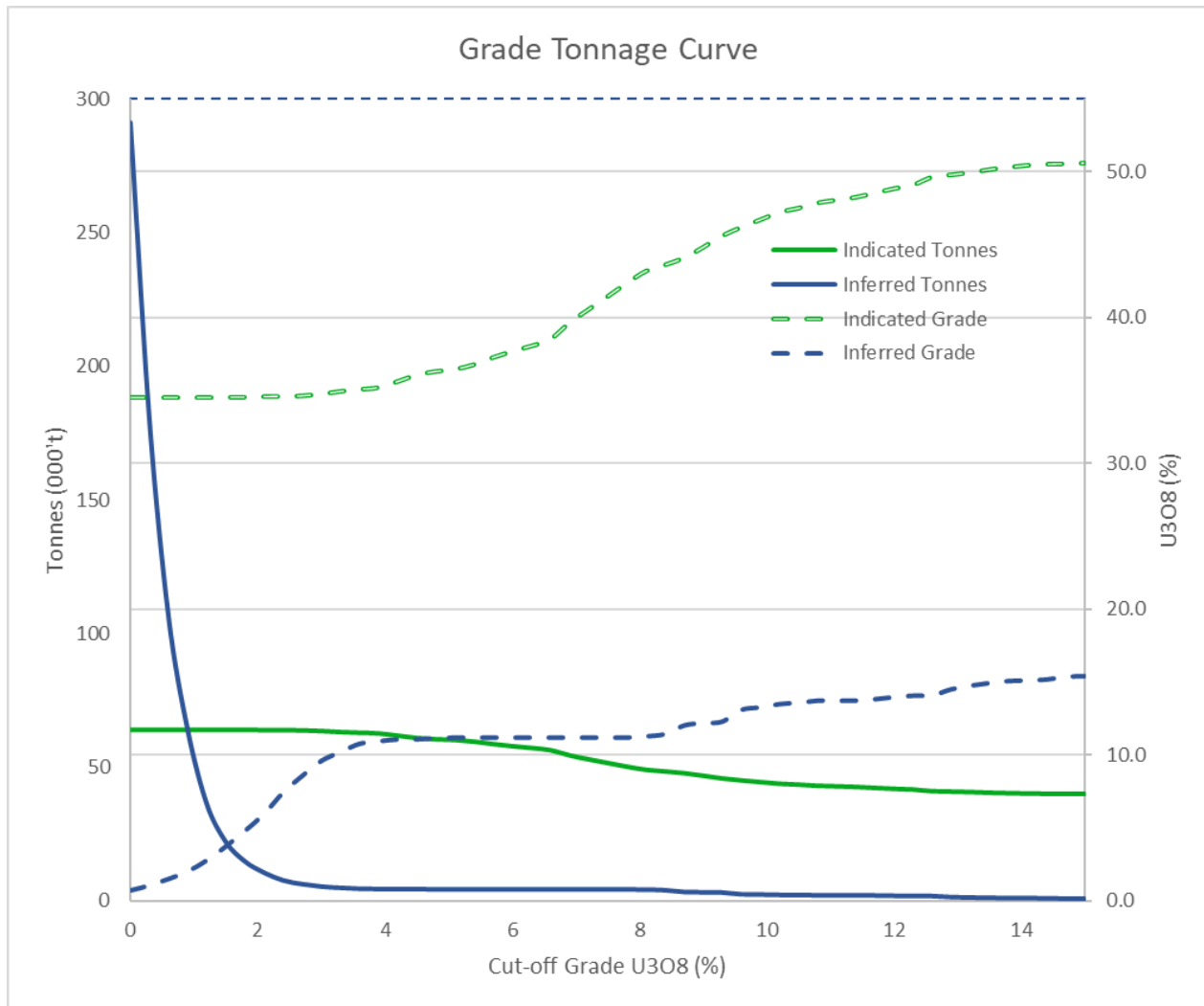
In the SLR QP’s opinion the classification of Mineral Resources is reasonable and appropriate for disclosure.

### 14.14 Grade Tonnage Sensitivity

Table 14-11 shows the block model sensitivity to cut-off grade. Figure 14-11 presents the grade tonnage curve for the Hurricane zone.

**Table 14-11: Block Model Sensitivity to Cut-Off Grade in the Hurricane Zone  
IsoEnergy Ltd. – Larocque East Project**

Cut-Off Grade (%U <sub>3</sub> O <sub>8</sub> )	Tonnage (000 t)	Indicated		Inferred		
		Grade (% U <sub>3</sub> O <sub>8</sub> )	Contained Metal (Mlb U <sub>3</sub> O <sub>8</sub> )	Tonnage (000 t)	Grade (% U <sub>3</sub> O <sub>8</sub> )	Contained Metal (Mlb U <sub>3</sub> O <sub>8</sub> )
0.05	63.8	34.54	48.61	288.2	0.73	4.67
0.25	63.8	34.54	48.61	199.6	0.99	4.37
0.50	63.8	34.54	48.61	124.5	1.37	3.77
0.75	63.8	34.54	48.61	82.3	1.76	3.20
<b>1.00</b>	<b>63.8</b>	<b>34.54</b>	<b>48.61</b>	<b>54.3</b>	<b>2.23</b>	<b>2.66</b>
2.00	63.8	34.58	48.61	11.5	5.57	1.42
3.00	63.4	34.78	48.58	5.1	9.62	1.08
5.00	60.1	36.54	48.29	4.0	11.21	1.00
10.00	44.1	46.95	45.65	2.0	13.42	0.61



**Figure 14-11: Grade Tonnage Curve for Hurricane Zone**

Indicated Mineral Resources for the Hurricane zone are highly insensitive to cut-off grade due to the high grade and compact nature of the deposit.

### 14.15 Mineral Resource Reporting

A summary of the Hurricane Zone Mineral Resources is presented in Table 14-12.

The SLR QP is of the opinion that with consideration of the recommendations summarized in Section 1 and Section 26, any issues relating to all relevant technical and economic factors likely to influence the prospect of economic extraction can be resolved with further work.

The SLR QP is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

**Table 14-12: Summary of Attributable Mineral Resources – Effective July 8, 2022  
IsoEnergy Ltd. – Larocque East Project**

Category	Zone	Tonnage	Metal Grade	Contained Metal
		(000 t)	(% U <sub>3</sub> O <sub>8</sub> )	(Mlb U <sub>3</sub> O <sub>8</sub> )
Indicated	MG Domain (5.0% U <sub>3</sub> O <sub>8</sub> )	25.6	8.4	4.72
	HG Domain (25.0% U <sub>3</sub> O <sub>8</sub> )	38.2	52.1	43.89
<b>Indicated Total</b>		<b>63.8</b>	<b>34.5</b>	<b>48.61</b>
Inferred	LG Domain (0.5% U <sub>3</sub> O <sub>8</sub> )	50.3	1.5	1.66
	MG Domain (5.0% U <sub>3</sub> O <sub>8</sub> )	4.0	11.2	1.00
<b>Inferred Total</b>		<b>54.3</b>	<b>2.2</b>	<b>2.66</b>

Notes:

1. CIM (2014) definitions were followed for all Mineral Resource categories.
2. Mineral Resources are estimated at uranium cut-off grade of 1.00% U<sub>3</sub>O<sub>8</sub>.
3. Tonnes are based on bulk density weighting.
4. Mineral Resources are estimated using a long-term uranium price of US\$65/lb U<sub>3</sub>O<sub>8</sub>.
5. Minimum grade width of one metre was applied to the resource domain wireframes.
6. Bulk density was interpolated using values derived from regression curve based on U<sub>3</sub>O<sub>8</sub> assay values
7. Numbers may not add due to rounding.

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## 15.0 MINERAL RESERVE ESTIMATE

There are no current Mineral Reserves at the Project.

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## 16.0 MINING METHODS

This section is not applicable.

## 17.0 RECOVERY METHODS

This section is not applicable.



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## 18.0 PROJECT INFRASTRUCTURE

This section is not applicable.

## 19.0 MARKET STUDIES AND CONTRACTS

This section is not applicable.

## 20.0 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

This section is not applicable.

## 21.0 CAPITAL AND OPERATING COSTS

This section is not applicable.

## 22.0 ECONOMIC ANALYSIS

This section is not applicable.

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## 23.0 ADJACENT PROPERTIES

The surrounding area of the Property historically has undergone significant exploration activities over the years. More recent exploration drilling, west of the Property boundary, has been undertaken by Cameco during the winter 2022 season. SLR has been unable to verify this information on adjacent properties and any information on adjacent properties is not necessarily indicative of the mineralization on the Property.

## 24.0 OTHER RELEVANT DATA AND INFORMATION

### 24.1 Summary

During 2020, IsoEnergy contracted SRK Consulting (Canada) Inc. (SRK) to conduct a hydrogeological and geotechnical investigation on three drill holes collared at the same location, using standard NQ3 (triple tubed) wireline diamond drilling methods by Bryson of Archerwill, Saskatchewan, in order to characterize the Hurricane zone ore body and surrounding rock mass (SRK, 2021).

The objective of the investigation was to collect geotechnical and hydrogeological data to support future engineering studies related to possible extraction scenarios (i.e., conventional mining or in-situ recovery) for developing the Hurricane Project. The following are excerpts from the SRK 2021 Geotechnical and Hydrogeological Testing Program report.

### 24.2 Conclusions

#### 24.2.1 Hydrogeological

##### 24.2.1.1 Hydraulic Conductivity

Hydrogeological testing indicates the rock mass has moderate hydraulic conductivity ( $1 \times 10^{-7}$  to  $1 \times 10^{-5}$  m/sec) in the sandstone units and low to very low ( $<1 \times 10^{-9}$  to  $1 \times 10^{-7}$  m/sec) hydraulic conductivity in the ore zone and basement rock. Hydraulic conductivity in the basement rock shows a general decrease with depth. The hydraulic conductivity profiles for all three test holes are similar in each domain.

##### 24.2.1.2 Piezometric Data

Piezometric levels are generally hydrostatic, as expected in an area with low topographic relief and reasonable hydraulic connection through the geological profile due to steeply dipping structure. Piezometric data from the shut-in pressures correlates with the pressures measured by the Vibrating Wire Piezometer (VWP) in LE20-54, except for some variability near the ore zone. Despite the variability in the ore zone measured by the shut-in tests, the VWP data is considered much more reliable and does not confirm the correctness of the variability.

VWP data was also collected to analyze any cross hole responses during the packer testing and drilling of LE20-57 and LE20-59. Although the maximum change in head exhibited by the VWP sensors was only 1.3 m (nearing error range), it is likely that all sensors were responding to nearby drilling and some of the packer injection testing, even if only slightly. During the two week drilling break during the 2020 program, head fluctuations for all sensors lessened significantly and dramatically increased when drilling began again. A further detailed analysis correlating drilling depths and packer testing depths with VWP fluctuations should be completed and compared with geotechnical data to assess connectivity.

#### 24.2.2 Rock Geotechnical

The Athabasca Sandstone cover rocks (SST) at Hurricane are responding to the effects of mineralization in much the same way as elsewhere in the Athabasca Basin. The level of SST crown rock mass damage seen at Hurricane is typical of this type and style of mineralization. Overall, the SST domain characteristics are like what is seen elsewhere, and the use of proxy data (if required) from nearby similar deposits would be

acceptable at the Scoping Study level of investigation. The basement (BMT) rocks below the unconformity are not unusual in this geological setting in that there is a wide range of intact rock strengths, which indicate that alteration is a significant factor that needs to be considered going forward. The unaltered BMT rocks are probably *FAIR* to *GOOD* condition, while those that are near the mineralization are *POOR* to *VERY-POOR* condition. That said, the effects of alteration and the impact on the intact rock mass strength appear to be at 'expected' levels for unconformity-related mineralization (overlying a conductor) within the Athabasca rocks.

## 24.3 Gap Analysis

Results from SRK's preliminary geotechnical analysis included both gap analysis and follow-up recommendations to advance the Project forward and are included here for completeness. SLR did not conduct a formal review or audit of the hydrogeologic or geotechnical findings and recommendations as part of this Technical Report. Further investigations will be required during future resource estimation analysis and advanced scoping studies. SLR recommends that IsoEnergy revisit the hydrogeological and geotechnical recommendations outlined in SRK (2021).

### 24.3.1 Hydrogeological

When assessing potential mining methods (in-situ recovery or conventional underground mining) the following data gaps should be considered:

#### In-situ Recovery

- Further understanding of the variability and heterogeneity within the ore zone is necessary. This includes further differentiation of hydraulic conductivity between the low and high grade zones and across the entirety of the ore body.
- A detailed structural understanding with regards to hydrogeological factors is key to understanding how these structures could affect the flow within the ore zone.
- Establishing the connectivity between the lithological units will be important for understanding how a lixiviant can be contained within an ore zone.

#### Conventional Underground Mining

- Further understanding of the BMT rock variability would be necessary to consider conventional underground mining. This would include greater confidence in hydraulic conductivity distribution to effectively predict inflow rates.
- With respect to shaft construction, potential inflow rates from all lithological units and structural influences are risks that would need to be considered in any shaft design.

### 24.3.2 Geotechnical

- Pre-Feasibility level data design and acquisition will need to be completed to advance to the next study level, a significant part of which should include the development of a quantitative alteration model and a brittle deformation structural model.



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## 25.0 INTERPRETATION AND CONCLUSIONS

SLR offers the following interpretations and conclusions on the Project:

- There has been considerable exploration conducted on the Property, particularly over the Hurricane zone, including seven drilling campaigns completed by IsoEnergy between 2018 and 2022. While most drill holes were completed in the vicinity of the Hurricane zone, significant exploration drilling has also been completed to the east of the Hurricane zone. As of April 1, 2022, IsoEnergy has completed 138 holes totalling 57,932 m.
- Drilling results confirm that the Hurricane zone is a significant new discovery of unconformity associated uranium mineralization in the Athabasca Basin.
- Larocque East exploration, drilling, core logging, and quality assurance/quality control (QA/QC) procedures are reasonable and consistent with industry standard practices.
- Drill hole databases for the Hurricane zone are appropriate and acceptable for Mineral Resource estimation.
- Indicated Mineral Resources for the Hurricane zone are highly insensitive to cut-off grade due to the high grade and compact nature of the deposit.

## 26.0 RECOMMENDATIONS

SLR offers the following recommendations regarding advancement of the Project. IsoEnergy has proposed a total budget of C\$4.49 million, as presented in Table 26-1, to advance the Hurricane zone and explore the remainder of the Project, as presented in Figure 26-1. The two categories of work are independent of each other.

### 26.1 Exploration of the Larocque East Property

1. Conduct further drilling on the easternmost portion of the Larocque Lake trend, which remains underexplored, to follow up the 2021 direct current (DC) resistivity survey results. This work is expected to require two to six drill holes.
2. Conduct geophysical testing on the eastern Kernaghan trend to upgrade historical conductors for drill testing. Complete a drilling program including two to 10 drill holes to test the Kernaghan trend at reconnaissance spacing.
3. Conduct an exploration program on the Western Block, including the western Kernaghan and Bell Lake trends. Include, as part of the exploration program, relogging the historical core and updating the geological modelling, followed by DC resistivity surveying to supplement historical electromagnetic (EM) survey coverage and prioritize strike segments for drill testing.
4. Complete a drilling program including at least 12 holes to test the western Kernaghan and Bell Lake trends at reconnaissance spacing.

### 26.2 Advancement of the Hurricane zone

1. Complete a Scoping Study for the Hurricane zone.
2. Complete additional infill/delineation work to upgrade a portion of the MG Domain of the Inferred Resources to Indicated. SLR expects the program to comprise five to eight drill holes totalling approximately 2,500 m.
3. Revisit the hydrogeological and geotechnical recommendations outlined in the SRK 2021 test program (SRK 2021.)
4. Continue to revise and improve the Larocque East data collection and QA/QC program through the continued collection of bulk density measurements across lithology types, the incorporation of a very high-grade Certified Reference Material (CRM), and the investigation of poor field duplicate sample performance, which could result in process improvements and may require additional coarse and pulp duplicate sample collection.

**Table 26-1: Exploration Budget  
IsoEnergy Ltd. – Larocque East Project**

Category	Item	Budget (C\$)
Exploration	Drill testing of Larocque Lake Trend	619,000
	Drill testing of eastern Kernaghan Trend	385,000
	Geophysical surveys over western Kernaghan and Bell Lake Trends	750,000
	Relogging Bell Lake Trend drilling	30,000

Category	Item	Budget (C\$)
	Drill testing of western Kernaghan and Bell Lake Trends	1,539,000
	<b>Exploration Subtotal</b>	<b>3,323,000</b>
Hurricane Zone	Scoping Study	400,000
	Infill and Delineation drilling	770,000
	<b>Hurricane Zone Subtotal</b>	<b>1,170,000</b>
<b>Total</b>		<b>4,493,000</b>

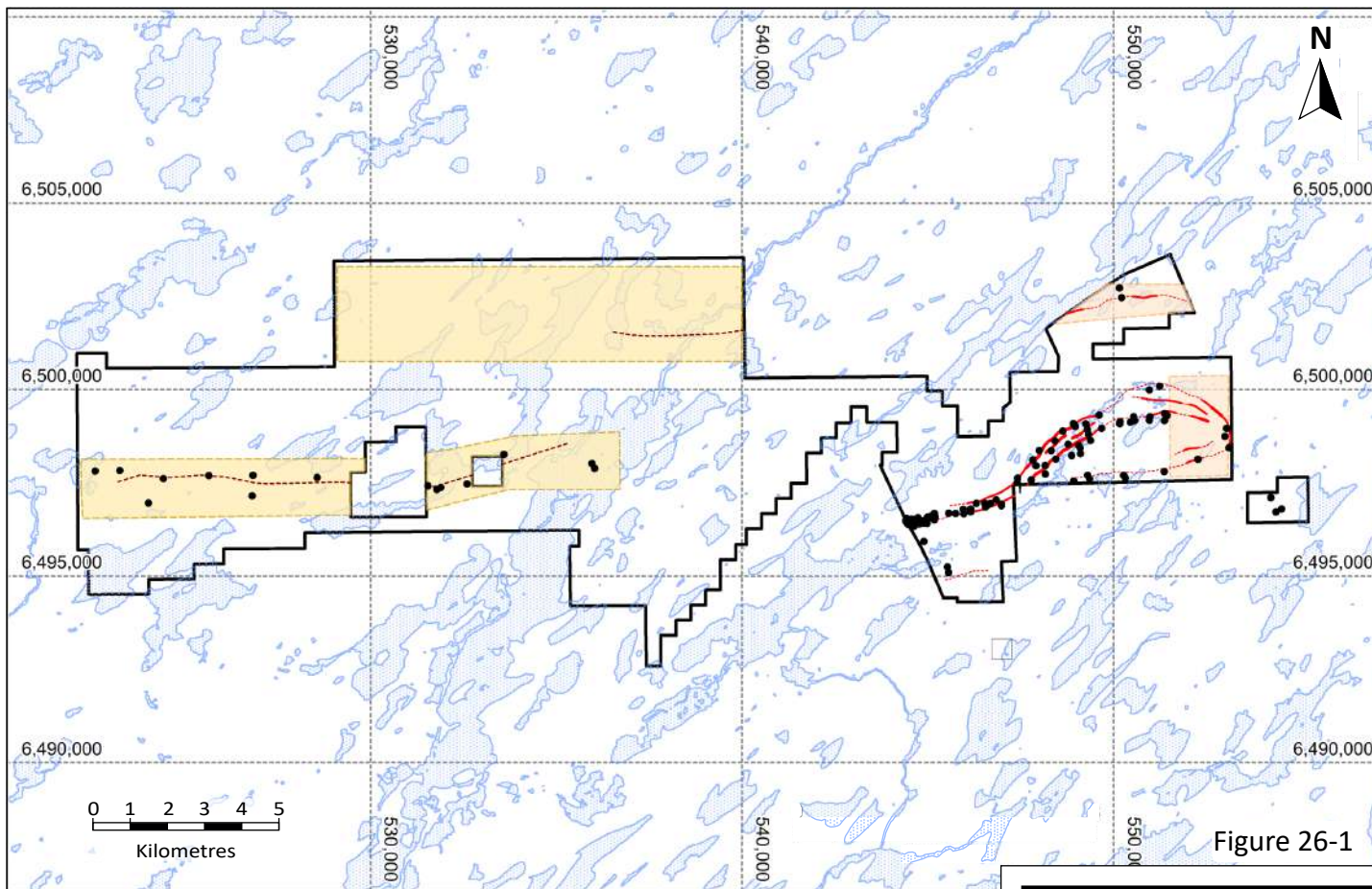


Figure 26-1

**Legend:**

Larocque East Outline	LE Drillhole	Conductor (Weak)
Eastern Exploration Area	Waterbody	Conductor (Moderate)
Western Exploration Area		Conductor (Strong)
		Conductor - Historical

Map Projection: UTM Zone 13 (NAD 83)

**IsoEnergy Ltd.**

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**Larocque East Project**  
Northern Saskatchewan, Canada  
**Future Exploration Locations**

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## 28.0 DATE AND SIGNATURE PAGE

This report titled “Technical Report on the Larocque East Project, Northern Saskatchewan, Canada” with an effective date of July 8, 2022, was prepared and signed by the following author:

**(Signed & Sealed) Mark B. Mathisen**

Dated at Lakewood, CO  
August 4, 2022

Mark B. Mathisen, C.P.G.  
Principal Geologist



## 29.0 CERTIFICATE OF QUALIFIED PERSON

### 29.1 Mark B. Mathisen

I, Mark B. Mathisen, C.P.G., as an author of this report entitled “Technical Report on the Larocque East Project, Northern Saskatchewan, Canada” with an effective date of July 8, 2022, prepared for IsoEnergy Ltd., do hereby certify that:

1. I am Principal Geologist with SLR International Corporation, of Suite 100, 1658 Cole Boulevard, Lakewood, CO, USA 80401.
2. I am a graduate of Colorado School of Mines in 1984 with a B.Sc. degree in Geophysical Engineering.
3. I am a Registered Professional Geologist in the State of Wyoming (No. PG-2821), a Certified Professional Geologist with the American Institute of Professional Geologists (No. CPG-11648), and a Registered Member of SME (RM #04156896). I have worked as a geologist for a total of 23 years since my graduation. My relevant experience for the purpose of the Technical Report is:
  - Mineral Resource estimation and preparation of NI 43-101 Technical Reports.
  - Director, Project Resources, with Denison Mines Corp., responsible for resource evaluation and reporting for uranium projects in the USA, Canada, Africa, and Mongolia.
  - Project Geologist with Energy Fuels Nuclear, Inc., responsible for planning and direction of field activities and project development for an in situ leach uranium project in the USA. Cost analysis software development.
  - Design and direction of geophysical programs for US and international base metal and gold exploration joint venture programs.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I visited the Larocque East Project on March 20 to 21, 2022.
6. I am responsible for overall preparation of the Technical Report.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated 4<sup>th</sup> day of August, 2022

**(Signed & Sealed) Mark B. Mathisen**

Mark B. Mathisen, C.P.G

