23 October 2023

Companies Announcement Office
Via Electronic Lodgement

PENINSULA ESTABLISHES SIGNIFICANT NEW URANIUM DEVELOPMENT PROJECT

KEY POINTS

- Newly established Dagger Project expands the Company's mineral rights near its advanced stage, flagship Lance Project, which is on track for production restart in late 2024
- Dagger is located approximately 20km NE of the Lance Project facilities
- Initial Mineral Resource Estimate for Dagger of **6.9 million pounds U_3O_8** (Inferred) at an **average grade of 1,037 ppm**
- Dagger is contiguous with a past successful uranium mining site
- Historic exploration records were evaluated to establish the Dagger acquisition target area
- Multiple mineral rights packages totalling approximately 4,140 acres were successfully acquired and consolidated over eight years to form the Dagger Project
- Total expenditure of approximately US$800,000 to acquire the Dagger mineral rights package
- A drilling program is planned for FY2024 to facilitate a potential resource upgrade
- Both the Barber Resource Area at Lance and the Dagger Project provide Peninsula with significant exploration and development growth upside

Peninsula Energy Limited and its wholly owned subsidiary Strata Energy Inc. (together "**Peninsula"** or the "**Company"**) (**ASX:PEN, OTCQB:PENMF**) are pleased to announce the establishment of a new uranium development project, the Dagger Project ("**Dagger**"), which boasts an initial Mineral Resource Estimate ("**MRE"**) of 6.9 million pounds ("**Mlbs**") U_3O_8 (see Table 1). The MRE is based solely on significant historical drilling information.

The Dagger Project area consists of approximately 4,140 acres of mineral rights and lies approximately 20 kilometers Northeast of the Company's flagship Lance Project ("**Lance**") facilities in Wyoming, USA. Wyoming is a leading US uranium mining jurisdiction. The MRE assumes mining by In-situ Recovery ("**ISR"**) methods.

Dagger provides the Company with a relatively high-grade uranium resource, location diversity within a top mining jurisdiction and further opportunities to increase the scale and quality of Peninsula's mineral resource holdings. Dagger also provides the opportunity to develop a satellite production operation in close proximity to Lance.

Peninsula Managing Director and Chief Executive Officer Wayne Heili said:

"We are very excited to complete this successful long-term acquisition initiative, which has resulted in the establishment of the Dagger Project which boasts an initial JORC inferred U_3O_8 mineral resource estimate of 6.9 million pounds U_3O_8. Importantly, Dagger is located only 20km from our Lance Project facilities, which provides the Company with an exciting opportunity to further increase the size and scale of our already sizeable Mineral Resource inventory.

"Buoyed by the robust uranium market that provides a supportive environment for re-emerging producers and project developers, we have utilized our in-house knowledge and expertise to expand our project pipeline. Dagger perfectly complements the Lance Projects, which once in production, will be one of the largest uranium in-situ recovery (ISR) operations in the United States. The establishment of the highly prospective Dagger Project adds greater depth and expansion optionality to our growing Company.

This strategic development comes at an opportune time with the United States government looking to take meaningful action to reinvigorate its domestic uranium production and nuclear fuel cycle capacity, whilst the Company continues preparing for the resumption of commercial production at our US-based Lance Projects by late 2024."

The Company established the Dagger Project through a series of mineral rights and data acquisition transactions spanning an eight-year period. The latest acquisition of mineral rights was completed with a private party and finalized recently. The combined State and Federal Mineral rights cover an area with historically identified uranium mineralization contiguous to past uranium mining sites.

A MRE for Dagger was prepared in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) by Mr. Benjamin Schiffer, who qualifies as a competent person under the JORC (2012) Code. Mr. Schiffer is employed by independent consultant Western Water Consultants, Inc. d/b/a WWC Engineering. An available exploration data set was evaluated using modern roll-front mapping techniques and Grade-Thickness (GT) outline resource calculation methodology. Uranium grades were determined by a combination of downhole gamma geophysical measurements and chemical assay verification on core samples. Mr. Schiffer has verified historical drilling data and records within Dagger and consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.

The MRE assumes mining by ISR methods and is reported at a cut-off grade above a 0.02 % eU_3O_8 and a minimum grade-thickness ("**GT**") of 0.2. The MRE declares an inferred resource of **3.0 million tonnes** of mineralization at an **average grade of 1,037 ppm U_3O_8** for **6.9 Mlbs of U_3O_8 contained metal**.

As the reported resources are based solely on historical drilling information, the resource classification was restricted to the Inferred Resource category.

The Company is planning a confirmation drilling programme at Dagger during the current fiscal year (FY2024), which will assist the preparation and publication of an updated JORC (2012) compliant resource estimate. While it would be reasonable to expect that the majority of Inferred Mineral Resources would upgrade to Indicated Mineral Resources with continued exploration and confirmation drilling, due to the uncertainty of Inferred Mineral Resources, it should not be assumed that such upgrading will always occur.

Dagger Project Background

The Dagger Project is located in Crook County, Wyoming within the North Black Hills district in the Northeast corner of the State, approximately 20 km Northeast of the Company's Ross Processing Plant at Lance (see Figure 1). The project is directly accessible from Lance via existing, well-maintained, all-season public roadways.

Homestake Mining Company was the main explorer of the North Black Hills district and operated the Hauber underground uranium mine, which was located at the Northern boundary of Dagger. The Hauber Mine produced approximately 2.6 million pounds of U_3O_8 at an average grade of 0.22% U_3O_8 from 1957 to 1966. The Hauber ore was milled by conventional acid leach processes, yielding a high uranium recovery rate and a vanadium by-product stream. The Hauber mine was subsequently closed and fully reclaimed.

Following mine closure, Homestake continued to explore the North Black Hills district with a focus toward identifying additional open pit, underground and ISR amenable deposits. Homestake's exploration programme identified an unmined resource of 2.7 million tonnes of mineralized material grading 0.13%

eU_3O_8 and containing an estimated 6.9 million pounds eU_3O_8. The values discussed in this paragraph were extracted from an unpublished Homestake report dated 13 March 1986 titled *"Property Recommendations, Retentions and Terminations."* These values are not JORC compliant and should not be considered as either resources or reserves at any level of confidence.

Homestake's exploration database for the district is now publicly available and consists of reports, information on thousands of drill holes, maps, well logs and chemical assay information gathered from their programme. Data from over 4,800 drill holes, including both mineralised and barren holes, is available. Total drilling was approximately 300,000 m, and over 150,000 m were logged. Peninsula obtained a large portion of the Homestake database. Based on an extensive re-evaluation of the data, the Company secured substantial mineral rights to establish the Dagger Project.

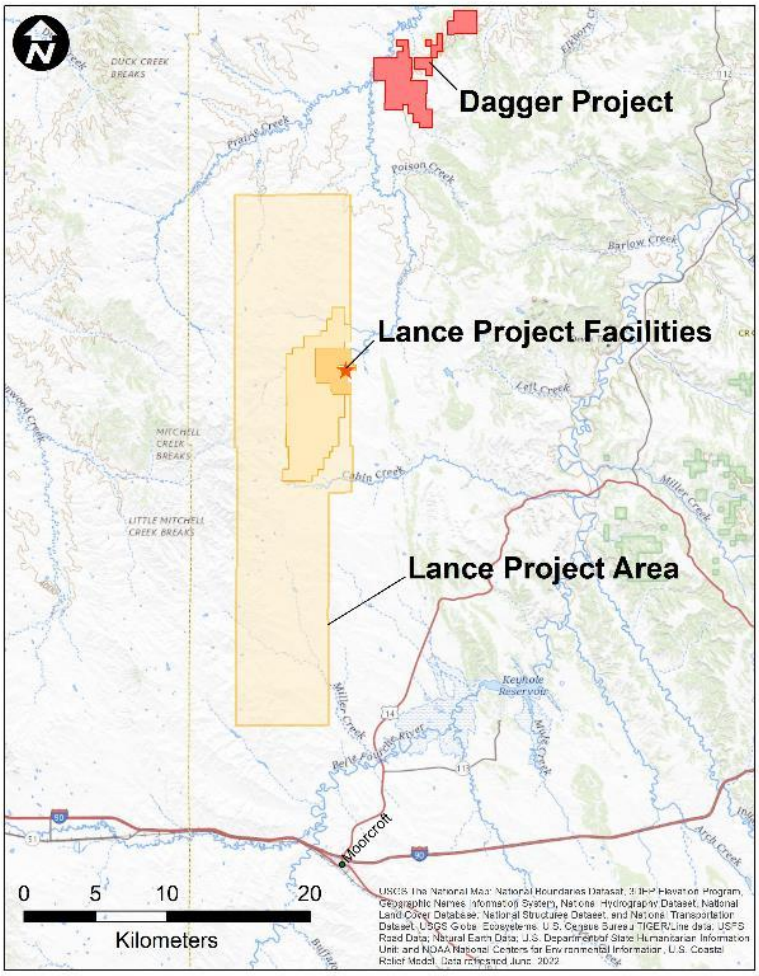

Figure 1: Peninsula's Lance and Dagger Projects

The Dagger Project consists of mineral rights covering the approximate areas outlined below and shown on Figure 3:

- 680 acres of Federal mineral claims, acquired by the Company in 2015;
- 1,860 acres of Federal minerals claims acquired by new claim staking in 2022;
- 960 acres of mineral leases acquired from the State of Wyoming in 2022; and
- A 640 acre State mineral lease acquired from a private vendor in 2023.

The cost to acquire the combined mineral rights was approximately US$800,000. State mineral leases in Wyoming carry a 4% overriding royalty. An additional 1% overriding royalty is attached to the 640-acre State lease area acquired in 2023. The areas covered by the Federal mineral claims are free of any royalty obligations.

Dagger Mineral Resource Estimate

A MRE for Dagger was prepared by Mr. Benjamin Schiffer in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code).

JORC CATEGORY	Tonnes (Mtonnes)	Grade (U_3O_8 ppm)	U_3O_8 Metal (KTonnes)	U_3O_8 Metal (Mlbs)
Inferred	3.0	1037	3.1	6.9
Total	3.0	1037	3.1	6.9

Table 1: Dagger Mineral Resource Estimate* (October 2023)

*Reported above a 0.02 % $_eU_3O_8$ grade and a 0.2 GT cut-off

The MRE assumes mining by ISR methods and is reported at a cut-off grade above a 0.02 % $_eU_3O_8$ and a minimum grade-thickness ("**GT**") of 0.2. The cut-off parameters are typical of ISR uranium industry standards within the Wyoming ISR uranium industry.

Figure 2 is a West to East geologic cross section across the Dagger area that depicts geophysical logs and continuity of the underlying uranium host formations.

Figure 3 depicts the interpreted uranium mineralization trends along with the drill hole locations used to establish the mineral trends and resource estimate.

Figure 4 presents a stratigraphic section of the Dagger area, depicting the overall geologic setting.

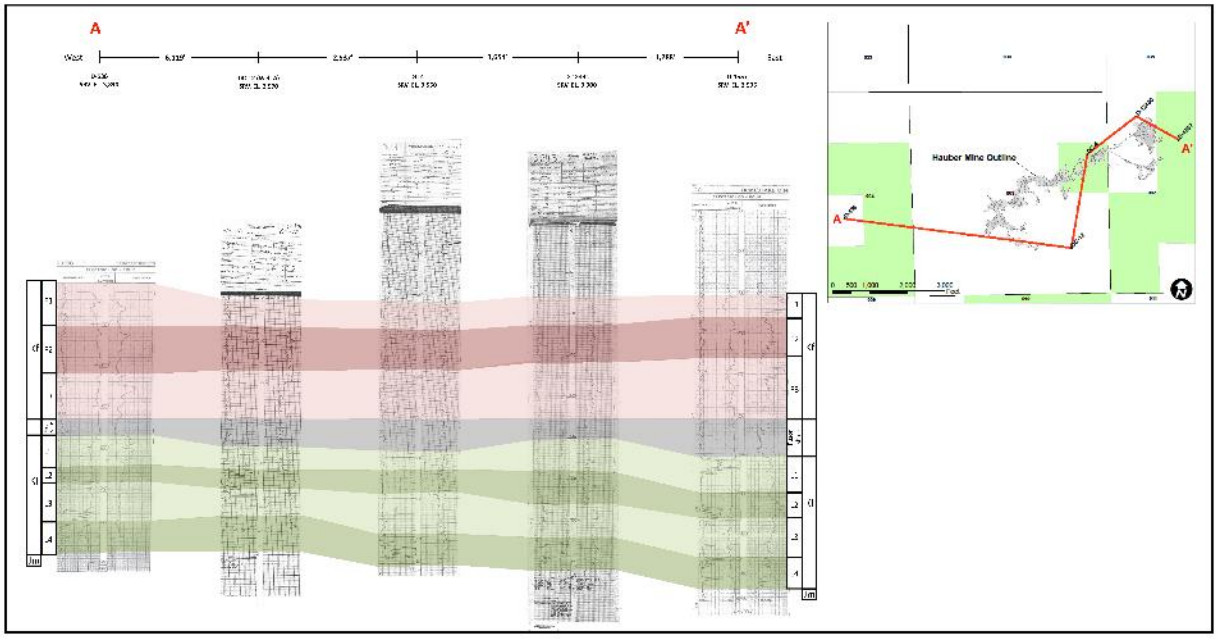

Figure 2: Cross Section A-A' Across the Dagger Project Area

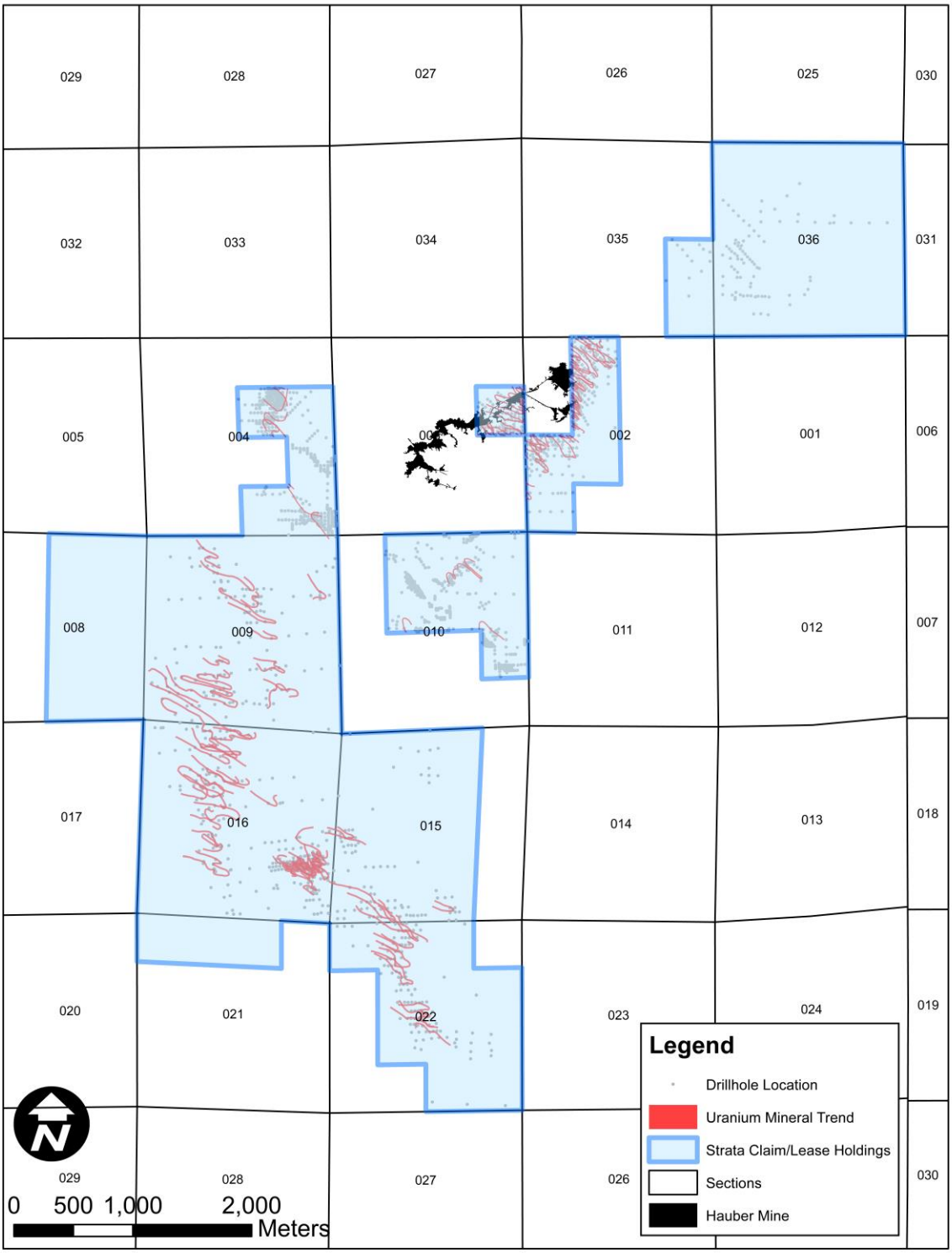

Figure 3: Dagger Project Mineral Rights Area and Uranium Trend Map with drill hole locations

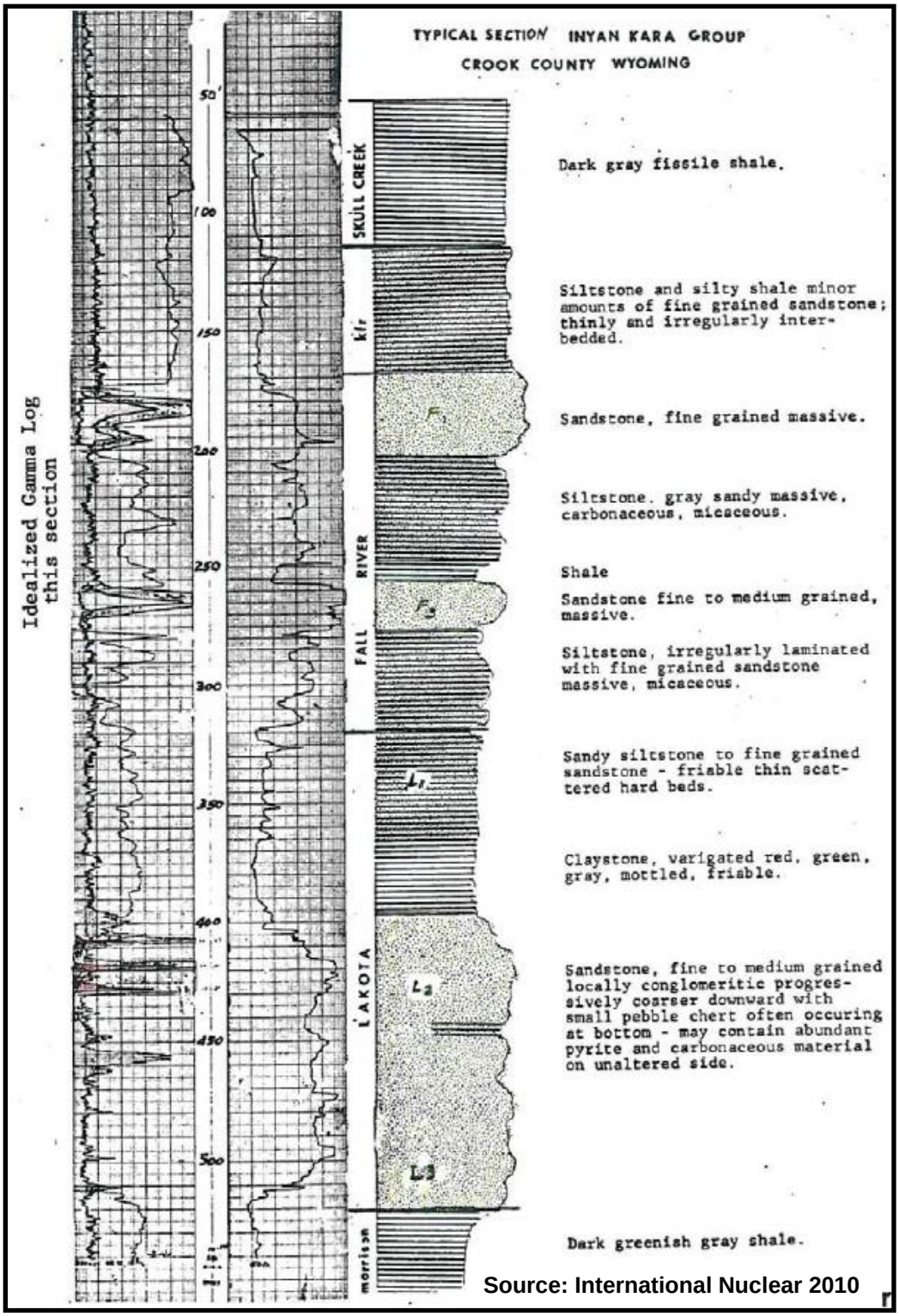

Figure 4: Dagger Project Geologic Setting – Stratigraphic Section

JORC Code, 2012 Edition – Table 1 Sections 1, 2 & 3 is attached to this announcement as **APPENDIX 1.** The table is a complete description of the assessment and reporting criteria used in the Dagger Project MRE that reflects those presented in Table 1 of *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves* (JORC Code, 2012).

Resource Classification

The Resource has been classified in the Inferred category in accordance with the 2012 Australasian Code for Reporting for Mineral Resources and Ore Reserves (2012 JORC Code). A range of criteria has been considered in determining this classification including data quality and drill hole spacing. As the reported resources are based solely on historical drilling information, it was determined that the resource classification would be limited to the Inferred Resource category where drilling density could lend to defining an Indicated resource.

The Company is planning a confirmation drilling programme at Dagger during the current fiscal year (FY2024) that will assist the preparation and publication of an updated JORC (2012) compliant resource estimate. While it would be reasonable to expect that the majority of Inferred Mineral Resources would upgrade to Indicated Mineral Resources with continued exploration and confirmation drilling, due to the uncertainty of Inferred Mineral Resources, it should not be assumed that such upgrading will always occur.

Mining and Metallurgical Methods

The MRE assumes mining by modern ISR techniques to recover uranium from the identified mineral trends. To be amenable to ISR methods, the identified uranium mineralization must occur within saturated zones laying below the static water table and permeability and transmissivity of the host deposit must allow for adequate flow of lixiviant. The limited available hydrology testing data from across the project suggests that appropriate hydrogeologic conditions are present to support ISR as a mining method. Roll-front uranium deposits have been successfully recovered through ISR in this geologic setting.

There are a variety of lixiviants and methods that can be used depending on the composition of the mineral and the host rock. No metallurgical testing has been conducted by Peninsula. The most recent metallurgical testing in the Project area was completed by Homestake.

Homestake contracted the Colorado School of Mines Research Institute ("**CSMRI**") to conduct bottle roll leach testing to determine if the uranium mineral was amenable to ISR. One series of tests was conducted with sodium carbonate-sodium bicarbonate lixiviant and the other series with ammonium carbonate lixiviant. The results of CSMRI testing indicated good amenability to recovery with the sodium carbonate/bicarbonate lixiviant and did not provide amenable results for the ammonium lixiviant testing. However, an ammonium lixiviant would most likely not be used due to the difficulties associated with groundwater restoration (International Nuclear 2010). Uranium ore mined at the adjacent Hauber Mine by Homestake, using underground mining methods, was successfully recovered utilizing conventional acid leaching chemistry.

The Competent Person considers the historical metallurgical testing and results to be adequate to support the inferred mineral estimate. However, confirmation testing and disequilibrium analysis is advised.

Competent Persons Statement

The information in this report that specifically relates to Exploration Results and Mineral Resources at the Dagger Project is based on information compiled by Mr Benjamin Schiffer. Mr Schiffer is a Registered Professional Member of the Society of Mining, Metallurgy and Exploration (Member ID #04170811). Mr Schiffer is a professional geologist employed by independent consultant WWC Engineering, which provides services to the Company on a contractual basis. Mr Schiffer has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Schiffer consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears. Mr. Shiffer doesn't hold securities in the Company.

This release has been approved by Peninsula's Board of Directors.

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About Peninsula Energy Limited

Peninsula Energy Limited (PEN) is an ASX-listed uranium mining company with its' 100% owned Lance Project in Wyoming one of the largest near-term uranium development projects in the United States. Currently undergoing a project transformation initiative, the long-life Lance Project is transitioning to a low cost and environmentally friendly low pH ISR operation. Once back in production, Lance will establish Peninsula as a fully independent end-to-end producer of yellowcake. Lance is well-placed to become a key supplier of uranium and play an important role in creating a clean energy future.

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Geology and Geological Interpretation

The deposits are epigenetic uranium roll-fronts. The Project is located near the eastern periphery of the Powder River structural basin and on the western margin of the Black Hills Uplift. The uranium deposits are hosted in the sandstones of the Lower Cretaceous Inyan Kara Group, in the Fall River and Lakota sandstones. The host sandstones dip 2 to 5 degrees.

It is assumed that this deposit is consistent with similar Wyoming and South Dakota roll-front uranium deposits. This assumption is supported by the available data. The geologic alteration type and depth and thickness of sand units were used to guide and control mineral resource mapping, which resulted in the mineral resource estimate. Confidence in continuity of grade and geology is based on drill hole spacing.

Sampling and Sub Sampling Techniques

Sampling was performed by Homestake Mining Company (Homestake) in the 1970s through 1980s. The resource estimate was prepared using data collected by downhole radiometric gamma logging equipment. Lithology was recorded for each drill hole from surface to total depth. Intercept, grade and thickness are determined through interpretation of the downhole gamma log data. A database of digitized intercept, grade, and thickness, along with lithologic data from > 4,800 historical drill holes were used to map the mineralisation. The drilling program was based on a grid system, which evenly sampled large areas and avoided introducing sample bias.

Drilling Techniques

Drilling was performed by Homestake in the 1970s through 1980s using the mud rotary method. Core drilling was also performed but details of the core drilling program are not currently available and no core sample data was used for the resource estimate.

Criteria used for classification

The entire mineral resource is currently in the Inferred confidence category. This categorization reflects the Competent Person's view of the deposit and is based on the confidence in the entirety of the available data at the current level of review and validation, which is sufficient to imply but not verify geologic and grade continuity. It is anticipated that the category will be upgraded for portions of the resource with additional verification.

Sample analysis method

Assay was by downhole radiometric gamma logging, which measures gamma counts. Calibration data is then used to calculate eU3O8.

Estimation Methodology

The Resource has been classified in the Inferred category in accordance with the 2012 Australasian Code for Reporting for Mineral Resources and Ore Reserves (2012 JORC Code). A range of criteria has been considered in determining this classification including data quality and drill hole spacing. As the reported resources are based solely on historical drilling information, it was determined that the resource classification would be limited to the Inferred Resource category where drilling density could lend to defining an indicated resource.

The Company is planning a confirmation drilling programme at the Dagger Project during the current fiscal year (FY2024) that will assist the preparation and publication of an updated JORC (2012) compliant resource estimate. While it would be reasonable to expect that the majority of Inferred Mineral Resources would upgrade to Indicated Mineral Resources with continued exploration and confirmation drilling, due to the uncertainty of Inferred Mineral Resources, it should not be assumed that such upgrading will always occur.

Cut-off Grade

The MRE assumes mining by ISR methods and is reported at a cut-off grade above a 0.02 % eU3O8 and a minimum grade-thickness (“GT”) of 0.2. The cut-off parameters are typical of ISR uranium industry standards within the Wyoming ISR uranium industry.

Mining and metallurgical methods and parameters and other modifying factors

It is assumed that the deposit is metallurgically amenable to ISR. Roll-front uranium deposits have been successfully recovered through ISR in this geologic setting. There are a variety of lixiviants and methods that can be used depending on the composition of the mineral and the host rock.

It is assumed that the waste generated will be similar to other nearby ISR mines and that the disposal methods and costs will also be similar.

No other material modifying factors have been considered to date in the preparation of the MRE.

APPENDIX 1

JORC Code, 2012 Edition – Table 1 Sections 1, 2 & 3

Section 1: Sampling Techniques and Data

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

The table below is a description of the assessment and reporting criteria used in the Dagger Project Mineral Resource Estimate (MRE) that reflects those presented in Table 1 of *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves* (JORC Code, 2012).

Criteria	JORC Code Explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representativity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* *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.*	Sampling was performed by Homestake Mining Company (Homestake) in the 1970s through 1980s using the following techniques. • Core sampling was performed, but details on the core sampling program are not currently available. Core sampling data was not used to prepare the resource estimate. • The resource estimate was prepared using data collected by downhole radiometric gamma logging equipment. Measurements made by the logging tool are used to calculate equivalent U_3O_8 (eU_3O_8) of the in-situ mineral. Spontaneous potential and resistivity logging data were also collected with downhole tools. • Lithology was recorded for each drill hole from surface to total depth. • Intercept, grade and thickness are determined through interpretation of the downhole gamma log data. • Some of the radiometric gamma logs include notes about the tool calibration, indicating that the tools were calibrated regularly, consistent with standard practice in uranium exploration. No further details of the Homestake calibration program are currently available. • A database of digitized intercept, grade, and thickness, along with lithologic data from > 4,800 historical drill holes were used to map the mineralisation. • The drilling program was based on a grid system, which evenly sampled large areas and avoided introducing sample bias. • The consistency of adjacent drill hole samples across the mineralised horizons confirm sample representativity. Very closely-spaced ("twinned") holes provided additional confirmation.

Criteria	JORC Code Explanation	Commentary
Drilling techniques	• *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).*	Drilling was performed by Homestake in the 1970s through 1980s using the mud rotary method. Core drilling was also performed but details of the core drilling program are not currently available and no core sample data was used for the resource estimate.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	Core sampling was performed by Homestake in the 1970s through 1980s. No chip sampling was conducted. • Core drilling was performed but no core sample data was used for the resource estimation. • A comparison of radiometric gamma logging and core assay data in previous reports indicate some missing core data but generally good correlation between radiometric gamma grades and chemical assay grades. • No further information is currently available on the Homestake core recovery methodology or measures taken to maximize core recovery. It is unknown if there was sample bias in core recovery and grade. • The summarized core data indicated good correlation across a range of grades, indicating it is unlikely that significant sample bias existed. • Because the estimate is based on radiometric gamma logging on in-situ mineral resources, the lack of information about drill sample recovery is not material to the mineral resource estimate.
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	Geological logging was performed by Homestake in the 1970s through 1980s. • Geological logs evaluated drill cuttings at a minimum of every ten feet (3m) and include depth, rock type, colour, grain size, alteration and general description. Drill cuttings were not saved after evaluation by the on-site geologist. • These geological logs included the geophysical logs on the same depth scale, which improved the ability to interpret mineral intercepts and reduction/oxidation states. • The logging detail is appropriate to support mineral resource estimation. • Geological logging is quantitative in nature. • Total drilling was approximately 300,000 m, and over 150,000 m were logged. Logs are currently available for over 115,000 m. The available logs are typically for the entire drill hole depth.

Criteria	• JORC Code Explanation	Commentary
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representativity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	Core sampling and mud rotary drilling was performed by Homestake in the 1970s through 1980s. • Details on the Homestake coring program are not currently available. • Details on the Homestake mud rotary drilling sample techniques are not currently available. • No physical core or mud rotary sample data was used for the resource estimate. • Because the estimate is based on radiometric gamma logging of in-situ mineral resources, sub-sampling techniques and sample preparation are not material to the resource estimate.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *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.*	Core sampling and mud rotary drilling was performed by Homestake in the 1970s through 1980s. • Details on the Homestake coring program assay quality are unknown, but core sample data was not used to estimate mineral resources. • Assay was by downhole radiometric gamma logging, which measures gamma counts. Calibration data is then used to calculate eU_3O_8. • Details on the Homestake gamma logging equipment, calibration, procedures and quality control are not currently available. • Some of the radiometric gamma logs include notes about the tool calibration, indicating that the tools were calibrated regularly, consistent with standard practice in uranium exploration. • The parameters used to calculate uranium grade from the radiometric gamma log counts include dead time, K-factor and water factor. • Quality control of radiometric gamma logging included logging adjacent (twinned) drill holes to confirm the results were consistent, and laboratory assay of core samples. • This radiometric gamma log assay technique is considered partial because it measures decay products of uranium, which may not accurately reflect the uranium content if radiometric disequilibrium is present. The presence of radiometric disequilibrium can only be evaluated by comparing radiometric gamma assay results with direct uranium assay techniques such as laboratory assay or prompt fission neutron assay.

Criteria	JORC Code Explanation	Commentary
Quality of assay data and laboratory tests (cont.)		• A comparison of radiometric gamma logging and core assay data in previous reports indicates generally good correlation between radiometric gamma grades and chemical assay grades. This supports the initial assessment that the radiometric gamma grades are generally representative of the uranium grade. • Details on the Homestake quality control procedures for the core sample laboratory analysis are not currently available.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	Sampling and assaying were conducted by Homestake in the 1970s through 1980s. • Details on the Homestake verification of sampling and assaying are not currently available. • Twinned holes drilled by Homestake were used to verify radiometric gamma logging results. • Laboratory assay of core samples were also used to verify radiometric gamma logging results. • Gamma logging data was documented on hard-copy logs. • Details on the Homestake data management procedures are not currently available. • None of the available records reviewed indicate any adjustments were made to radiometric gamma or laboratory assay data. Verification of Homestake data was conducted by the Company and included: • Utilizing geophysical logs to assign mineralisation to stratigraphic horizons and roll front zones. • Verifying Homestake mapping of depths and intercept data against the original geophysical logs.
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	Drill hole surveying was conducted by Homestake in the 1970s through 1980s. • Based on the consistency of the data, the completeness of records and the company reputation, the accuracy and quality of surveys conducted by Homestake are believed to be good. • Homestake used a local grid system that assigned a value of 100,000.00 ft east and 100,000.00 ft north to the northwest corner of Public Land Survey System Township 55 North, Range 67 West, Section 2. • Drill hole locations were plotted on maps by Public Land Survey System section, which also included corresponding northing/easting values for the local grid system in feet. • Quality and adequacy of topographic control are believed to be good.

Criteria	JORC Code Explanation	Commentary
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Data spacing and distribution are more than sufficient to establish the geological and grade continuity appropriate for Inferred Mineral Resources. • Sample compositing has not been applied.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• Homestake drill holes were oriented in roughly grid-shaped patterns. Drill holes were spaced approximately 150 to 300 m apart to identify areas of mineralisation. Drilling density was then increased to a rough grid with drill holes spaced approximately 30 to 75 m apart. • Once the mineral horizons were located, denser drilling based on initial mapping of the roll-front mineral horizons was used to provide additional data for more detailed mapping. • The grid pattern used for the majority of drilling provides an unbiased sampling orientation to identify possible structures. This method is commonly used in roll-front uranium deposits.
Sample security	• *The measures taken to ensure sample security.*	• Because the radiometric gamma logging assay method used to prepare the mineral resource estimate measures the mineral in-situ, physical samples are not taken. Consequently, physical sample security measures are not applicable. • Details on security measures taken by Homestake for core samples are not currently available but are assumed to be consistent with uranium industry standards. Core sample security measures are not material to the mineral resource estimate, because core samples were not used to prepare the mineral resource estimate. • Electronic data including geophysical logs are stored on secure company servers which are backed up on a portable hard drive. Additionally, physical copies of Homestake geophysical logs and maps are stored at the Company's Lance Project in Oshoto, WY, USA.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	Reviews of the Homestake radiometric gamma log assay data have been conducted by several consultants, who have all found that the data quality is good.

Section 2: Reporting of Exploration Results

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

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	• *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.* • *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.*	• As of April 2023, Peninsula has mineral rights over land holdings of approximately 4,140 acres. These rights include state mineral leases and unpatented federal lode claims. The tenure of the state leases and federal claims is secured through the continued payment of the applicable fees. • Surface ownership includes private, state and federal (BLM-managed) lands. Access to private land is by confidential agreement with the owners. Access to public land is obtained through established processes. • There are no known impediments to obtaining a license to operate in the area.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Homestake operated the Hauber underground mine during the 1950s and 1960s and produced over 2.6 million pounds of uranium from the Lakota sandstone. • Additional exploration was conducted by Homestake in the 1970s through 1980s. This exploration included drilling over 4,800 holes with a total drilled depth of approximately 300,000 m. • Canadian NI 43-101 technical reports evaluating the Homestake exploration data were prepared by International Nuclear, Inc. in 2010 and 2014. • The area has been extensively studied and explored, and this work is well-documented.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The deposits are epigenetic uranium roll-fronts. • The Project is located near the eastern periphery of the Powder River structural basin and on the western margin of the Black Hills Uplift. The uranium deposits are hosted in the sandstones of the Lower Cretaceous Inyan Kara Group, in the Fall River and Lakota sandstones. • The host sandstones dip 2 to 5 degrees.

Drill hole Information	• *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:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
		• Homestake drill hole information includes the location, elevation, total depth, and the depth, thickness and grade of intercepts. All drill holes were near-vertical and small deviations did not materially affect the mineral resource estimate. Drill hole depths were up to 250 m, intercept depths ranged from 0 to 245 m, and intercept thicknesses range from 0.15 to 15 m. The average intercept thickness is approximately 1 m.
		• Data from over 4,800 drill holes, including both mineralised and barren holes, is available for the

Criteria	JORC Code Explanation	Commentary
Drill hole Information (cont.)	○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* *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.*	Project. • Tabulated data is not provided here because the detailed information is confidential and proprietary, as is the specific methodology of roll-front interpretation used to prepare the mineral resource estimate. The Competent Person has full access to the data and has independently verified the data quality and completeness. The exclusion of the tabulated data does not detract from the understanding of the report, because the information necessary to understand the quality of the data, completeness of the dataset and potential limitations are provided in summarized form herein. Additionally, since the resources are in the Inferred category, geologic and grade continuity are implied. The summarized information presented is consistent with this level of confidence.
Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• A grade cutoff of 0.01% eU_3O_8, thickness cutoff of 0.5 ft (0.15 m) and grade-thickness (GT) cutoff of 0.2%-ft (0.0015%-m) were used. • As is standard for uranium roll-front deposits, multiple intercepts within the same mineral horizon were summed. • The grade and thickness of the individual intercepts vary, but there are no exceptionally high-grade intercepts and very few intercepts are more than 5 m thick. • Aggregation does not combine intercepts of exceptionally different grades and thicknesses. Radiometric gamma logging assay grades are reported as eU_3O_8. This is based on the assumption that the deposit is in radiometric equilibrium. This assumption is supported by limited summarized laboratory assay results in previous reporting. If the deposit, or portions of the deposit, are not in radiometric equilibrium, the eU_3O_8 values will not be representative.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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').*	• In epigenetic roll-front uranium deposits, the mineralisation width is relatively narrow and is not correlated with the intercept length. • All drill holes were nearly vertical and the host sandstone dips at 2-5 degrees. • Resources are estimated based on the horizontal distance between drill holes (not the distance along the host sandstone dip). • Because of the host sandstone dip, the measured intercept thickness may be very slightly high, and the measured mineral horizon length may be very slightly low. These differences are very small (<0.5%), offset each other, and are well within the confidence limits of the mineral resource estimation method.

Criteria	JORC Code Explanation	Commentary
Diagrams	• *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.*	Diagrams showing drill hole locations, the mapped mineral resource, and a geologic cross-section through the mineral resource are included. Further details are confidential and proprietary.
Balanced reporting	• *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.*	• eU_3O_8 grades range from 0.01 to 0.98%; average grade is approximately 0.1%. Intercept thickness range from 0.15 to 15 m; average thickness is approximately 1 m. • The reported mineral resource estimate is comprehensive and representative and the methodology was applied consistently for all grades and lengths.
Other substantive exploration data	• *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.*	• Homestake operated the Hauber underground mine, which produced approximately 2.6 million pounds of uranium from the Project deposit during the 1950s and 1960s. • No other exploration data that has been made available to the Competent Person is meaningful or material to the current report.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Drilling at the Project to confirm Homestake data is planned for FY2024. The details of this program are confidential and commercially sensitive; however, confirmation drilling is anticipated to be within the general area of the current mineral resource estimate.

Section 3: Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code Explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	The Company undertook a QA/QC study of all the historical drilling data prior to developing a mineral resource estimate. This study included: • A review of geophysical logs to correlate stratigraphy and depth of mineralisation. • Verifying historical mapping of depths and intercept data against the original geophysical logs. Additionally, the Competent Person conducted data validation of the Homestake data and Company database as follows: • Drill hole location maps were reviewed to select drill holes for verification that are spaced throughout the Project mineralisation. • For the resource areas with radiometric gamma logs that were annotated with mineral intercept data (562 logs), 10% (56 total) were selected for verification. Consistency of the intercept data from the logs, intercept maps, and resource estimate values were checked. • For resource areas without radiometric gamma logs (590 drill holes), 11% of drill holes (64 total) were selected for verification. Consistency of the intercept map data with the resource estimate value was checked. • Seven locations with twinned holes were checked for consistency. • The results of data validation indicated that there were occasional errors or inconsistencies, but that the overall database integrity is good.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	The Competent Person visited the Project site on August 10, 2023 and verified that the Company has not performed work on site at the Project. The site visit also verified the current status of the Project. Homestake used strips from conveyor belts and metal tags to permanently mark plugged and abandoned drill holes. During the site visit, the Competent Person located and confirmed the presence of several of these historic drill holes.

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Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	The confidence of the geological interpretation of the mineral deposit is high. • The data is extensive and the data quality is good. • It is assumed that this deposit is consistent with similar Wyoming and South Dakota roll-front uranium deposits. This assumption is supported by the available data. • An alternate interpretation of the type of mineralisation could result in change to the mineral resource estimate, but it is unclear what alternate interpretation would be made since the roll-front interpretation is well-supported. • The geologic alteration type and depth and thickness of sand units were used to guide and control mineral resource mapping, which resulted in the mineral resource estimate. • Confidence in continuity of grade and geology is based on drill hole spacing. The entire estimate is currently Inferred, indicating the geological and grade continuity are implied but not verified. Drill hole spacing is adequate to potentially upgrade to the Indicated or Measured categories with additional verification of geological and grade continuity.
Dimensions	• *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.*	The mineral resources are located within an area that is approximately 4 km by 6 km in plan view. The roll-front mineral resources are mapped as sinuous horizons that are approximately 15 m wide and up to 3 km long in plan view. In many areas, multiple horizons at different depths overlap. The total area of the estimated individual mineral resource horizons is approximately 1.5 km^2. The depth of mineralisation ranges from at the ground surface to nearly 250 m below the ground surface.
Estimation and modelling techniques	• *takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.*	• Previous estimates and mine production records are not directly applicable to the mineral resource estimate because Homestake used a different mining method. However, previous estimates and production records are not inconsistent with the current estimate. • It is assumed that recovery of byproducts, deleterious elements or non-grade variables will not interfere with the ability to economically recover the mineral. This assumption is consistent with the results of other in-situ uranium mines in the same geologic setting. • No assumptions were made about selective mining units or correlation between variables. • The geologic interpretation guided the resource estimate, which was based on interpretation of the roll-front geometry. The length and width of

Criteria	JORC Code Explanation	Commentary
Estimation and modelling techniques (cont.)	• *Any correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	the mineral horizons was selected based on the nature of roll-front mineralisation. • Grade cutting or capping is not typically applied in in-situ uranium resource estimates and was not used. The validation process is described in detail above.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Ore tonnages are not directly applicable to in-situ recovery (ISR) because the host rock remains in place while the mineral is extracted. However, the dry bulk density is used to calculate mineral resources. A value of 15 cubic feet per ton was used for the mineral resource estimate. This value is based on previous reporting and is consistent with values from other uranium ISR mines in the same geologic setting.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	The cutoff grade of 0.2%-ft (0.0015%-m) has been widely used in in-situ uranium mineral resource estimates and has been proven to be effective through subsequent mining of the resources, with recovery percentages within an acceptable range.
Mining factors or assumptions	• *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.*	The mining method is assumed to be ISR. Roll-front uranium deposits have been successfully recovered through ISR in this geologic setting.

Criteria	JORC Code Explanation	Commentary
Metallurgical factors or assumptions	• *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.*	It is assumed that the deposit is metallurgically amenable to ISR. Roll-front uranium deposits have been successfully recovered through ISR in this geologic setting. There are a variety of lixiviants and methods that can be used depending on the composition of the mineral and the host rock.
Environmental factors or assumptions	• *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.*	It is assumed that the waste generated will be similar to other nearby ISR mines and that the disposal methods and costs will also be similar.

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Bulk density	• *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.* • *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 within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• The dry bulk density is estimated to be 15 cubic feet per ton. This is based on previous reporting and is consistent with values from other uranium ISR mines in the same geologic setting. • Use of a single dry bulk density value for a deposit is standard within the uranium ISR industry. • Because the roll-front uranium deposits are only located in saturated sandstone host rocks, the density is typically consistent across areas. • Dry bulk densities in the range of 15-16 cubic feet per ton are standard for Wyoming roll-front uranium deposits. The variation in the mineral resource estimate associated with this range is approximately 6 percent. This is within the confidence range of the Inferred mineral resource estimate.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *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).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	The entire mineral resource is currently in the Inferred confidence category. This categorization reflects the Competent Person's view of the deposit and is based on the confidence in the entirety of the available data at the current level of review and validation, which is sufficient to imply but not verify geologic and grade continuity. It is anticipated that the category will be upgraded for portions of the resource with additional verification.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	The review of the mineral resource estimate performed by the Competent Person found some errors and inconsistencies, but the overall quality of the estimate is good and consistent with the Inferred categorization.

Criteria	JORC Code Explanation	Commentary
Discussion of relative accuracy/ confidence	• *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.* • *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.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	The following factors could affect the relative accuracy and confidence of the estimate and apply globally: • Additional review and validation of the data would increase the confidence in the estimate. • Confirmation drilling would increase the confidence of the estimate and possibly improve the accuracy of the estimate. • If radiometric disequilibrium is identified, it would decrease the accuracy of the estimate. • If factors are found that significantly limit the ability to economically recover the mineral through ISR, it would decrease the accuracy of the estimate. No ISR production has taken place at the Project, so data is not available for comparison and evaluation of estimates.