

# Strategic Expansion of the Stallion Uranium Project

# HIGHLIGHTS

- Stallion Uranium endowment grows to 7 Mlb  $U_3O_8$  from 3.3Mlb adding 3.7 Mlb  $U_3O_8$  with the addition of the Highway and Shelf uranium deposits
- Summit adds three exploration applications to the project: E28/3429, E28/3426 and E39/2469, located between Manhattan's Double 8 and Deep Yellow's Mulga Rock uranium deposits in the prospective Ponton Creek region
- The applications also capture drill-indicated mineralisation at Narnoo and East Arm
- Summit's land holdings in the highly prospective region increase to 361 km<sup>2</sup> from 196 km<sup>2</sup>
- The Stallion Uranium Project resource restatement and project expansion targeted for the first half of 2024

Summit Minerals Limited (**ASX: SUM**, "**Summit**" or the "**Company**") is pleased to announce that it has acquired exploration license application E28/3249 through the acquisition of Radiant Exploration Pty Ltd for \$40,000. This acquisition is in addition to two other exploration license applications that the Company has applied for in the Ponton Creek region (E39/2469 and E28/3426), which when granted would significantly increase the land package of its 100% owned Stallion Project, 175 km east-northeast of Kalgoorlie. The Company's applications lie over palaeochannels prospective for aquifer sand and lignite-hosted uranium mineralisation in the Ponton Mulga Rock uranium province of WA (Figure 1) and capture the historical Highway and Shelf uranium deposits and several advanced prospects, including East Arm and Narnoo.

On conferring titles, the uranium endowment secured at the now larger Stallion Project grows to 7 million pounds (Mlb)  $U_3O_8$  from 3.3 Mlb  $U_3O_8$ , an uplift of 3.7 Mlb  $U_3O_8$ . The applications host an Inferred Resource (JORC 2012) for the Highway uranium deposit of 5.7 million tonnes (Mt), for 1.9 Mlb  $U_3O_8$  and an Inferred Resource (JORC 2012) for the Shelf uranium deposit of 5.9 Mt, for 1.8 million pounds (Mlb)  $U_3O_8$ ; both utilising a 100 ppm  $U_3O_8$  cutoff. The resources were established by Manhattan Corporation Limited (Refer to MHC ASX Announcement dated 23 January 2017<sup>1</sup>).

Including the applications, Summit expands its holdings in the highly prospective uranium region from 196 km<sup>2</sup> to 361 km<sup>2</sup> and increases the length of palaeochannel-hosted uranium mineralisation under assessment from 8km to 28 km.

 $<sup>^1\</sup> https://manhattcorp.com.au/wp-content/uploads/2020/10/PontonMineralResourceEstimates 23 Jan 17.pdf$ 



MHC previously stated that "the uranium mineralisation is in shallow reduced sand hosted tabular uranium deposits in a confined palaeochannel with uranium mineralisation that is potentially amenable to in-situ metal recovery ("ISR"), the lowest cost method of producing yellowcake with the least environmental impact".

The Company intends to restate the resource, advance resource expansion work, and accelerate the exploration of high-priority regional targets, including those within the applications.



Figure 1 - Summit controls 361 km<sup>2</sup> of exploration tenements and applications underlain by Tertiary palaeochannels at Stallion. These palaeochannels are known to host several uranium deposits and drilled uranium prospects, including the 3.3Mlb Stallion uranium resource, 1.9Mlb Highway Uranium resource and the 1.8Mlb Shelf uranium resource.

### **Cautionary Statement**

The resource estimates contained herein were prepared in accordance with the JORC (2012) Code by Manhattan Corporation Limited in 2017. The information has not materially changed since it was last reported. Nothing causes Summit to question the accuracy or reliability of the MHC estimates. Summit accepts the quoted estimates and the Competent Person's (Hellman and Schofield) view that the resource classification appropriately reflects the deposit's knowledge level. Summit has not independently validated the former owner's estimates and is not to be regarded as reporting, adopting, or endorsing those estimates.

Full disclosures are required to comply with ASX's "Mining Report Rules for Mining Entities: See Frequently Asked Questions" FAQ 37 (Appendix 1) and the attached JORC Table (Appendix 2).

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# Summit's Managing Director, Gower He, said:

"Considering recent global trends towards utilising nuclear energy as a clean source of baseload power, we are excited to increase our uranium exposure in anticipation of potential uranium-friendly legislative changes in WA. These acquisitions more than double our historical uranium resources as we work towards a resource restatement over the coming months."

### New tenure and applications

The recently granted tenement (E28/3251) and the new applications cover 20 kilometers of palaeochannels known for their uranium mineralisation potential, including hosting several uranium deposits and drilled uranium prospects.

### Highway South Prospect

The Highway South tenement (E28/3251), granted in October 2023, separates the Highway and Highway South deposits. It contains 374 accessible drill holes, including seven sonic holes and 367 air core holes for over 24,000m of drilling. The Manhattan developed holes were on 400 m spaced lines at 100-metre centres along each grid line across the palaeochannel.

The tenement captures the southern and western extensions of the Highway Deposit.

### Nippon Application (E28/3429)

The Nippon Exploration Licence Application, E28/3429, contains the historical resources of the Highway and The Shelf deposits. The Highway Inferred Resource contains an estimated 860 tonnes (1.9Mlb) of uranium oxide at a 100 ppm  $U_3O_8$  cutoff. The Shelf Deposit contains an Inferred Resource estimated at 810 tonnes (1.8Mlb) of uranium oxide at a 100 ppm  $U_3O_8$ . Expanded summaries of the work related to each estimate are available in the modified JORC table (Appendix 1)<sup>3</sup>.

Manhattan's resource estimate for the Highway deposit is based on 304 drill holes totaling 18,236m of drilling. Drilling has been completed on 200m and 400m spaced lines with holes drilled at 100m centres along each grid line across the palaeochannel within mineralised zones. All drill holes were gamma-logged.

Apart from some shallow lignite-hosted uranium mineralisation encountered along the northern part of the palaeochannel at Highway, the geological controls and style of the channel sand-hosted uranium mineralisation is like the mineralisation encountered at Stallion.

Manhattan's resource estimate for the Shelf deposit is based on 352 drill holes totaling 21,550m of drilling. At the Shelf, drilling on 200m x 100m centres identified shallower lignite-hosted uranium mineralisation within the upper sandstone and claystone.

The application includes the East Arm prospect, where wide-spaced reconnaissance drilling in the 1980s intersected anomalous uranium mineralisation with similar grades to those reported for Stallion and other known deposits in the region.

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<sup>&</sup>lt;sup>2</sup> Appendix 1 - amended JORC table based on MHC 2017 announcement.



### North Shelf Prospect

The North Shelf application (E34/2469) extends north from the lignite-hosted uranium mineralisation in the Shelf Deposit, which is similar in style to the Mulga Rocks Uranium Deposits.

The application captures 88 mostly air core drill holes for 5,075m of drilling on 1200 m line spacing across the interpreted width of the palaeochannel. It includes the northern sections of Manhattan's Shelf Resource estimate.

### Narnoo Prospect

The Narnoo Prospect, located in the western parts of E28/3426, includes previous drilling that intersected a broad zone of lignite-hosted uranium mineralisation similar in style to the Mulga Rocks Uranium Deposits. The prospect lies on a west-flowing tributary to the main Ponton channel. The eastern part of the application has the potential to lie over extensions to the East Arm uranium mineralisation.

The application captures 179 mostly air core drill holes for over 6,581m of drilling on 400 m line spacing across the interpreted width of the palaeochannel at Narnoo. Drilling at East Arm is on 1200 m line spacing and appears poorly oriented (i.e., north-south versus the preferable east-west).

### **Work Program**

The Company intends to advance resource expansion work and accelerate the exploration of highpriority regional targets, including those within the applications (on grant of title) and restatement of a minimum of 7Mlb  $U_3O_8$  historical resource. Many of the outlined targets are drill ready.

### **Antimony Projects Update**

In line with the Company's strategy to divest away from Antimony, the Ahmed Antimony Project in Morocco and the Magwood Antimony Project in Australia have been surrendered for nil consideration. The Windfall Antimony property was divested to a non-related private entity for \$20,000.

Approved for release by the Board of Summit Minerals Limited.

- ENDS -

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### **About Summit Minerals Limited**

Summit Minerals Limited is an Australian-focused ASX-listed battery mineral exploration Company with a portfolio of projects in demand-driven commodities. It is focused on systematically exploring and developing its projects to delineate multiple JORC-compliant resources.

Summit's projects include the Castor Lithium Project in the prolific James Bay District, Quebec, Canada; The Ahmed Antimony Project in central Morocco; Windfall and Magwood Antimony Projects in the antimony-gold province of the southern New England Fold Belt region in NSW; the Stallion REE Project in Ponton River WA; and, the Phillips River Lithium Project in Ravensthorpe WA. Through focus, diligence and execution, the board of Summit Minerals is determined to unlock previously unrealised value in our projects.

### **Competent Person Statement**

The information related to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on data compiled by Jonathan King, a Competent Person and Member of The Australian Institute of Geoscientists. Jonathan King is a director of Geoimpact Pty Ltd. Jonathan King has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken 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. Jonathan King consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

### **Forward-Looking Statements**

This announcement contains 'forward-looking information based on the Company's expectations, estimates and projections as of the date the statements were made. This forward-looking information includes, among other things, statements concerning the Company's business strategy, plans, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, mineral reserves and resources, results of exploration and related expenses. Generally, this forward-looking information can be identified by using forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'potential', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this announcement are cautioned that such statements are only predictions and that the Company's results or performance may differ materially. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company's actual results, level of activity, performance, or achievements to materially differ from those expressed or implied by such forward-looking information.

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# Appendix 1: FAQ 37 – Expanded Stallion Project

Obligation under Question 37	Answer
The estimates have been reported by the former owner rather than the acquirer	<ul> <li>The historical Inferred Resources discussed by the acquirer in this announcement were reported by a former owner of tenements that occupied the same land under different tenements.</li> </ul>
State the source and date of the reporting of the estimates – the announcement must attach a copy of the original report of the estimates of Mineral Resources or Ore Reserves by the former owner or state the location where interested readers can view the report.	<ul> <li>That owner was Manhattan Corporation Limited (MHC) and the resources were reported in January 2017 <a href="https://manhattcorp.com.au/wp-content/uploads/2020/10/PontonMineralResourceEstimates23Jan17.pdf">https://manhattcorp.com.au/wp-content/uploads/2020/10/PontonMineralResourceEstimates23Jan17.pdf</a></li> <li>The Inferred Resources reported by the former owner include exploration activities by previous holders of the same land overlain by granted tenures and/or tenure applications.</li> </ul>
Which edition of the JORC Code they were reported under and the fact that the reporting of those estimates may not conform to the requirements in the JORC Code 2012	<ul> <li>The Inferred Mineral Resources were reported in accordance with the JORC (2012) Code.</li> <li>No ore reserves are reported.</li> </ul>
The acquirer's view on the reliability of the estimates, including by reference to any of the criteria in Table 1 of the JORC Code 2012, which are relevant to understanding the reliability of estimates (in the case of Ore Reserves, the acquirer must specifically comment on the continuing reliability of the applicable Modifying Factors, including the Economic Modifying Factor used by the former owner);	<ul> <li>The information used in the estimates has not materially changed since it was reported in 2017.</li> <li>Nothing causes Summit to question the accuracy or reliability of the MHC estimates.</li> <li>Summit is confirming the density of the host materials and undertaking other validation work to confirm the estimates</li> </ul>
A summary of the work programs on which the estimates were based and a summary of the key assumptions, mining and processing parameters and methods used to prepare the estimates	<ul> <li>Please refer to the text and JORC Table (Appendix 2).</li> <li>Any issues with any information, including that by previous holders prior to MHC, are fully documented in the JORC Table (Appendix 2).</li> </ul>
Any more recent estimates or data relevant to the reported mineralisation available to the entity?	Nothing has materially changed since the resources were first reported in 2017.
What evaluation and/or exploration work needs to be completed to report the estimates as Mineral Resources or Ore Reserves in accordance with the JORC Code 2012?	<ul> <li>The provided estimates were reported as Inferred Mineral Resources in accordance with the JORC (2012) Code.</li> </ul>
The proposed timing of any evaluation and/or exploration work that the acquirer intends to undertake and comment on how the acquirer intends to fund that work	<ul> <li>Hellman and Schofield Consultants (HSC), the original provider of the estimates, has been engaged by Summit to review and restate the resources.</li> <li>HSC were asked to identify any knowledge gaps within the information, and Summit will move to address these before restating the resources: starting with the Stallion Inferred Resource.</li> <li>The Highway and Shelf deposits require the title (E 28/3429) to be granted before any fieldwork can proceed.</li> <li>The work will be funded from existing capital.</li> </ul>
A statement by a named Competent Person(s) that the information in the market announcement provided is an	<ul> <li>The Competent Person, as signed in this ASX Release, believes that the information contained within this announcement and in possession of the former owner accurately represents the</li> </ul>

accurate representation of the available da for the material mining project	ta and studies available	data and studies for the various resources detailed in this announcement.
A cautionary statement proximate to, and w prominence as, the reported estimates stat	vith equal • Please re ting that:	fer to the Cautionary Statements inserted within the announcement.
<ul> <li>the estimates of Mineral Resources or are not reported in accordance with the JO</li> </ul>	Ore Reserves RC Code 2012;	
<ul> <li>a Competent Person has not done sufficence classify the estimates of Mineral Resources Reserves in accordance with the JORC Control</li> </ul>	icient work to s or Ore ode 2012;	
it is possible that following evaluation and exploration work the currently reported esti- materially change and hence will need to b afresh under and in accordance with the JC	d/or further imates may be reported ORC Code 2012;	
<ul> <li>that nothing has come to the attention of causes it to question the accuracy or reliab owner's estimates; but</li> </ul>	the acquirer that ility of the former	
the acquirer has not independently valida owner's estimates and therefore is not to be reporting, adopting or endorsing those esting	ated the former e regarded as mates.	
The announcement is not otherwise mislea	ading • Please re	fer to the Cautionary Statements inserted within the announcement.

# Appendix 2: JORC Code, 2012 Edition- Section 1 – Expanded Stallion Project

### Section 1 Sampling Techniques and Data

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

Criteria JORC Code explanation 0	Commentary
<ul> <li>Sampling techniques</li> <li>Nature and quality of sampling (e.g. 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>PNC – the primary sampling technique used was down hole gamma probe. Very few physical samples were taken, and no details of the sampling techniques are available.</li> <li>Uranerz – a downhole gamma probe was the primary sampling technique. All holes penetrating Tertiary channel sediments were sampled at 1m intervals across the redox boundary, this typically involved taking five samples. Approximately 1-2kg of sample was collected. Samples were assayed by pressed powder XRF for U<sub>3</sub>O<sub>8</sub> and ThO<sub>2</sub> at SGS Laboratories. Some samples had additional multielement assaying by pressed powder XRF and Au by aqua regia AAS finish.</li> <li>Uranio – A Gamma Surveyor handheld spectrometer was used to measure gamma CPS for each 1m sample, samples with a gamma CPS three or more times background radiation were sampled. Samples were spear sampled, with approximately 3kg of sample collected. Samples were pulverised and sent for a standard uranium-suitable ICP-MS multi-element analysis suite at Genalysis Laboratories in Perth.</li> <li>MHC – Aircore: the primary sampling technique used was down hole gamma probe. A RS125 Super Spectrometer was used to measure gamma CPS for each 1m sample, samples were spear sampled, with approximately 3kg of sample super spear sampled, with approximately 3kg of samples were spear sampled, with approximately 3kg of sample collected. Samples were spear sampled, with approximately 3kg of sample collected. Samples were spear sampled, with approximately 3kg of sample collected. Samples were spear sampled, with approximately 3kg of sample collected. Samples were spear sampled, with approximately 3kg of sample collected. Samples were spear sampled, with approximately 3kg of sample collected. Samples were spear sampled, with approximately 3kg of sample collected. Samples were spear sampled, with approximately 3kg of sample collected. Samples were spear sampled, with approximately 3kg of sample collected. Samples were splow intevals and sent for a standard uranium-suitable ICP-MS</li></ul>

Criteria	JORC Code explanation	Commentary
Drilling techniques	<ul> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).</li> </ul>	<ul> <li>PNC – aircore</li> <li>Uranerz – aircore/RC</li> <li>Uranio – aircore, NQ (71mm) Diameter holes, face sampling bit.</li> <li>MHC – aircore, NQ (71mm) Diameter holes, face sampling Wallis Drilling proprietary vacuum bit.</li> <li>MHC – sonic core – hole diameter 170mm, core barrel 3m in length with 100mm internal diameter.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>PNC – aircore: No details regarding drill sample recovery are available.</li> <li>Uranerz – aircore: No details regarding drill sample recovery are available.</li> <li>Uranio and MHC aircore: Recovery of samples within wet sands was poor, which was expected.</li> <li>MHC Sonic: Sonic core recovery was excellent ~100%. MHC Sonic holes were gamma-logged.</li> <li>Due to poor sample recovery, all MHC holes were gamma-logged.</li> <li>In general, it was observed that poor sample recovery was reflected in lower assay values, most likely due to the preferential loss of fine material.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>All holes were 100% geologically logged to an appropriate level of detail with respect to the style of mineralisation. No geotechnical logging was undertaken due to the expected future extraction method being In Situ Recovery (ISR). Air core holes were logged to a minimum of 1m scale. The Sonic core holes were logged per the differing geological lengths. Sonic core was photographed</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> </ul>	<ul> <li>PNC – Very few drill chip samples were collected, and no details of sampling techniques, sample preparation, etc., are available.</li> <li>Uranerz – no details of the sampling techniques, sample preparation, etc., are available.</li> <li>Uranio – 1m sample piles were laid on the ground and spear sampled. Certified standards were used, and duplicate sampling was undertaken.</li> <li>MHC Air core – Samples were collected off the drill rig into polyweave bags as most samples were wet. Polyweave bags were laid on their side and spear-sampled from top to bottom of the bag.</li> </ul>

	Criteria	JORC Code explanation	Commentary
	)	• Whether sample sizes are appropriate to the grain size of the material being sampled.	<ul> <li>MHC Sonic – A wedge sample was cut from the sonic core.</li> <li>For MHC Air core holes, three uranium-certified standards and one certified blank standard were used, as well as field duplicate sampling was undertaken. Three uranium-certified standards and one certified blank standard were used for the Sonic core samples, and field duplicate sampling was undertaken.</li> <li>Sample sizes were considered appropriate for the grain size of the material being sampled.</li> </ul>
ersonal use on	Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>PNC – PNC personnel undertook the downhole gamma logging using 3 calibrated gamma probes (816/817/819) with a Middilogger system. The hardcopy downhole gamma logs were scanned and digitised. The gamma data was processed by David Wilson of 3D Exploration Pty Ltd, providing eU<sub>3</sub>O<sub>8</sub> and deconvolved eU<sub>3</sub>O<sub>8</sub>.</li> <li>Uranerz – Downhole gamma logging was undertaken using a Mount Sopris 1000 gamma logger. The downhole gamma logs were recorded on paper. Gamma CPS values have been digitally compiled into 0.5m intervals. At present, no conversion is available for gamma CPS to eU<sub>3</sub>O<sub>8</sub>.</li> <li>MHC – Down Under Surveys undertook the first phase of downhole gamma logging using gamma probes S939 and S791. The gamma probes were calibrated at the Adelaide calibration pits. Gamma data was collected in 2cm intervals. The gamma data was processed by David Wilson of 3D Exploration Pty Ltd, providing eU<sub>3</sub>O<sub>8</sub> and deconvolved eU<sub>3</sub>O<sub>8</sub>. Air core holes were logged inside NQ (71mm) diameter rods), and several holes were logged as open holes, but the holes had closed on most occasions.</li> <li>MHC – Geoscience Associates Australia Pty Ltd undertook the second phase of downhole gamma logging utilising 38mm natural gamma probes (calibrated probes SSG01 and SSG02). Gamma data was collected in 1cm intervals. The gamma data was processed by Geoscience Associates Australia Pty Ltd, providing eU<sub>3</sub>O<sub>8</sub> and deconvolved eU<sub>3</sub>O<sub>8</sub>. The air core holes were logged as open holes, but on most occasions, the holes had closed. The Sonic holes were logged within 50mm PVC casing in a 170mm diameter drill hole.</li> <li>MHC – A third phase of down-hole gamma logging was undertaken by Wallis Drilling personnel using the Reflex EZ40 system. The gamma probe was calibrated at the Adelaide calibration pits.</li> </ul>
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Criteria	JORC Code explanation	Commentary
)		<ul> <li>Gamma data was collected in 2cm intervals. The gamma data was processed by David Wilson of 3D Exploration Pty Ltd, providing eU<sub>3</sub>O<sub>8</sub> and deconvolved eU<sub>3</sub>O<sub>8</sub>.</li> <li>For chemical analyses of Uranio aircore holes, two uranium standards were used at a frequency of at least 1 in 20 samples. Field Duplicate samples were also taken at a minimum frequency of 1 in 20 samples.</li> <li>For chemical analyses of MHC aircore holes three uranium standards and one blank standard were used at a frequency of at least 1 in 20 samples. Field Duplicate samples. Field Duplicate samples were also taken at a frequency of at least 1 in 20 samples. Field Duplicate samples were also taken at a frequency of at least 1 in 20 samples. Field Duplicate samples were also taken at a frequency of at least 1 in 20 samples. For the Sonic core samples, three uranium standards and one black standard were used at a frequency of at least 1 in 20 samples. 2 x 0.5m intervals duplicated all 1m sample intervals.</li> <li>All standards, blanks and field duplicates were checked for acceptable accuracy, and laboratory results were only accepted once these were met. The internal laboratory standards, blanks and pulp duplicates were also routinely checked.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>MHC undertook a program of twin holes, where Sonic holes twinned a selection of mineralised air core holes.</li> <li>MHC undertook a second program of twin holes where six of the sonic holes were twinned by air core holes to gain additional gamma data for the development of an appropriate disequilibrium factor.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>PNC holes were surveyed by theodolite, and hole collars, where visible, were checked by handheld GPS.</li> <li>Uranerz holes were in a local grid, which was transformed to GDA 94 Zone 51 using located drill collars surveyed by hand-held GPS. Most holes in the Shelf area were located by hand-held GPS ±5m accuracy.</li> <li>Uranio and MHC holes were surveyed by hand-held GPS ±5m accuracy.</li> <li>All holes are vertical, so no down-hole surveying was undertaken.</li> <li>Grid system: GDA 94 Zone 51</li> <li>SRTM data was used to provide topographic control.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral</li> </ul>	<ul> <li>PNC, the average drill spacing is 100m x 500m, which is considered appropriate for Inferred category Mineral Resource estimation, considering the style of mineralisation.</li> </ul>

	Criteria	JOF	RC Code explanation	Commentary
1 1 ))		•	Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.	<ul> <li>Uranerz drill spacing in the Shelf prospect area is generally 200m x 400m, with some 100m spaced holes, which have been infilled by Uranio and MHC drilling. Combined with the later drilling, the drill spacing is considered appropriate for Inferred category Mineral Resource estimation considering the style of mineralisation.</li> <li>Uranio &amp; MHC drilling was conducted on 100m x 400m drill centres in mineralised sections of the palaeochannel, on 200m x 400m spacings in prospective palaeochannels and 200m x 800m spacings for reconnaissance exploration.</li> <li>The 100m x 400m spaced drilling is appropriate for Inferred category Mineral Resource estimation considering the site of space of the mineralisation style.</li> <li>No sample compositing was undertaken for chemical assays.</li> <li>Gamma-derived eU<sub>3</sub>O<sub>8</sub> analyses were composited.</li> </ul>
)	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.	<ul> <li>The mineralisation is interpreted to be a flat-lying tabular body, all holes vertically intersecting the mineralisation perpendicular to its orientation. All intercepts are true width.</li> </ul>
)	Sample security	•	The measures taken to ensure sample security.	<ul> <li>PNC and Uranerz – the sample security measures undertaken are unknown.</li> <li>Uranio samples were transported in secured drums to Kalgoorlie by Uranio personnel and then by courier to the laboratory in Perth.</li> <li>MHC personnel delivered MHC samples directly to the ALS laboratory in Kalgoorlie, where they were transported to Perth by ALS.</li> </ul>
) )	Audits or reviews	•	The results of any audits or reviews of sampling techniques and data.	<ul> <li>MHC's review of Uranio's sampling determined that any assays could only guide U<sub>3</sub>O<sub>8</sub> grade due to poor sample recovery in the palaeochannel wet sand material. Downhole gamma logging was considered the preferred primary method for determining U<sub>3</sub>O<sub>8</sub> via equivalent U<sub>3</sub>O<sub>8</sub> (eU<sub>3</sub>O<sub>8</sub>). This was confirmed by the Sonic holes, which twinned earlier mineralised aircore holes, where the Sonic holes with excellent recovery returned higher assay results.</li> </ul>

# **Section 2 Reporting of Exploration Results**

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The Expanded Stallion Project is located on Exploration Licenses 28/2999, 28/3241, 28/3251 and the Exploration License Applications 39/2469, 28/3426, and 28/3429.</li> <li>SUM holds 100% interest in all tenements and applications, with granted titles held in good standing at the time of writing.</li> <li>The Highway and Shelf Mineral Resources mostly lie within a recent Exploration License Application, 28/3429 (referred to as Nippon).</li> <li>There remains a minor risk that the Nippon application may not be granted.</li> <li>The applications must go through the expedited native title process before grant.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>PNC and Uranerz have undertaken historical exploration within the area. Uranio rebadged as MHC through a merger.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>Tabular reduced sand hosted palaeochannel uranium deposit. Mineralisation is hosted within carbonaceous sand under a clay cap layer. The base of the palaeochannel is weathered/fresh granite.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	Refer to body of report.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>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</li> </ul>	<ul> <li>eU<sub>3</sub>O<sub>8</sub> intercepts are length-weighted averages.</li> <li>Chemical assay U<sub>3</sub>O<sub>8</sub> intercepts are length-weighted averages.</li> <li>High-grade U<sub>3</sub>O<sub>8</sub> intervals are reported as included intervals.</li> <li>Chemical U was converted to U<sub>3</sub>O<sub>8</sub> using a factor of 1.1792</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul> <li>Mineralised intercepts are true widths, with the vertical holes intersecting the flat-lying mineralisation perpendicularly.</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	Refer to Figures in the body of the report.
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.</li> </ul>	All results reported are representative.
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.	<ul> <li>MHC has undertaken disequilibrium test work on aircore and so core samples at ANSTO and Western Radiation Services, allowid disequilibrium factor to be applied to the raw eU<sub>3</sub>O<sub>8</sub>.</li> <li>Preliminary petrological analyses by Tetra Tech showed that uranium was predominantly represented by coffinite and davidit Microprobe analysis of davidite grains detected that lanthanum (is the most common rare earth element (REE), with minor amoun of cerium (Ce), yttrium (Y) and erbium (Er). Calcium is common a substitutes REE and probably uranium. Samples analysed demonstrated a strong correlation between uranium mineralisat and ilmenite-rutile-pyrite association, as well as uranium being commonly associated with carbonaceous material.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas,</li> </ul>	<ul> <li>Follow-up work programs will be subject to interpretation of rece and historic results.</li> </ul>

# **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	<ul> <li>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.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>Limited validation has been completed to ensure the integrity of the MHC database, including comparing some database records to original paper gamma logs and comparing gamma-derived eU<sub>3</sub>O<sub>8</sub> values to available chemical assays.</li> <li>SUM has re-engaged independent consultants Hellman and Schofield, who provided the 2017 resource estimates for MHC, to review and restate resources across the project group.</li> <li>Geological logging allows a consistent and coherent interpretation to be generated and suggests no obvious problems or issues with drill hole locations.</li> <li>Radiometric Disequilibrium Corrections for MHC holes:         <ul> <li>Disequilibrium corrections for the MHC air core holes were derived from a comparison of chemical and radiometric assays for the sonic holes drilled by MHC, as these holes have the most reliable samples.</li> <li>A Q-Q plot of the chemical and radiometric assays for the MHC sonic holes was divided into three grade ranges based on distinct changes in slope, and power curve regressions were fitted to each grade range. Care was taken to ensure a smooth transition for regression formulas from one-grade range to the next.</li> <li>These regressions were then applied to the radiometric assays for the MHC air core holes and sections of sonic holes missing chemical assays for Stallion, Highway and Shelf deposits.</li> </ul> </li> <li>Radiometric Disequilibrium Corrections for PNC holes:         <ul> <li>The average disequilibrium ratio at Double 8 Prospect was unknown by PNC. PNC used several diamond drill core holes to compare the downhole gamma data against chemical assays. From this comparison, a calibration factor was determined for the conversion of gamma CPS to eU. This calibration factor would also have included any disequilibrium factor.</li> </ul> </li></ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>The CP has visited the site for general exploration and drilling in the Stallion area and is familiar with the geology and the nature of mineralisation likely to be found within the expanded project.</li> </ul>

Criteria	JORC Code explanation	Commentary
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>There is a high degree of confidence in the interpreted palaeochannel environment proposed for these deposits.</li> <li>Geological logging reflects the depositional environment and generates a consistent and coherent interpretation.</li> <li>There is limited scope for alternative interpretations, which are unlikely to impact the Mineral resource estimates significantly.</li> <li>Geology is the primary control on the Mineral resource estimates, with mineralisation entirely constrained to the palaeochannels and generally in the vicinity of the redox boundary.</li> <li>While the continuity of the palaeochannels is well defined by drilling, the uranium mineralisation is less continuous and confined to parts of the channels. The uranium mineralisation appears to be confined to particular sedimentary facies and/or hydrogeological environments.</li> </ul>
Dimensions	<ul> <li>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</li> </ul>	<ul> <li>At 100ppm U<sub>3</sub>O<sub>8</sub> cut-off grade, the Stallion Mineral Resource consists of irregular lenses of mineralisation up to approximately 800 x 800m in plan extent. Mineralisation typically starts around 60m below the surface and is up to 6m thick.</li> <li>At 100ppm U<sub>3</sub>O<sub>8</sub> cut-off grade, the Highway Mineral Resource consists of irregular lenses of mineralisation up to approximately 2,000 x 600m in plan extent. Mineralisation typically starts between 20 and 40m below the surface and is up to 4m thick.</li> <li>At 100ppm U<sub>3</sub>O<sub>8</sub> cut-off grade, the Shelf Mineral Resource consists of irregular lenses of mineralisation typically starts between 20 and 40m below the surface and is up to 4m thick.</li> <li>At 100ppm U<sub>3</sub>O<sub>8</sub> cut-off grade, the Shelf Mineral Resource consists of irregular lenses of mineralisation up to approximately 1,400 x 400m in plan extent. Mineralisation typically starts between 15 and 35m below the surface and is up to 2m thick.</li> </ul>
Estimation and modelling techniques	• The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	<ul> <li>Samples were composited to 0.5m intervals for analysis and estimation. A combination of chemical and corrected radiometric assays was used for estimation, depending on which was available and considered more reliable. Most data for Stallion, Highway and Shelf deposits is corrected radiometric assays for MHC air-core holes.</li> </ul>

Cr	riteria J	JORC Code explanation	Commentary
		<ul> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	<ul> <li>Ordinary kriging was the estimation technique used for all Mineral Resources, which is considered an appropriate method for this mineralisation style and the data's moderate skewness.</li> <li>No grade cutting has been used for the Mineral Resource estimates. The coefficients of variation are modest, and the most extreme values are in context and do not appear to be outliers with respect to the main body of data.</li> <li>No assumptions have been made regarding the recovery of by-products.</li> <li>There are no deleterious elements or other non-grade variables of economic significance.</li> <li>No assumptions were made about the correlation between variables, as only uranium was estimated.</li> <li>Estimates for Stallion, Highway and Shelf utilised Datamine software.</li> <li>Block model interpolation:         <ul> <li>At Stallion, the block size is 100x200x1.0m, while the drill hole spacing is 100x400m with 0.5m samples. The maximum estimation search was 450x900x4.0m, using a minimum of 4 and a maximum of 16 samples in at least 2 octants.</li> <li>At Highway, the block size is 200x200x1.0m, while the drill hole spacing is nominally 100x400m with 0.5m samples. The maximum estimation search was 300x1200x3.0m, using a minimum of 4 and a maximum of 16 samples in at least 4 octants.</li> <li>At The Shelf, the block size is 200x200x1.0m, while the drill hole spacing is nominally 200x400m with 0.5m samples. The maximum estimation search was 300x1200x3.0m, using a minimum of 4 and a maximum of 16 samples in at least 4 octants.</li> </ul> </li> <li>At The Shelf, the block size is 200x200x1.0m, while the drill hole spacing is nominally 200x400m with 0.5m samples. The maximum estimation search was 300x1200x3.0m, using a minimum of 4 and a maximum of 16 samples in at least 4 octants.</li> <li>At The Shelf, the block size is 200x200x1.0m, while the drill hole spacing is nominally 200x400m with 0.5m samples. The maximum estimation s</li></ul>
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Criteria	JORC Code explanation	Commentary
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	<ul> <li>Tonnages are estimated on a dry basis, and moisture content has not been determined.</li> </ul>
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	Cut-off grades are based on comparable uranium projects.
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.	<ul> <li>It is envisaged that the mining method at Ponton will be in-situ recovery (ISR). Detailed mining parameters are yet to be determined at this early stage of the project. No field leaching tests or hydrogeological studies have been undertaken on-site to date.</li> </ul>
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.	<ul> <li>A Scoping (Desktop) Study was prepared by Tetra Tech in 2011, outlining an 872 t U<sub>3</sub>O<sub>8</sub> per annum ISR operation with an assumed recovery of 72.7%. No metallurgical test work has been completed, but some preliminary mineralogical data was available. One issue identified was the high salinity of the groundwater at Ponton.</li> </ul>
Environment al factors or assumptions	<ul> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a green fields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	<ul> <li>As a potential ISR operation, no waste rock and minimal process residue will be generated. ISR is a minimal-impact mining method, and the main issue will be water management.</li> </ul>
Bulk density	• Whether assumed or determined. If assumed, the basis for the	<ul> <li>A bulk density of 1.80t/m3 has been assumed in the Mineral Resource estimates based on deposits with similar geology.</li> <li>No bulk density measurements have been taken on channel sediments from any of the deposits at the project</li> </ul>

Criteria	JORC Code explanation Co	ommentary
	<ul> <li>assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>There is limited variability in the sediments at Ponton, so a single value is considered appropriate at this project stage.</li> </ul>
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>All Mineral Resources are classified as Inferred at this project stage due to the relatively wide drill hole spacing, uncertainties with some of the historical data, lack of density measurements and uncertainties regarding disequilibrium factors.</li> <li>Summit Minerals accepts the Competent Person's (Hellman and Schofield) view that the resource classification appropriately reflects the level of knowledge of the deposit.</li> </ul>
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	<ul> <li>No formal audits or reviews have been completed for any of the Mineral Resource estimates.</li> </ul>
Discussion of relative accuracy/ confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul> <li>The Mineral Resource estimates have a relative accuracy and confidence level appropriate to an Inferred Mineral Resource. This is based on a qualitative assessment of data quality and spacing. Factors that could affect the relative accuracy and confidence of the estimate include:         <ul> <li>the relatively wide drill hole spacing,</li> <li>uncertainties with some of the historical data,</li> <li>lack of density measurements,</li> <li>poor sample recovery for some chemical assays,</li> <li>uncertainties regarding disequilibrium factors applied to gamma logging data.</li> </ul> </li> <li>No production data is available as the project remains undeveloped.</li> </ul>





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