

19 October 2021

# Okapi's Maiden JORC 2012 Resource of 27.6 Million Pounds of U<sub>3</sub>O<sub>8</sub>

## Highlights

- Okapi's Maiden JORC 2012 Resource of 27.6 million pounds of U<sub>3</sub>O<sub>8</sub> at 490ppm U<sub>3</sub>O<sub>8</sub> for the Tallahassee Uranium Project, Colorado USA
- Includes Measured, Indicated and Inferred resource categories
- Planning of maiden drill program well advanced
- Significant scope to increase pounds through exploration and accretive acquisitions
- Clear strategy to become a new leader in North American carbon-free nuclear energy

Okapi Resources Limited (ASX: OKR) (Okapi or the Company) is pleased to announce its Maiden JORC 2012 Mineral Resource estimate for its Tallahassee Uranium Project located in Colorado, USA.

Okapi's Maiden 2012 Mineral Resource for the Tallahassee Uranium Project has been estimated at **25.4Mt @ 490ppm U<sub>3</sub>O<sub>8</sub>** for **27.6 million pounds of U<sub>3</sub>O<sub>8</sub>** using a 250ppm cut-off grade.

United States Uranium Projects Listed on the ASX						
Company	ASX Code	Project	Tonnes	Grade (U <sub>3</sub> O <sub>8</sub> )	Pounds (U <sub>3</sub> O <sub>8</sub> )	Cut-off grade (U <sub>3</sub> O <sub>8</sub> )
Peninsula Energy	PEN	Lance	50.7Mt	480ppm	53.6Mlbs	200ppm
Okapi Resources	OKR	Tallahassee	25.4Mt	490ppm	27.6Mlbs	250ppm

Sources: Peninsula Energy Limited Annual Report announced to ASX on 30 September 2021; <https://www.pel.net.au/projects/lance-projects-wyoming/jorc-code-compliant-resources/>

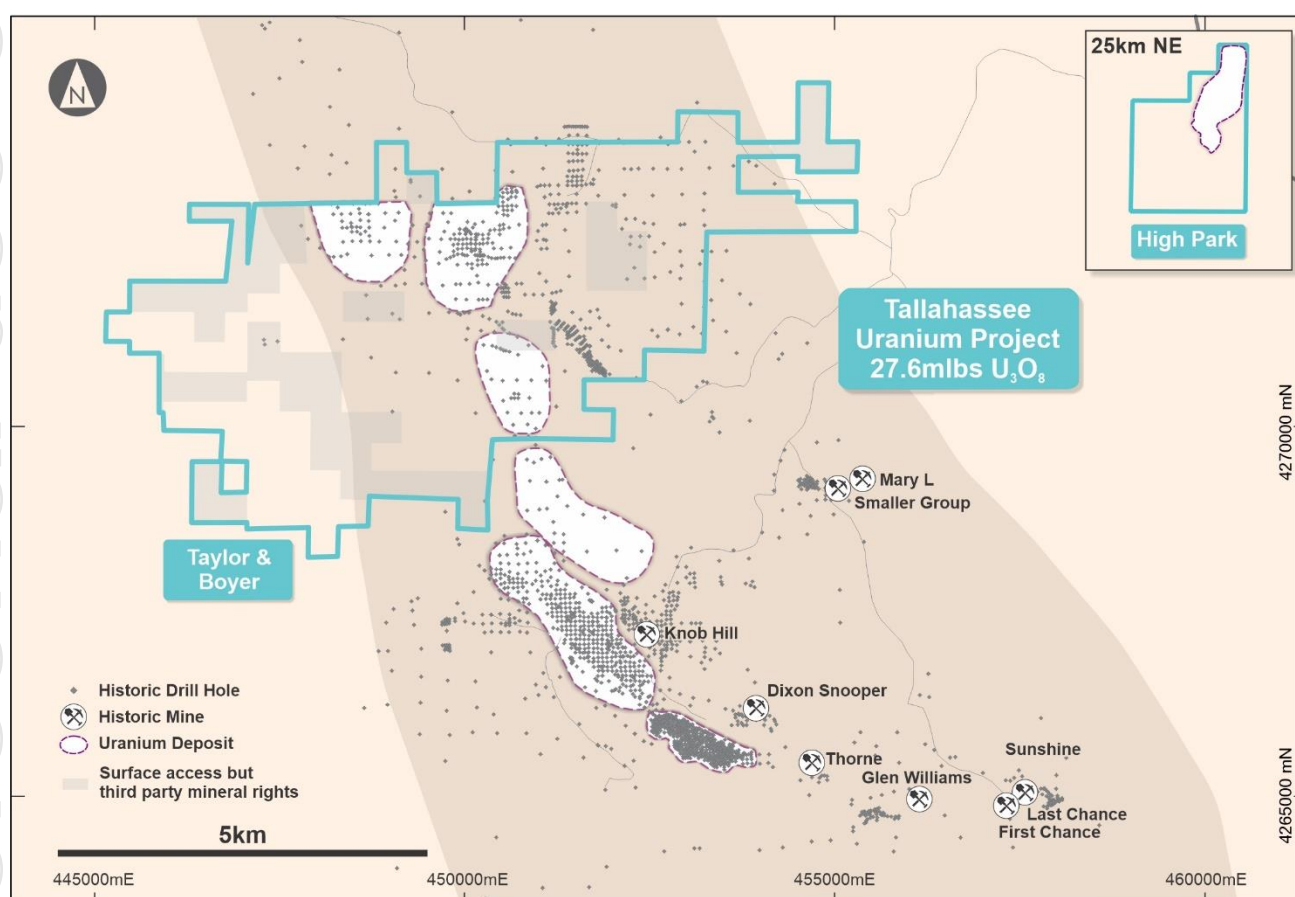
JORC 2012 Mineral Resource Estimate for the Tallahassee Uranium Project												
Property	Measured			Indicated			Inferred			Total		
	Tonnes (000)	Grade U <sub>3</sub> O <sub>8</sub> (ppm)	Lbs U <sub>3</sub> O <sub>8</sub> (000)	Tonnes (000)	Grade U <sub>3</sub> O <sub>8</sub> (ppm)	Lbs U <sub>3</sub> O <sub>8</sub> (000)	Tonnes (000)	Grade U <sub>3</sub> O <sub>8</sub> (ppm)	Lbs U <sub>3</sub> O <sub>8</sub> (000)	Tonnes (000)	Grade U <sub>3</sub> O <sub>8</sub> (ppm)	Lbs U <sub>3</sub> O <sub>8</sub> (000)
Taylor and Boyer	-	-	-	7,641	520	8,705	14,865	460	15,172	22,506	480	23,877
High Park	2,450	550	2,960	24	590	30	434	770	734	2,907	580	3,724
<b>Total</b>	<b>2,450</b>	<b>550</b>	<b>2,960</b>	<b>7,665</b>	<b>520</b>	<b>8,735</b>	<b>15,299</b>	<b>470</b>	<b>15,906</b>	<b>25,413</b>	<b>490</b>	<b>27,601</b>

Notes: Calculated applying a cut-off grade of 250ppm U<sub>3</sub>O<sub>8</sub>. Numbers may not sum due to rounding. Grade rounded to nearest 10ppm.

Okapi Resources Executive Director David Nour commented:

*"This is yet another significant milestone for Okapi, achieving a Maiden JORC 2012 Mineral Resource that provides a robust platform on which to add further pounds via exploration within our current landholdings and through further value-accretive acquisitions."*

*"The team is also well advanced in planning a maiden drilling program of circa 10,000m at the Tallahassee Uranium Project."*



**Figure 1 – Tallahassee Uranium Project**

## Geology and Mineralisation

The uranium deposits in the Tallahassee District are tabular deposits associated with redox interfaces. The mineralisation is hosted in Tertiary sandstones (Echo Park Formation) and/or clay bearing conglomerates (Tallahassee Creek Formation). These formations were deposited in a now extinct braided-stream fluvial system (or paleochannel).

Mineralisation occurred post-sediment deposition, when oxygenated, uraniferous groundwater that moved through the host rocks encountered redox interfaces. The resultant chemical change caused the precipitation of uranium oxides, with the mineralisation typically coating the surface of pre-existing minerals and sand grains. The redox interfaces were commonly a result of the buildup of carbonaceous material within the host formation during sediment deposition. The paleochannels were later partially buried by the extrusion of the Thirtynine Mile Andesite, which preserved the

sedimentary sequences and allowed them to be gradually enriched with uranium. The Noah, Northwest Taylor and Boyer Deposits are all hosted by the more favorable Echo Park sandstones, so mineralisation is generally thick and laterally continuous, and commonly comprises high-grade mineralisation within broader, lower-grade envelopes.

#### **Forward Work Plan**

Tallahassee holds a 100% interest in mineral rights that cover approximately 7,500 acres in the Tallahassee Creek Uranium District of Colorado, USA with large swathes of ground untested or poorly tested by drilling. Further work is required to fully define the boundaries of the prospective mineralised channel. There is considerable scope to expand on this Maiden JORC 2012 Mineral Resource through further exploration and accretive acquisitions.

Tallahassee anticipates then embarking upon a circa 10,000m drilling program to:

- (i) Expand the existing resource base;
- (ii) Improve confidence in the existing resource base; and
- (iii) Acquire samples that can be used for initial metallurgical testwork.

Depending on the results of this work, initial conceptual mine design work may be undertaken to help determine the most appropriate work programs to implement thereafter.

Tallahassee also considers there are opportunities to acquire additional mineral rights in close proximity to those it currently holds, with such areas providing opportunity to:

- (i) Expand the resource base through either discovery of additional resources on previously underexplored property or through acquisition of properties that contain known mineralisation, including, in some cases, historical resources; and
- (ii) Enhance the economics of developing a stand-alone mining operation by expanding the Project's resource base.

This announcement has been authorised for release by the Board of Okapi Resources Limited.

#### **For further information please contact:**

**Leonard Math**

Executive Director & Company Secretary

**Okapi Resources Ltd**

**T:** 08 6117 9338

**E:** [leonard.math@okapiresources.com](mailto:leonard.math@okapiresources.com)

**W:** [www.okapiresources.com](http://www.okapiresources.com)

## **About Okapi Resources**

*Okapi Resources Limited recently acquired a portfolio of advanced, high grade uranium assets located in the United States of America.*

*Assets include a strategic position in one of the most prolific uranium districts in the USA – the Tallahassee Creek Uranium District in Colorado. The Tallahassee Uranium Project contains a JORC 2012 Mineral Resource estimate of **27.6 million pounds of U<sub>3</sub>O<sub>8</sub> at a grade of 490ppm U<sub>3</sub>O<sub>8</sub>** with significant exploration upside. The greater Tallahassee Creek Uranium District hosts more than 100 million pounds of U<sub>3</sub>O<sub>8</sub> with considerable opportunity to expand the existing resource base by acquiring additional complementary assets in the District.*

*The portfolio of assets also includes an option to acquire 100% of the high-grade Rattler Uranium Project in Utah, which includes the historical Rattlesnake open pit mine. The Rattler Uranium Project is located 85km from the White Mesa Uranium Mill, the only operating conventional uranium mill in the USA hence provides a near term, low-capital development opportunity.*

*Okapi's clear strategy is to become a new leader in North American carbon-free nuclear energy by assembling a portfolio of high-quality uranium assets through accretive acquisitions and exploration.*

## **Summary of Information for Mineral Resource Estimate**

### ***Geology and geological interpretation***

The deposits that make up the Project are tabular sandstone deposits 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 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 volcanic rocks and throughout the Project basement consists of Pre-Cambrian plutonic and metamorphic rocks. The volcanic and Pre-Cambrian rocks are believed to be contributing sources of the uranium.

### ***Drilling technique***

The dominant drilling technique used has been rotary mud drilling from surface with rotary air and conventional percussion hammer sometimes used to drill through the overburden and cover sequences. There has been two major phases of drilling, being the 1970's-80s and mid-2007-2009. Sample cuttings were generally collected on 5 foot (1.5m) intervals. Historically a minimal amount of conventional core drilling was completed through the ore zones. Historic 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. No core drilling was completed in the 2000's within Okapi's current lease areas however, 10 holes were twinned with diamond core between 2010-2012 on a property adjacent to the Taylor-Boyer Leases.

### ***Sampling, sub-sampling method and sample analysis***

The equivalent  $U_3O_8$  ( $eU_3O_8$ ) grades obtained from the drilling during the 2000's 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  $eU_3O_8$  directly from the total gamma count measured downhole. Calculated  $eU_3O_8$  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. 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 were one of the preferred contractors for the original exploration.

Due to the use of geophysics and uranium logging standards, sampling and sub-sampling methods associated with RC and core drilling were not required. Core obtained by the previous explorers has been subject to chemical analysis, but assays were not used in the resource calculation. Chemical assays were used to confirm the probe data and the deposit equilibrium conditions and it was determined at the time that no adjustment to the logged values were required.

### ***Criteria for classification***

Kriging error, which accounts for sample spatial variability and closeness, has been chosen as a basis for categorising confidence in the mineral resource. Classification has taken into account relevant factors that affect confidence and appropriately reflects the Competent Person's view of the deposits and is reasonable given the drill spacing and spatial variability suggested by variogram analysis.

## ***Estimation methodology***

Commonly accepted multi-pass kriging methods were used to estimate the mineral resources. Uranium mineralisation was modelled using wireframe solids, resources were quantified outside solids with drastically reduced search ranges. Estimates were checked and compared to historic estimates. No recovery has been applied at the resource stage. Blocks have been sized as a tradeoff between mineralized shapes and general mining selectivity. The block heights are four to six times the 0.5 foot sample collection but block lengths and widths are several times smaller than the drill spacing in order to adequately fit the mineralized shapes.

The model used is a single variable with only  $U_3O_8$  mineralisation confined to sedimentary rock units and mineral horizons assessed. Block search anisotropy was also fit to the stratigraphy with the shortest axis being across dip, or horizon thickness. No capping was applied as the high-end portion of the grade distribution was sufficiently uniform after compositing.

Resource models were visually inspected in cross-section by multiple individuals. Any issues were flagged and corrected before finalization of the model. The populations of grades, composites and blocks were reviewed for continuity and moderation of grade toward final estimation.

### ***Cut-off grade(s), including the basis for the selected cut-off grade(s)***

Mineral resources are being publicly quoted at a cut-off grade of 0.025 %  $U_3O_8$ . At a uranium oxide price of US\$50 per lb the cut-off equates to US\$25 per short ton of mineralized material, which meets the general requirement of reasonable economic viability.

### ***Mining and metallurgical method and parameters, and other material modifying factors considered to date***

At this stage limited mining assumptions have been considered. Block size has been selected as 2ft (0.61m) thick for the High Park deposit, and 3 ft (0.691m) for the Taylor Ranch and Boyer deposit. These selections balance deposit thickness and reasonable selectivity. Once further information is known regarding mining methods the mineral resource estimate may need to be revised.

Metallurgical parameters were not considered for the purposes of the mineral resource estimate but metallurgical results on the nearby Hansen deposit have been reviewed by the Companies CP separately.

## APPENDIX 1 – MINERAL RESOURCE ESTIMATE SUMMARY

Applying a 0.025% cut-off

Deposit	Measured			Indicated			Inferred			Total		
	Tons (000)	Grade U <sub>3</sub> O <sub>8</sub> (%)	Lbs (000) U <sub>3</sub> O <sub>8</sub>	Ton (000)	Grade U <sub>3</sub> O <sub>8</sub> (%)	Lbs (000) U <sub>3</sub> O <sub>8</sub>	Tons (000)	Grade U <sub>3</sub> O <sub>8</sub> (%)	Lbs (000) U <sub>3</sub> O <sub>8</sub>	Tons (000)	Grade U <sub>3</sub> O <sub>8</sub> (%)	Lbs (000) U <sub>3</sub> O <sub>8</sub>
High Park	2,701	0.055	2,960	26	0.059	30	478	0.077	734	3,204	0.058	3,724
Taylor Ranch/ Boyer	0	0	0	8,423	0.052	8,705	16,386	0.046	15,172	24,809	0.048	23,877
<b>Total</b>	<b>2,701</b>	<b>0.055</b>	<b>2,960</b>	<b>8,449</b>	<b>0.052</b>	<b>8,735</b>	<b>16,864</b>	<b>0.047</b>	<b>15,906</b>	<b>28,014</b>	<b>0.049</b>	<b>27,601</b>

\*columns may not total due to rounding

## APPENDIX 2 - JORC Code, 2012 Edition – Table 1 Report

### Section 1 Sampling Techniques and Data

Criteria	Commentary
<b><i>Sampling techniques</i></b>	<ul style="list-style-type: none"> <li>The equivalent U3O8 (eU3O8) 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 eU3O8 directly from the total gamma count measured downhole. Calculated eU3O8 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. 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 were one of the preferred contractors for the original exploration.</li> </ul>
<b><i>Drilling techniques</i></b>	<ul style="list-style-type: none"> <li>The dominant drilling technique used 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. Historic 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 adjacent properties, not within the current Okapi leases.</li> </ul>
<b><i>Drill sample recovery</i></b>	<ul style="list-style-type: none"> <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> <li>Typically a downhole caliper probe was run in conjunction with the gamma and electric logs.</li> </ul>
<b><i>Logging</i></b>	<ul style="list-style-type: none"> <li>The geological characteristics of rotary cuttings have been visually logged every 5ft (1.5m). Downhole gamma, electric and caliper 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>
<b><i>Sub-sampling techniques and sample</i></b>	<ul style="list-style-type: none"> <li>No core drilled in the 2010's is within the current leases.</li> <li>Non-core material was not submitted to the laboratory for any analysis</li> </ul>



Criteria	Commentary
<b><i>preparation</i></b>	<p>so there was no conventional quality control and splitting.</p> <ul style="list-style-type: none"> <li>As described in "Sampling Techniques" gamma probes were used to calculate the <math>eU_3O_8</math> values used in the mineral resource estimation. The gamma probes were regularly calibrated.</li> </ul>
<b><i>Quality of assay data and laboratory tests</i></b>	<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 <math>eU_3O_8</math> directly from the total gamma count. <math>eU_3O_8</math> can be a reliable measure of uranium content, but on occasion can be subject to disequilibrium if radioactive elements other than uranium are present.</li> <li>Core was submitted for chemical assay historically and then chemical data were used to confirm probe data and equilibrium conditions.</li> </ul>
<b><i>Verification of sampling and assaying</i></b>	<ul style="list-style-type: none"> <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 not within the current leases but at least six of the mud rotary twins were.</li> <li>Between 2007-2009 the downhole surveyor provided data to the Company in electronic and hard copy format, which is 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 <math>eU_3O_8</math> values.</li> </ul>
<b><i>Location of data points</i></b>	<ul style="list-style-type: none"> <li>The more recent drill collar coordinates have been determined using a handheld survey station GPS.</li> <li>Historic holes were professionally surveyed in the late 1970's and 1980's.</li> <li>The datum used was US State Plane, Colorado Central 1927, Feet, this is the system used for surveying in the 1970's and 80's. All the post-2006 GPS data were collected in UTM NAD83 and converted to US State Plane. The accuracy of the conversions and historic data were investigated using known holes with surveyed coordinates and was considered less than the GPS error.</li> </ul>
<b><i>Data spacing and distribution</i></b>	<ul style="list-style-type: none"> <li>Drill spacing is variable across different areas of the Project, spacing is as broad as 800 feet (243m) and typically across the Boyer &amp; Taylor leases is not less than 200 feet (61m) Whereas at High Park the deposit is drilled out at 100 feet (30.5m) spaces and in some areas 50 feet (15m). The drill spacing has been factored into the classification of the mineral resource.</li> <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 Boyer-Taylor model and 2 ft intervals (0.61m) for the High Park model.</li> </ul>
<b><i>Orientation of data in relation to geological structure</i></b>	<ul style="list-style-type: none"> <li>Vertical drilling has exclusively been used as the target strata is sub-horizontal in a Tertiary paleoachannel. Therefore drilling intercepted the target strata very close to perpendicular.</li> </ul>
<b><i>Sample security</i></b>	<ul style="list-style-type: none"> <li>Wireline logging effectively replaces sampling, so sample security was not an issue. .</li> </ul>
<b><i>Audits or reviews</i></b>	<ul style="list-style-type: none"> <li>The Company's CP has reviewed the data.</li> </ul>

**Section 2 Reporting of Exploration Results**  
**(Criteria listed in the preceding section also apply to this section)**

<b>Criteria</b>	<b>Commentary</b>
<b><i>Mineral tenement and land tenure status</i></b>	<ul style="list-style-type: none"> <li>Within the Project area, there are two types of Mineral Leases including two private leases and a lease with the State of Colorado. Then there are 8 unpatented mining claims located on BLM land. The Company completed a legal review of the leases as part of its due diligence, with no red flags raised.</li> </ul>
<b><i>Exploration done by other parties</i></b>	<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 drill holes for in excess of 110,000 meters within the Okapi leases. Black Range Minerals drilled 64 holes for over 20,000 metres on the Okapi Leases between 2007 and 2009. Cyprus also conducted 3 feasibility studies at the neighbouring Hansen Project, including mine designs, process designs and had all permits in place to commence mining in 1982.</li> </ul>
<b><i>Geology</i></b>	<ul style="list-style-type: none"> <li>The deposits that make up the Project are tabular sandstone deposits associated with redox interfaces. The mineralization is hosted in Tertiary sandstones and/or clay bearing conglomerates within an extinct braided stream, fluvial system or paleoachannel. Mineralization 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 paleoachannel has been covered by Tertiary volcanics and throughout the basement consists of Pre-Cambrian plutonic and metamorphic rocks. The volcanic and Pre-Cambrian rocks are believed to be the source of the uranium.</li> </ul>
<b><i>Drill hole Information</i></b>	<ul style="list-style-type: none"> <li>The Company is not reporting exploration drill results in this circumstance, this criteria is specifically for reporting exploration results.</li> </ul>
<b><i>Data aggregation methods</i></b>	<ul style="list-style-type: none"> <li>The Company is not reporting exploration drill results in this circumstance, this criteria is specifically for reporting exploration results.</li> </ul>
<b><i>Relationship between mineralisation widths and intercept lengths</i></b>	<ul style="list-style-type: none"> <li>The Company is not reporting exploration drill results in this circumstance, this criteria is specifically for reporting exploration results.</li> </ul>
<b><i>Diagrams</i></b>	<ul style="list-style-type: none"> <li>The Company is not reporting exploration drill results in this circumstance, this criteria is specifically for reporting exploration results.</li> </ul>
<b><i>Balanced reporting</i></b>	<ul style="list-style-type: none"> <li>The Company is not reporting exploration drill results in this circumstance, this criteria is specifically for reporting exploration results.</li> </ul>
<b><i>Other substantive exploration data</i></b>	<ul style="list-style-type: none"> <li>The Company is not reporting exploration drill results in this circumstance, this criteria is specifically for reporting exploration results.</li> </ul>
<b><i>Further work</i></b>	<ul style="list-style-type: none"> <li>The Company has recently acquired the mineral leases and is in the process of planning work programs and applying for permits to drill. The Company has publicly stated its intention to drill a 10,000m program in 2022.</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources

(The criteria listed in Section 1 and, where relevant, in Section 2, also apply to this Section)

Criteria	Commentary															
Database integrity	<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>															
Site Visits	<ul style="list-style-type: none"><li>Ms. Kira Johnson, the Competent Person for Mineral Resource Estimation and Reporting, has not visited the property and has relied on Mr Ben Vallerine, the Competent Person for Exploration Results, who has frequently visited the site and was directly responsible for managing the drill hole data collection. Other mining professionals from Ms. Kira Johnson’s company, Tetra Tech, have also visited the site.</li></ul>															
Geological Interpretation	<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 interfaces of paleo-groundwater carrying mobilized uranium.</li></ul>															
Dimensions	<ul style="list-style-type: none"><li>The Taylor Ranch and Boyer Deposits have an approximate combined strike length of 11,800ft (3,600m) and width of 2,000ft (610m), and a thickness in varying amenable horizons of 3 to 50 ft (0.91 to 15.2m). The High Park deposit is approximately 5,000 feet by 1,600 feet (1,500 x 500m).</li></ul>															
Estimation and modeling techniques	<ul style="list-style-type: none"><li>Commonly accepted multi-pass kriging methods were used to estimate the mineral resources. Uranium domains were modeled using wireframe solids, resources were quantified outside solids with drastically reduced search ranges. The following variogram parameters were used:<table><tr><th>Model</th><th>Nugget</th><th>C1</th><th>C2</th><th>Block Size X:Y:Z</th></tr><tr><td>NW Taylor, Boyer etc.</td><td>0.08</td><td>0.75 @ 20</td><td>0.05 @ 200</td><td>100:100:3</td></tr><tr><td>High Park.</td><td>0.32</td><td>0.54 @ 30</td><td>0.14 @ 100</td><td>25:25:2</td></tr></table></li><li>Estimates were checked and compared to historic estimates. Some historic surface mining was performed at the site.</li></ul>	Model	Nugget	C1	C2	Block Size X:Y:Z	NW Taylor, Boyer etc.	0.08	0.75 @ 20	0.05 @ 200	100:100:3	High Park.	0.32	0.54 @ 30	0.14 @ 100	25:25:2
Model	Nugget	C1	C2	Block Size X:Y:Z												
NW Taylor, Boyer etc.	0.08	0.75 @ 20	0.05 @ 200	100:100:3												
High Park.	0.32	0.54 @ 30	0.14 @ 100	25:25:2												

Criteria	Commentary
	<ul style="list-style-type: none"> <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 tradeoff between mineralized shapes and general mining selectivity. The block heights are four to six times the half foot sample collection but block lengths and widths are several times smaller than the drill spacing in order to adequately fit the mineralized shapes.</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 finalization of the model. The populations of grades, composites and blocks were reviewed for continuity and moderation of grade toward final estimation.</li> </ul>
<b>Moisture</b>	<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>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>Mineral resources have been quoted at a cut-off grade of 0.025% <math>U_3O_8</math> and 0.075% <math>U_3O_8</math>. At a uranium oxide price of US\$50 per lb the cut-offs equate to US\$25 per short ton of mineralized material, which meets the general requirement of reasonable economic viability.</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>At this stage limited mining assumptions have been considered. Block size has been chosen to 2ft (0.61m) thick for the High Park deposit, and 3 ft thick for the Taylor Ranch and Boyer deposit have been selected to balance deposit thickness and reasonable selectivity. When further information is known regarding mining methods block dimensioning should be reevaluated. 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>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>Metallurgical amenability has not been considered for the mineral resource estimation. Reports covering metallurgy on the adjacent Hansen Deposit have been reviewed by the CP with no red flags.</li> </ul>
<b>Environmental factors or assumptions</b>	<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>
<b>Bulk density</b>	<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; Date: June 1980</i> 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</li> </ul>

Criteria	Commentary																																																
	<p>average porosity. Vugs have not been observed.</p> <ul style="list-style-type: none"><li>Density values have been measured by rock type. Block tonnages of different rock types were estimated using densities corresponding to rock types.</li></ul>																																																
Classification	<ul style="list-style-type: none"><li>Kriging error, which accounts for sample spatial variability and closeness, has been chosen as a basis for confidence categories.</li><li>Classification has taken into account relevant factors that affect confidence.</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> <table><tr><th></th><th>In Solid</th><th>Kriging Error</th><th>Search Radius</th><th>Min Points</th><th>Anisotropy Primary: Tertiary</th></tr><tr><td colspan="6">High Park Deposit</td></tr><tr><td>Measured</td><td>Yes</td><td>&lt;1.3</td><td>160</td><td>4</td><td>3:1</td></tr><tr><td>Indicated</td><td>Yes</td><td>&lt;1.3</td><td>320</td><td>8</td><td>3:1</td></tr><tr><td>Inferred A</td><td>Yes</td><td>&gt;1.3</td><td>500</td><td>8</td><td>3:1</td></tr><tr><td colspan="6">Taylor Ranch and Boyer Deposit</td></tr><tr><td>Indicated</td><td>Yes</td><td>&lt;1.3</td><td>320</td><td>8</td><td>3:1</td></tr><tr><td>Inferred A</td><td>Yes</td><td>&gt;1.3</td><td>500</td><td>8</td><td>3:1</td></tr></table>		In Solid	Kriging Error	Search Radius	Min Points	Anisotropy Primary: Tertiary	High Park Deposit						Measured	Yes	<1.3	160	4	3:1	Indicated	Yes	<1.3	320	8	3:1	Inferred A	Yes	>1.3	500	8	3:1	Taylor Ranch and Boyer Deposit						Indicated	Yes	<1.3	320	8	3:1	Inferred A	Yes	>1.3	500	8	3:1
	In Solid	Kriging Error	Search Radius	Min Points	Anisotropy Primary: Tertiary																																												
High Park Deposit																																																	
Measured	Yes	<1.3	160	4	3:1																																												
Indicated	Yes	<1.3	320	8	3:1																																												
Inferred A	Yes	>1.3	500	8	3:1																																												
Taylor Ranch and Boyer Deposit																																																	
Indicated	Yes	<1.3	320	8	3:1																																												
Inferred A	Yes	>1.3	500	8	3:1																																												
Audits or Reviews	<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>Accuracy and variability has 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 economic analysis and make preliminary mining plans.</li><li>No production data are available.</li></ul>																																																

### **Competent Person's Statement**

*The information in this announcement that relates to Mineral Resources at the 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*

*Mineral Resource Estimate Tallahassee Uranium Project – 2012 JORC Code*

*of deposit under consideration and to the activity that he 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.*

*The information in this announcement that relates to database compilation and exploration results at the Project, in particular, Section's 1 and 2 of Table 1 in Appendix 2, is based on information reviewed by Mr Ben Vallerine. Mr Vallerine is a shareholder and Technical Director of Okapi Resources Limited and former full time employee and Director of Black Range Minerals. Mr Vallerine is a member of The Australian Institute of Geoscientists. Mr Vallerine has sufficient experience that is relevant to the style of mineralisation under consideration as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting on Exploration Results, Mineral resources and Ore Reserves". Mr Vallerine consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.*

### **Caution Regarding Forward Looking Statements**

*This announcement contains forward looking statements which involve a number of risks and uncertainties. These forward looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. The forward looking statements are made as at the date of this announcement and the Company disclaims any intent or obligation to update publicly such forward looking statements, whether as the result of new information, future events or results or otherwise.*



TETRA TECH

---

### Competent Person's Consent Form

Pursuant to the requirements of ASX Listing Rules 5.6, 5.22 and 5.24 and  
Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

---

#### Independent Technical Report

Prepared by Tetra Tech; Golden, Colorado

Tallahassee Uranium Project, Fremont County, Colorado, USA.

October 15, 2021

---

#### Statement

I, Kira L. Johnson, confirm that I am a Competent Person for the Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member or Fellow of *The Australasian Institute of Mining and Metallurgy* or the *Australian Institute of Geoscientists* or a 'Recognised Professional Organisation' (RPO) included in a list promulgated by ASX from time to time.
- I have reviewed the Report to which this Consent Statement applies.

I am a full time employee of Tetra Tech, Inc. and have been engaged by Okapi Resources Limited to prepare the documentation for the Tallahassee Uranium Project on which the Report is based, for the period ended October 15, 2021.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to Exploration Targets, Exploration Results and Mineral Resources.