

6 May 2025

## Tallahassee Uranium Project Scoping Study

### Strong Economic Numbers Demonstrate Exciting Development Opportunity

**Global Uranium and Enrichment Limited (ASX:GUE, OTCQB: GUELF) (Global Uranium, GUE or the Company)** is pleased to announce the completion of a Scoping Study (**the Study**) for the development of the Hansen Deposit at the Tallahassee Uranium Project (**Tallahassee or the Project**) in Colorado, USA. The Study confirms that Tallahassee is technically de-risked and demonstrates an exciting pathway to develop the large, high-grade Hansen Deposit.

#### Scoping Study Highlights:

- 7-year life of mine (LOM), producing an average of 1.8M lbs U<sub>3</sub>O<sub>8</sub> per annum.
- Pre-tax NPV<sub>8</sub>:

USD/lb	Free Cash Flow (US\$m)	Pre-Tax NPV <sub>8</sub> (US\$m)	Pre-Tax IRR
90	\$296.6	\$202.8	93%
100	\$410.4	\$283.9	120%
110	\$524.3	\$365.1	145%

*(Based on 100% of Project interest. GUE holds 51% of the Project)*

- Pre-production capital of US\$76.0M (AU\$119.3) and cash operating costs of US\$58.65/lb U<sub>3</sub>O<sub>8</sub> (scenario using contract ore processing).
- After a thorough review of several mining methods, the Company selected Hydraulic Borehole Mining as the optimal approach to achieve targeted production.
- Borehole Mining offers significant cost and environmental advantages when compared to alternative methods analysed.
- Mining target of 15.2M lbs U<sub>3</sub>O<sub>8</sub> contained in 5.7M tonnes averaging 0.12% U<sub>3</sub>O<sub>8</sub> of which 12.9M lbs will be produced after HPSA. The total tonnes mined will include approximately 66% indicated tonnes and 34% inferred tonnes.
- High Pressure Slurry Ablation (HPSA) was selected to beneficiate the ore, producing an average grade of 0.68% to prior to delivery to the mill for of U<sub>3</sub>O<sub>8</sub> production.
- Future drilling programs and additional core testing is being investigated to identify opportunities to further improve the mining process and costs.
- No Federal, State, or local regulatory or permitting issues have been identified that would preclude Project approval.

**Global Uranium’s Managing Director, Mr. Andrew Ferrier said:** *“The Hansen Deposit is a standout opportunity within our world-class Tallahassee Uranium Project, which is home to one of the largest undeveloped uranium deposits in the United States. This Scoping Study and the impressive results generated, highlighted by a pre-tax IRR of 93% at and an NPV of US\$203m at \$US90/lb for U<sub>3</sub>O<sub>8</sub>, sets out a technically and environmentally viable pathway for Global Uranium to progress its development as we continue to execute on our growth strategy of building a 100M lbs uranium portfolio.*

*Notably, the Study found that hydraulic borehole mining is particularly suited to this orebody. It is the most cost-effective option considered, and it has a significantly smaller environmental footprint than other mining techniques. At the Hansen Deposit, the Company will also utilise High Pressure Slurry Ablation to beneficiate the ore to be milled to an average grade of 0.68%, minimising transport costs.*

*Policy developments in the United States, including the President’s Executive Order reinstating uranium as a critical mineral, and the ongoing quest for reliable baseload power to replace retiring coal plants underscores the growing importance of nuclear energy both to the US economy and globally.*

*In addition, the latest executive order from the White House, aims at aggressively accelerating U.S. mineral processing to strengthen domestic energy security with uranium as a cornerstone. These factors make the completion of this Study particularly timely, providing a strong foundation as we advance the Hansen Deposit and the broader Tallahassee Project into the next phase of development.*

*Now that the Study is completed, our focus now shifts to identifying and testing optimization opportunities to enhance ROM resource grades, mining methods, infrastructure, water and environmental/social considerations.”*

The Study was based on the updated geotechnical and engineering work carried out in 2024. From mining to resource, the Study evaluated both Hydraulic Borehole Mining (HBHM) and conventional underground mining using Road Headers in a modified room and pillar arrangement and assessed them for technical, economic, and environmental amenability. HBHM was selected due to its clear set of technical and economic advantages for mining, reclamation, and minimization of surface disturbances and environmental impacts compared to other methods.

HBHM involves highly selective hydraulic jet boring/cutting of high-grade mineralization using mid-sized drilling rigs across select portions of the deposit, followed by pumping of the slurry to the surface for water/solid separation. High Pressure Slurry Ablation (HPSA) will be used to beneficiate the ore, producing a small volume of high-grade mill feed for offsite production of yellowcake.

Both HBM and HPSA have been commercially adapted to uranium, phosphate, diamond, and other ores globally and are ideally suited to the operating and environmental conditions at Tallahassee, whilst also boasting a far lower cost than conventional approaches.

## Cautionary Statement

The Scoping Study referred to in this ASX release has been undertaken for the purpose of initial evaluation of a potential development of the Tallahassee Uranium Project in Fremont County, Colorado, USA (**Tallahassee Project**). It is a preliminary technical and economic study of the potential viability of the Tallahassee Project. The Scoping Study outcomes, production target and projected financial information referred to in the release are based on low level technical and economic assessments that are insufficient to support estimation of Ore Reserves.

The Scoping Study was calculated and is presented in US dollars to an accuracy level of +/- 35% (AACE Class 5). While each of the modifying factors was considered and applied, there is no certainty of eventual conversion to Ore Reserves or that the production target itself will be realised. Further exploration and evaluation and appropriate studies are required before Global Uranium will be able to estimate any Ore Reserves or to provide any assurance of any economic development case. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.

The Company concludes it has reasonable grounds for disclosing a production target given that the Company's development strategy is focused on the well-known and explored deposit in which 66% of the contained mineral resources are in the indicated category and 34% in the inferred category. This Study uses tonnes and pounds as part of the production study.

There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.

The Mineral Resources underpinning the production target in the Scoping Study have been prepared by a competent person in accordance with the requirements of the JORC Code (2012). For full details on the Mineral Resource estimate, please refer to the ASX announcements of 5 September 2024. Other than as presented in this announcement, Global Uranium confirms that it is not aware of any new information or data that materially affects the information included and that all material assumptions and technical parameters underpinning the estimate continue to apply and have not been changed.

The Scoping Study is based on the material assumptions outlined in this announcement and which are also detailed in the JORC tables. These include assumptions about the availability of funding. While Global Uranium considers that all the material assumptions are based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved.

The total capital investment is estimated to be \$108.2M, including \$76.0M of initial capital (with 10% contingency) and \$32.2M of sustaining capital spread over the life of mine. Investors should note that there is no certainty that Global Uranium will be able to raise that amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Global Uranium's existing shares. It is also possible that Global Uranium could pursue other value realisation strategies such as a sale or partial sale of its interest in the Tallahassee Project.

This announcement contains forward-looking statements. Global Uranium has concluded that it has a reasonable basis for providing these forward-looking statements and believes it has a reasonable basis to

expect it will be able to fund development of the Tallahassee Project. However, several factors could cause actual results or expectations to differ materially from the results expressed or implied in the forward-looking statements. Given the uncertainties involved, investors should not make any investment decisions based solely of the results of this study.

### Forward Looking Statements

Information included in this announcement constitutes forward-looking statements. When used in this announcement, forward-looking statements can be identified by words such as “anticipate”, “believe”, “could”, “estimate”, “expect”, “future”, “intend”, “may”, “opportunity”, “plan”, “potential”, “project”, “seek”, “will” and other similar words that involve risks and uncertainties.

Forward-looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company’s actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licences and permits and diminishing quantities or grades of resources and reserves, political and social risks, changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation as well as other uncertainties and risks set out in the announcements made by the Company from time to time with the Australian Securities Exchange.

Forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, its directors and management of the Company that could cause the Company’s actual results to differ materially from the results expressed or anticipated in these statements. The Company cannot and does not give any assurance that the results, performance or achievements expressed or implied by the forward looking statements contained in this announcement will actually occur and investors are cautioned not to place undue reliance on these forward looking statements. The Company does not undertake to update or revise forward-looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this announcement, except where required by applicable law and stock exchange listing requirements.

### Competent Person Statement

The information in this announcement that relates to the Mineral Resources for the Tallahassee Uranium Project is based on information compiled by Ms. Kira Johnson who is a Qualified Professional member of the Mining and Metallurgical Society of America, a Recognized Professional Organization (RPO) for JORC Competent Persons. Ms Johnson compiled this information in her capacity as a Senior Geological Engineer of Tetra Tech. Ms Johnson has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that she is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Ms. Kira Johnson consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

Information on the Mineral Resources presented, together with JORC Table 1 information, is contained in the ASX announcement dated 5 September 2024 and titled “Tallahassee Uranium Project JORC Resource increased to 52.2 Mlbs U<sub>3</sub>O<sub>8</sub>”. Measured 2.96Mlbs of 550 ppm U<sub>3</sub>O<sub>8</sub>, indicated 21.01Mlbs of 610 ppm U<sub>3</sub>O<sub>8</sub>, Inferred 28.2Mlbs of 480 ppm U<sub>3</sub>O<sub>8</sub> calculated applying a cut-off grade of 250ppm U<sub>3</sub>O<sub>8</sub>.

Where the Company refers to Mineral Resources in this announcement (referencing previous releases made to the ASX on 5 September 2024), it confirms that it is not aware of any new information or data that materially affects the information included in that announcement and all material assumptions and technical parameters underpinning the Mineral Resource estimate with that announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons findings are presented have not materially changed from the original announcement.

### Scoping Study Consultants

The Scoping Study has been undertaken by the following parties listed by work areas:

- **WWC Engineering (WWC)** is a multi-disciplinary, professional firm specializing in Civil/Site, Environmental, Land Development, Mining, Municipal, NEPA, Oil & Gas, Planning, Roads/Bridges, Surveying, Water/Wastewater and Water Resources services. For the purposes of this Scoping Study, WWC’s work areas consisted of: Scoping study compilation, economic analysis, transportation, and permitting.
- **Tetra Tech** is a leading, global provider of high-end consulting and engineering services. For the purposes of this Scoping Study, Tetra Tech’s work areas consisted of: Mineral resource estimation and resource modelling.
- **Kinley Exploration (Kinley)** provides specialized advisory work for the utilization of its patented Jet and Hydraulic Borehole Mining equipment provide environmentally friendly and an economic alternative mining method for the strategic access to resources. For the purposes of this Scoping Study, Kinley’s work areas consisted of: Hydraulic borehole mining design, planning, and costing.
- **DFH Geoscience and Engineering (DFH)** provides specialized consulting assistance for mining engineering, mine design, geology, hydrology, and mineral resources. For the purposes of this Scoping Study, DFH’s work areas consisted of: Underground mining design, planning, and costing.
- **Petrotek Corporation (Petrotek)** specializes in engineering evaluation and field operations regarding subsurface fluid flow and groundwater hydrologic modelling and injection well projects. For the purposes of this Scoping Study, Petrotek’s work areas consisted of: Hydrology and groundwater.
- **Pace Analytical (Pace)** provides accurate, high-quality laboratory testing services. For the purposes of this Scoping Study, Pace’s work areas consisted of: Core disaggregation testing and chemical analysis.
- **Disa Technologies (Disa)** utilizes patented liberation technology to isolate target minerals in order to deliver efficiencies, reduce costs, and mitigate environmental impacts to its users. For the purposes of this Scoping Study, Disa’s work areas consisted of: High pressure slurry ablation design and costing.

All other areas of the Scoping Study have been managed by Global Uranium’s personnel and contractors.

### **ASX Announcement References:**

*5 September 2024: Tallahassee Project JORC Resource Increased to 52.2Mlbs*

*19 June 2024: Successful Completion of Drill Program at Tallahassee*

*5 June 2024: Tallahassee delivers Exceptional Thick High-Grade Results*

*30 May 2024: Outstanding Drilling Results Continue at Tallahassee*

*22 May 2024: Outstanding Drilling Results at Tallahassee Uranium Project*

Where the Company refers to Exploration Results in this announcement (referencing previous releases made to the ASX), the Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

## HANSEN DEPOSIT SCOPING STUDY TALLAHASSEE URANIUM PROJECT

### Fremont County, Colorado, USA

**Hansen Deposit Scoping Study highlights the potential for cost competitive, long-term domestic supply of uranium for the rapidly growing nuclear energy industry.**

#### Executive Summary

Global Uranium and Enrichment Limited's wholly owned subsidiary, Tallahassee Resources LLC, controls the Tallahassee Uranium Project (**Tallahassee Project**) in Fremont County, Colorado. The Tallahassee Project is composed of five major deposits: Hansen, Taylor, Boyer, Noah, and Picnic Tree. This Scoping Study (the Study) specifically targets the Hansen Deposit of the Tallahassee Project. The Hansen Deposit is the largest and highest-grade deposit within the Tallahassee Creek Uranium District of Central Colorado, which is perhaps one of the largest undeveloped uranium resources in the United States.

The Scoping Study has defined a base case scenario for the development of the Hansen Deposit via the Tallahassee Uranium Project. The Study focuses on the mining and beneficiation elements of the Tallahassee Project using an updated and enhanced Mineral Resource Estimate delivered by the Company in September 2024.

To assess the potential viability of the Project and develop the base case scenario, two sub-surface mining alternatives were prepared by independent mining consultants: Hydraulic Borehole Mining (HBHM) and conventional Underground Mining using Road Headers in a modified room and pillar arrangement (UG). Both methods utilized the 0.075%  $U_3O_8$  grade shell and a uranium price of US\$90/lb.

Run of Mine (ROM) ore would be subjected to on-site beneficiation prior to shipment to an offsite mill. The beneficiation process would incorporate High Pressure Slurry Ablation (HPSA), which would produce a mill feed with 85% of the ROM uranium contained in only 15% of the ROM rock, grading 0.68%  $U_3O_8$ . The barren/coarse waste rock would be used to backfill the mine openings.

Laboratory testing of both HBHM methods of ore disaggregation and treatment of ROM rock by HPSA confirmed the designs of mining and beneficiation included in the Study.

The mine schedule would occur over approximately 7 years, followed by final reclamation of the site. The target production rate would be approximately 1.8M lbs  $U_3O_8$  per annum.

Previous operators extensively tested conventional ore processing, using sulphuric acid digestion and either solvent extraction or ion exchange to produce yellowcake. The testing demonstrated that the product was satisfactory for commercial use at the time.

The Scoping Study was completed to an overall +/- 35% accuracy (AACE Class 5) using the key parameters set out in Table 1. Table 2 presents a comparison between the HBHM and underground mining scenarios evaluated. Estimates presented are based on a 100% Project interest. Global Uranium holds 51% of the Project.



**Table 1. Summary of Production and Cost Data**

Hydraulic Bore Hole Mining Life of Mine Cash Flow											
Description	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Totals	USD/Pound
Pounds Produced			2,242,596	2,242,596	2,168,335	2,105,526	1,722,176	1,718,694	713,062	12,912,986	
Pounds Sold			2,242,596	2,242,596	2,168,335	2,105,526	1,722,176	1,718,694	713,062	12,912,986	
Price Per Pound Sold	\$-	\$-	\$ 90.00	\$ 90.00	\$ 90.00	\$ 90.00	\$ 90.00	\$ 90.00	\$ 90.00	\$ 90.00	
Sales USD (000s)	\$-	\$-	\$ 201,834	\$ 201,834	\$ 195,150	\$ 189,497	\$ 154,996	\$ 154,682	\$ 64,176	\$ 1,162,169	\$ 90.00
Royalties USD (000s)	\$-	\$-	\$ (19,376)	\$ (19,376)	\$ (18,734)	\$ (18,192)	\$ (14,880)	\$ (14,850)	\$ (6,161)	\$ (111,568)	\$ (8.64)
<b>Net Sales</b>	<b>\$-</b>	<b>\$-</b>	<b>\$ 182,458</b>	<b>\$ 182,458</b>	<b>\$ 176,416</b>	<b>\$ 171,306</b>	<b>\$ 140,116</b>	<b>\$ 139,833</b>	<b>\$ 58,015</b>	<b>\$ 1,050,601</b>	<b>\$ 81.36</b>
Operating Costs USD (000s)	\$-	\$-	\$ (97,478)	\$ (97,478)	\$ (96,755)	\$ (96,143)	\$ (92,493)	\$ (90,760)	\$ (40,850)	\$ (611,957)	\$ (47.39)
Colorado Severance Tax USD (000s)	\$-	\$-	\$ (4,114)	\$ (4,114)	\$ (3,963)	\$ (3,836)	\$ (3,060)	\$ (3,053)	\$ (1,016)	\$ (23,156)	\$ (1.79)
Colorado Ad Valorem Tax USD (000s)	\$ (67)	\$ (1,140)	\$ (1,140)	\$ (1,140)	\$ (1,140)	\$ (1,404)	\$ (1,404)	\$ (1,605)	\$ (1,605)	\$ (10,647)	\$ (0.82)
<b>Project Cash Flow</b>	<b>\$ (67)</b>	<b>\$ (1,140)</b>	<b>\$ 79,725</b>	<b>\$ 79,725</b>	<b>\$ 74,557</b>	<b>\$ 69,923</b>	<b>\$ 43,160</b>	<b>\$ 44,415</b>	<b>\$ 14,543</b>	<b>\$ 404,841</b>	<b>\$ 31.35</b>
Initial Capital USD (000s)	\$ (1,500)	\$ (67,581)	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ (69,081)	\$ (5.35)
Sustaining Capital USD (000s)	\$-	\$-	\$-	\$-	\$-	\$ (18,259)	\$-	\$ (13,980)	\$-	\$ (32,239)	\$ (2.50)
Contingency (10%) USD (000s)	\$ (150)	\$ (6,758)	\$-	\$-	\$-		\$-		\$-	\$ (6,908)	\$ (0.53)
<b>Net Cash Flow Before Tax USD (000s)</b>	<b>\$ (1,717)</b>	<b>\$ (75,479)</b>	<b>\$ 79,725</b>	<b>\$ 79,725</b>	<b>\$ 74,557</b>	<b>\$ 51,664</b>	<b>\$ 43,160</b>	<b>\$ 30,435</b>	<b>\$ 14,543</b>	<b>\$ 296,613</b>	<b>\$ 22.97</b>



**Table 2: Comparison between the economic analyses of the HBHM and UG mining and beneficiation scenarios**

Description	Borehole Mining	Underground Mining
Pounds Produced	12,912,986	13,469,457
Net Sales USD (000s)	\$ 1,153,961	\$ 1,203,715
Operating Costs USD (000s)	\$ 757,328	\$ 1,319,490
Operating Costs per lb	\$ 58.65	\$ 97.96
Capital Costs USD (000s)	\$ 108,228	\$ 216,686
Capital Costs per lb	\$ 8.38	\$ 16.09

The Study determined an understanding of the key cost and value drivers for the Project such that a detailed optimization program can be established to provide further improvements for the Project.

The Company affirmed the importance of resource grade and mining method, and the significance of HPSA in concentrating the material to reduce shipping costs when compared to shipping ROM ore to a processing plant.

## Next Steps

Global Uranium is strongly focused on identifying and testing further optimization opportunities to improve ROM resource grades, mining methods, infrastructure, water and environmental/social considerations.

Opportunities already identified that could reduce capital and operation costs are listed below:

- Conduct additional HPSA testing on existing core to fully verify grade efficiency and minimize transportation, backfill and reclamation costs.
- Improve targeted hydraulic cutting and slurry transport methods to increase efficiencies and ROM resource grade.
- Update and confirm metallurgical recovery processes to allow for efficient and economical toll processing of concentrated material.
- Confirm operating conditions, including geotechnical and rock mechanics for optimizing cavern size, backfill efficiency, mine sequencing, and reclamation.

## Hansen Uranium Project Scoping Study Report

### Introduction

Global Uranium and Enrichment Limited's wholly owned subsidiary, Tallahassee Resources LLC, controls the Tallahassee Uranium Project (**Tallahassee Project**) in Fremont County, Colorado. The Tallahassee Project is composed of five major deposits: Hansen, Taylor, Boyer, Noah, and Picnic Tree. This Scoping Study (the **Study**) specifically targets the Hansen Deposit (**Hansen** or the **Project**) of the Tallahassee Project. The Hansen deposit is the largest and highest-grade deposit within the Tallahassee Creek Uranium District of Central Colorado, which is perhaps one of the largest undeveloped uranium resources in the United States.

Uranium at the Project was discovered and mined on a limited basis starting in the 1950s. Over 1,300 drill holes have been completed across the deposit. Sixteen small open pit and underground mines operated between 1954 and 1972 with the total production estimated at 435,000 pounds  $U_3O_8$ . Western Nuclear conducted the first systematic exploration in the district between 1962 and 1966, drilling 15 holes, totalling 3,700 meters.

Historical exploration at the Project was completed by Cyprus Mines Corp., (**Cyprus**) who conducted an extensive amount of drilling prior to applying for and receiving approval to construct an open pit mine and mill at the site in 1982. The Cyprus mine was never constructed or operated, due to uranium market pressures when construction was to begin.

Tetra Tech (2024) updated the mineral resource estimate for the Project (at a 0.025% cutoff) in 2024 to an Indicated resource of 21.3 Mlbs  $U_3O_8$  and an Inferred resource of 23.6 Mlbs  $U_3O_8$ . Global Uranium holds a 51% interest in these mineral resources (10.9 Mlbs  $U_3O_8$  Indicated and 12.1 Mlbs  $U_3O_8$  Inferred) at the Project. This Study considers the Project resource in its entirety. Project resources are well defined with over 130,000 meters of historical drilling and testing.

The Company's goal is to develop another supply of uranium within the USA. The purpose of this Study is to provide a pathway to developing the most cost-effective, technically efficient, and most permissible and environmentally sustainable mining method.

## Project Description and Location

### Location and Access

The boundary around the Hansen deposit encompasses approximately 1,324 acres in Township 17S, Range 73W, 6<sup>th</sup> Principal Meridian. The latitude and longitude of centre of the Project site is approximately 38 degrees, 32 minutes, 44 seconds north by 105 degrees, 32 minutes, 51 seconds west. The Project is located in Fremont County, in south-central Colorado in the valley formed by Middle Tallahassee Creek. The Project is located 50 kms west of Cañon City, Colorado and 100 kms east of the city of Salida.

Surface elevations on the Property range from 2,300 to 2,600 meters above sea level, resulting in cold winters and moderate summer temperatures. Most of the Project area consists of a flat, grass-covered valley floor surrounded by steeper forested terrain. The predominant vegetation in the Project area includes grasses and conifer forest. The surrounding region is primarily used for ranching and recreation.

The site is accessed via gravelled, all-weather county and private roads and is approximately 16 kms west-southwest of State Highway 9. The Project area is located at the termination of County Road 21. Cañon City, the largest metropolitan area in the proximity of the Project, is accessed by driving 17 kms south on Highway 9, then 14 kms east on Highway 50. Refer to Figure 1 for the Project's general location.

### Mineral Tenure and Surface Rights

The mineral holdings are private/fee mineral and are leased from the private owners across the Project and Global Uranium has a 51% interest in the mineral holdings at the Project. The terms of the private leases are confidential.

Other parties hold a 49% interest in all uranium, metal bearing minerals, rare earth minerals, sand, gravel, clay, aggregate and other industrial minerals, but specifically excluding hydrocarbons, coal, and gases, situated in, upon or under the following described land in Fremont County, Colorado (the NZ Parcel):

#### Township 17 South, Range 73 West of the 6<sup>TH</sup> P.M.

Section 21:	S½, NW¼, SW¼NE¼;
Section 22:	SW¼, E½SE¼;
Section 26:	SE¼NE¼, N½SE¼, NE¼SW¼, SW¼SW¼, S½NW¼SW¼, W½SW¼NW¼;
Section 27:	N½SW¼, SE¼SW¼, S½SE¼, NE¼SE¼, N½NW¼, S½NE¼, NW¼NE¼;
Section 28:	NW¼NE¼.

STB Minerals, LLC (**STB**) was created by the South T-Bar Ranch parcel property owners' association to pool and hold the 51% mineral interests held by individual parcel owners in the association (with the exception of two parcel owners who hold their 51% rights outside of STB). These interests cover all minerals, including uranium and associated mineral bearing ore, situated in, upon, under or otherwise associated with the following described land in Fremont County, Colorado (the STB Parcel):

Township 17 South, Range 73 West of the 6<sup>TH</sup> P.M.

- Section 21: S½, NW¼, SW¼NE¼, excluding and excepting Lots 77 and 78 of South T-Bar Ranch Filing No. 4 according to recorded plat thereof;
- Section 22: SW¼, E½SE¼;
- Section 26: SW¼SW¼, S½NW¼SW¼, W½SW¼NW¼;
- Section 27: N½SW¼, SE¼SW¼, S½SE¼, NE¼SE¼, N½NW¼, S½NE¼, NW¼NE¼;
- Section 28: NW¼NE¼.

The surface ownership at the Project is privately owned and Global Uranium has or will obtain surface access agreements and right to mine.

### **Royalties**

A total of nine royalties apply to portions of the Hansen deposit. The area-weighted total royalty applicable to the Hansen deposit is 9.6% at a production rate of approximately two million pounds of U<sub>3</sub>O<sub>8</sub> per year and a price per pound of U<sub>3</sub>O<sub>8</sub> of \$90.00. The total royalty at other uranium prices is shown in a table at the end of this section. There are no other encumbrances other than land holding fees described in the previous section and state property taxes.

### **Royalties and Encumbrances on Fee Mineral Lands**

#### NZ Minerals Royalties and Encumbrances

Under the NZ Minerals, LLC Amended and Restated Option Agreement dated July 17, 2009, but effective as of June 29, 2009, provided BLR exercises the remainder of the option terms of this agreement, NZ Minerals was to receive a total royalty in the amount of 3% of 49% or 1.47% on actual proceeds of sales of uranium and metal by-products extracted from the NZ Parcel portion of the Hansen deposit less costs of weighing, sampling, assaying, analysis, sales brokerage costs, transportation and certain taxes (excluding state and federal income taxes). The royalty portion of the Option Agreement was modified under the Supplement to the Amended and Restated Option Agreement, which Supplement is dated July 7, 2011, and further modified by Second Supplement to Amended and Restated Option Agreement made as of October 3, 2011, between the parties and whereby, NZ Minerals' entitlement to a royalty interest as specified above, was reduced to 80%. The 20% difference was conveyed by agreement of the parties to STB Minerals, LLC by Perpetual Nonparticipating Royalty Deed dated September 1, 2011, filed for recording on September 26, 2011, under Reception No. 889615 in the real property records of Fremont County, Colorado. Once BLR completes payments to NZ Minerals under the Amended and Restated Option Agreement, NZ Minerals will be entitled to a royalty amounting to 80% of the 3% royalty on 49% of the minerals, or 1.176% of the actual proceeds on sales less deductions as specified above.

#### STB Minerals Royalties and Encumbrances

In the event of any production and sale of Valuable Minerals for which Global Uranium receives Gross Proceeds and upon the exercise of the Option, and pursuant to the STB Minerals Royalty Deed, pay to STB Minerals as a nonparticipating, non-executive production royalty, three quarters of one percent (0.75%) of the Net Returns from the sale of Valuable minerals produced and sold from the STB Interest, and also to pay to the South T-Bar Property Owners Association as a nonparticipating, non-executive production

royalty three quarters of one percent (0.75%) of the Net Returns from the Sale of Valuable Minerals produced and sold from the STB interest. Such Royalty applies only to the 51% interest held by Global.

#### Other Royalties and Encumbrances on Mineral Lands That Affect the Hansen Deposit

There are various other landowner and third party royalties that burden the Hansen deposit as follows:

The first royalty is a 4%, cost-free production royalty on the fair market value of uranium contained in uranium concentrates (yellowcake) and of the mineral concentrates of any minerals other than uranium, and applies to the entire Hansen deposit. The area to which this royalty applies within the Hansen deposit is:

##### Township 17 South, Range 73 West of the 6<sup>TH</sup> P.M.

Section 21:	NW¼, NE¼, SE¼, NE¼SW¼;
Section 22:	SW¼ NW¼, NW¼SW¼, S½SW¼;
Section 27:	NW¼;
Section 28:	N½NE¼.

A second royalty is 0.75% royalty on the gross value of all minerals produced and applies to the entire Hansen deposit. The area to which this royalty applies within the Hansen deposit is:

##### Township 17 South, Range 73 West of the 6<sup>TH</sup> P.M.

Section 21:	NW¼, NE¼, SE¼, NE¼SW¼;
Section 22:	SW¼ NW¼, NW¼SW¼, S½SW¼;
Section 27:	NW¼;
Section 28:	N½NE¼.

A third royalty, that applies to almost all, but not all of the Hansen deposit, is called a 3% “gross proceeds” royalty but which allows deductions for transportation, sampling, and quality deductions; sales, severance or use taxes; and deducts amounts due under any royalty agreements outstanding as of the date of the agreement (November 15, 1996). The area to which this royalty applies within the Hansen deposit is:

##### Township 17 South, Range 73 West of the 6<sup>TH</sup> P.M.

Section 21:	NW¼, NE¼, SE¼, NE¼SW¼;
Section 22:	S½SW¼, NW¼SW¼, SW¼ NW¼;
Section 27:	NW½NW¼, SW¼NW¼;
Section 28:	NW¼NE¼.

The fourth royalty is a 1% cost-free production royalty on uranium and other minerals and, with an effective date of June 22, 1976, would apply as a deduction to the preceding 3% royalty on the portion of the Hansen deposit where it applies. This 1% royalty affects about one half of the Hansen deposit. The area to which this royalty applies within the Hansen deposit is:

Township 17 South, Range 73 West of the 6<sup>TH</sup> P.M.

Section 21: N½NW¼, NE¼, SE¼, NE¼SW¼;  
 Section 22: SW¼ NW¼, NW¼SW¼, S½SW¼;  
 Section 27: N½NW¼, SW¼NW¼;  
 Section 28: NW¼NE¼.

The fifth royalty with an effective date of December 13, 1979, is a sliding scale royalty based on the price of uranium and grade of the uranium ore mined. This royalty appears to affect about half of the Hansen deposit and would apparently apply as a deduction to the 3% royalty mentioned above on the portion of the Hansen deposit where it applies. The royalty is calculated as the formula  $R = Q \times V \times (N/\$42.20)$ , where R is the amount of the production royalty accrued for such calendar month, expressed in dollars; Q is the quantity of U<sub>3</sub>O<sub>8</sub> produced from the premises and which are processed by the mill in such calendar month, expressed in pounds of U<sub>3</sub>O<sub>8</sub>; V is the agreed value for the U<sub>3</sub>O<sub>8</sub> contained in the uranium ores produced from the premises and which are processed through the mill for such calendar month based on the average grade of such uranium ores as determined from Table 3 below, expressed in dollars per pound of contained U<sub>3</sub>O<sub>8</sub>; N is the Exchange Value (monetary spot price), as determined in the royalty deed, expressed in dollars per pound of U<sub>3</sub>O<sub>8</sub>. The agreed value of U<sub>3</sub>O<sub>8</sub> contained in uranium ores produce from the premises and which are processed by the mill shall be determined by reference to Table 3:

**Table 3: Sliding Scale Royalty Information**

Average Monthly Grade of Ore Uranium (U <sub>3</sub> O <sub>8</sub> ) Content	Agreed Value per Pound of contained U <sub>3</sub> O <sub>8</sub>
0.0 - 0.139%	\$.6069
0.14 – 0.179%	\$.8082
0.18 – 0.189%	\$.8176
0.19 – 0.199%	\$.8703
0.20 and up	\$.9231

There are also criteria and allowances for certain costs incurred for toll milling, selling ores in raw form, in-situ leaching, etc., and royalty stipulations for minerals other than uranium. The area to which this royalty applies within the Hansen deposit is:

Township 17 South, Range 73 West of the 6<sup>TH</sup> P.M.

Section 21: NE¼SW¼, SE¼  
 Section 22: S½SW¼;  
 Section 27: N½NW¼;  
 Section 28: NW¼NE¼.

The sixth royalty appears to affect about one third of the Hansen deposit and is based on the same criteria and table as the previous (fifth) royalty described above, except for a different owner of different mineral lands. The area to which this royalty applies within the Hansen deposit is:

Township 17 South, Range 73 West of the 6<sup>TH</sup> P.M.

Section 21: NW¼, SW¼NE¼;

Section 22: NW¼SW¼.

Total Royalty on Hansen Deposit at Various Uranium Prices

For informational purposes, and to assist in preparing an economic analysis, the total royalty on the Hansen deposit was calculated based on mineral ownership as expressed by surface area lying over the different mineral interests at various uranium prices assuming an annual production rate of two million pounds of  $U_3O_8$  and an average grade below 0.127%  $U_3O_8$ . These estimates should be later refined to be based on number of pounds of uranium in each mineral interest. The results are shown in Table 4. As can be seen, the royalty rate is not very sensitive to changes in the price of uranium.

**Table 4: Summary of Weighted Average Royalties**

Price (\$ per Pound $U_3O_8$ )	Total Royalty
60	9.4%
70	9.5%
80	9.6%
90	9.6%
100	9.7%
110	9.7%
120	9.8%
130	9.8%
140	9.8%
150	9.8%



## Geologic Setting

### Regional Geology

The regional geologic setting covers an area of nearly 4,000 km<sup>2</sup> from the Arkansas River on the west and south, the Pikes Peak area on the east, and extending to the South Platte River on the north. During the Laramide Orogeny, approximately 80-40 million years ago, the geologic processes were characterized by intense crustal deformation (Cyprus Mines Corporation, 1979). The mountain building and subsequent erosion exposed Precambrian basement rocks consisting of granite, gneiss, and schist. The faulting created a system of north-south trending horst and graben blocks that have controlled subsequent drainage patterns. Figure 2 shows the geologic map of the Project.

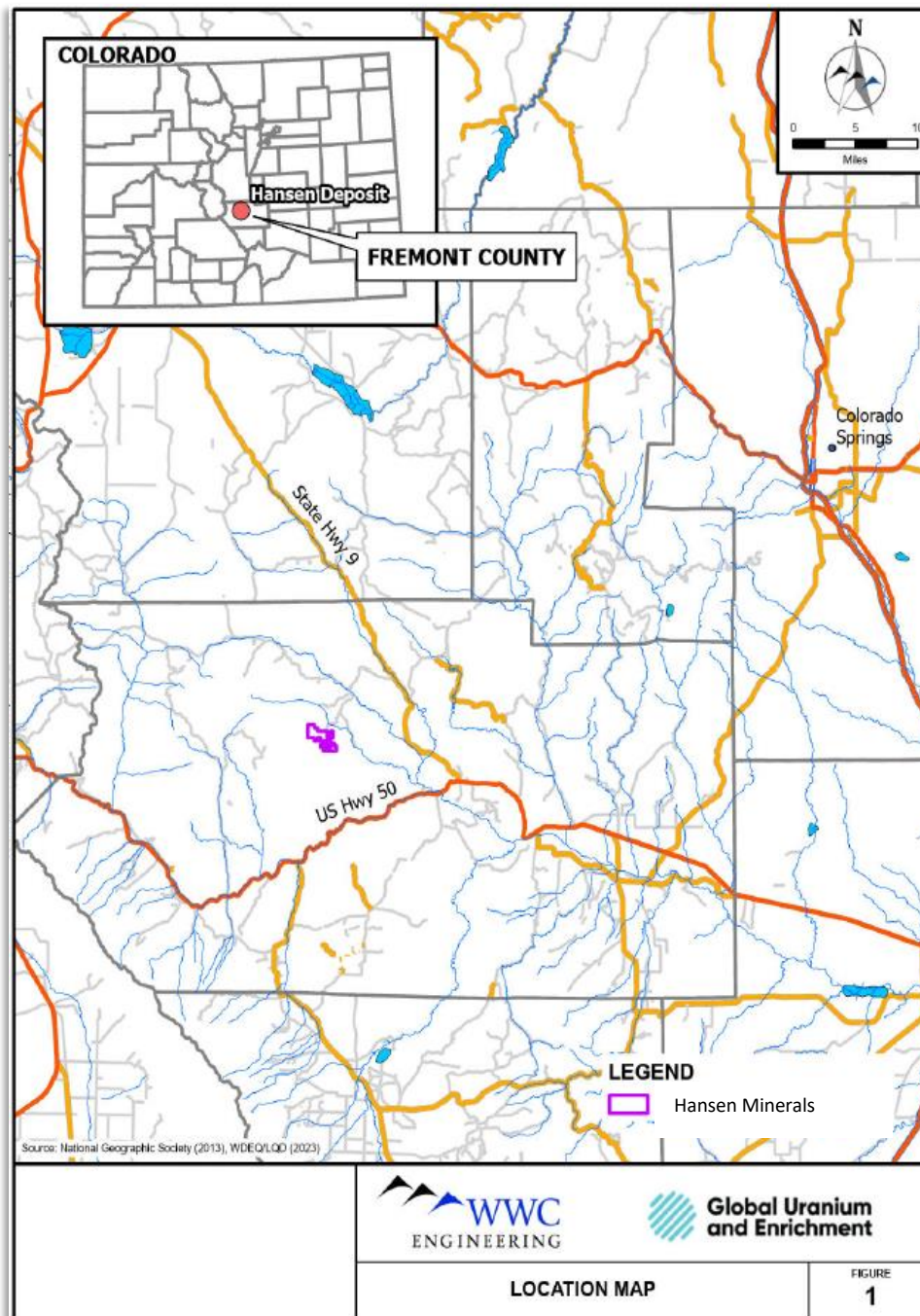
After the Laramide erosion, detritus deposits or “regolith” were deposited on the Precambrian surface. The Echo Park graben developed at this time. It extends from the Arkansas River north to Hartsel, Colorado (C.E. Chapin, 1965). This graben forms the eastern and western boundaries of the Tallahassee-Cottonwood Creek area. The irregular graben floor consists of a mosaic of jostled Precambrian fault blocks. These blocks progressively disintegrated during subsidence while the graben was being filled with sediment during the Late Eocene. Streams within the graben followed a course between the uplifted Precambrian blocks depositing thick sequences of fluvial arkosic sediments. Sheet wash sediments, derived from mud flows, carried clays and pebble- to boulder- sized clasts from a weathered regolith and deposited them on the Precambrian surface. Streams draining this surface flowed through small structural basins, which included Cottonwood Creek basin, a portion of the Tallahassee Creek Basin, and Devils Hole.

The Thirty-Nine Mile volcanic field is situated along the north-northwest trending belt of synclinal intermontane basins which includes the Wet Mountain Valley and South Park. For reference see Figure 2.

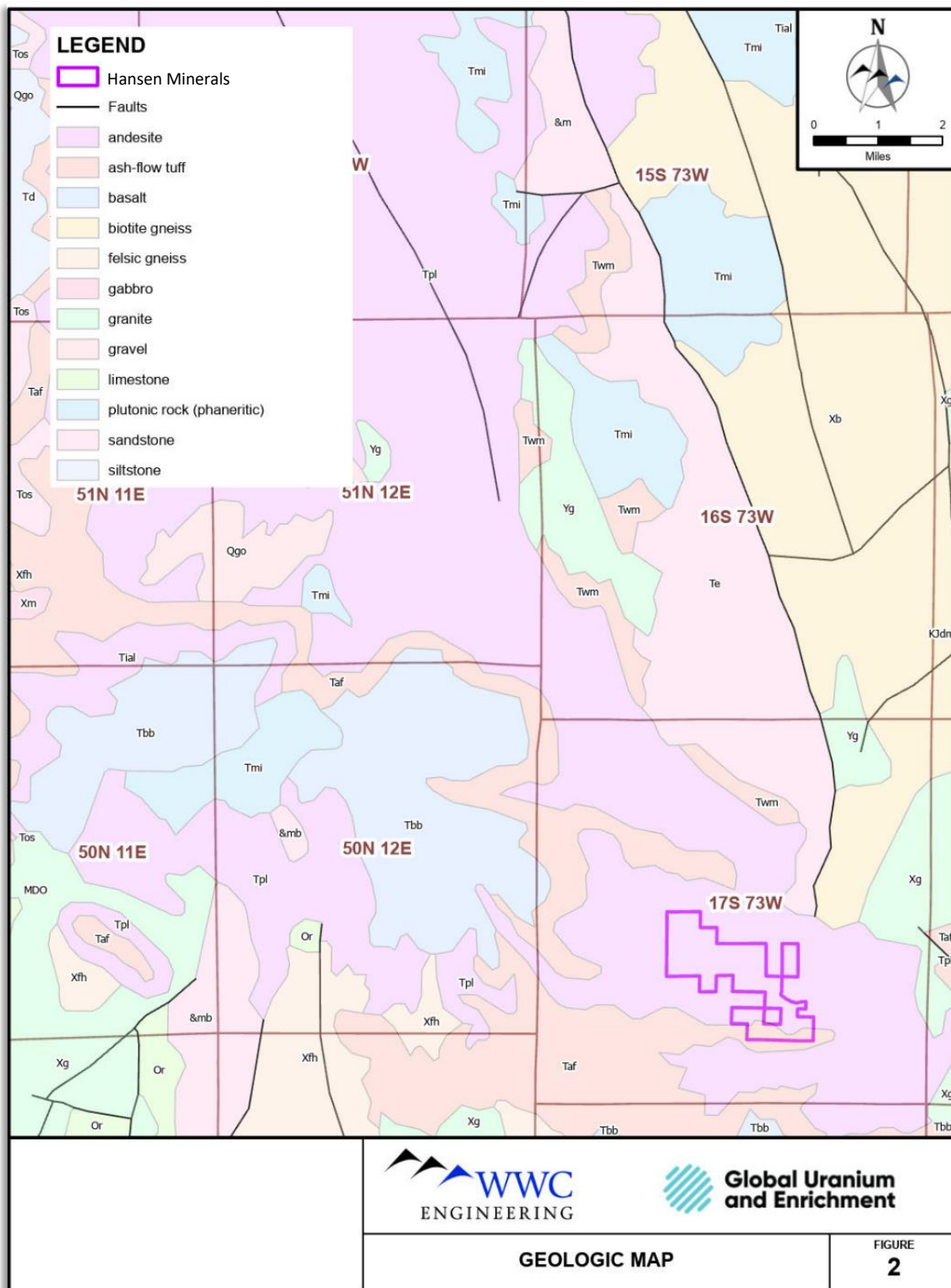
The volcanic field is bounded on the west by the southern extension of the Mosquito Range and on the east by the southern end of the Front Range, covering much of the Tallahassee Uranium District, including the Project. A belt of major northwest-trending Laramide thrusts and reverse faults (which forms the western border of Front Range uplift and the eastern border of the Wet Mountain uplift) transects the centre of the field. Thus, it is situated on a structurally positive, pre-existing hinge area between regions marked by thrusting in opposite directions. Thirty-Nine Mile volcanism began with the extrusion of rhyolitic volcanic ashes, followed by volcanic conglomerates and sediments. Sorting of the volcanic conglomerates and sediments is generally poor, with grains ranging in size from clay to large boulders. A widespread claystone horizon is present near the top of the volcanic conglomerate and may represent an extensive ash fall. Following an erosional period, a quantity of andesitic breccias were deposited throughout the volcanic field to an average thickness of 180 meters. A major andesitic stratovolcano was then deposited above the andesitic breccias. The remnants of this stratovolcano formed the upper half of Thirty-Nine Mile and Black Mountain. Numerous dikes and pipes of andesitic breccias occur throughout the Thirty-Nine Mile volcanic field. Most of these involve the lower andesite and may have been vents for flow breccias which occur near the top of this rock unit. Extensive volcanism during the Oligocene dammed Eocene valleys and filled channels with as much as 300 meters of welded tuffs, Wall Mountain Tuff, and andesitic breccias.

Early Oligocene drainage re-established itself following the eruption of the Wall Mountain Tuff. Streams scoured deeply into this tuff and, in some areas, reached the underlying Echo Park and Precambrian basin complex. These streams deposited a poorly sorted accumulation of volcanic debris, forming volcanic conglomerates (Tallahassee Creek Conglomerate). Volcanism predominated throughout the remainder of

the Oligocene with outpourings of breccias and minor eruptions including the Thirty-Nine Mile Andesite. Volcanic activity at the end of the Oligocene deposited a uniform ash fall tuff which was reworked by fluvial action and erosion and, in some areas, later was altered to a claystone. Forces of degradation then dominated, marking an end to active volcanism. The volcanic pile was deeply dissected, exposing pre-volcanic rocks in many locales. Landslides along steep valley slopes are abundant, especially where the toe of these slopes is underlain by incompetent sedimentary formations. Alluvium is also present along the modern drainages.



**Figure 1: Location Plan of Hansen Uranium Project, Fremont County, Colorado**



## Local Geology

The geological history of the Tallahassee Creek area conforms to the general understanding of the regional and local geology as described above. The Precambrian is extensively faulted into north-south trending horst and graben blocks. These fault blocks appear to have controlled not only the past position of meandering streams, but all subsequent streams. The present site of Tallahassee Creek and its valley appears to reflect the old drainage system at the time of Echo Park deposition. Figure 3 depicts the local geology at the Project and Figure 4 shows a cross section across the Project.

### Quaternary Deposits (Alluvium)

Quaternary-age alluvium is observed along the narrow valleys of Cottonwood and Middle Tallahassee Creek and tributaries. The alluvium is comprised of poorly sorted, unconsolidated silts, sands, gravels, and boulders. Colluvium exists in the area as well as landslide and slump block material. These deposits are generally no greater than 50 meters in thickness.

### Thirty-Nine Mile Andesite

The Thirty-Nine Mile Andesite near the Project varies in thickness between 0 and 150 meters. This volcanic unit consists primarily of laharc breccias, but some local breccia dikes and flow breccias are also present and appear to be highly fractured. Some of the andesite has been highly weathered to a tuffaceous claystone.

### Tallahassee Creek Conglomerate

Following a period of erosion which partially stripped away the Wall Mountain Tuff and perhaps a portion of the Echo Park, the Tallahassee Creek Conglomerate was deposited. The Tallahassee Creek Conglomerate is composed of three members, including the (1) lower Tallahassee Creek Conglomerate Member, (2) the middle Hansen Andesite/Latite Member, and the (3) upper Tallahassee Creek Ash Fall Member.

The lower conglomerate member varies between 0 to 110 meters thick. In the middle of the Project, the Tallahassee Creek Conglomerate Member was deposited in a channel that scoured through the Wall Mountain Tuff and into the Echo Park in places.

The Hansen Andesite/Latite member has been observed on the eastern margins of the Project, but not elsewhere. The unit may vary between 0 and 15 meters in thickness and is a grey to light purply-grey andesite-latite volcanic rock.

The Tallahassee Creek Ash Fall member generally varies between 1 and 3 meters thick, is a distinct marker bed, and is thought to act as a barrier to some degree for vertical movement of groundwater. Near the Project, the ash fall unit is relatively uniform in thickness and is a green to grey-green claystone with no apparent carbonaceous materials.

### Wall Mountain Tuff

At the end of Echo Park deposition, volcanic activity commenced, and the Wall Mountain welded, ash flow tuff flowed into the valley filling depressions to some considerable thickness. Subsequent erosion removed most of this tuff where it overlays the area of the Project. The Wall Mountain Tuff can vary from absent to 35 meters thick in the Project area, and unconformably overlies the Echo Park Formation. Extensive erosional scouring prior to deposition of the Tallahassee Creek Conglomerate has resulted in a few small, isolated areas of the welded tuff, averaging approximately 15 meters thick.



The Wall Mountain is observed along the northeastern edge of the Project as well as along the southwestern margin of the area and is absent through the centre of the deposit due to erosional removal during Tallahassee creek deposition. However, it is occasionally intersected in various drill holes.

### **Echo Park Formation**

At the beginning of Echo Park deposition, a relatively narrow, steep-walled valley existed that appears to have drained to the south. Colluvium and alluvium formed from the erosion of the Precambrian basement rocks. Fanglomerate, fluvial and sheet-flow material of the Echo Park formation were deposited on this regolith. The Echo Park varies from absent to more than 250 meters in the area surrounding deposit. The formation is divided into three units: a basal conglomerate, a middle unit of relatively clean, pebbly sandstones, and an upper unit of relatively impermeable clayey sandstones and sandy mudstones.

The basal boulder conglomerate consists of cobbles to large boulders of Precambrian granite gneiss in a matrix of pebbles, sand, and clay. The upper sections of the conglomeratic unit may consist of alternating thin beds of boulder conglomerate, sandy pebble to cobble conglomerate, pebbly sandstone, and occasional clean sandstone. Finer-grained strata in the upper portions may also contain abundant carbonaceous material. The upper section is thought to be relatively permeable, as opposed to the lower section of boulder conglomerate unit which is well-cemented.

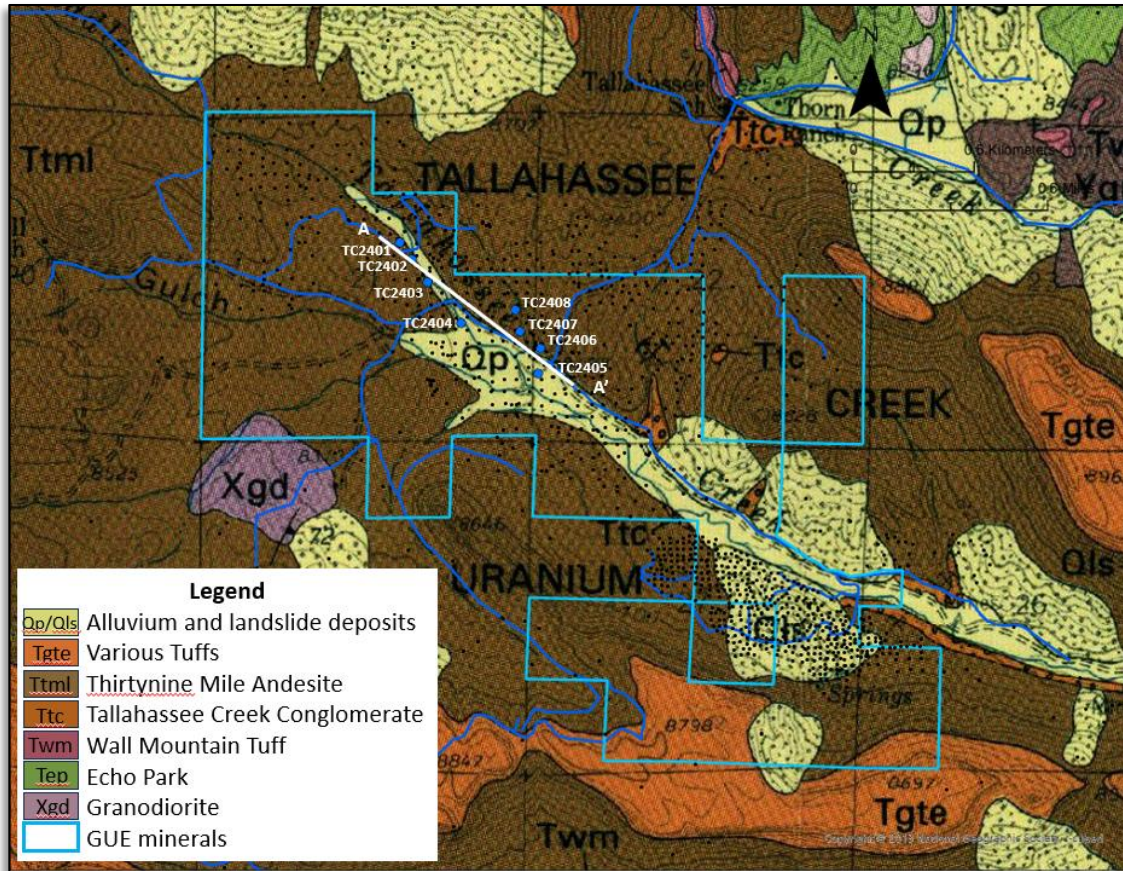
The cleaner sands and conglomerates of the middle unit contain significant carbonaceous material, both in the sand bodies and concentrated in thin silty lenses. The middle unit contains the highest permeability and most intense feldspar alteration of the three facies of the Echo Park.

The upper unit of the Echo Park near the Hansen deposit is comprised of alternating beds of sandy mudstones and clayey sandstones. The abundance of clay matrix in this unit indicates that permeability is relatively low. It is postulated that this unit may act as a partial barrier retarding vertical fluid movement. Some strata contain carbonaceous material in thin silty lenses, and feldspars alteration is moderate to intense, indicating groundwater movement in this material despite the low permeability.

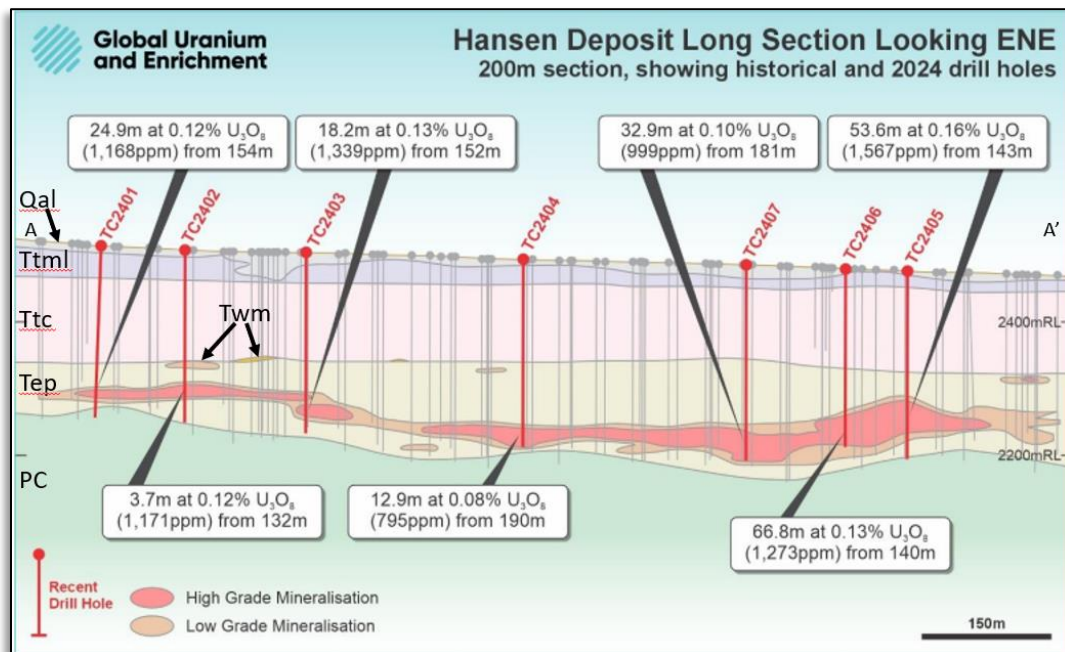
### **Precambrian Basement**

Precambrian rocks in the area consist of pink to red and white granite gneiss, black and white to tan biotite granodiorite gneiss, and black to green biotite to chlorite schist. Some of these rocks have been observed to be highly weathered, while others are relatively fresh and unaltered.

No data is available regarding the hydrologic nature of these basement rocks. For the purposes of the site, the Precambrian basement is considered to act as an impermeable barrier to water movement and contain only minor volumes of movable groundwater.



**Figure 3: Geologic Map of the Hansen Deposit area (after Epis, Wobus and Scott, 1979).**



**Figure 4: Geologic cross section of the Hansen Deposit**

## Hydrologic Studies

A hydrogeological model for the Project was completed by Petrotek Corporation. The report includes a summary and synthesis of available data for future planning associated with potential uranium mining at the deposit, either using underground or borehole mining methods.

There are six predominant formations present at the Project, which include (from deepest to shallowest) the following:

- Precambrian Basement
- Echo Park Formation (Eocene)
- Wall Mountain Tuff (Oligocene)
- Tallahassee Creek Conglomerate
- Thirty-Nine Mile Andesite
- Alluvium

It is expected that the Precambrian basement contains minimal volumes of transmissible water and is a barrier to flow from the overlying Echo Park. The uppermost five aquifers are water bearing intervals present near the Hansen deposit. The Wall Mountain Tuff is not present across the entirety of the Hansen Deposit.

## Groundwater Hydrology

### Groundwater Flow and Recharge

Groundwater generally travels down-valley to the southeast. Recharge from precipitation and snowmelt to the Echo Park Formation is expected to occur at some distance northwest of the Project, in the vicinity of Waugh Mountain and flows ultimately down the valley towards the orebody area. Potential recharge is expected to be limited due to the clayey nature of the surface sediments, which generally causes runoff rather than recharge in the steeply sloping area (Wright Water Engineers, 1979).

Formations near the Project have both primary porosity and secondary porosity in consolidated rocks. Secondary porosity is expected to be significant in the Thirty-Nine Mile Andesite and the Wall Mountain Tuff where there are columnar joints and highly fractured and weathered zones (Chapin, 1979). Secondary porosity may also be present in the Tallahassee Creek Conglomerate and in the sheet wash facies of the Echo Park Formation.

### Primary Water-Bearing Zones

Four primary aquifers are identified at the Hansen deposit site, excluding the lowermost Precambrian basement and the minor alluvial aquifer. These include the uppermost Thirty-Nine Mile Andesite, the Tallahassee Creek Conglomerate, the Wall Mountain Tuff, and the Echo Park Formation.

The Thirty-Nine Mile Andesite exists under unconfined water table conditions. It is underlain in some locations by a relatively impermeable bentonite which generally isolates it from underlying aquifers. The Tallahassee Creek Conglomerate extends across the entire Project, with limited pump test data indicating a highly variable permeability.

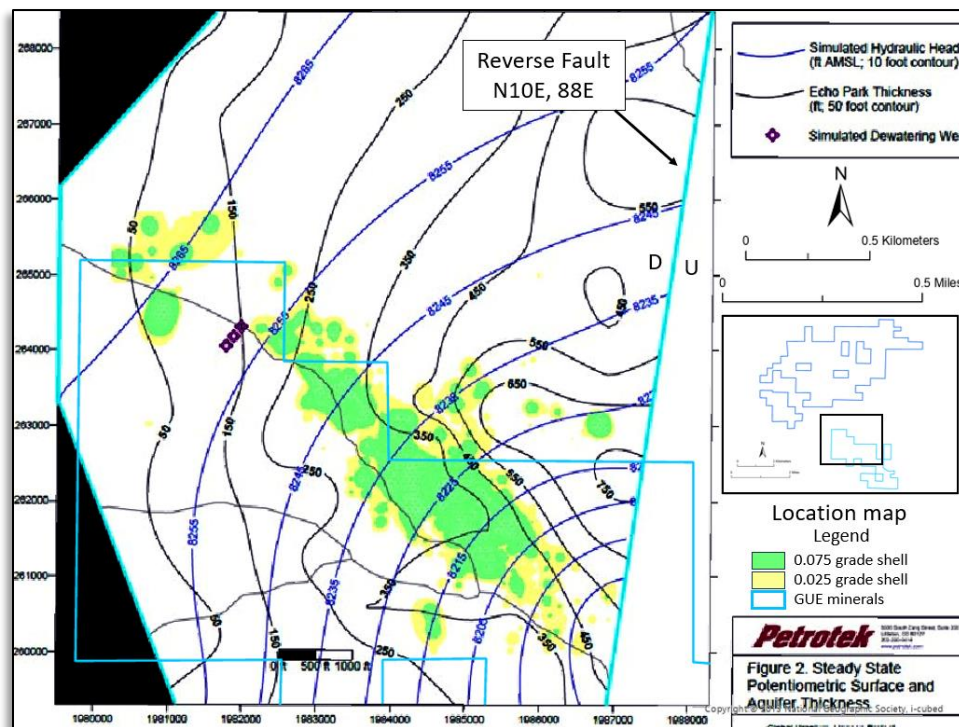
The Wall Mountain Tuff is a continuous aquifer of relatively higher transmissivity, which underlies portions of the Tallahassee Creek Conglomerate. The Wall Mountain aquifer is generally under artesian conditions, with head equal to the overlying Tallahassee Creek.



The Echo Park Formation is the lowermost aquifer overlying Precambrian basement, which is considered as an impermeable barrier below this aquifer. Facies changes within this formation define the aquifer and impact permeability. The boulder wash, directly overlying basement, has a high clay content and is considered to be relatively impermeable. Braided stream and near channel deposits that overlie the boulder wash are thought to comprise the primary aquifer units within the Echo Park. Sheet splay deposits which overlie most of the braided stream and near channel deposits have higher clay content and likely provide some level of hydraulic isolation relative to overlying aquifers, where these finer-grained deposits are present. Pond facies are also observed and more limited in distribution than the sheet splay deposits, and these deposits have a high clay content and also provide a barrier to vertical flow, where present. Figure 5 shows the groundwater investigation target area conducted by Petrotek.

Aquifer recharge occurs from the northwest and is postulated to occur at approximately four miles from the site area for the Echo Park Formation (Wright Water Engineers, 1979). Hydraulic gradients range from a maximum of approximately 56 meters per km along the valley to a minimum of approximately 6 meters per km in the valley centre.

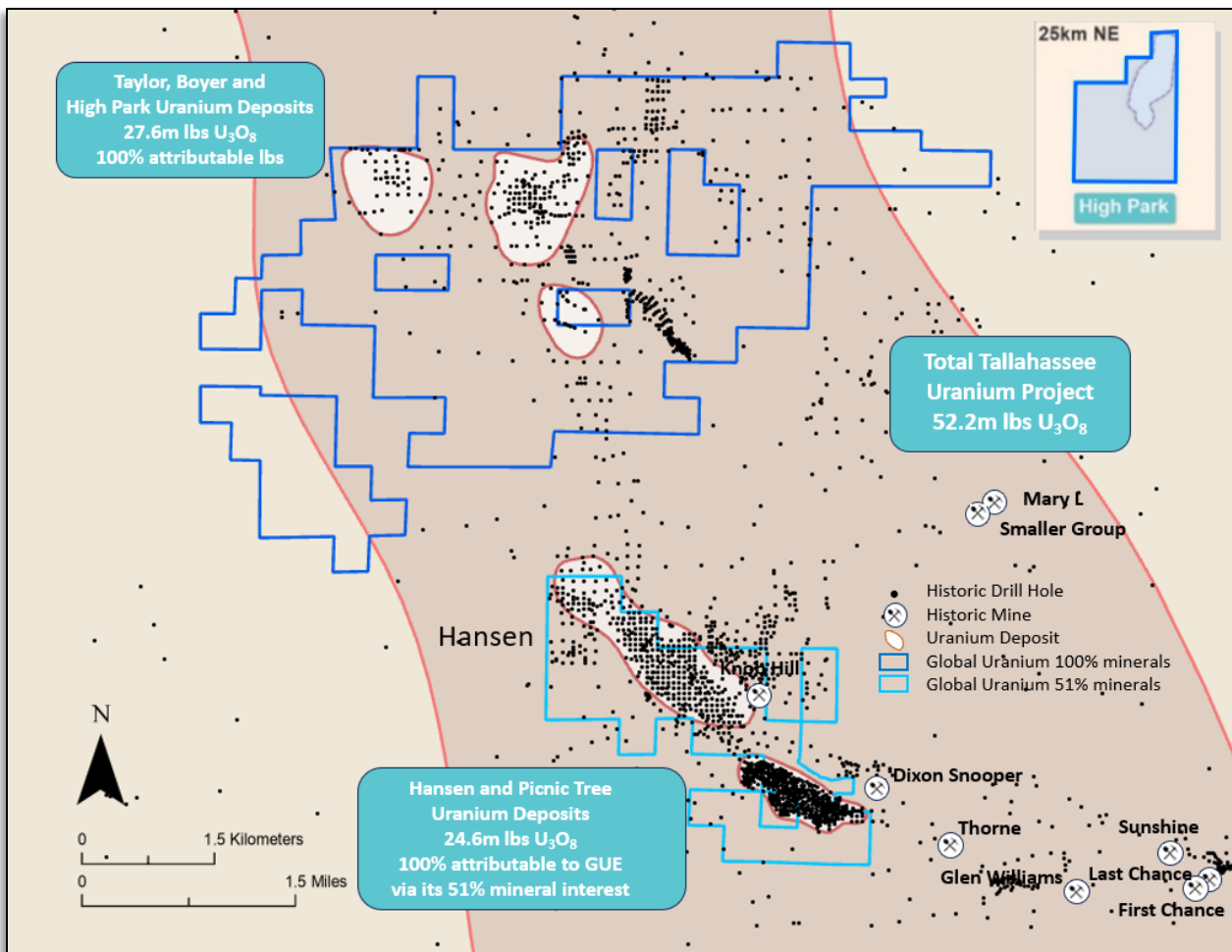
A fault, or system of faults, is noted along the southeastern portion of the Hansen deposit where the Precambrian basement has been uplifted. This fault is noted as the terminus of the Echo Park Formation in this locality. Based on equipotential flow lines, it appears that flow within the Echo Park discharges along the central portion of this fault and may not act as an impermeable barrier for the entire length. Note that there is very limited data regarding the hydraulic nature of this fault.



**Figure 5: Groundwater Potentiometric Surface and Aquifer Thickness**

## Deposit Type and Mineral Resource Estimate

The mineral resource within the Hansen deposit was analysed by Tetra Tech in 2024. A widespread bentonitic clay layer hydraulically separates the Echo Park Formation from the overlying sediments. Uranium mineralization across the Tallahassee Uranium District is found in the conglomerates of the Echo Park and Tallahassee Creek Formations. Continuity of mineralization is strong along the long axis of the Project, but less so in the perpendicular direction. Toward the edge of the deposits, mineralization becomes thin and grade decreases. To date, five mineralized deposits have been identified. From northwest to southeast, they are the Noah, northwest Taylor, Boyer, Hansen, and Picnic Tree deposits. The largest is the Hansen deposit. This report focuses on the Hansen deposit. A map of each deposit is provided in Figure 6.



**Figure 6: Tallahassee Uranium District Deposits**

## Deposit Type and Mineralization

The deposits that make up the Project are tabular sandstones associated with redox interfaces. The mineralization is hosted in Tertiary sandstones and/or clay bearing conglomerates within an extinct braided stream, fluvial system or paleochannel. Mineralization occurred post sediment deposition when oxygenated uraniferous groundwater moving through the host rocks came into contact with redox

interfaces, the resultant chemical change caused the precipitation of uranium minerals. In parts of the project the paleochannel has been covered by Tertiary volcanic rocks and throughout the Project basement consists of Precambrian plutonic and metamorphic rocks. The volcanic and Precambrian rocks are believed to be contributing sources of the uranium.

Uranium mineralization is found in two forms. A large portion of mineralization is found in the interstitial spaces of the sandstones, strongly associated with naturally occurring organic materials co-located with the uranium. In addition, and related chemically, uranium is found in a patina coating on individual grains of sand.

## Mineral Resource Estimate

This mineral resource described below for purposes of this Study are made on a 100% basis. The Company holds a 51% interest, and the results on an attributable basis specifically called out where appropriate.

The Hansen Project has been defined as a 1,400m x 500m, large, mostly tabular sandstone deposit in the Echo Park Formation. The sandstone was deposited in a fluvial, braided, alluvial fan environment, infilling a paleochannel. Deposition occurred when uranium-bearing groundwater moved through the sandstone layers while depositing uranium minerals in areas enriched with carbonaceous material.

The mineral resource estimate for the Project has been developed by Tetra Tech of Lakewood, Colorado (Tetra Tech 2024) for a cut-off grade of 0.025%  $U_3O_8$  based on a uranium oxide price of US\$50 per lb. For the purposes of the Study, the resource area was subdivided into 10 mineralized blocks with grades in excess of 0.075%  $U_3O_8$  (also called the 0.075%  $U_3O_8$  grade shell) as shown in Figure 7.

The Project resource estimate for both a 0.025%  $U_3O_8$  and a 0.075%  $U_3O_8$  cutoff is tabulated in Table 5. This Study used the resources in the 0.075%  $U_3O_8$  cutoff as the basis for the evaluation of the HBHM and Underground mining methods. The wireframe for the Indicated and Inferred resource classification for the Project at the 0.075% cutoff is shown in Figure 8.

The tonnages, average grades, and thicknesses of the 10 blocks are shown in Table 6. Blocks 1, 9, and 10 at the ends of the Project do not include drillholes advanced since 2000 and are of relatively thin. For these reasons, these blocks have been removed from further consideration in this study but will be reconsidered in future if there is additional exploration in those areas.

**Table 5. Project Uranium Resource Estimate**

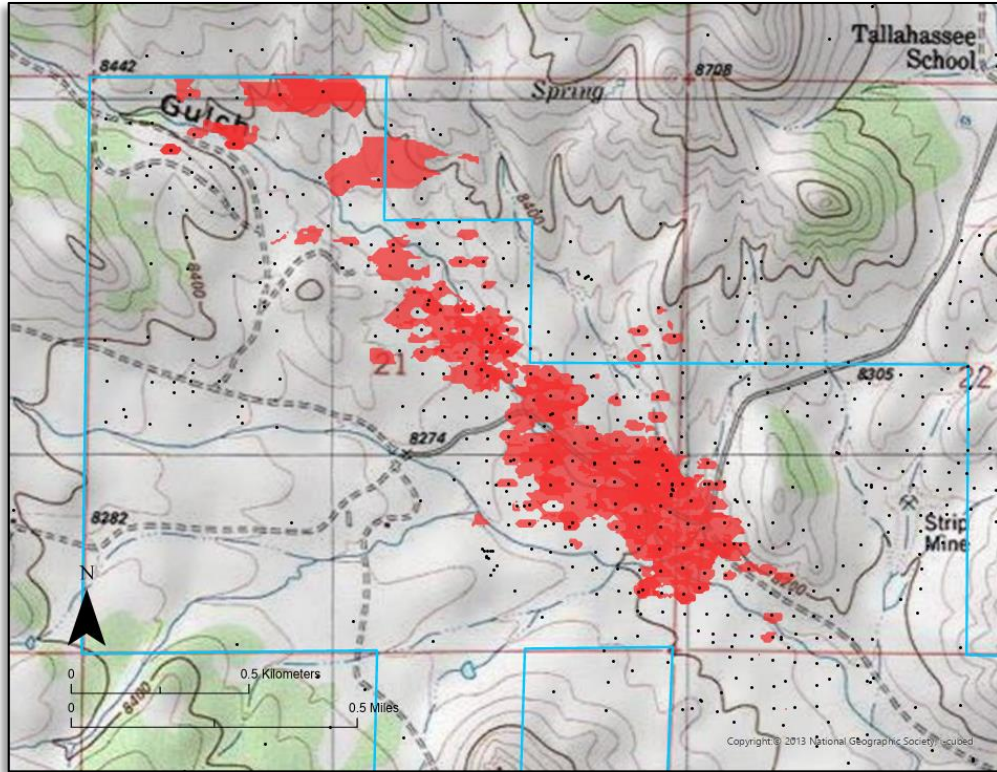
0.025 $U_3O_8$ % Cut-Off Total			
Classification	Tonnes	Grade $U_3O_8$ %	$U_3O_8$ lbs
Indicated	15,288,648	0.070	21,297,610
Inferred	24,268,637	0.049	23,643,477
<b>Total</b>	<b>39,557,285</b>	<b>0.057</b>	<b>44,941,087</b>

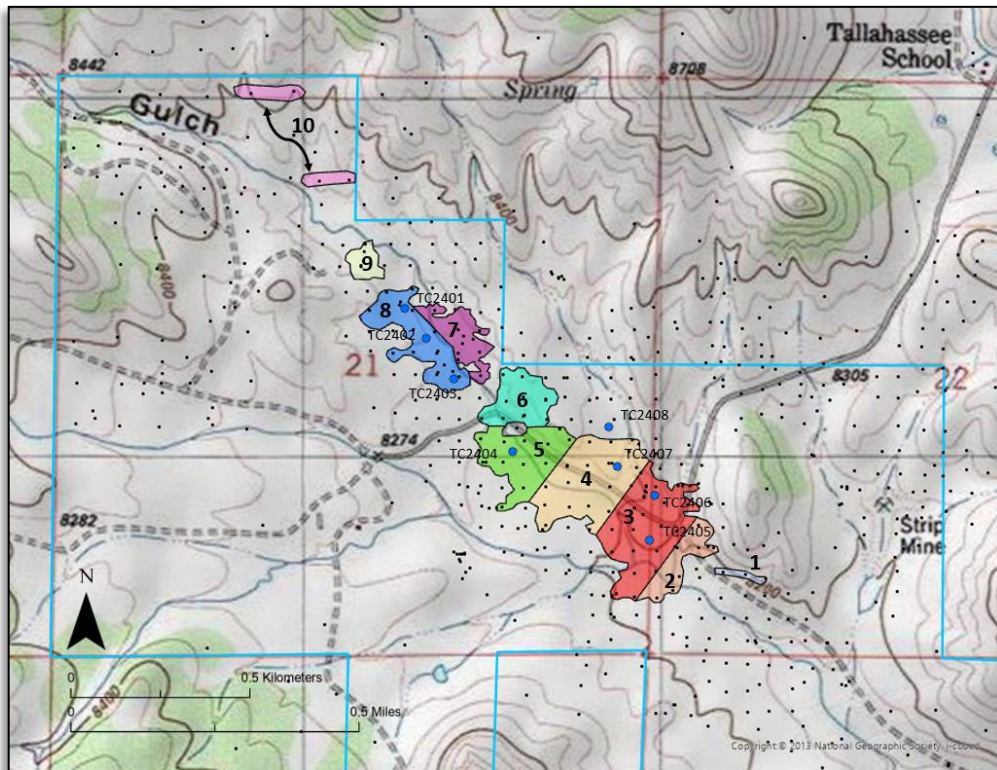
0.075 $U_3O_8$ % Cut-Off Total			
Classification	Tonnes	Grade $U_3O_8$ %	$U_3O_8$ lbs
Indicated	4,679,495	0.127	11,914,322
Inferred	2,896,911	0.102	5,928,875
<b>Total</b>	<b>7,576,406</b>	<b>0.118</b>	<b>17,843,197</b>

Note: 51% of the resources in the table are attributable to Global Uranium.





**Figure 7: Plan view of the 0.075%  $U_3O_8$  grade shells**



**Figure 8: Mineralized Blocks within the Hansen Deposit and collar locations of 2024 drill holes**

**Table 6. Global Uranium Mining Area Project Ranking and Prioritization**

Block	Avg Depth to Bottom (m)	Ave Thickness (m)	Tonnes	Grade (%)	U <sub>3</sub> O <sub>8</sub> lbs	ind/inf (%)	Priority
1	214	1.2	6,628	0.077	10,960	100/0	no
2	173	9.4	339,173	0.103	772,605	58/42	5
3	194	22.3	2,682,925	0.125	7,420,681	72/28	1
4	209	15.8	1,787,610	0.123	4,832,675	58/42	2
5	206	8.6	653,888	0.105	1,510,479	52/48	3
6	217	6.2	306,767	0.120	812,907	55/45	6
7	187	6.2	254,136	0.107	600,965	83/17	7
8	172	7.8	543,974	0.119	1,431,534	77/23	4
9	172	3.0	47,385	0.102	107,016	63/37	no
10	155	2.4	62,849	0.110	135,171	14/86	no
		<b>Total</b>	<b>6,685,335</b>	<b>0.120</b>	<b>17,634,993</b>		

## Drilling and Testing

### Historical Drilling Programs

Several drilling campaigns have been completed at the Project. From 1976 to 1983, Cyprus drilled over 1,250 holes in excess of 110,000 meters principally in the Hansen and Picnic Tree deposits. Cyprus conducted three feasibility studies at the Hansen Project, including mine designs, process designs, and had all permits in place to commence mining in 1982. Black Range Minerals drilled 64 holes for over 20,000 meters between 2007 and 2009.

Six historic drill holes were twinned between 2007 and 2010. An additional ten drill holes were twinned with HQ core holes on the Hansen deposit and can be considered confirmatory of the historic drill holes.

### 2024 Drilling Program

A total of eight new core holes were drilled in 2024 as shown above in Figure 8, including 1,764 meters drilled. The core holes were gamma logged to determine the U<sub>3</sub>O<sub>8</sub> values for each hole. Of these boreholes, notable thickness and grade results are highlighted in Table 7. All eight holes are tabulated in the JORC table.

**Table 7. Notable Core Hole Thickness and Grade**

Core Hole	Thickness (m)	Grade U <sub>3</sub> O <sub>8</sub> (%)
TC2405	53.6	0.157
TC2406	66.8	0.127
TC2407	32.9	0.100
TC2408	7.9	0.067

## Geotechnical Evaluation

The Company conducted extensive assessment of geotechnical and rock mechanics conditions in order to support the mining designs. The data were employed by both Kinley and DFH in their mine workings and/or cavern designs. In addition, these data, along with hydrologic modelling, were used to develop backfilling and reclamation designs. Among the key indicators were the Rock Mass Ratings shown in Table 8.

**Table 8. Rock Mass Ratings for the Formations at the Hansen Site**

	Ttm Thirty-Nine Mile Andesite		Ttc Tallahassee Creek Conglom		Twm Wall Mountain Tuff		Tep Echo Park Mudstone		Temp Echo Park SS & Conglomerate	
	Value	Rating	Value	Rating	Value	Rating	Value	Rating	Value	Rating
UCS (MPa)	63.88	68	8.83	1.8	41.49	4.9	7.76	1.7	2.44	1.2
RQD	56	11	46	9	26	6	62	12	17	5
Jt Spacing (mm)	0.51	6.0	0.38	5.8	0.22	5.6	0.60	6.1	0.17	5.5
Cond Water (L/min/10m)	Slightly rough <10	20 10	Slightly rough 10-25	20 7	Slightly rough <10	20 10	Slightly rough <10	20 10	Soft gouge <10 very favorable	0 10
Orientation	Favorable	-2	Favorable	-2	Favorable	-2	Favorable	-2	Favorable	0
RMR Total		51.9		42.0		44.8		48.1		21.6

Geotechnical evaluation for the two methods of mining (underground and HBHM) are explained further in the Mining Method and Production Schedule portion of this report.

## Disaggregation Testing

Global Uranium and Kinley and Pace Laboratories designed a laboratory-scale test to determine the design parameters for HBHM. Among the key parameters were:

- Required water pressure to initiate the disaggregation of the sediments containing the uranium. The HBHM process simply breaks down the binding materials—generally clays and light cementing—in order to produce a slurry.
- Water volumes required to mobilize the slurry and remove it to the surface, up to 200m above the base of the mining zone. Pumping would have to be sufficient to mobilize the solids and push to the surface against a hydraulic head of up to 150m.
- Size range resulting from the disaggregation and slurry pumping process. The HPSA beneficiation process can receive feed up to approximately 1-2 cm.

As shown in Figure 9, the mineralization was contained in a band of fine-grained material bordered above and below by coarse conglomerate. The highest grades were contained in black carbonaceous material; however, good grades were also found in black lenses with greyish coloured siltstones and sandstones.





**Figure 9: Core from the Project. High Grade 0.562%  $U_3O_8$  drill core from hole TC2405 near 540 ft**

Global Uranium, Kinley Exploration, LLC (Kinley), and Pace Analytical's (Pace), office in Sheridan, Wyoming, USA, developed a laboratory process to replicate the disaggregation of the mineralized interval that would occur during the HBHM process. Pace built a disaggregation chamber that holds a core sample in place while it is sprayed by a high-pressure water jet which disaggregates the core. Pace recorded the volume of water required to disaggregate the core and measured the uranium content of the various size fractions of solids

The main findings of the laboratory hydraulic cutting tests were:

- Water pressure of 4,100 psi at 2.65 gpm was sufficient to effect complete disaggregation of core samples.
- Water volume required to disaggregate the core samples ranged from approximately 4 to 10 gallons per foot of core (approximately 1.5 to 4 minutes of cutting)

The mining process of hydraulic cutting effectively disaggregates the mineralized sandstones, but only partially removes the uranium-bearing patina on individual sand grains. This finding reveals that beneficiation of the ROM ore is required, but with multiple caveats:

- The effectiveness of the hydraulic cutting eliminates the need for any crushing/grinding circuits prior to beneficiation.
- Beneficiation requirements will be less than if the mining process failed to fully disaggregate the sandstones.
- The beneficiation process can use the mined slurry directly minimizing the consumption of water and effecting water recycling through the entire process.

After review of alternative methods and of actual testing using core from the Hansen deposit, the Company determined that High Pressure Slurry Ablation (HPSA) is the preferred option for beneficiation.



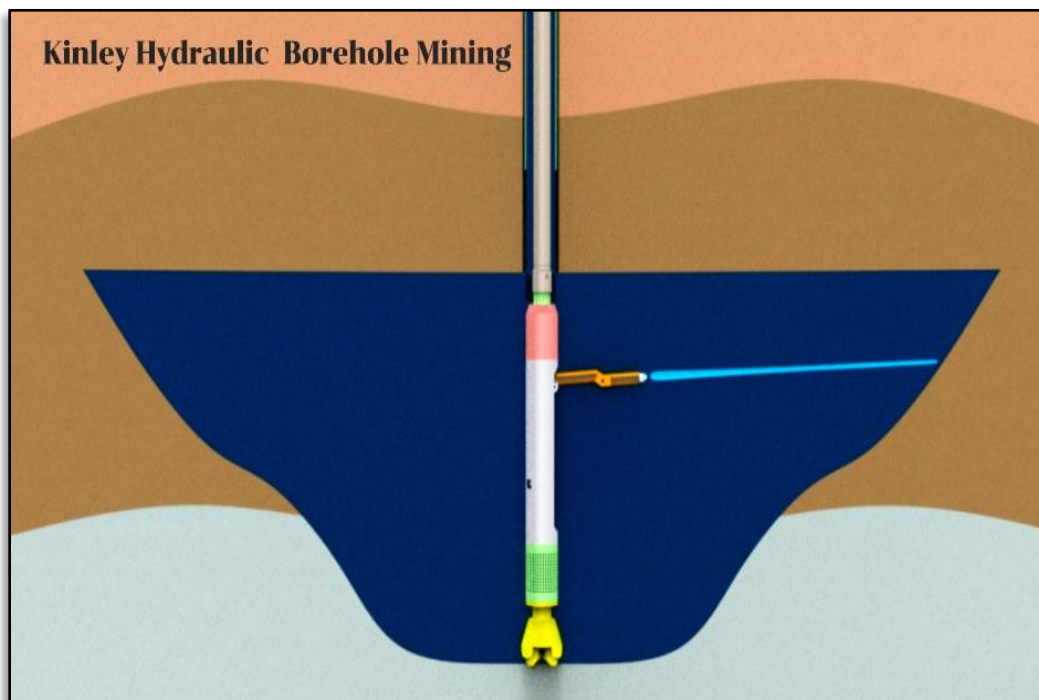
## Mining Method Evaluation and Design

The two primary methods of mining evaluated for the scoping study were Hydraulic Bore Hole Mining (HBHM) and conventional underground mining. After comparing both methods, it was determined that HBHM is the more economically feasible option and was selected as the preferred mining method (see Capital and Operating Costs section of this Scoping Study). This section presents the conceptual designs and operational approaches of both options, and the remaining sections focus only on HBHM as the preferred mining method.

### Hydraulic Borehole Mining

#### Introduction

Kinley, has evaluated the feasibility of the application of HBHM. HBHM allows the mining company, in the appropriate ore for hydraulic mining, to select its target, drill to intersect that target to selectively mine the ore with a high pressure water jet to disaggregate the sandstone, pump the disaggregated ore to surface as a slurry, then separate and dewater the ore. This mining process removes material from a circular cavern roughly 10 meters in diameter through the height of the ore body (Figure 10) which is later backfilled to prevent subsidence.

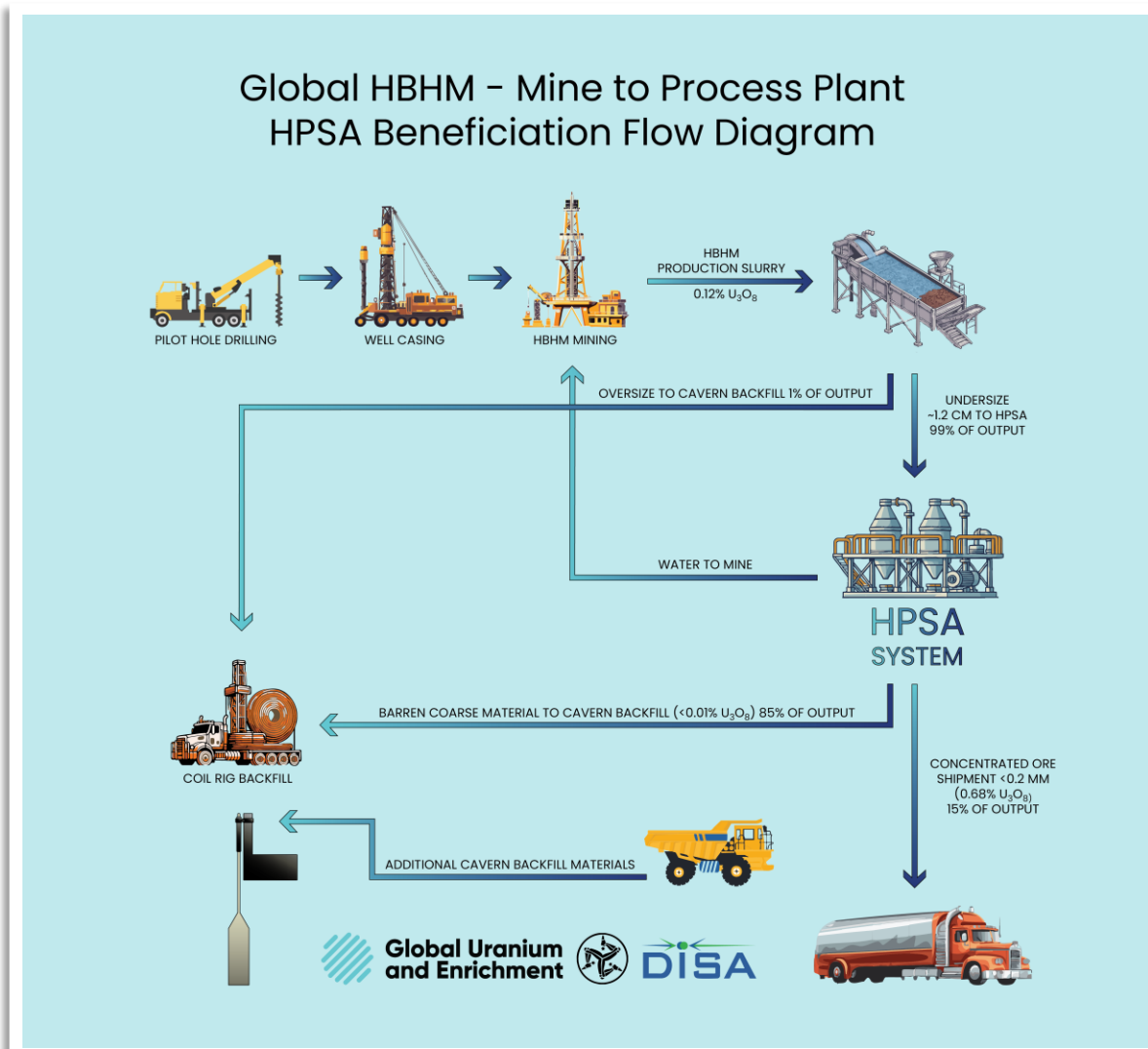


*Figure 10: Schematic of Hydraulic Borehole Mining Cavern*

## **Mining Process**

HBHM offers a low-carbon footprint mining method with completely recoverable surface affect, and an environmentally sensitive strategy to extract resources responsibly. The mining process is detailed below:

1. A conductor casing rig is moved onto each location to preset shallow conductor casing. This is drilled and cemented primarily to initially bond into shallow overburden and sealing for the casing rig. These conductor casings can be drilled in batches and a local contractor can be moved on and off, as required.
2. A casing rig then drills and cases to a predetermined depth to seal off any ground water from the mining activity. Once the casing is placed and cement is circulated back up to surface, the casing rig then drills from the bottom of the casing to the total depth of the ore body. It then moves off to the next hole.
3. After the casing rig finishes, a mining rig is moved onto the cased hole. The mining tools are lowered to the bottom of the ore section and all hydraulic checks are completed. The operator begins mining upwards through the ore section and mines through the height of the ore body. While mining, the ore is cut by the high-pressure jet and the ore slurry is pumped to surface. The effect of the mining and pumping is to dewater the ore and keep the developing cavern relatively dry. All the water generated in the mining zone is recycled. At the surface, the slurry travels across linear motion shakers to cut out the oversize materials (> 1-2 cm). sent through the High Pressure Slurry Ablation process.
4. Backfill components can include waste rock, cement, bentonite, and fly ash which are mixed at the blending unit on site and the continuous coil tubing unit lowers the coil to the bottom of the mined cavern. The backfill slurry is pumped into the cavern until it is entirely full and the backfill slurry returns to surface through the drill hole.
5. Surface reclamation of the site is completed by cutting the conductor and casing off below ground surface, re-grading the surface, and replanting native vegetation mixes.



**Figure 11: Hydraulic Borehole Mining Process Flow Diagram**

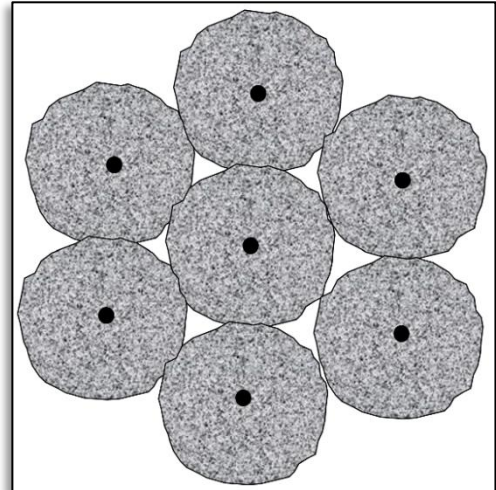
Based on the current geotechnical characterization of the mineralized rock, the known behaviour of the core during of hydraulic jet testing, and experience with similar soft formation rocks, it is estimated that hydraulic jet boring can be extended into the formation up to 5 meters out from the miner, giving an initial 10 meter cavity diameter.

These caverns will be consistently cut by the jet, modelled at 4,000 PSI and 400 GPM. The initial design of the production system for the project will utilize a jet that can cut and move up and down in the cavity, independent of the intake elevation. Pressure in the jetting nozzle can be varied up to 6,000 PSI to meet the down hole conditions.

Based on the initial interpretation of how the cavities will react from mining, the height of the mined cells would be adjusted to optimize the uranium grade. This design has assumed an average height of a single cell would be 13 meters, but have modelled each area independently, based on individual averages.

A single mining rig could mine 2,126 tons in a cavern 13 meters in height, recovering an estimated 95% of the ore within each cavern. At a production rate of 50 tons per hour, the mining of each cavern should take 2.5 days.

When laying out wells in the sequenced areas (Figure 12), the approach is to recover the highest percentage of the mineralized section as possible, without comprising the mined area structurally. Economics and approach have currently been made on backfilling the well with a low strength slurry. Wells are best drilled in a hexagonal pattern to most efficiently mine. As each of the cavities are mined, they will be split spaced so that cavities are initially a minimum of 10 meters apart. This will allow a well to be backfilled and allow time for the slurry to set before mining the cavern directly adjacent to the last well drilled. It is assumed that caverns can be spaced to cover 92% of the land area, which when combined with the 95% of ore recovery from each cavern results in an 87.4% recovery of the mineral resource.



**Figure 12: HBHM Well Layout**

Water used within the system is essentially a closed loop including the shaker and ablation processes. Treated process water from the HPSA and dewatering system will be used to provide water 'on demand' for operations. Water storage at the rig would be tied into those makeup water tanks and will be filtered further down through a secondary filter system. That makeup water will feed the Jet Pumps and the Eduction Pumps. The slurry (including the makeup water) will be circulated back to surface and out the discharge of the HPSA unit. The slurry flow will be fed into the dewatering system and the subsequent water will be returned to the water storage at the rig for recirculation in the mining process.

### **Backfill**

This mining plan considers that each cavity mined should be backfilled with a reasonably stable and economic material. The backfill materials should have enough strength so that when mining an adjacent cell, a minimum of the backfilled material re-enters the system. Upon the completion of HBHM of each cavity, the backfill likely will be needed to ensure overall stability for mining adjacent caverns that are in parallel.

It is anticipated that as soon as the cavity is mined, the mining system will be retracted up and out of the well and a coil tubing unit would move onto well to deliver high-speed backfill. Once the cavity is backfilled and the slurry is sufficiently cured, mining on an adjacent cavity could be commenced.

### **Reclamation**

Reclamation of the site is completed by cutting the conductor and casing off below the ground surface, sufficient to replant vegetation cover at surface.

### **Equipment**

The following equipment is required for HBHM.

- Mining/Drilling Rigs
- Oil Industry – Pressure (HP) Jet Pumps
- Industrial Mining – High Pressure Pumps: Hammelmann/Jet Mining (or equivalent)
- Rotary Rig – Casing and Pilot Wells
- Coil rig for Backfilling
- Cavity Measurement Tools
- Operating Measurement Tools

## Production and Schedule

The life of mine model for HBHM at the Project anticipates a 7-year mine life recovering 15.2 Mlbs of  $U_3O_8$  of which 12.9M lbs will be produced after HPSA.

Mining will advance through the mining blocks identified above in Figure 8 and Table 6 in the following order: Block 3, Block 4, Block 5, Block 8, Block 2, Block 6, and Block 7. This order of mining is based on a combination of ore grade, total pounds, and average depth to mineralization. Table 9 presents the proportion of indicated and inferred tonnes mined each year.

**Table 9. Proportion of Indicated to Inferred Tonnes Mined**

Project Year	1	2	3	4	5	6	7	Total
Tonnes Mined Annually	1,051,486	1,051,486	1,029,025	1,010,028	921,166	889,733	375,315	6,328,240
Indicated Tonnes %	72%	72%	66%	58%	54%	69%	67%	66%
Inferred Tonnes %	28%	28%	34%	42%	46%	31%	33%	34%

## Underground Mining

Underground mining at the Project was evaluated by DFH Geosciences (DFH). DFH evaluated groundwater and geotechnical properties of the site including uniaxial compressive strength, indirect tensile strength, bulk density, moisture content, and Slake durability to determine the feasibility of underground mining at the Project.

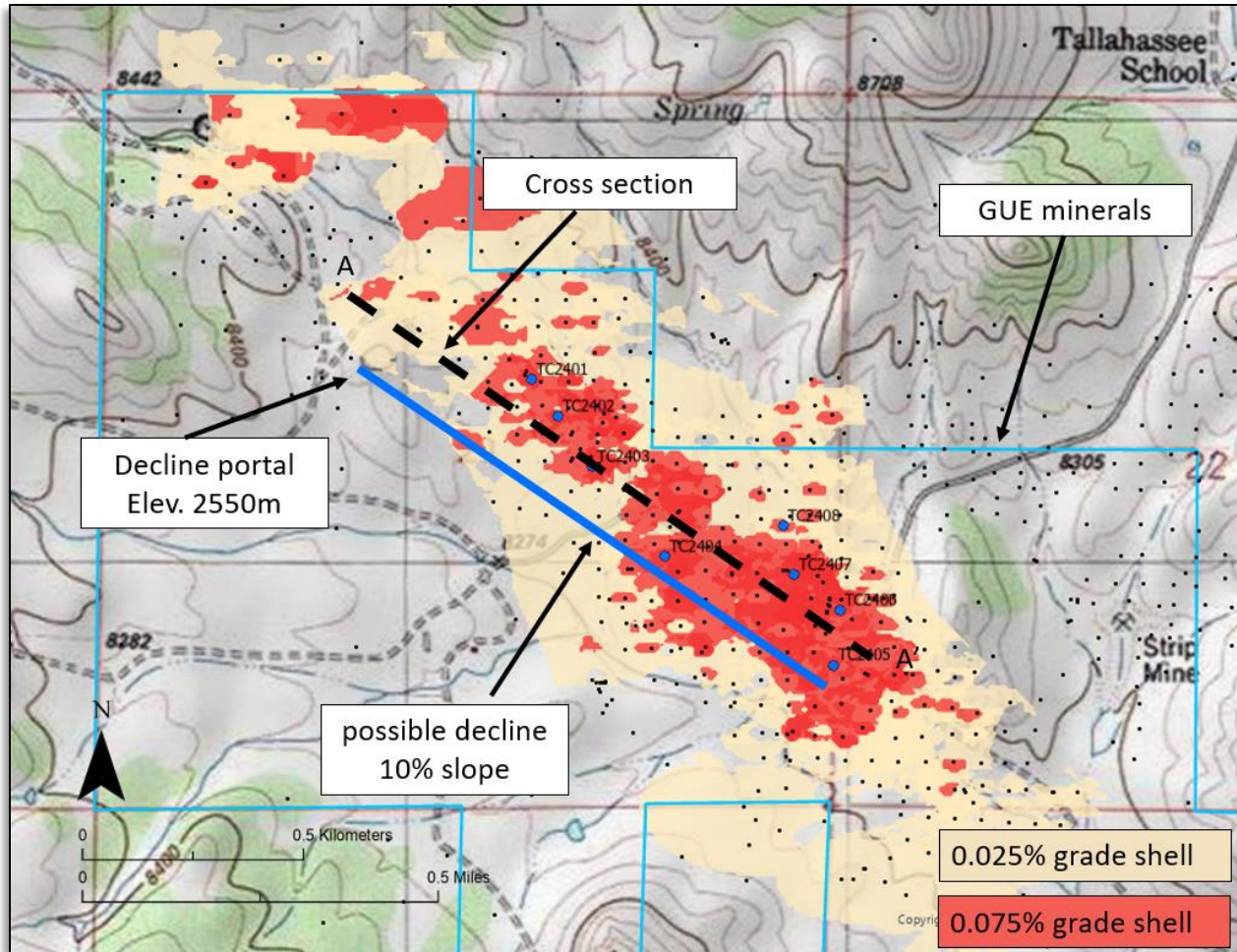
### Mining Process

The first requirement is access, which requires either a shaft or a decline. For a depth to the mineralized zone of less than 1,000 ft, a decline is generally more practical than a shaft. Underground mines are required by law to have a second means of exit, which could be a vertical ventilation shaft with a small portable hoist for emergency use.

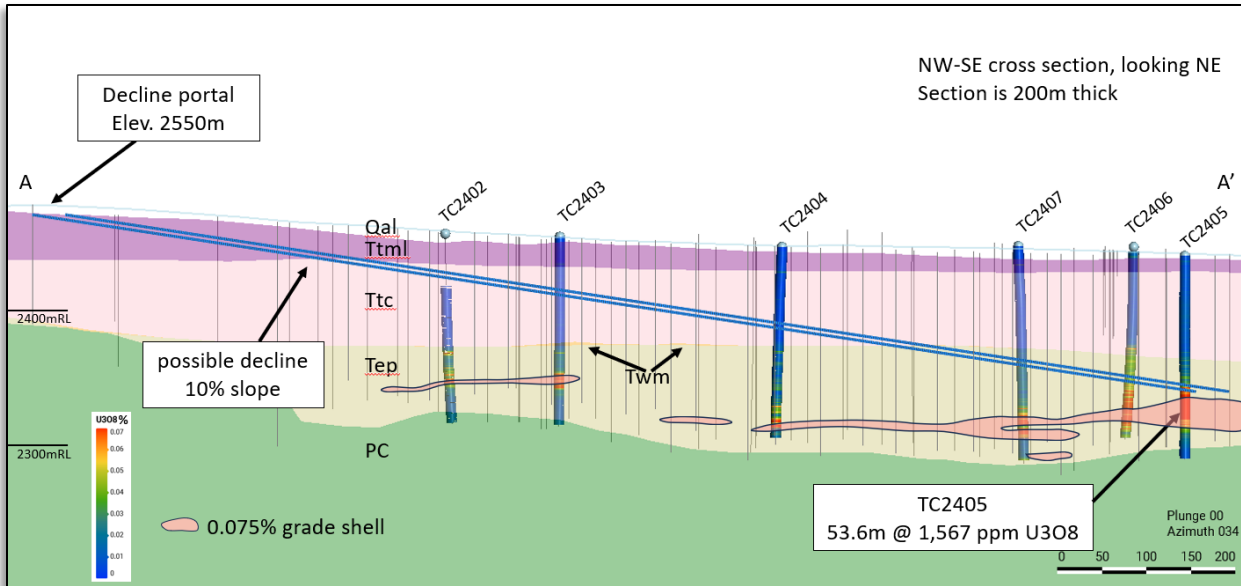
Two options are available for a decline – a straight-line tunnel or a spiral or helix. The linear decline requires significantly more surface area but has the advantage that it can incorporate a muck conveyor. In either case, the inclination is limited to -16% to allow upward travel by loaded personnel vehicles. (Mobile equipment can traverse inclines up to 30% if empty but 16% or less if preferable. Belt conveyors can operate loaded quite successfully on grades of 34%.)

Therefore, the design incorporates a straight decline on the west side of the deposit to terminate at the top of the mineralized zone near drillhole TC2405. The location of the proposed decline is shown on Figure 13; a cross-section through the decline is presented on Figure 14.





**Figure 13: Access Decline Location with Respect to the Mineralized Zone at Hansen**



**Figure 14: Vertical Cross-Section Parallel to the Decline to the Hansen Deposit**

Based on the rock mass rating (RMR) results, a roof span up to 6 meters is acceptable for the decline whose RMR values range from 42 to 52. Given the maximum rock strength of approximately 9,300 psi for the Thirty-Nine Mile Andesite and the much lower strengths of the Tallahassee Creek and Echo Park formations the decline would be constructed using a roadheader is preferred over drill-and-blast mining.

Due to the very weak material in the mineralized zone, the assumed mining method is undercut and fill with rooms that are backfilled as soon as possible after they have been completed. In this method, the uppermost mineralization is mined first using alternating rooms and pillars. When the rooms have been extracted to their design length, they are backfilled. When the fill has hardened sufficiently, the intervening pillars are mined. After a stope block has been completely mined and filled, the process is repeated on the next cut down. This process is repeated until the complete height of the mineralized zone has been mined. Backfill normally consists of a mixture of cement and processed mill tailings or mine waste rock; however, without a mill on site and all development in mineralized rock, backfill in this case will be cemented quarry rock.

Material would be removed from the mine via a belt conveyer. As the mined rock would not be processed at the site, it would be transported to a processing plant elsewhere or sent through the HPSA process before shipping.

### Production and Schedule

At an average grade of 0.12% (2.4 lb/ton) and a 7-day working week (330 days per year), required daily production is 2,330 tonnes per day or 769,380 tonnes per year. With an assumed extraction ratio of 69% and a 6.93 million tonne resource, the expected mine life is 8.1 years. However, this does not account for the reduced tonnage during ramp-up or the mineralized tonnage in development headings (mains, submains and stope access ramps). When these are considered, the mine life at 2 million lb/yr and a 0.075% cut-off becomes approximately 9 years.



## Mineral Processing

ROM rock will be beneficiated on site to significantly increase the grade of the rock using HPSA. This process will substantially reduce ore shipping costs. In addition, it will:

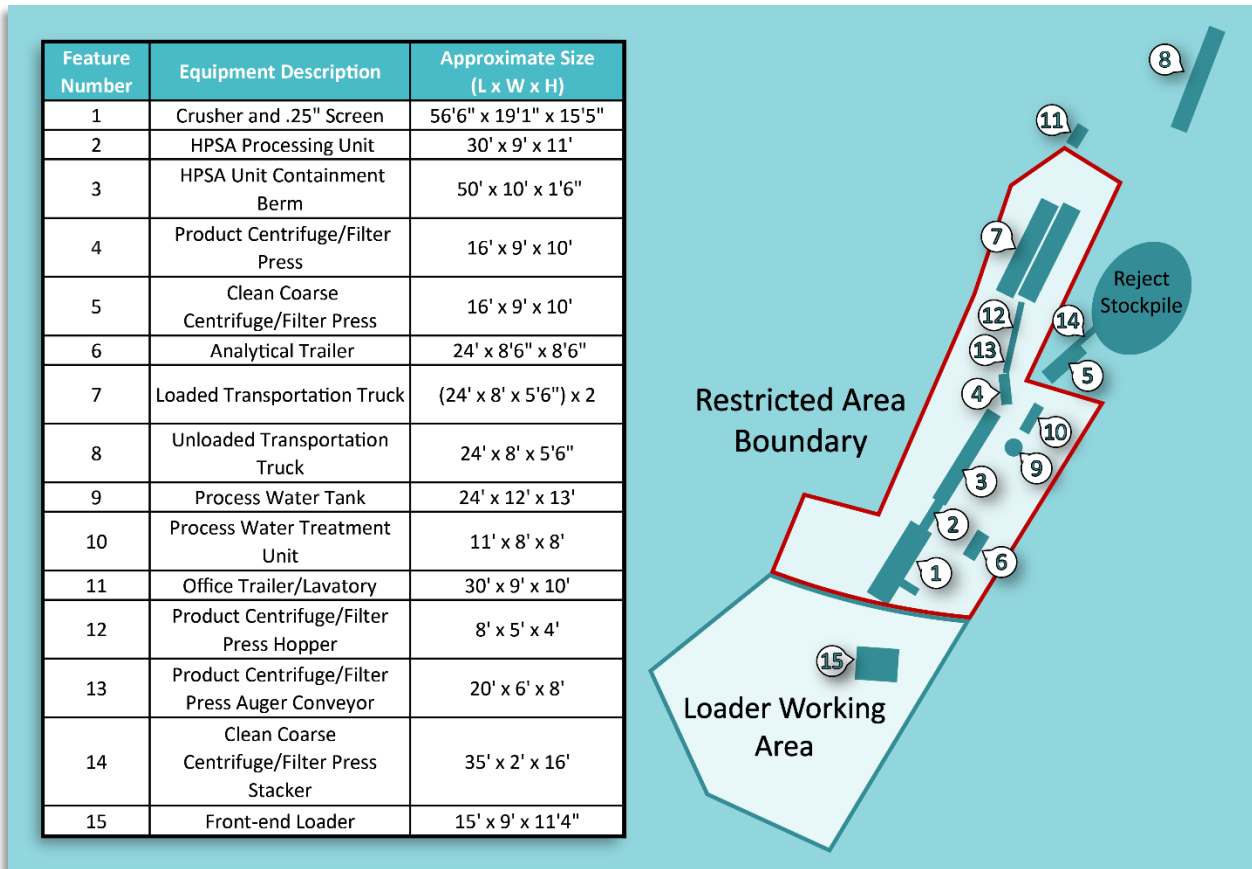
- Provide a non-toxic and mechanically stable material to backfill the mine workings/caverns and prevent any possible degradation of groundwater.
- Eliminate the presence of any mill tailings at the site.
- Greatly reduce the amount of disturbed ground at the surface, minimizing risk to surface waters and also promoting full reclamation and reuse of the surface after mining is complete.
- The concentrated high-grade ore will be shipped to a mill for contract processing.

## High Pressure Slurry Ablation

Global Uranium had determined that a beneficiation process would prove to be highly beneficial to minimizing operating costs, particularly those associated with ore transport to a mill and with backfilling the mine, whether Underground or Borehole. The beneficiation process is designed to recover as much uranium as possible for milling in the smallest mass of rock for transport.

HPSA is a mechanical mineral separation process that utilizes repeated particle-particle collisions to liberate and separate mineralized materials (e.g., uranium mineral patina) from host rock. The slurry from hydraulic mining is pumped at a high-pressure through two opposing nozzles creating impinging slurry jet streams in a particle collision chamber. When the slurry jet streams collide and the energy imparted by the collision can cause mineralized materials with different physical properties to separate. Softer minerals (uranium patina) fracture into smaller particles and are released from harder minerals stay intact. The softer minerals can then be sorted from the harder minerals based on particle size. The softer minerals are concentrated in the fine size fraction which is typically a small percentage of the total mass of the feed material.

The basic HPSA process is presented in the following diagram (Figure 15).



**Figure 15: Diagram and associated features of the High Pressure Slurry Ablation process.**

The HPSA process steps include the following (subject to change based on design improvements):

1. Crushing (disaggradation), grinding, and slurry production - This is accomplished by Global during the borehole mining process:
2. HPSA processing unit: This includes the collision chamber where diametrically opposed nozzles shoot streams of slurry to cause particle collisions. These collisions cause particle deformation that cleaves off the patina that contains the minerals and leaving behind a clean coarse material.
3. The two product streams include fines concentrates (containing the minerals) and the clean coarse material are separated through centrifuges or other mechanical means.
4. After separation the two streams are dewatered. The fines concentrates are stored in a secured shipping container and the clean coarse material is deposited on the ground.
5. Sampling and analysis will be conducted to confirm that the clean coarse material meets unrestricted release and cleanup criteria.

HPSA used in beneficiation of various minerals and mining methods, including reducing the concentration of acid consuming gangue in phosphate mill feed, removing contaminants from filter sand, and numerous other applications. It is also used extensively for the treatment of waste rock for purposes of reclamation of historical mining districts. Disa Technologies, Inc. (Disa), a Casper Wyoming USA based pioneer of HPSA,

has successfully applied the process for the separation of uranium from waste rock at abandoned hard rock uranium mines.

ROM material will be in an approximately 25-40% solids slurry, which will be sent first to a shaker screen to remove oversize (>1-2 cm) and then directed to High Pressure Ablation for mechanical beneficiation. At the completion of beneficiation, the resulting ore fraction will contain approximately 85% of the total uranium from the slurry in approximately 15% of the original rock mass introduced into the HPSA unit. The resulting ore ready for shipment to the mill will exhibit a grade of approximately 0.68% U<sub>3</sub>O<sub>8</sub>.

Recognizing that virtually all of the mineralisation is associated with fine grained materials (<60 mesh) and is generally softer than the feldspar and quartz or granite sand grains, the Ablation process is target-designed to mechanically separate coarse from fine materials without breaking the coarse material and creating additional fines.

Following the HPSA process, the ore slurry is de-watered and the cake packaged and sealed for shipment to the mill. The barren coarse slurry is sent to de-watering, with the liquid combined with that from mining for recycling into the mining process. Coarse solids from both mining and HPSA are staged for backfilling into the mined out areas.

### **Historical Testing**

In 2012, Ablation Technologies, LLC (Ablation Technologies), completed ablation testing on material from the Hansen deposit for Black Range Minerals.

Testing of three ore grade mineralized samples in 2012 resulted in recovery splits (%U recovered in % ROM mass):

- 96% of uranium in 7% of the mass;
- 93% of uranium in 9% of the mass;
- 93% of uranium in 14% of the mass.

The tests are strongly indicative of the ability to beneficiate the ore and recovery a very high percentage of the uranium in the process (Ablation Technologies 2012). Ablation Technologies' testing indicated that the behaviour of both the mineralized uranium patina and the carbon particles makes them amenable to separation from the host rock with ablation.

### **Transportation Studies**

The only currently operating conventional uranium mill is the Energy Fuels' White Mesa Mill in Blanding, Utah. There are two other existing licensed conventional mills in the United States. Shootaring Canyon, owned by Anfield Energy, is located approximately 500 miles from the Hansen project and the Sweetwater Mill, owned by Uranium Energy Corp., is located approximately 400 miles from the Hansen project. In addition, Western Uranium reports that they are in the process of designing and permitting a mill in Green River, UT, approximately 380 miles from the Hansen project.

For the purposes of this Scoping Study, the base case option evaluates a combination of truck and train transportation of mineralized material to the Energy Fuels' mill in Blanding UT, a distance of 400 miles. A trucking only option was also evaluated as an alternative transportation method, but was found to be more expensive, even considering transfer costs.

## Project Infrastructure

The Project is accessed by US Highways, State Highways, and County Roads as shown in Figure 1. A major high voltage electric transmission line and a lower voltage distribution line crosses portions of the Project area. No known natural gas transmission lines cross the Project area. Global Uranium is to provide communication infrastructure for the Property.

## Environmental Considerations, Permitting, and Social or Community Impact

Uranium mining can result in impacts to the environment, cultural resources, and socioeconomics. Impacts to these specific areas need to be identified, evaluated, and monitored so the proper mitigation steps may be implemented to minimize or eliminate the Project's impacts. It is anticipated the impacts associated with the Project will be minor and many of the impacts will be eliminated through the use of best management practices mitigation strategy.

Potential impacts may occur in the areas listed below:

- Ground and surface water due to disturbance of the shallow aquifers and surface drainage patterns;
- Air quality due to dust and emissions from the facilities;
- Soils due to the construction of roads, facilities, and mining footprints;
- Vegetation due to the construction of roads, facilities, and mining footprints;
- Wildlife due to the construction of roads, facilities, and mining footprints;
- Threatened or endangered species due to construction of roads, facilities, and mining footprints;
- Archaeological and cultural due to construction of roads, facilities, and mining footprints;
- Land use may change due to construction of road, facilities, and mining footprints;
- Socioeconomics patterns may change due to increased activity;
- Aesthetics due to construction of roads, facilities, mining footprint, and monitoring efforts.

## Permitting

The Project is located solely on private lands in Colorado. The proposed processing site is located in Utah on private lands. Construction of the Project requires permits and approvals from various local, state, and federal agencies.

Based on various sources of independent advice obtained by the Company to date, no local, state, or federal regulatory or permitting issues have been identified that could preclude approval for the Project's development.

Colorado is historically a mining state with a long history of underground and open pit mining. However, borehole mining has not been undertaken in the state. Several permits and licenses must be acquired from local, state and federal agencies to meet the established and permitting requirements regardless of the mining method.

The Colorado Mined Land Reclamation Act of 1976 requires companies that are planning to conduct uranium mining operations to file for a reclamation permit with the state's Mined Land Reclamation Board. The board carries out the mandates of the Mined Land Reclamation Act and works with the

Colorado Division of Reclamation, Mining and Safety (CDRMS) to implement reclamation laws and regulations.

The CDRMS Mineral Rules and Regulations for Hard Rock, Metal, and Designated Mining Operations definition of a Designated Mining Operation includes “a mining operation at which uranium is developed or extracted, either by in situ leach mining methods or by conventional underground or open mining techniques” (CDRMS, 2022). While not specifically identified in the rule, it is likely that borehole mining would also be considered a Designated Mining Operation by CDRMS resulting in additional permitting requirements.

Details regarding each permit and/or agency are summarized below, as well as in Table 10.

### **Fremont County Conditional Use Permit**

The Project is located in an area where mining is allowed only with a Conditional Use Permit (CUP). A CUP issued by Fremont County is required for the borehole mining operation. The CUP process includes submitting an application through the county zoning department where it is considered by the county for approval. The Company has already acquired a CUP to conduct drilling and other exploration/prospecting activities on the site, with unanimous approval from the County.

### **Colorado Division of Reclamation, Mining and Safety Mining Permit**

A 112d mining permit through the CDRMS will be required prior to initiation of borehole mining at the Project. The permit application will require baseline characterization of the permit area, a mine plan, reclamation plan, and a state environmental review (environmental protection plan) is required as part of the mining permit through CDRMS. Baseline characterization is required for several items including groundwater, surface water, meteorology, soils, wetlands, wildlife, vegetation, radiologic and cultural resources. The CDRMS requires a minimum of 5 quarters of data collection for baseline monitoring for surface and groundwater and 4 quarters of data collection of meteorological data, all other baseline data can be collected on a one time only basis.

### **Colorado Department of Public Health and Environment Licensing**

Colorado is an ‘Agreement State’ to the Atomic Energy Act, the Nuclear Regulatory Commission is not directly involved in licensing activities. The terms of its agreement with Colorado give the Nuclear Regulatory Commission certain oversight and review functions. However, the state regulates and has licensing authority for uranium recovery operations such as ISR (a low-impact, low-cost mining method that recovers uranium without the need for conventional open-pit or underground mining) and traditional uranium processing which includes processing ore with ablation technology. The state requires a radioactive materials license for ISR mines as well as conventional processing mills, and its mine permitting process is under the jurisdiction of the CDPHE. Note that the Nuclear Regulatory Commission and CDPHE have also concluded that the use of HPSA to process the ore will also require a radioactive material license.

Companies applying for a license to process uranium in Colorado undergo an application procedure. First, the company must submit a radioactive materials license application and an Environmental Impact Assessment (EIA) to the CDPHE Radiation Management Unit. Once the application is determined to be complete, the company must hold two public meetings to allow public comment on the application and the EIA. The relevant county may comment formally about perceived impacts to the community and environment, and local government may also have land-use or other regulations applicable to the project.



County commissioners review the EIA, and the commissioners' comments on the EIA must be submitted to the CDPHE within 90 days of the first public meeting. The CDPHE then determines whether the license is rejected, issued as requested, or issued with certain conditions. Additional hearings are held if the applicant challenges the license conditions. For this Study it is assumed that Disa will acquire the required license to operate the HPSA process at the Project.

### **Colorado Department of Public Health and Environment Emissions and Discharge Permits**

The need for both an emissions permit and a discharge permit from the Colorado Department of Public Health and Environment (CDPHE) may be subject to the final design of the Hansen Project. An air quality Construction (Emission) Permit may be required. The air quality permit process is two phased, with the first phase being initial approval and the second phase being final approval. Initial approval allows the plant or process to be constructed and begin operation and after the operation is in compliance with the requirements then the final approval is issued. A point source discharge permit may be required. The Colorado Water Quality Act is in conformance with the Federal Clean Water Act and regulations; it is under this act the applicant will seek compliance with the National Pollutant Discharge Elimination System (NPDES) by adopting state guidance on constituent concentrations for operational discharges.

### **Water Rights Permits**

Water rights will be required for the project since all mining methods will consumptively use water. Borehole mining requires water as part of the mining process and underground mining methods require dewatering in order to operate. In addition, the plant, office, and maintenance areas will require water for operations. The volume of water required will vary depending on the extraction and processing methods.

The Arkansas River Basin is over adjudicated and for any consumptive use of water before, during and after mining, it will be necessary to demonstrate that no harm will be done to existing rights or offer a one for one exchange for damaged rights as a result of operations.

### **Environmental Protection Agency Underground Injection Permit**

It is likely that underground injection permits will be needed to conduct borehole mining. The Environmental Protection Agency (EPA) Underground Injection Control (UIC) program does not have a specific classification for borehole mining, similar activities outside of Colorado indicate the approach EPA is likely to take will require a Class III UIC permit for each mining well. In addition, backfilling activities will require a Class V UIC permit. This may be subject to change based on further consultation with the agency. Since the UIC permitting program is a federal program, the EPA may require a full National Environmental Policy Act (NEPA) analysis (a detailed Environmental Impact Statement of the Project's environmental impacts) prior to issuance of a permit.

### **Permit and Licensing Status**

The Company has neither applied for nor received any of the construction/operation related permits and licenses described here.

**Table 10. Permits Required for Borehole Mining**

Jurisdiction	Agency	Permit or License	Timeline		
			Baseline Data and Application Preparation	Agency Review	Total
<b>FEDERAL</b>	Environmental Protection Agency (EPA)	Underground Injection Control (UIC) class III and/or V	5 months	9-12 months	10-16 months
<b>STATE</b>	Colorado Division of Reclamation, Mining, and Safety (CDRMS)	112d Permit to Mine	12 months	6-9 months	18-21 months
	Colorado Department of Public Health and Environment (CDPHE)	Construction (Emission) Permit	3 Months	6-12 months	9-15 months
		Discharge Permit	3 Months	6-8 months	9-11 months
	Colorado Division of Water Resources (CDWR)	Water Rights Permit	3 Months	1 year	15 months
<b>COUNTY</b>	Fremont County	Conditional Use Permit (CUP) to Mine	3 Months	6 months	9 months

## Capital and Operating Costs

The Capital Costs (CAPEX) and Operating Costs (OPEX) are based on the geological evaluation of the resource, the conceptual layout of the HBHM mining process, infrastructure, ore transportation, and toll milling costs to produce the resource as described in the HBHM evaluation. The estimated costs were developed by Global Uranium and independent consultants and are based on costs at similar projects and cost estimates from industry experts. OPEX costs include drilling, casing, mining, backfill, and reclamation of the mine units as well as all operating costs such as chemicals, labour, utilities, transportation, and toll milling.

This cost estimate was prepared in accordance with guidelines for studies at a scoping level and the accuracy of this analysis is estimated at +/- 35% and a contingency of 10% was applied to the initial CAPEX.

### Capital Costs

CAPEX was developed based on the current designs, quantities, and unit costs. The cost estimates presented herein are based on personnel and capital equipment requirements, and process flow diagrams. The Project has initial CAPEX of approximately \$69.1 million. After the initial CAPEX, the only items remaining in the CAPEX category for the remainder of the mine life are in the sustaining CAPEX category for the replacement of mining equipment. Table 11 presents a summary of the CAPEX estimate for the Project.

**Table 11. Hydraulic Bore Hole Mining Initial Capital Costs**

Initial Capital Cost (USD 000s)	Totals
Mining Rig and Equipment	\$ 55,350
Casing and Pilot Hole System	\$ 2,700
Pre-Mining Development	\$ 6,031
Loadout Facility	\$ 5,000
Contingency (10%)	\$ 6,908
<b>Total</b>	<b>\$ 75,989</b>
Sustaining Capital Cost (USD 000s)	Totals
Sustaining Capital	\$ 32,239
<b>Total</b>	<b>\$ 108,228</b>

## Operating Costs

The OPEX costs have been developed by evaluating and including the HBHM mining process and the associated required operating services, infrastructure, salary and benefit burden, transportation, High Pressure Slurry Ablation, toll milling costs, and royalties. The annual OPEX summary for the Project is provided in Table 12. Total OPEX costs, including royalties, selling, production, operating costs, and production taxes have been estimated at \$757 million, or approximately \$58.65 per pound. A Cash Flow Statement is provided in Table 13.

**Table 12. Hydraulic Bore Hole Mining Operating Costs**

Operating Cost (USD 000s)	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Totals	\$/Pound
Pilot, Casing & Mining	\$-	\$-	\$ 25,998	\$ 25,998	\$ 26,357	\$ 26,661	\$ 27,582	\$ 27,541	\$ 12,796	\$ 172,933	\$ 13.39
Backfill	\$-	\$-	\$ 7,878	\$ 7,878	\$ 8,142	\$ 8,365	\$ 9,183	\$ 9,305	\$ 4,482	\$ 55,233	\$ 4.28
High Pressure Slurry Ablation	\$-	\$-	\$ 31,545	\$ 31,545	\$ 30,871	\$ 30,301	\$ 27,635	\$ 26,692	\$ 11,259	\$ 189,847	\$ 14.70
Ore Transportation	\$-	\$-	\$ 14,829	\$ 14,829	\$ 14,512	\$ 14,244	\$ 12,991	\$ 12,548	\$ 5,293	\$ 89,247	\$ 6.91
Processing (Toll Milling)	\$-	\$-	\$ 14,195	\$ 14,195	\$ 13,892	\$ 13,635	\$ 12,436	\$ 12,011	\$ 5,067	\$ 85,431	\$ 6.62
Indirect Labor	\$-	\$-	\$ 1,450	\$ 1,450	\$ 1,450	\$ 1,450	\$ 1,450	\$ 1,450	\$ 1,450	\$ 10,150	\$ 0.79
G&A	\$-	\$-	\$ 1,583	\$ 1,583	\$ 1,531	\$ 1,486	\$ 1,216	\$ 1,213	\$ 503	\$ 9,115	\$ 0.71
Royalties	\$-	\$-	\$ 19,376	\$ 19,376	\$ 18,734	\$ 18,192	\$ 14,880	\$ 14,850	\$ 6,161	\$ 111,568	\$ 8.64
Colorado Severence Tax USD (000s)	\$-	\$-	\$ 4,114	\$ 4,114	\$ 3,963	\$ 3,836	\$ 3,060	\$ 3,053	\$ 1,016	\$ 23,156	\$ 1.79
Colorado Ad Valorem Tax USD (000s)	\$ 67	\$ 1,140	\$ 1,140	\$ 1,140	\$ 1,140	\$ 1,404	\$ 1,404	\$ 1,605	\$ 1,605	\$ 10,647	\$ 0.82
<b>Total</b>	<b>\$ 67</b>	<b>\$ 1,140</b>	<b>\$ 122,108</b>	<b>\$ 122,108</b>	<b>\$ 120,593</b>	<b>\$ 119,575</b>	<b>\$ 111,836</b>	<b>\$ 110,268</b>	<b>\$ 49,633</b>	<b>\$ 757,328</b>	<b>\$ 58.65</b>

**Table 13. Cash Flow Statement**

Hydraulic Bore Hole Mining Life of Mine Cash Flow											
Description	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Totals	USD/Pound
Pounds Produced			2,242,596	2,242,596	2,168,335	2,105,526	1,722,176	1,718,694	713,062	12,912,986	
Pounds Sold			2,242,596	2,242,596	2,168,335	2,105,526	1,722,176	1,718,694	713,062	12,912,986	
Price Per Pound Sold	\$-	\$-	\$ 90.00	\$ 90.00	\$ 90.00	\$ 90.00	\$ 90.00	\$ 90.00	\$ 90.00	\$ 90.00	
Sales USD (000s)	\$-	\$-	\$ 201,834	\$ 201,834	\$ 195,150	\$ 189,497	\$ 154,996	\$ 154,682	\$ 64,176	\$ 1,162,169	\$ 90.00
Royalties USD (000s)	\$-	\$-	\$ (19,376)	\$ (19,376)	\$ (18,734)	\$ (18,192)	\$ (14,880)	\$ (14,850)	\$ (6,161)	\$ (111,568)	\$ (8.64)
<b>Net Sales</b>	<b>\$-</b>	<b>\$-</b>	<b>\$ 182,458</b>	<b>\$ 182,458</b>	<b>\$ 176,416</b>	<b>\$ 171,306</b>	<b>\$ 140,116</b>	<b>\$ 139,833</b>	<b>\$ 58,015</b>	<b>\$ 1,050,601</b>	<b>\$ 81.36</b>
Operating Costs USD (000s)	\$-	\$-	\$ (97,478)	\$ (97,478)	\$ (96,755)	\$ (96,143)	\$ (92,493)	\$ (90,760)	\$ (40,850)	\$ (611,957)	\$ (47.39)
Colorado Severence Tax USD (000s)	\$-	\$-	\$ (4,114)	\$ (4,114)	\$ (3,963)	\$ (3,836)	\$ (3,060)	\$ (3,053)	\$ (1,016)	\$ (23,156)	\$ (1.79)
Colorado Ad Valorem Tax USD (000s)	\$ (67)	\$ (1,140)	\$ (1,140)	\$ (1,140)	\$ (1,140)	\$ (1,404)	\$ (1,404)	\$ (1,605)	\$ (1,605)	\$ (10,647)	\$ (0.82)
<b>Project Cash Flow</b>	<b>\$ (67)</b>	<b>\$ (1,140)</b>	<b>\$ 79,725</b>	<b>\$ 79,725</b>	<b>\$ 74,557</b>	<b>\$ 69,923</b>	<b>\$ 43,160</b>	<b>\$ 44,415</b>	<b>\$ 14,543</b>	<b>\$ 404,841</b>	<b>\$ 31.35</b>
Initial Capital USD (000s)	\$ (1,500)	\$ (67,581)	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ (69,081)	\$ (5.35)
Sustaining Capital USD (000s)	\$-	\$-	\$-	\$-	\$-	\$ (18,259)	\$-	\$ (13,980)	\$-	\$ (32,239)	\$ (2.50)
Contingency (10%) USD (000s)	\$ (150)	\$ (6,758)	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$ (6,908)	\$ (0.53)
<b>Net Cash Flow Before Tax USD (000s)</b>	<b>\$ (1,717)</b>	<b>\$ (75,479)</b>	<b>\$ 79,725</b>	<b>\$ 79,725</b>	<b>\$ 74,557</b>	<b>\$ 51,664</b>	<b>\$ 43,160</b>	<b>\$ 30,435</b>	<b>\$ 14,543</b>	<b>\$ 296,613</b>	<b>\$ 22.97</b>

## Economic Analysis

### Assumptions

The economic analysis presented in this Scoping Study is based on geological evaluation and mapping of mining blocks, determining which blocks are not viable for production, and obtaining an 87.4% recovery of the resource, as described in the HBHM mining process description above.

A cash flow statement has been developed based on the CAPEX and OPEX estimates and the production schedule. The sales price for the produced uranium is assumed at US\$90.00 per pound for the life of the Project. The sale price for the produced uranium based on the two year outlook price forecast from the Australian Department of Industry Science and Resources September 2024 Resource and Energy Quarterly Report (<https://www.industry.gov.au/publications/resources-and-energy-quarterly-september-2024#uranium-11>). In addition, the current long-term pricing is above US\$80.00 per pound compared to the current spot price. The long-term pricing is a more reliable reference compared to the spot price due to the limitation of supply under the spot market. Long-term pricing reference can be obtained through ([www.uxc.com](http://www.uxc.com)). Uranium recovery from the mineral resource is assumed based on an estimated recovery factor of 87.4% percent of the resource, as described above. The total production over the life of the Project is estimated to be 12.9 million lbs. U<sub>3</sub>O<sub>8</sub>.

### Cash Flow Forecast

The net present value (**NPV**) assumes cash flows take place in the middle of the periods and is calculated based on a discounted cash flow. The production estimates and OPEX distribution used to develop the cash flow are based on the production and restoration models developed by Kinley and incorporated in the cash flow (Table 13). The cash flow assumes no escalation, no debt interest or capital repayment. It also does not include depreciation. Assuming the Company pursues the schedule shown Table 13, the net cash flow before income tax over the life of the Project estimated to be US\$296.6 million. It is estimated that the Project has a before tax IRR of 93% and an NPV of approximately US\$203 million applying an eight percent discount rate (Table 14). The estimated cost of uranium produced is US\$67.03 per pound including all operating and capital costs. The NPV for three discount rates has been calculated and is presented in Table 14. The estimated IRR is also presented.

The current Colorado severance tax for metallic minerals is 2.25% of gross income exceeding US\$19 million. Ad valorem taxes were calculated based on the value of the property and capital expenses. The Ad valorem tax on property was calculated at a mill levy of 0.049765 on 87.5% of the property value and at a mill levy of 0.049765 on 29% of the Project capital.

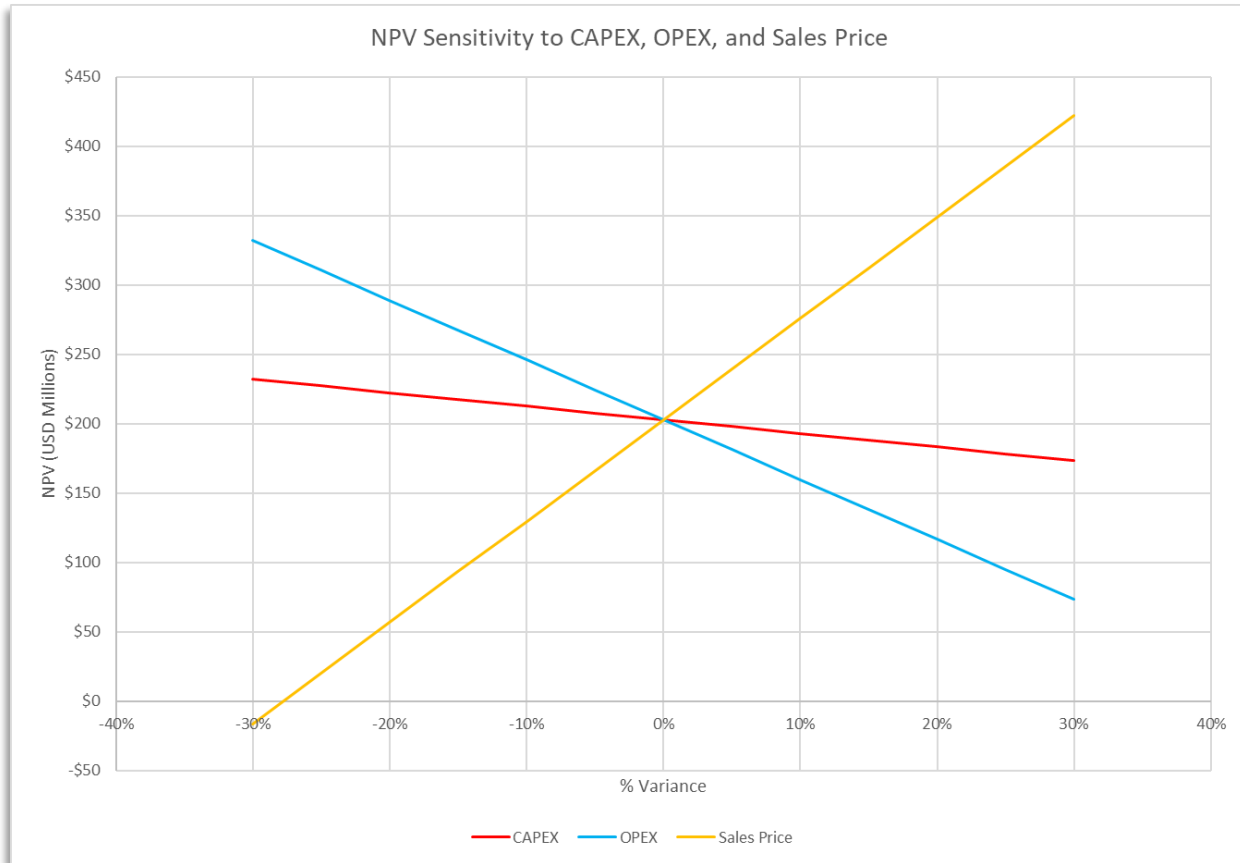
**Table 14. Net Present Value at Various Discount Rates**

NPV Discount Rates	Units	Pre-Tax NPV
5%	USD 000s	\$ 233,078
8%	USD 000s	\$ 202,812
10%	USD 000s	\$ 185,220
IRR	%	93%



## Sensitivities

Figure 15 shows the sensitivity of the Pre-Tax NPV to variations in CAPEX, OPEX, and the sales price of  $U_3O_8$  for the Hydraulic Bore Hole Mining approach.



**Figure 15. NPV Sensitivity Graph**

## Breakeven Price Scenario

The NPV break-even price over the economic evaluation period is ~\$65/lb (the price where pre-tax NPV becomes positive). If the uranium price falls below ~\$65/lb, the project will not be economically viable.

## Funding

The Company believes there is a reasonable basis to assume that funding for the development of its Project will be available when required if the uranium price supports an attractive financial return from the Project. To achieve the outcomes indicated in this Scoping Study, it is estimated that pre-production funding of approximately US\$76.0 million before working capital may be required.

It is anticipated that the finance will be sourced through a combination of equity and debt instruments from existing shareholders, new equity investors and debt providers from Australia, USA and potentially Europe and there is also the potential for streaming of the targeted uranium production.

Recent policy developments in the United States, including the President's Executive Order reinstating uranium as a critical mineral, and the ongoing quest for reliable baseload power to replace retiring coal plants underscores the growing importance of nuclear energy both to the US economy and globally.

The latest executive order from the White House made in March 2025, aim at aggressively accelerating U.S. mineral processing to strengthen domestic energy security with uranium as a cornerstone. These political tailwinds provide encouraging support for the sector.

The Company has yet to engage with any potential financiers in relation to this Project and there is no certainty that the Company will be able to source funding as and when required, and funding may only be available on terms that may be dilutive to or otherwise affect the value of the entity's existing shares, or interest in the Project.

## Interpretation and Conclusions

### Risks

The following risks are assumed for the development of the Hansen deposit, while employing HBHM and HPSA.

- **Uranium Price:** The potential viability of the Hansen Project depends on continued uranium pricing at or near current or higher levels for the duration of the project development schedule.
- **Permitting/Licensing:** Current laws and regulations do not exhibit any bar to the acquisition of any of the permits and/or licenses referred to above. Notwithstanding, that:
  - Permitting of HBHM wells and backfill wells under EPA's UIC Program. Both of these permits appear to fall generally within the established classifications (Class III for mining wells and Class V for backfill wells). But there is little in the way of actual practice of such review and permitting by EPA or by CDPHE. As a consequence, the Company anticipates that there will be extensive consultation with the agencies to develop an agreed process to review and approve the permits. There appear to be no substantial technical obstacles to acquiring the permits.
  - Mill Permit from the CDPHE. CDPHE has limited experience permitting uranium-related mill and radioactive materials licenses. Research has indicated that CDPHE (under the oversight by the US Nuclear Regulatory Commission) has not reviewed an application for a limited uranium/radioactive materials mill (e.g., HPSA), although both the CDPHE and NRC have extensive knowledge of the process. As with the UIC permits above, extensive consultation with the CDPHE (and perhaps NRC) will be required in order to develop the appropriate process to handle the permitting approach.
- **HBHM Pilot Test:** The Company will determine the appropriateness and benefits of conducting a pilot test of HBHM at the site, and under what conditions.

## Recommendations

The following recommendations are made to further advance the Hansen Project.

- Continue testing the laboratory testing of the hydraulic disaggregation of Hansen core to enhance the effectiveness of the unit, evaluate opportunities to increase the disaggregation rate, reduce water and power consumption, and optimize the slurry grade.
- Continue testing the HPSA to gather data across a larger area of the ore body to enhance the recovery of uranium into smaller fractions of the ore mass, increasing the ore feed grade to the mill and reducing transportation costs.
- Consult with the Colorado DRMS concerning the process for reviewing Mine Permit processes for HBHM.
- Consult with CDPHE regarding Limited Mill Licensing, Class III and Class V UIC permit processes. Consult with EPA, as appropriate, to determine the multi-agency permitting process.
- Continue consultation with Fremont County government agencies and residents.
- Conduct metallurgical and related tests to confirm amenability of likely shipped ore to individual mill specifications.

## Summary

This Scoping Study evaluated two sub-surface mining methods to develop the large scale, high-grade Hansen deposit at the Tallahassee Uranium Project in Central Colorado. The Study clearly indicates that the application of HBHM may have the potential to mine the deposit economically, and when combined with beneficiation of ROM ore using HPSA, to achieve low costs to produce a high grade ore for processing at an offsite facility in Utah.

The analysis was developed from first principles based on the performance of laboratory scale testing of cores obtained from the ore body during a recent drilling program. These data on grade, thickness, lithologic and geotechnical information, and the use of small scale versions of the mining and beneficiation technologies involved, provide a strong support for the resultant designs and economic evaluation. The results clearly indicate a technical pathway forward and yield opportunities for enhanced designs and operations in future years of development.

## Reasonable Basis for Forward Looking Statements

No Ore Reserve has been declared. This ASX release has been prepared in compliance with the current JORC Code (2012) and the ASX Listing Rules. All material assumptions on which the Scoping Study production target and projected financial information are based have been included in this announcement and are disclosed in the table below.

Consideration of Modifying Factors (in the form of Section 4 of the JORC Code (2012) Table 1).

Area	Assumptions
<i>Study Parameters</i>	<ul style="list-style-type: none"> <li>• The Scoping Study has been prepared with accuracy of +/- 35%. There is no certainty that the findings of the Scoping Study will be realized.</li> <li>• The Company retains a 51% interest in the Project.</li> </ul>

Area	Assumptions
<i>Mineral Resources</i>	<ul style="list-style-type: none"> <li>The mineral resource estimate utilized in the Scoping Study was released on September 5, 2024. It was prepared by Tetra Tech of Lakewood, Colorado USA pursuant to the requirements of the JORC Code 2012 edition.</li> <li>There are no Ore Reserves at the Project</li> <li>Mineral resources at the Project are classified as indicated and inferred.</li> <li>Mineral resources are quoted at a cut-off grade of 0.025%.</li> <li>Approximately 39% of the uranium resource is in the indicated category and 61% is in the inferred category.</li> <li>Mining methods, metallurgical parameters and other material modifying factors were not considered for this resource calculation.</li> </ul>
<i>Mining Factors or Assumptions</i>	<ul style="list-style-type: none"> <li>This Scoping Study uses a modified grade cut-off of 0.075% <math>U_3O_8</math>, including a minimum thickness of 2 meters and a minimum GT of 0.15 m/%.</li> <li>Hydraulic borehole mining (HBHM) will be used to conduct the mining.</li> <li>HBHM utilizes a series of mid-sized drilling rigs to case, mine, and then backfill the mined caverns.</li> <li>Hydraulic borehole mining) can recover 95% of the mineralized material from each mining cavern and caverns can be spaced to cover 92% of the land area, resulting in an 87.4% recover factor.</li> <li>Each HBHM mining rig will mine with a water jet modelled at 4,000 PSI and 400 GPM with a production rate of 50 tons per hour and cavern diameter of 10 meters.</li> <li>Cavern backfilling is conducted immediately after mining to optimize the mining sequence, ground stability, and groundwater protection.</li> <li>Cavern backfill will consist of waste rock, fly ash, and cement to optimize curing time and stability.</li> </ul>
<i>Metallurgical Factors or Assumptions</i>	<ul style="list-style-type: none"> <li>Metallurgical amenability was tested extensively by Cyprus Mines and Cyprus developed a full flow sheet and mill design, including production of yellow cake. The process, using sulfuric acid digestion and solvent extraction, was found to be satisfactory for 1980 yellow cake specifications when the project was permitted. These data are assumed to be appropriate for this Scoping Study.</li> <li>While Metallurgical amenability has not been considered for the mineral resource estimation. Reports covering metallurgy on the Hansen Deposit have been reviewed by the Competent Person with no red flags.</li> </ul>
<i>Transportation</i>	<ul style="list-style-type: none"> <li>Beneficiated material will be transported by truck from the mine to a rail loadout near the mine for transport to a rail loadout in Utah where it will be transferred to trucks for final transportation to a mill.</li> </ul>
<i>Processing</i>	<ul style="list-style-type: none"> <li>Run of Mine material will be in an approximately 25-40% solids slurry, which will be sent first to a shaker screen to remove oversize (&gt;0.5 inch) and then directed to High Pressure Slurry Ablation (HPSA) for mechanical beneficiation. At the completion of beneficiation, the resulting ore fraction will be approximately 15% of the original mass with a grade of approximately 0.68% <math>U_3O_8</math>.</li> <li>HPSA has been tested on several sections of mineralized Hansen cores as early as 2010. Recognizing that virtually all of the mineralisation is associated with fine grained materials (&lt;60 mesh) and is generally softer than the feldspar and quartz or granite sand grains, the Ablation process is target-designed to mechanically separate coarse from fine materials without breaking the coarse material and creating additional fines. Testing of three mineralized samples in 2010 and 2011 resulted in recovery splits (%U recovered in % ROM mass) of 96%/7%; 93%/9%; and 93%/14%.</li> <li>The coarse material (comprising ~85 - 90% of ROM ore, with very little mineralized content—mainly barren sand grains—will be used to backfill the mined caverns, using cement and fly ash for a binder.</li> </ul>

Area	Assumptions
<i>Environmental</i>	<ul style="list-style-type: none"> <li>Environmental impacts of the HBHM are generally recognized by and are reflected in the conceptual design implicit in the Scoping Study.</li> <li>The mining plus beneficiation process is environmentally benign. All of the waste rock and coarse fraction from the beneficiation will be used for backfill of the caverns produced by HBHM. No slimes or tailings will be produced and require reclamation.</li> <li>The Company currently holds exploration/prospecting permits. Additional permits are required for future mining and beneficiation.</li> </ul>
<i>Infrastructure</i>	<ul style="list-style-type: none"> <li>Two major electrical transmission lines cross the project area.</li> <li>No natural gas pipelines lie within the project area.</li> <li>Paved roads, including a State Highway and a County Road, extend to within 8 km of the project area. All weather gravel roads connect directly to the project area.</li> <li>Water supply infrastructure does not currently exist in the project area.</li> <li>Mine operational and maintenance facilities will be installed in the project area.</li> </ul>
<i>Capital Costs</i>	<ul style="list-style-type: none"> <li>The total capital investment is estimated to be \$108.2M, including \$76.0M of initial capital (with 10% contingency) and \$32.2M of sustaining capital spread over the life of mine.</li> </ul>
<i>Operating Costs</i>	<ul style="list-style-type: none"> <li>Operating costs are estimated at \$US757M</li> </ul>
<b>Revenue Factors</b>	<ul style="list-style-type: none"> <li>Three revenue cases were run for each mining/beneficiation scenario: \$90, \$100, and \$110/lb U<sub>3</sub>O<sub>8</sub>. The \$90/lb was set as the base case.</li> </ul>
<i>Project Schedule</i>	<ul style="list-style-type: none"> <li>It is assumed that the Project has 4 years of pre-mining activities and a 7 year mine life.</li> </ul>
<i>Economic Parameters</i>	<ul style="list-style-type: none"> <li>The Scoping Study has been completed with a +/-35% accuracy for all cost estimation.</li> <li>A contingency of 10% was included on all initial capital costs.</li> </ul>
<b>Exchange Rates</b>	<ul style="list-style-type: none"> <li>Estimates in this announcement are presented in US\$. Exchange rates used in this Study are: Australian Dollar   1.00 AUD = USD 0.65</li> </ul>
<i>Community and Social Responsibility</i>	<ul style="list-style-type: none"> <li>Consultation with the local communities, the public, non-governmental organisations and private interests are ongoing and will continue.</li> </ul>
<i>Permitting</i>	<ul style="list-style-type: none"> <li>A Colorado Permit to Mine through the Colorado Division of Reclamation, Mining, and Safety (CDRMS) will be required for the Project.</li> <li>A permit for the beneficiation facility will be required from the Colorado Department of Public Health and Environment.</li> <li>A permit for the mining wells under the Underground Injection Control program, initially by the CDPHE and the EPA.</li> <li>A mining permit will be required from the Fremont County Planning Department and County Commission.</li> <li>Additional federal, state, and local permits may be required.</li> </ul>
<i>Other</i>	<ul style="list-style-type: none"> <li>Risks to the Project relate to uranium price, social license, and other risks as are customary for similar projects.</li> </ul>
<i>Audit and Reviews</i>	<ul style="list-style-type: none"> <li>The Scoping Study was prepared and reviewed under the JORC code.</li> </ul>



## JORC Code, 2012 Edition – Table 1 Report Template

### Section 1 Sampling Techniques and Data

*(Criteria in this section apply to all succeeding sections)*

Criteria	JORC Code Explanation	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li><i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>In cases where ‘industry standard’ work has been done this would be relatively simple (eg ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<ul style="list-style-type: none"> <li>Equivalent U<sub>3</sub>O<sub>8</sub> (eU<sub>3</sub>O<sub>8</sub>) grades during the summer of 2024 were calculated by COLOG Wireline Services, based in Colorado, USA.</li> <li>The eU<sub>3</sub>O<sub>8</sub> grades obtained from the 2007-2012 phases of drilling were calculated by Strata Data and Century Wireline Services, two geophysics and uranium logging companies based in Wyoming, USA. The uranium logging system used was truck mounted and measured both the radiometric and electric signals downhole. Two separate probe models, 9041 and 9057 were manufactured by Century Geophysics and each is capable of measuring total gamma count. The employed tools are regularly calibrated at a United States Department of Energy facility, following industry standards. Calibration of the tools allow for the calculation of eU<sub>3</sub>O<sub>8</sub> directly from the total gamma count measured downhole. Calculated eU<sub>3</sub>O<sub>8</sub> can be a reliable measure of uranium content, but on occasion can be subject to disequilibrium if radioactive elements other than uranium and its natural daughter isotopes are present.</li> <li>Historically, grade calculations were completed in a very similar manner although different probe models were used. Among the various geophysical logging companies to complete work historically at the Project, Century Geophysics was one of the preferred contractors for the original exploration.</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li><i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></li> </ul>	<ul style="list-style-type: none"> <li>The Company employed HQ core drilling during the 2024 field program. Cores from surface to TD were collected, boxed, logged, sampled and stored.</li> <li>The dominant drilling technique used historically has been rotary mud drilling from surface with rotary air and conventional percussion hammer sometimes used to drill through the overburden. Sample cuttings were collected and observed on 5 foot (1.5m) intervals. Historically a limited amount of conventional core drilling was completed through the ore zones. Previous core collection typically involved rotary mud to the top of the ore zone and then a switch to core drilling for collection of the mineralized interval.</li> <li>NQ3 and HQ3 core drilling was completed in the 2010’s by Black Range Minerals on the Hansen deposit.</li> </ul>

Criteria	JORC Code Explanation	Commentary
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The 2024 core drilling program exhibited excellent core recoveries that averaged 90% overall.</li> <li>• Mud rotary drilling is a common drilling technique used when drilling soft or poorly consolidated sediments, as the mud cakes on the borehole wall holding the hole open, allowing down hole logging in an open hole. No mud rotary samples have been sent to the lab for analysis as part of the mineral resource estimate.</li> <li>• Sample recovery has not been documented for rotary mud drilling as downhole logging works on the material present on the open borehole wall.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>• <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• During the 2024 program, core was photographed, logged for lithologic characteristics, RQD, oxidation, alteration and mineralisation.</li> <li>• In addition, e-logging for gamma ray was conducted to generate eU<sub>3</sub>O<sub>8</sub> values on a 0.1 foot intervals. Intercepts were then compiled for zones exceeding the 0.025% cutoff.</li> <li>• The geological characteristics of historical rotary cuttings have been visually logged every 5 feet (1.5m). Downhole gamma and electric logs were used to assist in the identification of lithology boundaries. The logs are best described as quantitative.</li> <li>• Core was logged in a qualitative nature and all core was photographed.</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Core testing in 2024 consisted of geotechnical parameters, including USC Stress/Strain; Brazilian Tensile Strength, Slake Durability, Moisture, and Density.</li> <li>• In addition, testing included mineralized core disaggregation using hydraulic cutting tools. The test results were compiled and videoed, and uranium (and trace elements) assayed before and after disaggregation testing.</li> <li>• Hydraulic cutting of samples for geochemical and radiological analysis across various size fractions was conducted. Geochemical analyses were compared to eU<sub>3</sub>O<sub>8</sub> results.</li> <li>• Core drilling was completed at Hansen in 2010's. Select samples were analysed for uranium and other elements. However, the downhole gamma calculations of eU<sub>3</sub>O<sub>8</sub> were used in the resource calculation.</li> <li>• Non-core material was not submitted to the laboratory for any analysis so there was no conventional quality control and splitting.</li> <li>• As described in "Sampling Techniques" gamma probes were used to calculate the eU<sub>3</sub>O<sub>8</sub> values used in the mineral resource estimation. The gamma probes were regularly calibrated.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether</i></li> </ul>	<ul style="list-style-type: none"> <li>• As described in "Sampling Techniques", gamma probes were used. The calibration of the tool allows for the calculation of eU<sub>3</sub>O<sub>8</sub> directly from the total gamma count.</li> </ul>

Criteria	JORC Code Explanation	Commentary
	<p><i>the technique is considered partial or total.</i></p> <ul style="list-style-type: none"> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<p>eU<sub>3</sub>O<sub>8</sub> can be a reliable measure of uranium content, but on occasion can be subject to disequilibrium if radioactive elements other than uranium are present.</p> <ul style="list-style-type: none"> <li>Core was submitted for chemical assay historically and then chemical data were used to confirm probe data and equilibrium conditions.</li> <li>As a quality control check, a second gamma survey using a second gamma probe was completed on one of the core holes drilled in 2024. Results between the two surveys were very close.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>The 2024 drill holes were not drilled as “twins” but were instead located within the ~200 foot x 200 foot grid in the high grade core of the mineralization at Hansen.</li> <li>Between 2007 and 2010 six historical holes were twinned with rotary mud drilling and a recent rotary mud hole was twinned with a core hole to verify results. Ten historical rotary mud holes were twinned with HQ core holes. The core hole twin holes were within the Hansen deposit and the six mud rotary twins were within the Taylor – Boyer leases.</li> <li>Between 2007-2010 the downhole surveyor provided data to Black Range Minerals in electronic and hard copy format, which was imported into the Company’s database.</li> <li>Disequilibrium studies in the 1970’s and 80’s concluded that no adjustments are required for the gamma calculated eU<sub>3</sub>O<sub>8</sub> values</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>The more recent drill collar coordinates have been determined using a handheld survey station GPS. Locations were verified by GPS during the site visit in August 2024 with reasonable accuracy for a study of this level.</li> <li>Historical holes were professionally surveyed in the late 1970’s and 1980’s.</li> <li>The datum used for surveying in the 1970’s and 1980’s was US State Plane, Colorado Central 1927, Feet. All the post-2006 GPS data were collected in UTM NAD83. The accuracy of the conversions and historical data were investigated using known holes with surveyed coordinates and was considered less than the GPS error.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and</li> </ul>	<ul style="list-style-type: none"> <li>Spacing of the drill holes in the 2024 program ranged from approximately 300 feet to 800 feet apart from each other in the high-grade core of mineralisation. The holes ranged from 50 to 150 feet from nearby historical drill holes.</li> <li>Drill spacing is variable across different areas of the Project, spacing is as broad as</li> </ul>

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	<p><i>Ore Reserve estimation procedure(s) and classifications applied.</i></p> <ul style="list-style-type: none"> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<p>800 feet (243m). The Hansen Deposit is drilled at a spacing of 200 feet. The drill spacing has been factored into the classification of the mineral resource.</p> <ul style="list-style-type: none"> <li>The downhole logging data were provided to the resource geologist on 0.5ft (0.15m) intervals. These were composited to 3ft (0.91) for the r, Hansen model.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul>	<ul style="list-style-type: none"> <li>Vertical drilling has exclusively been used as the target strata is sub-horizontal in a Tertiary paleochannel. Therefore, drilling intercepted the target strata very close to perpendicular.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>Wireline logging effectively replaces sampling, so sample security was not an issue.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Company's Competent Person has reviewed the data.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>Within the Project area, there are three private Mineral Leases whereby the Company has leased the privately owned mineral interests along with the right to explore and develop these minerals.</li> <li>The Company has entered an “Option to Purchase” agreement with STB Minerals who own 51% of the private Mineral Interests covering parts of the Hansen and Picnic Tree deposits.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Cyprus Mines Corp (Cyprus) conducted an extensive amount of drilling in the region from 1976 through until 1983. They drilled over 1,250 holes in excess of 110,000 meters with the majority within the Company controlled Project areas. Black Range Minerals drilled 64 holes for over 20,000 metres on the Company Leases between 2007 and 2009 and 10 core holes during 2010. Cyprus also conducted 3 feasibility studies at the Hansen Project, including mine designs, process designs and had all permits in place to commence mining in 1982.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The deposits that make up the Project are tabular sandstone deposits associated with redox interfaces. The mineralisation is hosted in Tertiary sandstones and/or clay bearing conglomerates within an extinct braided stream, fluvial system or paleochannel. Mineralisation occurred post deposition when oxygenated uraniferous groundwater moving through the host rocks came into contact with redox interfaces, the resultant chemical change caused the precipitation of uranium oxides. The most common cause of redox interfaces is the presence of carbonaceous material that was deposited simultaneously with the host sediments. In parts of the Project the paleochannel has been covered by Tertiary volcanics and throughout the Project the basement consists of Pre-Cambrian plutonic and metamorphic rocks. The volcanic and PreCambrian rocks are believed to be the source of the uranium.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>The Company has tabulated the drill hole result information for drill holes completed during the 2024 field season.</li> <li>A total of 553 historical and 2024 drill holes were used for the actual estimation inside the block model extents. Collar details for the holes drilled in 2024 are shown in the table below.</li> </ul>



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	<ul style="list-style-type: none"><li>○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li><li>○ dip and azimuth of the hole</li><li>○ down hole length and interception depth</li><li>○ hole length.</li><li>● If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li></ul>	<table><tr><th>HoleID</th><th>E (NAD83, Z13)</th><th>N (NAD83, Z13)</th><th>Elev. (m)</th><th>Azimuth</th><th>Dip</th><th>Depth (m)</th></tr><tr><td>TC2401</td><td>451243</td><td>4267607</td><td>2527</td><td>0</td><td>-90</td><td>200</td></tr><tr><td>TC2402</td><td>451303</td><td>4267525</td><td>2524</td><td>0</td><td>-90</td><td>213</td></tr><tr><td>TC2403</td><td>451382</td><td>4267411</td><td>2520</td><td>0</td><td>-90</td><td>212</td></tr><tr><td>TC2404</td><td>451546</td><td>4267207</td><td>2509</td><td>0</td><td>-90</td><td>222</td></tr><tr><td>TC2405</td><td>451927</td><td>4266962</td><td>2499</td><td>0</td><td>-90</td><td>229</td></tr><tr><td>TC2406</td><td>451941</td><td>4267087</td><td>2509</td><td>0</td><td>-90</td><td>216</td></tr><tr><td>TC2407</td><td>451838</td><td>4267166</td><td>2510</td><td>0</td><td>-90</td><td>241</td></tr><tr><td>TC2408</td><td>451812</td><td>4267276</td><td>2520</td><td>0</td><td>-90</td><td>232</td></tr></table>							HoleID	E (NAD83, Z13)	N (NAD83, Z13)	Elev. (m)	Azimuth	Dip	Depth (m)	TC2401	451243	4267607	2527	0	-90	200	TC2402	451303	4267525	2524	0	-90	213	TC2403	451382	4267411	2520	0	-90	212	TC2404	451546	4267207	2509	0	-90	222	TC2405	451927	4266962	2499	0	-90	229	TC2406	451941	4267087	2509	0	-90	216	TC2407	451838	4267166	2510	0	-90	241	TC2408	451812	4267276	2520	0	-90	232																																																																																																																	
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Data aggregation methods	<ul style="list-style-type: none"><li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li><li><i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></li><li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li></ul>	<ul style="list-style-type: none"><li>The majority of drilling results were aggregated using a simple average as the assay lengths are consistent and equal for all the reported drill holes.</li><li>For some of the drill holes, the full interval data is not available and the intersections were aggregated by a previous operator, the aggregation method is unknown.</li></ul>																																																																																																																																																								

Criteria	JORC Code Explanation	Commentary
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>• All drill holes at the Project are vertical and intersecting sub-horizontal, tabular mineralisation and therefore reported intersections are close to true widths.</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Company has included a project-wide map showing the distribution of all drilling</li> <li>• The Company has also included a single cross section to give an indication of the geometry, thickness and grades of mineralisation through the centre of the Hansen Deposit.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Company is reporting a Hansen-specific resource which is calculated from over 553 drill holes and each hole contributes to the resource estimation.</li> <li>• The Company has selected a single cross section through the middle of the Hansen Deposit to indicate what the geometry, thickness and the grade of the mineralisation looks like in the central portion including the most of the new core holes from 2024. The reporting of drill results is not balanced as it is a single cross section, but the resource calculation is a balanced representation of all drilling</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Company is reporting a JORC 2012 resource therefore there is a significant amount of other data that is discussed in section 1 of this Table. Hansen is an advanced Project that was previously permitted for open pit mining in the 1980's and has received over 750 drill holes and 3 Feasibility Studies.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Company has completed a 2024 drill program and is in the process of completing testing on the core to support a Scoping Study of mining methods.</li> </ul>

Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Company is undertaking permitting activities and planning of future drilling activities at its Boyer and Taylor Leases within the Tallahassee Project.</li> </ul>

## Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
<i>Database integrity</i>	<ul style="list-style-type: none"> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>Collar details, interval grades and survey data were entered from hardcopy historical records. Electronic data were available for recent drilling. Several sections were double blind checked for accuracy verification. Outliers from initial data entry for collar locations and grade results were investigated and corrected. Grade populations and three-dimensional locations were visually inspected in cross-section and also visually compared with historic maps and sections.</li> <li>Analytical values used for estimation of U<sub>3</sub>O<sub>8</sub>% are equivalent U<sub>3</sub>O<sub>8</sub>% (eU<sub>3</sub>O<sub>8</sub>%) values, which were obtained by down survey using calibrated geophysical instruments.</li> </ul>
<i>Site visits</i>	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>Ms. Kira L. Johnson, the Competent Person for Mineral Resource Estimation and Reporting, visited the property on August 20, 2024.</li> </ul>
<i>Geological interpretation</i>	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul style="list-style-type: none"> <li>There is high confidence in the geologic interpretation. The deposit is stratified and laterally consistent drill hole logging and surface mapping supports this conclusion.</li> <li>The data source for geologic interpretation is primarily drill hole logs and surface mapping. The model currently assumes minimal post mineralisation faulting.</li> <li>Deposit domains were confined by corresponding geologic units.</li> <li>Continuity of geology is on a regional sedimentary scale and is regular. Grade continuity is subject to deposition of carbonaceous material and oxidation reduction conditions from paleogroundwater carrying mobilized uranium.</li> </ul>
<i>Dimensions</i>	<ul style="list-style-type: none"> <li>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the mineral resource.</li> </ul>	<ul style="list-style-type: none"> <li>The Hansen deposit has a strike length of 9,200 ft (2,800 meters) and a width of 2,700 ft (823 meters).</li> </ul>
<i>Estimation and modeling techniques</i>	<ul style="list-style-type: none"> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a</li> </ul>	<ul style="list-style-type: none"> <li>The block model is comprised of 25x25x3 foot blocks.</li> <li>Commonly accepted multi-pass ordinary kriging was used to estimate the mineral resources.</li> <li>Uranium domains were modelled using wireframe solids. Composites values for estimation were also constrained by the wireframe.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p><i>description of computer software and parameters used.</i></p> <ul style="list-style-type: none"> <li><i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></li> <li><i>The assumptions made regarding recovery of by-products.</i></li> <li><i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i></li> <li><i>In the case of block model interpolation, the block size in relation to the average sample</i></li> <li><i>spacing and the search employed.</i></li> <li><i>Any assumptions behind modelling of selective mining units.</i></li> </ul>	<ul style="list-style-type: none"> <li>Search passes of 100, 500, and 800 foot radii were used in the estimation.</li> <li>A maximum of 4 samples were allowed per drill hole for the estimation process.</li> <li>A maximum of 16 total samples was used for the 100 foot pass, while a maximum of 20 total samples was used for the 500 and 800 foot search estimations.</li> <li>Estimates were checked and compared to historic estimates. Some historic surface mining was performed at the site.</li> <li>No recovery has been applied for the purposes of the mineral resource estimate.</li> <li>No deleterious elements (or credits) have been evaluated as part of the mineral resource estimate.</li> <li>Blocks have been sized as a trade-off between mineralized shapes and general mining selectivity.</li> <li>It is assumed that due to the soft sedimentary nature of the mineral zone good selectivity can be achieved.</li> <li>The models are single variable, only <math>U_3O_8</math>.</li> <li>Mineral domains were confined to sedimentary rock units and mineral horizons. Block search anisotropy was also fitted to the stratigraphy with the shortest axis being across dip, or horizon thickness.</li> <li>Capping was not applied. The high-end portion of the grade distribution was sufficiently uniform after compositing.</li> <li>Resource models were visually inspected in cross-section by multiple individuals. Any issues were flagged and corrected before finalisation of the model. The populations of grades, composites, and blocks were reviewed for continuity and moderation of grade toward final estimation.</li> <li>Previous block model estimations compared well with the data obtained in the 2024 drilling program.</li> </ul>
Moisture	<ul style="list-style-type: none"> <li><i>Whether the tonnages are estimated on a dry bases or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	<ul style="list-style-type: none"> <li>Tonnages are estimated on a dry basis. Moisture content has not been assessed as part of the mineral resource estimation.</li> </ul>
Cut-off Parameters	<ul style="list-style-type: none"> <li><i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>The 0.025% <math>U_3O_8</math> cutoff grade is based on a uranium oxide price of US\$50 per lb which was used in earlier estimates.</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Mining factors or assumptions</i>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>At this stage limited mining assumptions have been considered. Block thickness has been chosen for the Hansen Deposit as 3 ft (0.91m), selected to balance deposit thickness and reasonable selectivity. When further information is known regarding mining methods block dimensioning should be re-evaluated. Dilution has not been applied. Blocks have been assigned as within or outside of the mineral domain and property based on the location of their centroid.</li> </ul>
<i>Metallurgical factors or assumptions</i>	<ul style="list-style-type: none"> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>Metallurgical amenability has not been considered for the mineral resource estimation. Reports covering metallurgy on the Hansen Deposit have been reviewed by the Competent Person with no red flags.</li> </ul>
<i>Environmental factors or assumptions</i>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>Environmental impacts have not been accounted for in the mineral resource estimation. Appropriate baseline environmental studies were commenced by Black Range but not completed.</li> </ul>
<i>Bulk density</i>	<ul style="list-style-type: none"> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones</li> </ul>	<ul style="list-style-type: none"> <li>Density values have been sourced from the historic feasibility report titled <i>Mine Feasibility Study of the Hansen Project</i>; Date: June 1980 commissioned by the previous explorer Cyprus. Density determinations were made from 40 core drill holes by reputable analytical laboratories, on a dry basis.</li> <li>Density values are in line with expected values for sedimentary rocks of average porosity. Vugs have not been observed.</li> <li>Density values have been measured by rock type. Block tonnages of</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>within the deposit.</i></p> <ul style="list-style-type: none"> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials</li> </ul>	different rock types were estimated using densities corresponding to rock types.
Classification	<ul style="list-style-type: none"> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul style="list-style-type: none"> <li>Classification has taken into account relevant factors that affect confidence, such as drill hole count, distance to drill holes, and kriging error.</li> <li>Blocks estimated in the 100-foot pass were classified as Indicated. Blocks from the 500- and 800- foot pass were classified as Inferred. Holes that were initially classified as Inferred were upgraded to Indicated where the estimation used 3 or more holes and had an average sample distance of less than 150 feet.</li> <li>The classifications of confidence appropriately reflect the Competent Person's view of this deposit and are reasonable provided the drill spacing and spatial variability suggested by variogram analysis.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Mineral Resource estimates</li> </ul>	<ul style="list-style-type: none"> <li>Review work undertaken in relation to the mineral resource estimate has included visual review of cross-sections comparing blocks to down hole grades. Populations of grades, composites and blocks and their general distribution have been reviewed to ensure no bias in estimation. In addition, confirmatory drilling has been conducted which reasonably supports the predictions made by the block model. Third party auditors have also inspected the cross-sections and mineral resource findings without issue.</li> </ul>
Discussion of relative accuracy/confidence	<ul style="list-style-type: none"> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul style="list-style-type: none"> <li>Accuracy and variability have been assessed through visual review of cross-sections, comparing blocks to drill hole grades.</li> <li>This mineral resource estimation has reasonable global reliability, but local variability is subject to the nugget effect observed in variography. It is the Competent Person's opinion that indicated and inferred mineral resources are of sufficient reliability to support scoping level analysis.</li> <li>No production data is available.</li> </ul>

## References

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