Basin ENERGY

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GEOPHYSICAL TARGETS IDENTIFIED AT GEIKIE

Key Highlights

- **Geikie Airborne Electromagnetic Survey nearing completion and preliminary results have identified new targets and enhanced existing targets including:**
  - **A significant new EM conductor in the Southeast of the property identified**
  - **Multiple conductive anomalies associated with previously delineated regional north south faults, which are interpreted as suitable conduits for mineralised fluids**
- **Ongoing comprehensive regional data assessment reveals a proven lithological package suitable for hosting uranium mineralisation at Geikie**
- **Continued engagement with First Nations and broader stakeholder groups consistent with Basin's commitment to transparent and sustainable exploration**
- **Strong news flow expected with final EM survey results due imminently in the lead up to the maiden Geikie drilling program**
- **Well-funded for a significant 2023 exploration program with $7.6 m at 31 December 2022**

Basin Energy Ltd (**ASX:BSN**) ('**Basin**', or the '**Company**') is pleased to provide an update on the exploration activities at the Geikie Uranium Project ("**Geikie**" or the "**Project**"). With only 65% of unprocessed data airborne electromagnetic data ('**AEM**') received, Basin is highly encouraged by the preliminary results with significant conductors identified which support the previous works undertaken and the interpreted exploration model of the Project. Furthermore, a detailed review of regional historical data has allowed further refinement of the model. Basin now eagerly awaits the completion of the survey to allow the next step of exploration and drilling plans to be finalised ahead of the maiden drill program.

Basin Energy's Managing Director, Pete Moorhouse, commented:

"We are extremely encouraged by the results of the preliminary EM data to date. Being able to identify conductors associated with the presence of significant structural graphitic units, as now confirmed from historic drilling results, provides the right framework for uranium deposits within the area.

Coupled with our existing model and targets, we are left with a series of tantalising and credible drill targets that show characteristics of other shallow, high-grade Athabasca-style uranium deposits.

Whilst delays to the finalisation of the AEM survey have occurred which can be partially attributed to this winter seasons weather conditions, we are now pleased to have its completion in sight.

The team has been utilising the time to fully appreciate the depth and extent of historic data from within and in close proximity to the project area which provides a series of known control points that can be integrated with this new AEM information.

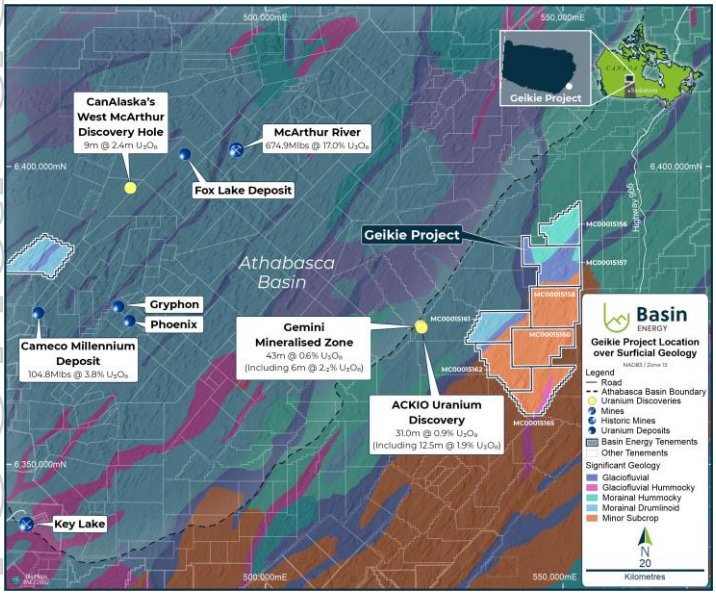
Basin has also spent time engaging with traditional-rights bearing groups and stakeholders to ensure our upcoming exploration activities are sustainable and beneficial for all affected parties, and that

questions on the impact of exploration activities are addressed prior to ground disturbing activities being completed.

We eagerly await the final AEM results, as we work towards finalising planning for the upcoming exploration campaign."

AEM Exploration at Geikie

Preliminary results from part of airborne electromagnetic survey ("**AEM**") commissioned by Basin at Geikie *(see ASX release dated 08/12/2022)* have been received, and the survey is ongoing. The survey objectives are to map suitable lithological and structural settings conducive to high-grade uranium mineralisation. This includes the identification of graphitic structural zones, as seen in deposits of the local region. The data in conjunction with existing knowledge will be used for final drill targeting.



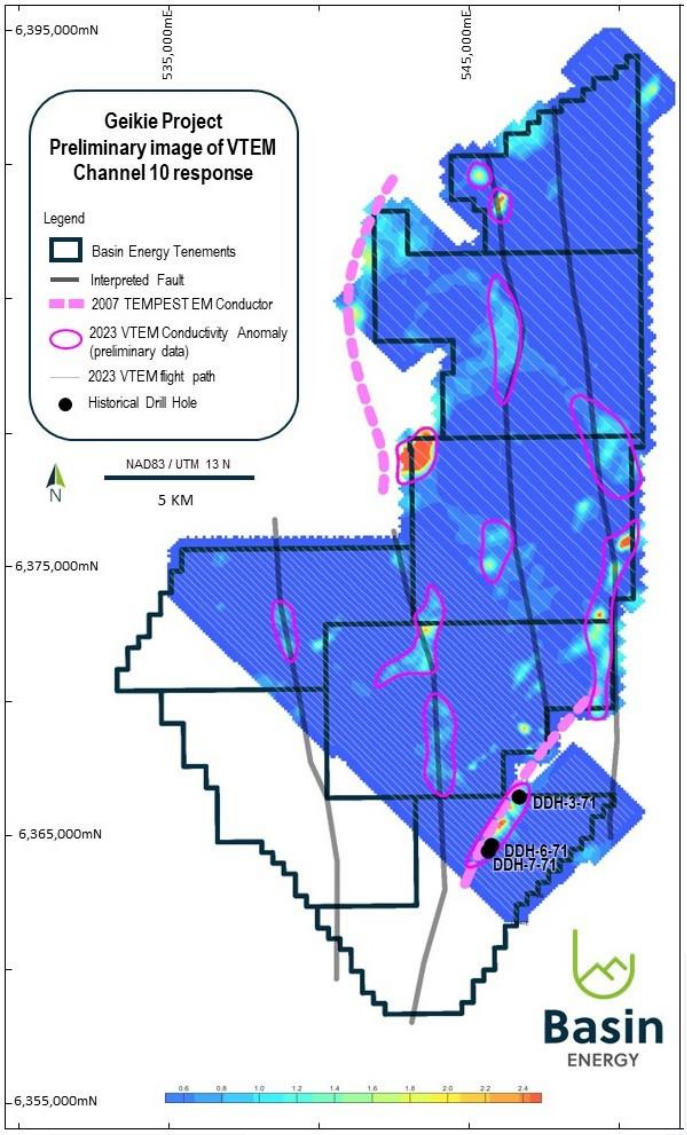


Figure 1[1]: Geikie Project in relation to nearby significant uranium occurrences

Figure 2: Initial preliminary data for 2023 AEM survey at Geikie showing multiple conductive AEM anomalies adjacent to significant regional structures

[1] Refer to ASX Prospectus dated 22 August 2022

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The contractor has experienced significant delays in the finalisation of flying this survey due to equipment failure and weather-related issues out of Basin's control. The Company can now advise that over 65% of the survey has been completed, with preliminary data being received daily. Subject to weather conditions, the survey is expected to be completed in the coming days. Further results will be released once analysis is complete.

Partial Preliminary Results

The initial preliminary data, which still requires full processing, has successfully identified a series of immediate and compelling targets within the claim boundary.

A strong coherent northeast trending conductor, striking through the southern half of the Project is clearly defined. Additional significance is added to this anomaly as geological logs from a historic drill hole has identified structural graphite proximal to this main conductor (figure 2). Basin interprets this as providing confidence in the presence of structurally related graphite in the region, a known key pathfinder for uranium-rich fluid circulation and mineralisation precipitation in the Athabasca Basin.

In addition to these, Basin previously announced the identification of 4 prominent regional north south faults, delineated in the airborne magnetic and radiometric survey completed in 2022 *(see ASX announcement dated 13th October 2022)*. Using analogies from known uranium mineralisation proximal to Geikie, it is hypothesised these features are suitable structural conduits for uranium bearing fluids. The initial preliminary EM data highlights multiple conductive anomalies running directly coherent and adjacent to two of the structures. These anomalies provide a series of discreet and immediate drill targets (figure 2). Basin is also considering the application of a ground or aerial gravity survey on these targets to map broader alteration and further refine priority targets.

Historical Data Review

Basin has been collating and reviewing historic records both within, proximal and along strike of target areas to Geikie. Based on this review it is evident that the Project has been largely overlooked for uranium exploration since the initial phase of work which concluded in the early 1980's.

Information sourced and reviewed as part of this analysis included the significant historical data set held by the Saskatchewan Ministry of Energy and Resources, along with data available through Basin's joint venture partner CanAlaska. Over 200 documents are being reviewed, collated and georeferenced. This information has never been systematically reviewed at this scale, as part of the continued effort in enhancing the exploration potential within Geikie. The review provides invaluable information to be used in conjunction with the advanced high-resolution geophysical surveys being undertaken by Basin.

Data from historic drilling

Logs and data were recovered for 3 drill holes that reached bedrock within the Project which were previously not available to Basin. The drilling was conducted in 1971 and is the only drilling recorded at Geikie to date. Critically, factual geological information can be used to provide known data points for interpreting and extrapolating the new geophysical datasets. Drill collar information can be found in appendix 1.

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Historical geological logging of this drilling highlights strong similarities to nearby mineralised zones, including the correct lithological package, consisting of:

- Wollaston Group biotitic gneiss including **graphitic interlayers**,
- quartzite or siliceous zones up to several meters in thickness and
- granite and granitic gneiss.

Drill logs from hole DDH-7-71 within the property reported the above lithological package with the addition of a 4-meter-wide graphitic shear zone in Wollaston group metasediments. Zones of hematite-chlorite-sericite alteration were reported within and at the fault footwall leading up to the quartzite interval. Figure 3 shows a cross section of drill hole DDH-7-71. Also recorded narrow intervals of quartzite-hosted base metal anomalism. **This historic drilling was only assayed for base metals**, as uranium was not of interest to the explorer at the time. Subsequent surface sampling identified radioactive granitic boulders within the area, with up to 0.14% U_3O_8 [2] suggesting uranium is present in the local mineralising system. Basin notes that this is historical drilling data and is publicly available through the GeoAtlas website, hosted by the Government of Saskatchewan.

Based on recent and historic discoveries neighbouring the Geikie Project (including 92 Energy's Gemini Mineralised zone and Baseload Energy's ACKIO), this lithological package is considered to be a prime host for uranium mineralisation. Basin interprets that the post processed AEM will allow mapping of this lithological sequence and where it intercepts the potentially uranium bearing regional structures, which are well mapped in the magnetics.

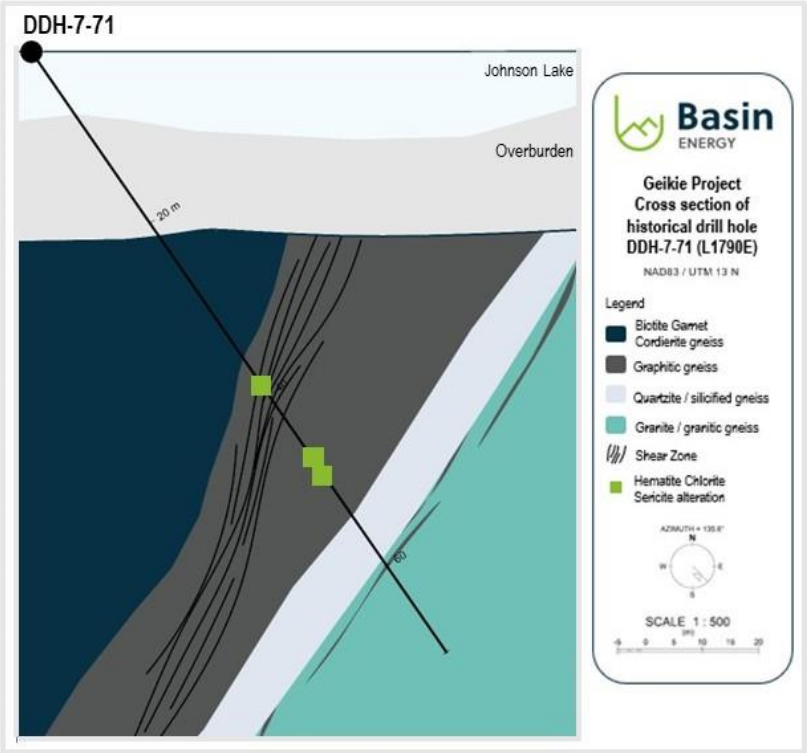

Figure 3: Cross Section of target geology as identified in historical drill hole DDH-7-71

[2] Refer to ASX Prospectus dated 22 August 2022

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Next Steps – Geikie

Weather and equipment permitting, the final data for the ongoing AEM survey at Geikie is expected in the coming week. A confirmatory release will be made once preliminary data is released, in the lead up to the maiden Geikie drilling program.

Other News

Basin Energy is pleased to be attending the Prospectors & Developers Association Canada conference in Toronto between 5th and 8th March 2023.

The Company will also be presenting at the 2023 Brisbane Mining Conference between the 22nd and 23rd March 2023, and attending the 121 Mining Investment Conference in London between 9th and 10th of May 2023.

The Company will be happy to discuss the progress of projects around either of these events. Please contact the Company on the details below.

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

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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

Pete Moorhouse	**Managing Director**
Blake Steele	**Non-executive Chairman**
Cory Belyk	**Non-executive Director**
Jeremy Clark	**Non-executive Director**
Peter Bird	**Non-executive Director**
Ben Donovan	**NED & Company Secretary**
Odile Maufrais	**Exploration Manager**

Basin Energy
ACN 655 515 110

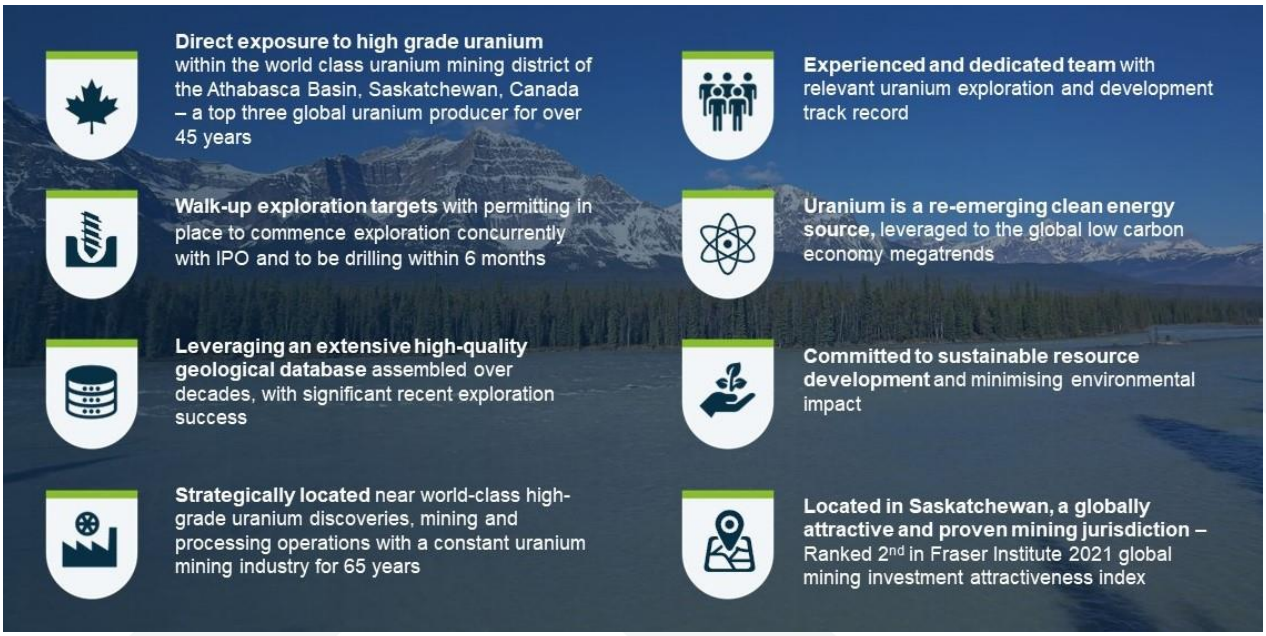
Projects
North Millennium
Geikie
Marshall

Shares on Issue
81,229,697

Options
13,300,000

ASX Code
BSN

Investment Highlights



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 22nd August 2022 and announced on the ASX market platform on 30th 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 Geoscientists. 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.

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Appendix 1

Table 1: Historic drillhole collar information identified.

Drill Hole ID	Easting	Northing	Elevation	Total Depth	Dip	Azimuth
	(UTM NAD83)		*(masl)*	*(m)*	*(°)*	*(°)*
DDH-3-71	548515	6366395.2	440	71.9	-60	126
DDH-6-71	547496	6364590.2	440	41.7	-55	126
DDH-7-71	547379	6364376.9	440	70.1	-55	126

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1 JORC CODE, 2012 EDITION – TABLE 1 REPORT

1.1 Section 1 Sampling Techniques and Data

New data within this release relates to airborne electromagnetic data and historic data reviews. All other information referenced was disclosed within the Basin Energy prospectus lodged with the ASX 22/08/2022 and subsequent ASX exploration updates

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Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• Results reported relate to an airborne electromagnetic survey conducted by Geotech Ltd of Ontario, Canada, an independent geophysical contractor. • Survey is using the proprietary Versatile Time Domain Electro Magnetic (VTEM Plus) system with the following parameters: • AS350B3 Helicopter at a flying height of 70 m (EM sensor 35 m). • Transmitter loop diameter: 26 m. • Peak dipole moment: 425,000 NIA. • Transmitter Pulse Width: 7 ms • VTEM Plus Receiver: Z,X coils, Y optional • Full waveform recording for improved early time system performance. Features of full waveform technology are: streamed half-cycle recording of transmitter/receiver waveform data and system response calibration. • Sensor calibration procedure uses the measured calibration waveform for correction of half-cycle waveforms acquired on a survey flight. The half-cycle waveforms of each channel are corrected to obtain the waveforms that would be recorded if the time-domain responses of all the channels, including the reference channel, were the same ideal Gaussian-like response. The ideal response is defined by its bandwidth. • A streamed current monitor and streamed receiver data are used for transmitter drift and parasitic noise corrections and ideal waveform deconvolution. The deconvolution procedure corrects one complete period for linear system imperfections including transmitter current drift. • Drill hole information of three drill holes referenced from 1971 are classified as historic in nature. Full details can be found through the Saskatchewan Government GeoAtlas website.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core*	Not Applicable to VTEM Plus survey

Criteria	JORC Code explanation	Commentary
	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).	
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	Not Applicable to VTEM Plus survey
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	Not Applicable to VTEM Plus survey
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	Not Applicable to VTEM Plus survey
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of*	Not Applicable to VTEM Plus survey

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Criteria	JORC Code explanation	Commentary
	bias) and precision have been established.	
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	Not Applicable to VTEM Plus survey
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	Geodetic system used for the survey is NAD83, UTM zone 13N
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	VTEM data is collected along lines 150m apart oriented NW-SE. This orientation is perpendicular to the principal strike direction inferred from regional magnetic data.
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.*	See above
Sample security	• *The measures taken to ensure sample security.*	Not Applicable to VTEM Plus survey
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	Data is preliminary and consequently are being reviewed by CanAlaska Uranium and an independent consultant. Results will be reported in a forthcoming announcement.

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1.2 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	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*
	• *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*
		• The Geikie Project consists of 7 permit numbers (MC00015156-MC00015158 and MC00015160-MC00015162 and MC00015165, located in Northern Saskatchewan, Canada.
		• All permits are understood to be in good standing and subject to the standard and transparent renewal processes.
		• The project is currently held 40% by Basin Energy and 60% by TSX-V listed CanAlaska
		  • Basin has an Earn in agreement up to 80%
		  • Upon Basin reaching 80% ownership, CVV will hold a 2.75% nsr with a buy back option of 0.5%

Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The property has had limited uranium exploration, and some base metal exploration work. Work includes • 1967-1980 Great Plains and Marline Oil focussed on base metals and conducted rock chips, minor trenching and drilling. Data for which is referenced as classified as historical in nature. • 1990's Saskatchewan geological survey conducted mapping • 2000's the project was owned by Northwind Resources and CanAm Uranium Corp, who completed a electromagnetic survey over the western portion of the project area, and reconnaissance mapping
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The project is deemed prospective for basement hosted unconformity uranium mineralisation

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *If the exclusion of this information is justified on the basis that the information is not Material*
		• Little historical drilling has been completed. None of these drillholes are considered to have tested the area that is the subject of this announcement.
		• Drill hole collar, easting, northing, elevation, total length, dip and azimuth are provided in Table 1 in the body of the text.

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Criteria	JORC Code explanation	Commentary
	and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	Not Applicable– No data aggregation of assay results was undertaken
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	Not Applicable – No uranium mineralisation is being reported
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	Not Applicable – No significant discoveries are being reported
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	It is the company's opinion that a balanced representation of the early-stage exploration data is being presented
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.*	Not Applicable – No other substantive exploration data is available
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Search, review and capture of any additional relevant historical data that has been completed in the Geikie region – ***ongoing.*** • Complete high resolution airborne electromagnetics. This next level of data is seen as critical to the refinement of

Criteria	JORC Code explanation	Commentary
		drill targets – ***ongoing*** • Consider the need for targeted ground or airborne geophysics – Q1 2023 • Diamond drilling – ***contingent to completion of VTEM survey***

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