

# ELEVATED RADIOACTIVITY AND SIGNIFICANT HYDROTHERMAL ALTERATION IDENTIFIED AT GEIKIE

## Key Highlights

- Multiple elevated radioactive zones identified with downhole gamma probe peaks up to 4,802 counts per second
- Geikie maiden drill program successfully identifies significant structurally controlled alteration systems analogous to major uranium deposits of the Athabasca Basin
- Alteration patterns observed in drilling support airborne gravity as the most effective survey tool for the next phase of exploration; this technique has mapped similar basement-hosted uranium alteration systems within the Athabasca Basin
- Gravity survey commissioned and set to commence in mid-August
- Geikie maiden drill program comprised of 8 holes which tested 3 highly prospective target areas. Planning is underway to test additional high priority targets, further target refinement and generation work is ongoing
- Basin remains fully funded to complete follow-up work at Geikie with \$5.2M in cash reserves as at 30 June 2023

Basin Energy Limited (**ASX:BSN**) ('**Basin**' or the '**Company**') is pleased to provide an update on exploration activities at its Geikie Uranium Project ('**Geikie**' or the '**Project**'), located on the eastern margin of the world-class Athabasca Basin in Canada.

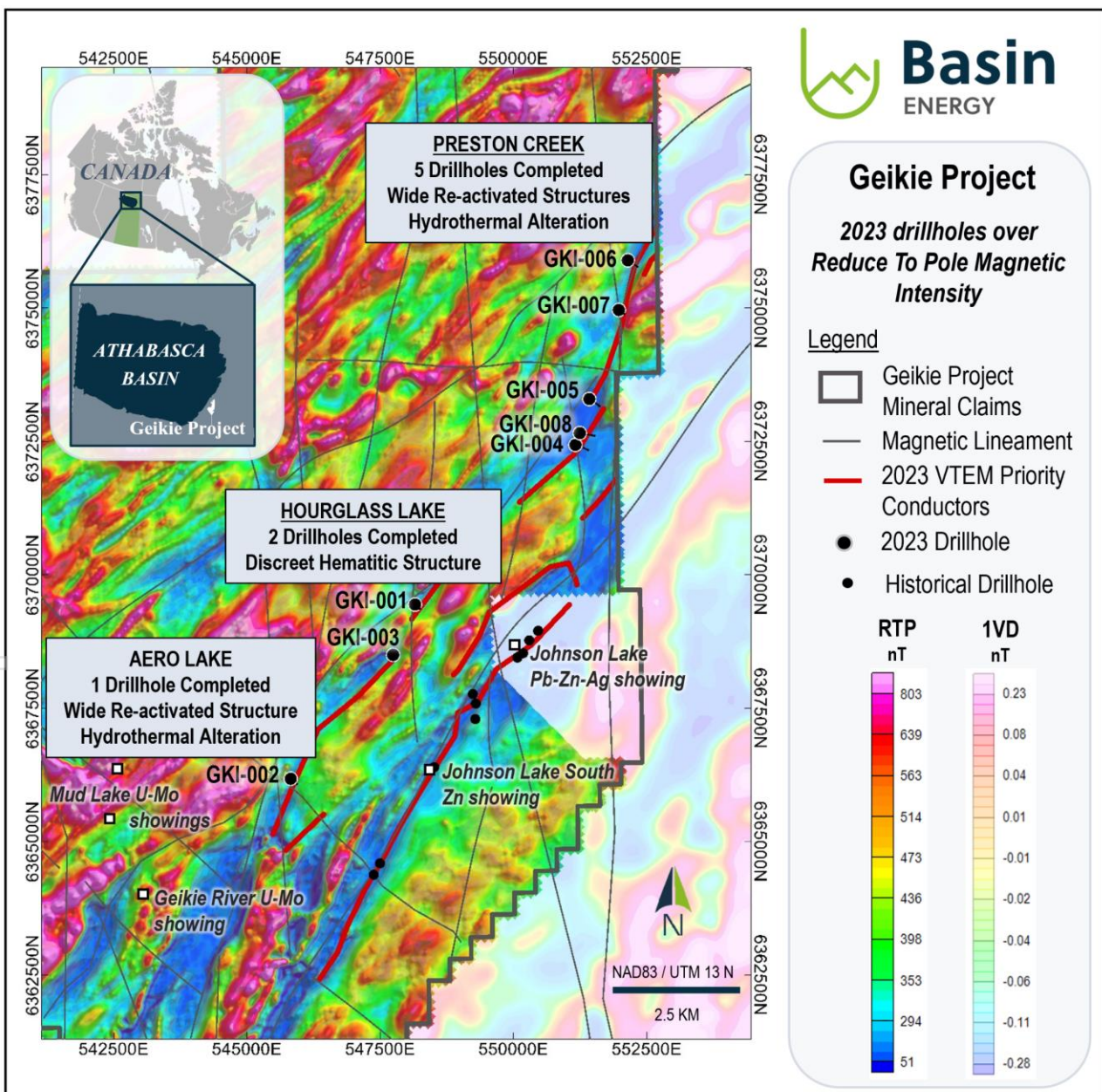
Basin's maiden drilling campaign has now been completed. The program consisted of eight (8) diamond drill holes for 2217 metres (Figure 1). Drilling has successfully identified a series of regionally significant alteration patterns associated with the intersection of north-south and northwest trending faults within the Project area. Additionally, multiple localised zones of radiometric anomalies have been identified, with assays expected in early September.

The significance of these initial results confirms the presence of active hydrothermal systems within a complex structural framework at Geikie, which are the hallmarks for basement-hosted high-grade uranium deposits. The data acquired during the summer drilling program will allow refinement of Basin's exploration model to target the most prospective structural corridors.



**Basin’s Managing Director, Pete Moorhouse, commented:**

“Initial results from Basin’s maiden drilling at Geikie are extremely encouraging and provide an exciting basis for a follow-up program. The identification of zones of significant alteration, correlating to the intersection of specific fault sets, along with multiple zones of elevated radioactivity lends the Project to rapid follow-up through high-resolution airborne gravity. The field team have done a tremendous job in identifying the multiple phases of faulting and alteration patterns observed which will form the basis for the next phase of targeting. With the imminent commencement of this survey, we are assessing our options to conduct a follow-up drilling program for which we remain fully funded. We anticipate final results from geochemical and clay analysis sampling in early September and will update the market once these are received and processed.”



**Figure 1:** Geikie Project 2023 maiden drilling program showing drillhole locations.



Hole ID	Prospect Name	Drillhole details					NGRS Probe Results			
		Easting <small>NAD83 / UTM Zone 13N</small>	Northing	Elevation <small>(m)</small>	Dip <small>(°)</small>	Azi <small>(°)</small>	End of Hole <small>(m)</small>	From <small>(m)</small>	To <small>(m)</small>	Max Peaks <small>(cps)</small>
GKI-001	Hourglass Lake	548158	6369438	463.5	-60	130	249.4	No anomalous radioactivity (probe peak of 609 cps @118.6)		
GKI-002	Aero Lake	545821	6366173	446	-50	128	240.5	<b>101.8</b>	<b>103.6</b>	<b>3290</b>
								<b>184.9</b>	<b>185.6</b>	<b>4665</b>
GKI-003	Hourglass Lake	547743	6368493	461	-50	130	152	No anomalous radioactivity (probe peak of 555 cps @101.9)		
								74.95	75.15	1023
								80.85	80.95	1037
								84.95	85.35	1098
								86.65	87.45	1153
								89.35	89.55	1089
								<b>90.95</b>	<b>93.05</b>	<b>2470</b>
								119.85	119.95	1288
								141.45	141.95	1508
								199.7	200.1	1736
GKI-004	Preston Creek	551165	6372430	450.5	-50	110	390	214.2	214.5	1236
GKI-005	Preston Creek	551424	6373287	436.7	-45	122	331	233.9	234.1	1181
								<b>255.1</b>	<b>255.5</b>	<b>4802</b>
GKI-006	Preston Creek	552146	6375884	462	-45	120	310	245.6	245.7	1003
GKI-007	Preston Creek	551977	6374956	474	-45	120	176	No anomalous radioactivity (probe peak of 153 cps @79.2 m)		
								28.1	29.6	1919
								40.1	40.3	1168
								76.4	76.6	1169
								143.8	143.9	1028
GKI-008	Preston Creek	551245	6372646	433.6	-45	100	368			

**Table 1:** Geikie Project 2023 drillhole information. Cut-off used for reporting anomalous downhole radioactivity is 1000 cps.



**Figure 2:** Aerial view of Geikie drilling.

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## Preston Creek – 5 Drill Holes Completed

The Preston Creek prospect is located at the northeastern end of the 15-kilometre prospective zone identified following the acquisition of high-resolution airborne magnetic and electromagnetic data (*refer ASX release dated 22<sup>nd</sup> March 2023*). Basin interprets a series of structures converging along the Preston Creek area, of which the complexity of the structural setting is considered a suitable conduit for uranium-bearing fluids.

Five drillholes (GKI-004 to GKI-008) were completed at the Preston Creek prospect for a total meterage of 1575 metres.

Several zones of elevated radiometry were noted in the Preston Creek drillholes, details of which can be found in Table 1. The best gamma probe results were intersected in drillholes GKI-005 and GKI-004 with maximum peaks of **4802** cps and **2470** cps, respectively.

Each hole intersected re-activated basement faults ranging up to 30 metres in thickness, with additional discrete faults (<1m) noted outside of major structural intervals. Significant localised alteration with composition and patterns typical of uranium mineralising systems were encountered (Figures 3, 4 and 5), consisting mostly of hematite, chlorite, clays and hydrothermal graphite commonly observed within or at the periphery of major structures. Increased sulphide mineralisation was also noted within these intervals.

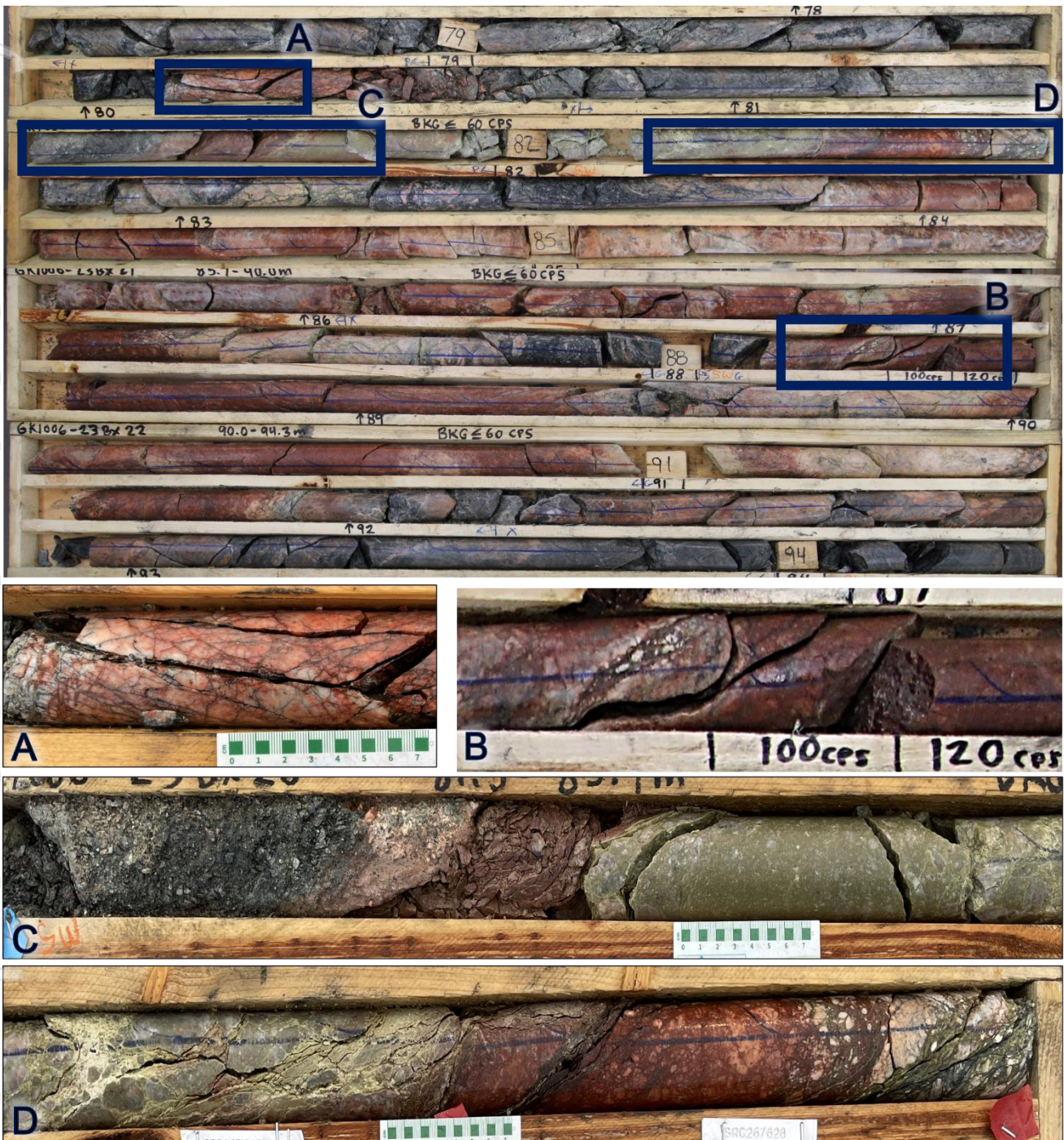
The characteristics of the fault system identified at Preston Creek is deemed by Basin as highly encouraging for the prospectivity of the broader Project area, where these structures can be interpreted to exist. Extensive investigation of these faults' kinematics and alteration characterisation will form the basis for the next phase of exploration at Geikie.

Major structural intervals at Preston Creek are characterised by cohesive cataclasites and ultracataclasites, clast- and matrix-supported breccias and clay gouges (Figure 3). Hydrothermal alteration intensifies sometimes completely overprinting the original host rock through numerous phases of faulting and fluid circulation. Significant alteration was locally noted extending peripheral to these zones (Figures 3 and 4), including a later stage of white clay argillisation of select fractures and small scale breccias/gouges (Figure 4). Samples of clay alteration have been collected for analysis by a Terraspec Mineral Spectrometer ('**Terraspec**') to confirm clay species and association with uranium-bearing fluids. In addition to this, 31 selective 30 to 50 cm half-split core samples ('**Spot Samples**') were sent for geochemical analyses to further characterize these zones of interest.

Additionally, an extensive zone of pervasive hematite alteration was intersected at the inferred contact between the Wollaston metasediments and Johnson Lake Granite in drillhole GKI-004. The 21-metre-thick interval was characterized by intense brick-red hematite completely overprinting the primary texture of the host rock (Figure 5). Abundant interstitial specular hematite and pyrite nodules were noted disseminated throughout and as microfractures and fracture fillings (Figure 5, close-up photographs A and B). This is indicative of oxidized hydrothermal fluids circulating at the contact between Wollaston metasediments and the Johnson Lake Granite in this area.





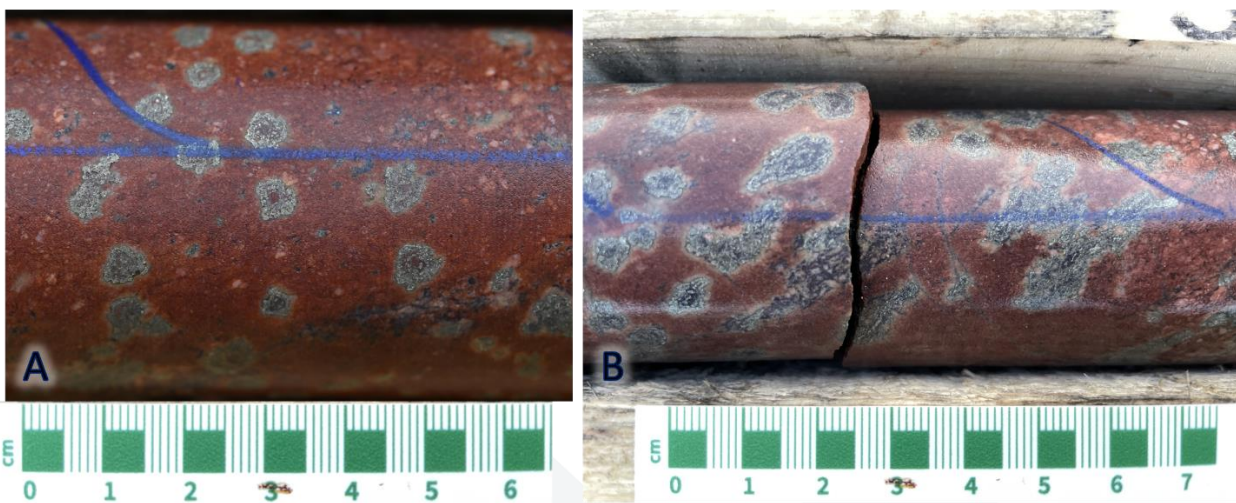
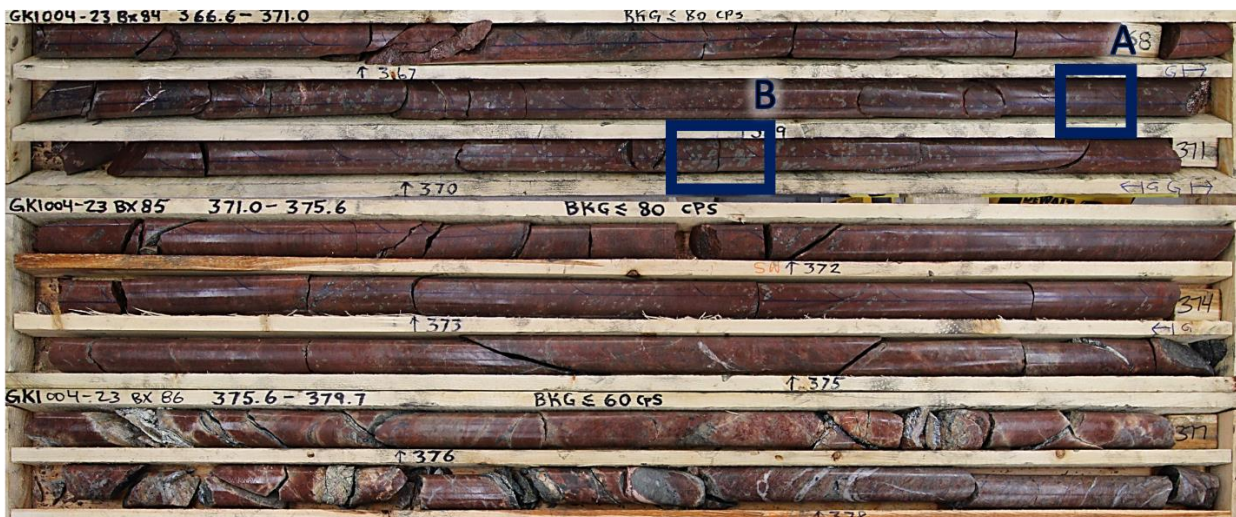


**Figure 3:** Photographs of alteration and deformation style intersected in a major faulted interval (shear zone) in drillhole GKI-006. A. Close-up of a hematized clast-supported crackle breccia with dark chlorite and hematite matrix. B. Close-up of strongly hematized fractured host rock with elevated CT-007-M scintillometer radiometry. Note the 3 cm-thick matrix-supported breccia exhibiting corroded clasts within a friable fine grained hematitic clay matrix. C. Close-up of a strongly altered cataclastic interval consisting of an incohesive gouge with dark grey to light grey clay matrix (left), an incohesive brick-red protobreccia (middle), and an indurated ultracataclasite zone with a sage green chloritic matrix (right). D. Close-up of continued strongly altered brecciated interval with brick red hematite noted overprinting the middle section of the photographed core and a later reactivation stage marked by a pale green-yellow clay matrix supporting chlorite-altered clasts.





**Figure 4:** Close-up of strongly fractured hematized interval intersected in drillhole GKI-004. Deformation is characterized by an extensive network of microfractures, open fractures, quartz veins, cohesive dark green cataclastic bands and incohesive centimetre scale breccias and gouges. A bleaching halo is commonly observed peripheral to the fractures and microfractures planes and gritty white fine grained clay matrix is noted in the incohesive breccia and gouges.



**Figure 5:** Interval of strong hematite alteration overprinting the host rock in drillhole GKI-004 at the inferred contact between Wollaston metasediments and the underlying Johnson Lake granite. A. Close-up photograph of the pervasive brick red hematization overprinting the host rock with fine grained black specular hematite disseminations and zoned pyrite nodules. B. Close-up photographs of pyrite-specular hematite clusters.



## Aero Lake - 1 drill hole completed

Aero Lake is the western most target area tested, occurring at a confluence of interpreted structural lineaments with a series of geological and geophysical anomalies, refer ASX 13 June 2023 for details.

Drillhole GKI-002 was completed at Aero Lake totalling 240.5 metres (Figure 1). Two zones of elevated radiometry with maximum gamma probe peaks of 3290 cps and 4665 cps were noted in GKI-002 (Table 1).

Drilling intersected a significant structure from 59 to 88 metres downhole, demonstrating large scale faulting characterised by intermittent cohesive breccia and cataclastic faulting and overprinting dark grey clay gouges (Figure 6). As at Preston Creek, multiple stages of reactivation are interpreted.

Hydrothermal alteration spatially associated with the fault zone consists primarily of pale yellow green argillisation and chloritization (Figure 6). Clay minerals within this interval were analysed with the Terraspec. Partial results of the Terraspec samples have been received and confirm the dominant clays to be illite and magnesium chlorite which are clay minerals typical of hydrothermal alteration of uranium systems in the district.

Geochemical analysis results are pending with results expected in early September.



**Figure 6:** Faulted interval in drillhole GKI-002 characterised by successive moderately to strongly chloritized and argillised cataclastic fault cores (green box) separated by a damage zone (blue box) displaying anastomosing protocataclastic fabric and fractures.

## Hourglass Lake - 2 drill holes completed

The Hourglass Lake prospect is located midway along the 15 kilometre prospective zone. Drilling has been designed to test an interpreted disruption of the VTEM conductor, where an apparent 500 metre offset is observed in conjunction with a discreet north-south trending magnetic structural lineament deemed suitable as a mineralising fluid conduit.

GKI-001 and GKI-003 were completed at Hourglass Lake for a total meterage of 401 metres (Figure 1). A narrow (< 1m) hematite fault zone was intersected in GKI-001 but initial core observations have downgraded the priority of this prospect due to a notable lack of significant structure and alteration. The inferred offset of the conductor package identified from the VTEM survey has not yet been explained. No radiometric anomalies were noted in these two drillholes.

## Drilling logistics

The drilling services were contracted to Athabasca Catering Limited Partnership, a 100% First Nations-owned company, who are partnered with ITL Diamond Drilling Ltd. Drilling is now complete for this maiden phase, with all recovered core geologically, structurally and radiometrically logged, and where appropriate sampled for geochemical and spectral analysis. The purpose of geochemical analysis is to establish the presence of pathfinder elements and uranium. Final laboratory results are expected in early September.



*Figure 7: 2023 maiden drilling activities at the Geikie Project.*



## Gravity Scope

Basin is pleased to advise that an airborne gravity gradiometer ('gravity') survey has been commissioned for Geikie planning to commence in mid-August. The survey will be completed by X-Calibur Multiphysics Group and will consist of 1838 line kilometres on 200 metre line spacing (Figure 8).

Considering the styles and significance of alteration observed associated with structures at the Preston Creek and Aero Lake Prospects, gravity is seen as the optimum follow-up method to allow the targeting of phase 2 drilling and refine follow-up drillhole targets from the maiden drilling program. The survey is designed to identify potential areas where alteration intensifies adjacent to the structures identified and is a demonstrated successful technique in identifying uranium alteration systems in the Athabasca and Nunavut regions.

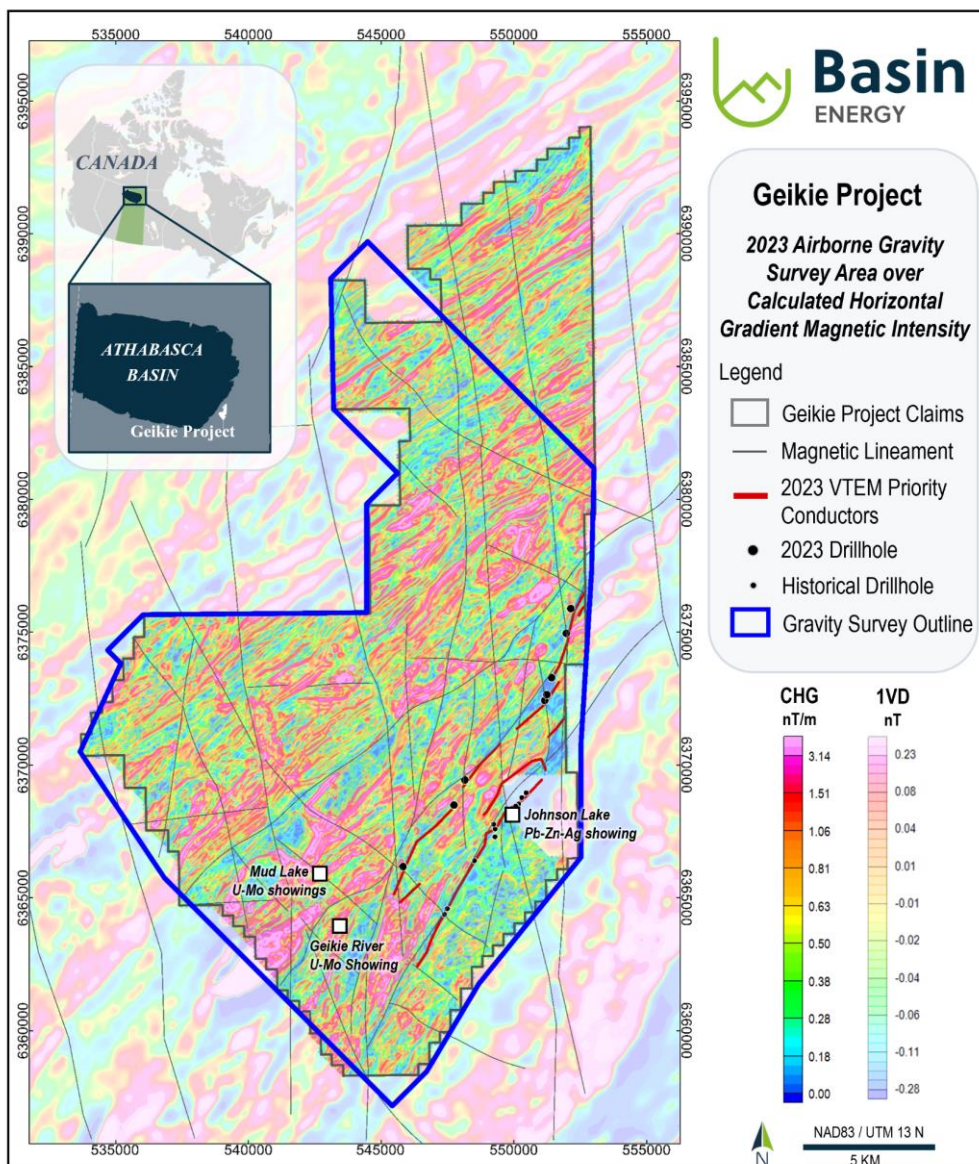


Figure 8: August 2023 Proposed Gravity Survey Outline.

This announcement has been approved for release by the Board of Basin Energy.

## Enquiries

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Pete Moorhouse  
Managing Director  
[pete.m@basinenergy.com.au](mailto:pete.m@basinenergy.com.au)  
+61 7 3667 7449

Chloe Hayes  
Investor & Media Relations  
[chloe@janemorganmanagement.com.au](mailto:chloe@janemorganmanagement.com.au)  
+61 458 619 317

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## Company Overview

### About Basin Energy

Basin Energy (ASX: **BSN**) is a uranium exploration and development company with an interest in three highly prospective projects positioned in the southeast corner and margins of the world-renowned Athabasca Basin in Canada.

### Directors & Management

<b>Pete Moorhouse</b>	<b>Managing Director</b>
<b>Blake Steele</b>	<b>Non-executive Chairman</b>
<b>Cory Belyk</b>	<b>Non-executive Director</b>
<b>Jeremy Clark</b>	<b>Non-executive Director</b>
<b>Peter Bird</b>	<b>Non-executive Director</b>
<b>Ben Donovan</b>	<b>NED &amp; Company Secretary</b>
<b>Odile Maufrais</b>	<b>Exploration Manager</b>

### Basin Energy

ACN 655 515 110

### Projects

North Millennium  
 Geikie  
 Marshall

### Shares on Issue

81,229,697

### Options

13,300,000

### ASX Code

BSN



## Investment Highlights



**Direct exposure to high grade uranium** within the world class uranium mining district of the Athabasca Basin, Saskatchewan, Canada – a top three global uranium producer for over 45 years



**Experienced and dedicated team** with relevant uranium exploration and development track record



**Walk-up exploration targets** with permitting in place to commence exploration concurrently with IPO and to be drilling within 6 months



**Uranium is a re-emerging clean energy source**, leveraged to the global low carbon economy megatrends



**Leveraging an extensive high-quality geological database** assembled over decades, with significant recent exploration success



**Committed to sustainable resource development** and minimising environmental impact



**Strategically located** near world-class high-grade uranium discoveries, mining and processing operations with a constant uranium mining industry for 65 years



**Located in Saskatchewan, a globally attractive and proven mining jurisdiction** – Ranked 2<sup>nd</sup> in Fraser Institute 2021 global mining investment attractiveness index

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## Appendix 1

### Competent Persons Statement, Resource Figure Notes and Forward Looking Statement

The information in this announcement that relates to exploration results was first reported by the Company in accordance with ASX listing rule 5.7 in the Company's prospectus dated 22<sup>nd</sup> August 2022 and announced on the ASX market platform on 30<sup>th</sup> September 2022, and data announced in subsequent ASX press releases by Basin Energy relating to exploration activities. The information included within this release is a fair representation of available information compiled by Odile Maufrais, a competent person who is a Member of the Australian Institute of Mining and Metallurgy. Odile Maufrais is employed by Basin Energy Ltd as Exploration Manager. Odile Maufrais 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 of Reporting of Exploration Results, Mineral Resources and Ore Reserves. Odile Maufrais consents to the inclusion in this presentation of the matters based on his work in the form and context in which it appears.

All resource figures shown within this document of deposits within the Athabasca, unless stated are quoted from the International Atomic Energy Agency (IAEA) Tecdoc 1857. Resources are global and include mined resource and all classification of remaining resource. Resource Size ( $U_3O_8$ ) is the amount of contained uranium (in Mlbs  $U_3O_8$ ) and average grade (in %  $U_3O_8$ ) of the deposit/system. This number is presented without a specific cut-off grade, as the cut-off value differs from deposit to deposit and is dependent on resource calculation specifications. Discrepancies between values in this field and other values in the public domain may be due to separate cut-off values used, or updated values since the writing of this document. For system entries, the values for the size were obtained by adding the individual deposits values whereas average grade values were derived using a weighted average of the individual deposits.

This announcement includes certain "Forward-looking Statements". The words "forecast", "estimate", "like", "anticipate", "project", "opinion", "should", "could", "may", "target" and other similar expressions are intended to identify forward looking statements. All statements, other than statements of historical fact, included herein, including without limitation, statements regarding forecast cash flows and future expansion plans and development objectives of Basin Energy involve various risks and uncertainties. There can be no assurance that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements.





## Appendix 2

# 1 JORC CODE, 2012 EDITION – TABLE 1 REPORT

## 1.1 Section 1 Sampling Techniques and Data

New data in this Table 1 refers to drilling activities currently underway on the Geikie project. All other information referenced was disclosed within the Basin Energy prospectus lodged with the ASX 22/08/2022 and subsequent ASX exploration updates.

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>• <i>In cases where 'industry standard' work has been done this would be relatively simple (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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Diamond coring (NQ drill core) comprising angled holes is being carried out on the Geikie Project at the Aero Lake, Hourglass Lake and Preston Creek prospects.</li> <li>• All drill core is systematically scanned using a CT007-M handheld Geiger Counter. The average count per second per run is recorded in the database and on the core box. Any drill core returning readings <math>\geq 200</math> counts per seconds (cps) in hand is marked in 10 cm intervals by the logging geologist or geotechnician. Each 10 cm interval within the radioactive zones is removed and measured using the CT007-M scintillometer in an area of very low background radiation.</li> <li>• Upon completion of a drillhole, in-rods downhole radiometric probing is completed by CanAlaska personnel using:             <ul style="list-style-type: none"> <li>• An NGRS (Natural Gamma-Ray Sonde) as a systematic tool on every drillhole for the entirety of the drilling length (minus the coring backend).</li> <li>• A Geiger Muller TGGs probe if the NGRS has sustained counts above 2500 cps.</li> </ul> </li> <li>• The gamma radioactivity measured by the probes was recorded in aw cps at a spacing of 10 cm down hole.</li> <li>• Gamma probes are calibrated using an algorithm calculated from the calibration of the probe at the Saskatchewan Research Council facility in Saskatoon. Sensitivity checks are routinely performed on the probes prior and after operation to confirm correct operation.</li> <li>• Wireline gamma data reflects the influence of radioactive minerals outside the drill hole in the host rock therefore no direct correlation between downhole gamma peaks and uranium mineralization can be made prior receipt of geochemical analyses results from drill core sampling in zones of elevated radiometry.</li> </ul>



Criteria	JORC Code explanation	Commentary
Drilling techniques	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Drilling was completed by ITL Diamond Drilling Ltd.</li> <li>• Diamond drill holes were drilled with a heli-portable Drillco MDS 1500 core rig.</li> <li>• All drillholes are NQ (47.6 mm) diameter drill core (standard tube).</li> <li>• The core is oriented using AXIS's Champ Ori core orientation instrument. The REFLEX IQ-Logger handheld structural logging device is used by logging geologists in the core shack.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Core recovery is recorded by measuring the length of core for each 3 metre run, reconciling against driller's depth blocks noting depth, core drilled, and core recovered.</li> <li>• Geological logging currently documents recoveries within 95% of expected with nothing recorded concerning the amount and consistency of material recovered from the drilling.</li> <li>• Drilling crews are instructed to maximize core recovery, using drilling additives if necessary to aid with core recovery.</li> </ul>
Logging	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Drill core is geologically and geotechnically logged to a level of detail sufficient to support mineral resource estimation and mining studies.</li> <li>• Logging is qualitative in nature. Wet and dry high resolution core photographs are taken of every core tray and additional detailed photographs are taken on select areas of interest.</li> <li>• All of the drill core sections relevant to this announcement have undergone detailed geological and geotechnical logging.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <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</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Basement systematic samples</b> are taken as one composite sample for every 9m on average (up to 20m maximum length in homogenous non-structured and non-altered intervals). Each sample is a composite of 1 to 2 cm disks of core taken through the sample interval. Leucosomes and host rock material should not be mixed, the sample should consist of the more abundant major lithology within the unit. ICPMS2 + Boron (Prep = C/S/A) analysis method is performed on basement systematic samples.</li> <li>• <b>Spot samples</b> are 5-50cm split sample of half-core collected in geologically significant</li> </ul>

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Criteria	JORC Code explanation	Commentary
	<p><i>stages to maximise representivity of samples.</i></p> <ul style="list-style-type: none"> <li>• <i>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<p>features (e.g., faults or alteration). ICPMS2 + Boron (Prep = C/S/A) analysis method is performed on spot samples.</p> <ul style="list-style-type: none"> <li>• Mineralized intervals are defined on the presence of elevated radiometry using a handheld CT-007M and from anomalous radiometric peaks in the downhole probe data that indicate &gt;0.1 %eU3O8. <b>Assay samples</b> consist of continuous intervals up to 0.5m in length of split half-core. Barren shoulder samples are collected above and below the mineralized intervals. ICP1 + Boron + U3O8 (Prep = C/S/RA) analysis method is performed on assay samples.</li> <li>• Splitting of core halves is performed using a manual core splitter.</li> <li>• One half of the split core remains in the core box as a permeant record, the other half is placed in a plastic sample bag along with a sample ID tag for shipping.</li> <li>• Blank materials are placed into the sample stream at a minimum collection rate of 5% to monitor accuracy and contamination.</li> </ul>
<p>Quality of assay data and laboratory tests</p>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>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.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All samples for uranium assay are sent to the Saskatchewan Research Council (SRC) Geoanalytical Laboratory in Saskatoon, Saskatchewan. The laboratory is accredited by the Standards Council of Canada as an ISO/IEC 17025: 2017 Laboratory for Mineral Analysis Testing and is also accredited ISO/IEC 17025:2005 for the analysis of U3O8.</li> <li>• All analyses are conducted by SRC, which has specialized in the field of uranium research and analysis for over 30 years.</li> <li>• All samples for uranium assay are analysed using the U3O8 wt% package which is an ISO/IEC 17025 accredited method for the determination of U3O8 wt% in geological samples.</li> <li>• For the U3O8 wt% package, an aliquot of sample pulp is digested in a concentration of HCl:HNO3. The digested volume is then made up with deionized water for analysis by ICPOES.</li> <li>• The SRC Geoanalytical Laboratory inserts CRM samples for every 20 samples analysed.</li> <li>• Upon receipt of assay results, company personnel conduct an internal review of in-house CRM samples to ensure no failures are present.</li> <li>• CRM failures occur if a CRM sample</li> </ul>

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Criteria	JORC Code explanation	Commentary
		<p>concentration is greater than 3 standard deviations from the expected value, or if two or more consecutive samples are outside of two standard deviations, on the same side.</p> <ul style="list-style-type: none"> <li>Blank failures occur if the sample is more than 10 times the detection limit of the analysis.</li> <li>All drill core samples are also analysed using the ICP1 Multi-Element Uranium Exploration Package plus boron. The ICP1 package provides total and partial digestion analysis through ICPOES.</li> </ul>
<p><i>Verification of sampling and assaying</i></p>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable to the current drilling results at the date of this announcement.</li> <li>Detailed checks utilized to verify downhole data collected include depth matching downhole probing data with drill core and handheld scintillometer readings. A comparison between data collected from the NGRS or TGGs probe, CT007-F handheld scintillometer and core logging data such as core recovery are completed at the end of each hole.</li> </ul>
<p><i>Location of data points</i></p>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<p><b>Drill collars</b></p> <ul style="list-style-type: none"> <li>Drill collar locations are recorded in the field using a hand-held global positioning system (GPS).</li> <li>The geodetic system used for the drilling program is NAD83, UTM zone 13N.</li> <li>Location accuracy is in the order of <math>\pm 5\text{m}</math> in X-Y and <math>\pm 15\text{m}</math> in RL (Z).</li> <li>Final drill collars are yet to be surveyed by DGPS with more accuracy (to <math>\pm 1\text{m}</math>).</li> <li>Topographic representation is sufficiently controlled using an appropriate Digital Terrain Model (DTM)</li> </ul> <p><b>Drill hole direction and downhole surveys</b></p> <ul style="list-style-type: none"> <li>Drillhole orientation is routinely measured at 50 m intervals with Reflex's EZ-Trac downhole survey tool.</li> <li>The first downhole survey measurement systematically occurs 6m below the casing.</li> </ul>
<p><i>Data spacing and distribution</i></p>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore</i></li> </ul>	<ul style="list-style-type: none"> <li>Data spacing is variable due to the early stage of exploration.</li> </ul>

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Criteria	JORC Code explanation	Commentary
	<p><i>Reserve estimation procedure(s) and classifications applied.</i></p> <ul style="list-style-type: none"> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The reported drillholes have been oriented to intersect favorable lithologies and structures of interest at a high angle based on projections from VTEM plate modeling, surface outcrops and historical drilling.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples were collected by company personnel on site, transported in tamper proof pails by crew change trucks directly to the SRC Geoanalytical Laboratory in Saskatoon, Saskatchewan.</li> <li>• Radioactive samples are stored in IP3 drums and transported from site to the laboratory by company personnel following a strict chain of custody and Transportation of Dangerous Goods regulations.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No review or audit has been conducted on the current drilling.</li> </ul>

## 1.2 Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>The security of the tenure held at the time of reporting</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Geikie Project, located in Northern Saskatchewan, Canada, consists of 9 mineral claims: <ul style="list-style-type: none"> <li>• MC00015156</li> <li>• MC00015157</li> <li>• MC00015158</li> <li>• MC00015160</li> <li>• MC00015161</li> <li>• MC00015162</li> <li>• MC00015165</li> <li>• MC00017352</li> <li>• MC00017353</li> </ul> </li> <li>• All claims are in good standing and subject to</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p><i>along with any known impediments to obtaining a license to operate in the area.</i></p>	<p>the standard and transparent renewal processes.</p> <ul style="list-style-type: none"> <li>The project is currently held 40% by Basin Energy and 60% by TSX-V listed CanAlaska.               <ul style="list-style-type: none"> <li>Basin has an Earn in agreement up to 80%</li> <li>Upon Basin reaching 80% ownership, CVV will hold a 2.75% NSR with a buy back option of 0.5%</li> </ul> </li> </ul>
<p><i>Exploration done by other parties</i></p>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>Historical exploration on the Geikie property consisted of limited uranium exploration, and some base metal exploration work. Work includes:               <ul style="list-style-type: none"> <li>1967-1980 Great Plains and Marline Oil focused on base metals and conducted rock chips, minor trenching and drilling. Data for which is referenced as classified as historical in nature.</li> <li>1990's Saskatchewan geological survey conducted mapping</li> <li>2000's the project was owned by Northwind Resources and CanAm Uranium Corp, who completed an electromagnetic survey over the western portion of the project area, and reconnaissance mapping</li> </ul> </li> </ul>
<p><i>Geology</i></p>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>The project is deemed prospective for basement hosted uranium mineralization.</li> </ul>
<p><i>Drill hole Information</i></p>	<ul style="list-style-type: none"> <li><i>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:</i> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li><i>dip and azimuth of the hole</i></li> <li><i>down hole length and interception depth</i></li> <li><i>hole length.</i></li> </ul> </li> <li><i>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</i></li> </ul>	<ul style="list-style-type: none"> <li>Refer to Table 1 in this announcement for drill hole information.</li> <li>Little historical drilling has been completed. None of these drillholes are considered to have sufficiently tested the area that is the subject of this announcement.</li> <li>No material information has been excluded.</li> </ul>

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Criteria	JORC Code explanation	Commentary
	<p><i>report, the Competent Person should clearly explain why this is the case.</i></p>	
Data aggregation methods	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></li> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No data aggregation of assay results was undertaken.</li> <li>• Metal equivalents are not used.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').</i></li> </ul>	Not Applicable – No uranium mineralisation is being reported.
Diagrams	<ul style="list-style-type: none"> <li>• <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Refer to figures in the announcement.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>• <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of</i></li> </ul>	<ul style="list-style-type: none"> <li>• It is the company's opinion that a balanced representation of the early-stage exploration data is being presented.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></p>	
<p><i>Other substantive exploration data</i></p>	<ul style="list-style-type: none"> <li>• <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All relevant exploration data has been reported.</li> </ul>
<p><i>Further work</i></p>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Airborne Gravity survey.</li> <li>• Detailed structural magnetic lineament picking.</li> <li>• Planning is underway to follow-up on the results reported in this release.</li> </ul>

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