

# Brisbane Mining Investor Conference

Exploring for High Grade Uranium in the Athabasca Basin

22<sup>nd</sup> March 2023

al use only



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This presentation 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, although such statements are considered by Basin Energy to have a reasonable basis as at the date of this presentation.

All figures in Australian Dollars unless stated otherwise.

#### **Competent Persons Statement & Resource Figure Notes**

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 subsequently. The Company confirms that it is not aware of any new information or data that materially affects the information included in existing releases.

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.



## Why invest in Basin Energy?



**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



**Systematic exploration approach** Clear exploration strategy allowing a gated approach to target generation and testing



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



**Fully funded for 2023 exploration program –** Includes summer drilling of multiple shallow, high grade uranium targets



**Strategically located** near world-class highgrade 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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## **Board and Management**



#### **Blake Steele - Non-Executive Chairman**

Blake Steele is an experienced metals and mining industry executive and director with extensive knowledge across public companies and capital markets. He was formerly President and Chief Executive Officer of Azarga Uranium Corp (Azarga), a US-focused integrated uranium exploration and development company and led Azarga into an advanced stage multi- asset business, which was ultimately acquired by enCore Energy Corp (TSX.V:EU) for C\$200M in February 2022.



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#### **Pete Moorhouse - Managing Director**

Pete Moorhouse has 17 years of mining and exploration geology experience with extensive experience in the junior uranium sector, having spent over 10 years with ASX-listed uranium explorer and developer Alligator Energy (ASX:AGE). He holds significant competencies in the evaluation, exploration, resource drilling and feasibility studies across many global uranium and resource projects.

#### **Odile Maufrais – Exploration Manager**

Odile Maufrais has over 13 years experience in the uranium exploration and mining industry in France, Niger, Canada, and Australia. She spent 10 years exploring in the eastern and western Athabasca Basin on over 15 greenfield and brownfield uranium exploration projects with ORANO, one of the largest global uranium producers. Her most recent activities comprise working as a Senior Geological Consultant for ASX and TSX.V listed uranium and lithium junior explorers.

eremy Clark Cory Belyk		Peter Bird	Ben Donovan	
Non-executive Director	Non-executive Director	Non-executive Director	NED/ Company Secretary	
Geologist	Geologist / CanAlaska Rep	Corporate	Corporate / Legal	
Jeremy Clark has over 18 years of mining and exploration geology experience, and previously held technical and management roles at the recognised consultancy firm RPM Global.	Cory holds 30 years' experience in exploration and mining with extensive global uranium experience most recently employed by Cameco in the Athabasca Basin.	Peter is an investment banking professional with experience leading and managing a variety of global transactions including IPOs, Capital Raises and M&A	Ben has over 21 years of experience in the provision of corporate advisory and company secretary services.	

## Pureplay Uranium in a proven neighborhood



Deposit	Resource Size (U <sub>3</sub> O <sub>8</sub> Mlbs)	Resource Grade (%)
McArthur River	674.9	16.99
Cigar Lake	349.3	15.65
Arrow	306.1	4.62
Eagle Point	275.3	0.91
Key Lake	182.3	3.07
Triple R	135.1	1.80
Millennium	104.8	3.76
Shea Creek	95.9	1.47
Phoenix	70.9	19.23
Roughrider	70.8	4.75
Cluff Lake	70.0	1.48
Fox Lake	68.1	7.98
MidWest	49.2	3.55
Sue deposits	45.9	3.75
Gryphon	43.0	2.30
Rabbit Lake	42.8	0.32
> 600 Mibs		00-600 Mibs



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**Pureplay uranium exploration company** with interests in three projects. Ongoing active exploration



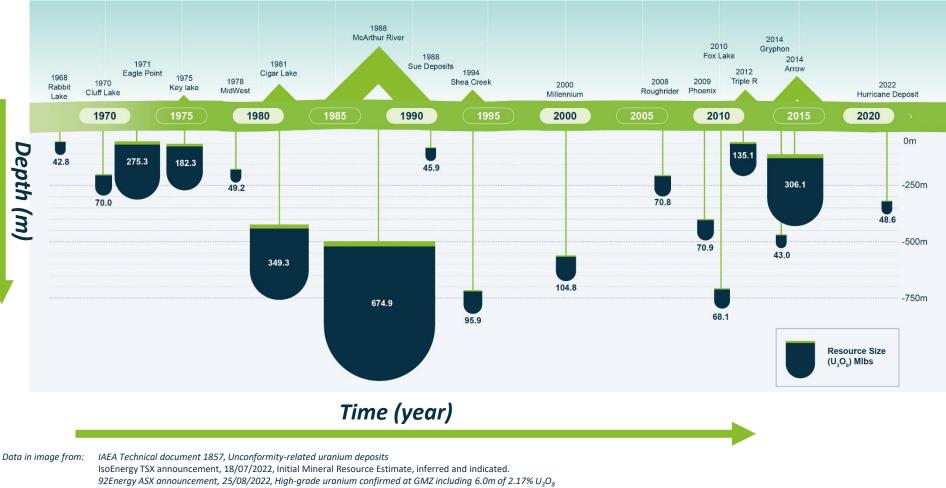
**Direct exposure to high grade uranium** within the world class uranium mining district of the Athabasca Basin, Saskatchewan, Canada – a top three global uranium producer for over 45 years

Sources: World Nuclear Performance Report 2021, World Nuclear Association, September 2021; The Nuclear Fuel Report Global Scenarios for Demand and Supply Availability 2021-2040, World Nuclear Association April 2022

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## Athabasca Basin discovery success

Athabasca Basin discoveries have delivered significant shareholder returns, even through downturns



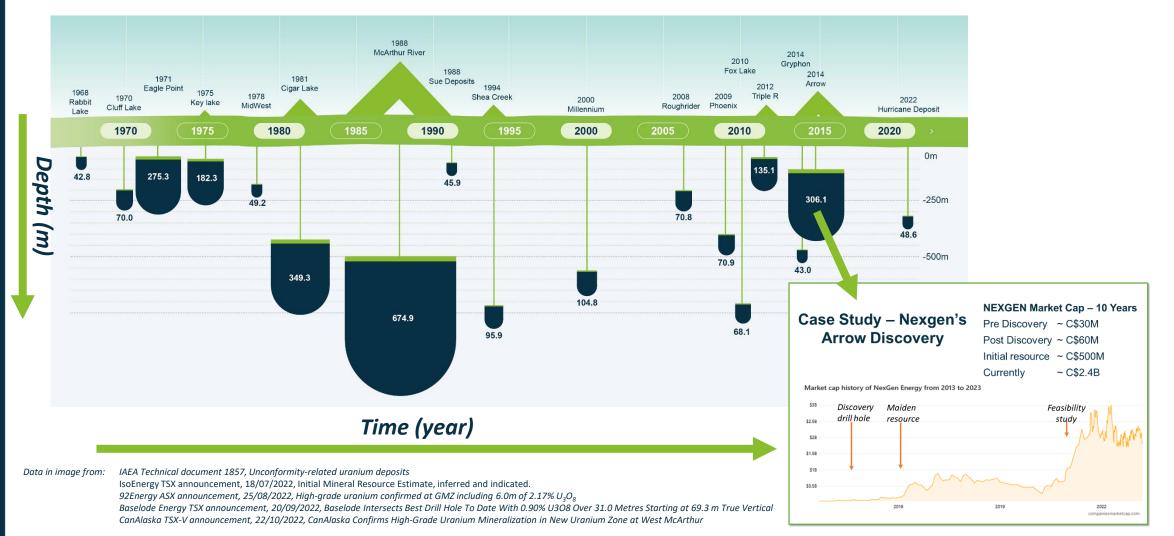
Baselode Energy TSX announcement, 20/09/2022, Baselode Intersects Best Drill Hole To Date With 0.90% U308 Over 31.0 Metres Starting at 69.3 m True Vertical

CanAlaska TSX-V announcement, 22/10/2022, CanAlaska Confirms High-Grade Uranium Mineralization in New Uranium Zone at West McArthur

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## Athabasca Basin discovery success

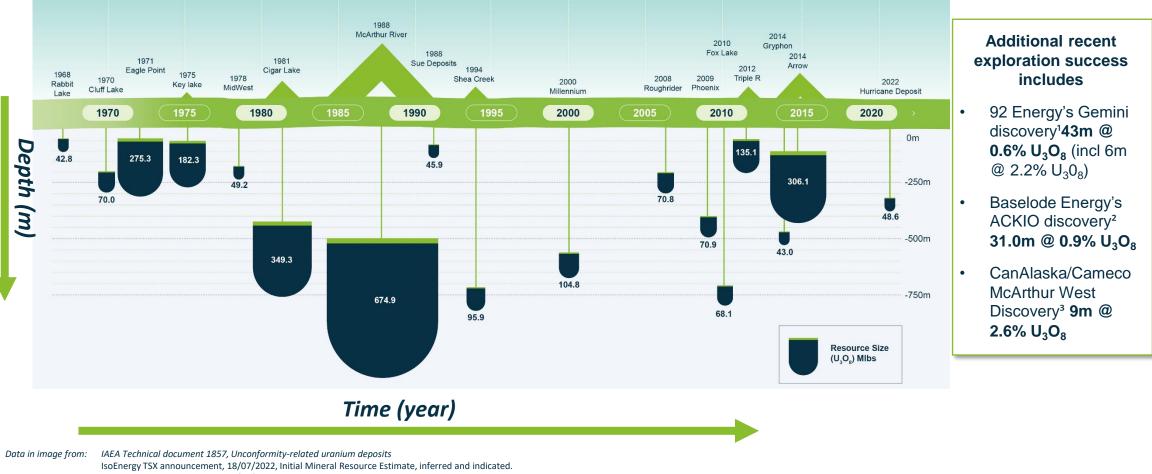
Athabasca Basin discoveries have delivered significant shareholder returns, even through downturns



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92Energy ASX announcement, 25/08/2022, High-grade uranium confirmed at GMZ including 6.0m of 2.17%  $\rm U_3O_8$ 

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## Exploring for Athabasca Basin Uranium



**Exploring for Athabasca uranium style mineralisation**, with basement hosted (*Arrow style*) and unconformity hosted targets (*McArthur River style*)

## Basin's projects share the same fundamentals;

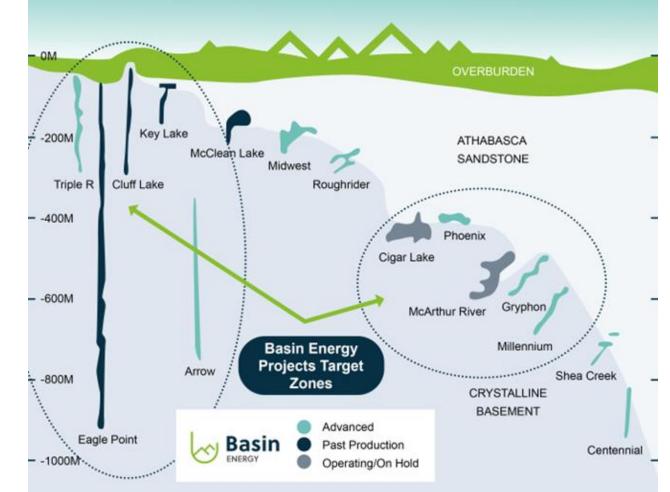
Geological settings *(lithology, structure)* Evidence of metals *(uranium, pathfinders)* Explorable pathway *(depth, targets)* 

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



**Experienced team** – relevant uranium exploration and development track record, with joint venture partner providing invaluable project specific local knowledge



Sources: World Nuclear Performance Report 2021, World Nuclear Association, September 2021; The Nuclear Fuel Report Global Scenarios for Demand and Supply Availability 2021-2040, World Nuclear Association April 2022 Data in diagram derived from

- 1. IAEA Technical document 1857, Unconformity-related uranium deposits
- 2. IsoEnergy TSX announcement, 18/07/2022, Initial Mineral Resource Estimate, inferred and indicated.



# **Basin Energy in the Athabasca**

## Basin Energy in the Athabasca

Three projects located in proximity to world-class high-grade uranium discoveries and mining operations

### Geikie

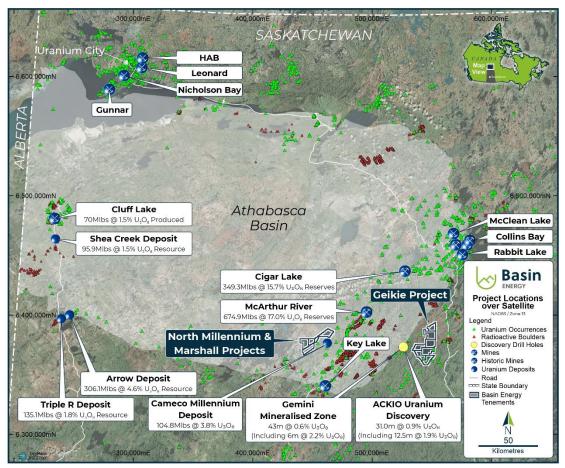
- Shallow targets amenable to rapid exploration in an overlooked part of the district
- Historic surface geochemistry demonstrates presence of uranium and pathfinder elements
- Adjacent tenure to 92 Energy's (ASX:92E) Gemini discovery 43m @
   0.6% U<sub>3</sub>O<sub>8</sub> incl 6m @ 2.2% U<sub>3</sub>O<sub>8</sub><sup>2</sup> and Baselode Energy's (TSXV:FIND) ACKIO discovery 31.0m @ 0.9% U<sub>3</sub>O<sub>8</sub> incl 12.5m @ 1.9% U<sub>3</sub>O<sub>8</sub><sup>3</sup>

## North Millennium

- Basement conductor trend is an interpreted extension of the Mother Fault that hosts the Millennium Deposit (104.8 MIb U<sub>3</sub>O<sub>8</sub> @ 3.76%)<sup>1</sup>
- Situated 40km SW of McArthur River and only 7km north of the Millennium Deposit in the Athabasca Basin

## Marshall

- Centred on a magnetic low interpreted to be graphitic metasediments
- 11km west of the Millennium Deposit



- 1. IAEA Technical document 1857, Unconformity-related uranium deposits
- 92Energy ASX announcement, 25/08/2022, High-grade uranium confirmed at GMZ including 6.0m of 2.17%  $\rm U_3O_8$
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## Geikie - Project

Shallow exploration strategically located in proximity to recent high grade, shallow uranium discoveries

#### Tenure

- 339km<sup>2</sup> landholding located 7km southeast of the present edge of the Athabasca Basin and 10km west of highway 905
- Adjacent to 92 Energy's Gemini discovery 43m @ 0.6% U<sub>3</sub>O<sub>8</sub> (incl 6m @ 2.2% U<sub>3</sub>O<sub>8</sub>) & Baselode Energy's ACKIO discovery 31.0m @ 0.9% U<sub>3</sub>O<sub>8</sub>

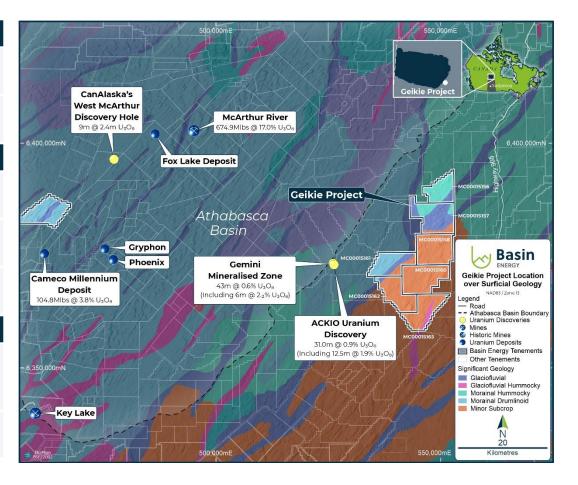
#### History

- Historical airborne and ground exploration completed between 1967 and 1980 targeting base metal mineralisation
- A central trend was identified with Cu and Mo showings surrounding Mud Lake; Mo is a key identifier for potential U<sub>3</sub>O<sub>8</sub> mineralisation
- Several historical uranium showings occur on the property with grades as high as 0.225%  $\rm U_3O_8$  and 0.18%  $\rm U_3O_8$

#### **Main Features**

- Recently discovered uranium mineralisation in the area displays alteration patterns typical of unconformity uranium deposits, enhancing the overall uranium potential of Geikie
- Six uranium targets have been identified along 35km of major structures outlined by coincident magnetic breaks and prospective geology offsets

CanAlaska TSX-V announcement, 22/10/2022, CanAlaska Confirms High-Grade Uranium Mineralization in New Uranium Zone at West McArthur



<sup>1.</sup> IAEA Technical document 1857, Unconformity-related uranium deposits

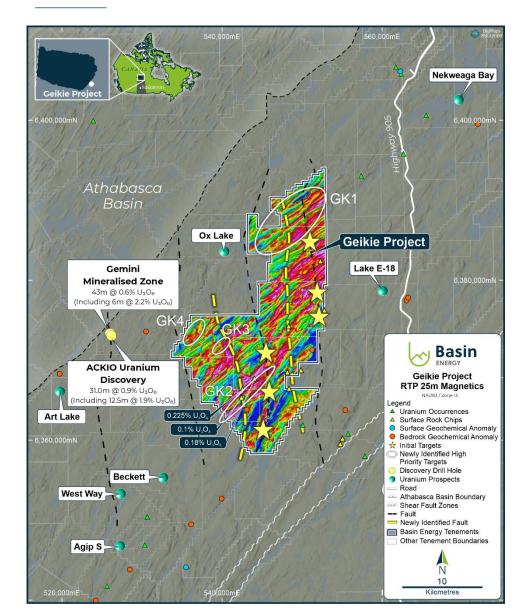
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# Radiometric and magnetic data – Confirms favourable structural setting



- 4 "deep seated" regionally significant Tabbernor style faults identified
  - Deemed suitable fluid conduits, allowing deep circulation of uranium ore-forming fluids
  - Structural analysis from major deposits (including Eagle Point, Midwest, Sue and Rabbit Lake) show strong spatial relationship to this generation of structures
- Multiple radiometric anomalies identified
  - Follow up prospecting revealed uranium in rock chips up to 0.23% U<sub>3</sub>O<sub>8</sub> and strong uranium pathfinder elements

# Maximising historical exploration data

- Drill hole logs identified for three historic exploration holes conducted within the Geikie Project
  - Drilling was for base metal exploration in the early 1970's
  - Strong lithological similarities to those reported in proximal recent significant uranium discoveries
  - Hematite-chlorite-sericite alteration recorded with associated base metal mineralisation
  - No uranium assaying occurred

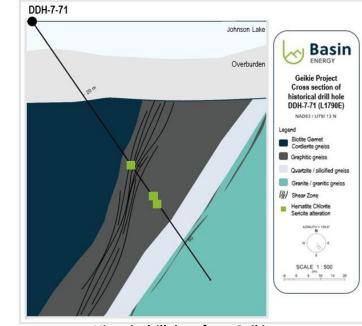
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 4-meter-wide graphitic shear zone in Wollaston group metasediments identified

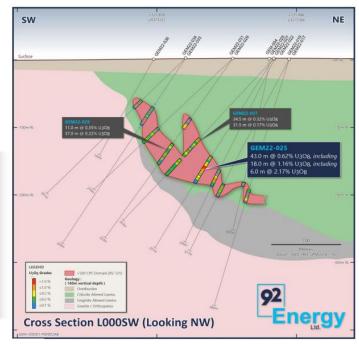
Based on recent and historic discoveries neighbouring the Geikie Project (including 92 Energy's Gemini Mineralised Zone (ASX:92E) and Baselode Energy's ACKIO), this lithological package is considered to be a prime host for uranium mineralisation

 Source data see :
 Basin Energy ASX announcement 8<sup>th</sup> March 2023 "Geophysical Targets identified at Geikie"

 92 Energy ASX announcement 25<sup>th</sup> August 2022 "High-grade uranium confirmed at GMZ including 6.0m of 2.17% U308 (21,680 ppm,





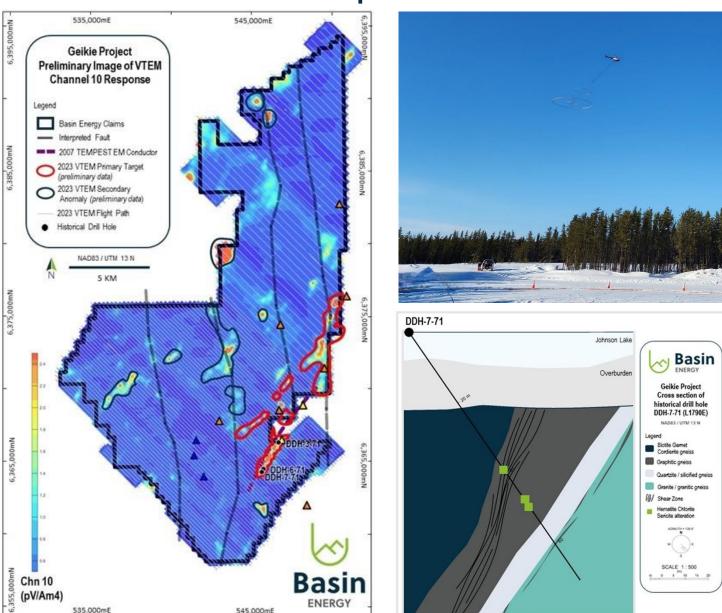


#### Cross section of 92E's Gemini Discovery

# EM mapping suitable uranium host sequence?

- A strong coherent northeast trending conductor, classified as a primary target, within the southern half of the Project is clearly defined in preliminary airborne electromagnetic data
  - A series of splays and offsets of this conductor are visible, often in correlation with intersections of regionally significant deep-seated north-south trending faults, part of the Tabbernor Faults System
  - Historic drilling identifying structural graphite occurs adjacent to this conductor
- A series of AEM anomalies have been identified associated with 3 of the prominent regional north south Tabbernor faults

Source data see : Basin Energy ASX announcement 21<sup>st</sup> March 2023 "Airborne Electromagnetic Survey Completed at Geikie" Basin Energy ASX announcement 8<sup>th</sup> March 2023 "Geophysical Targets identified at Geikie"

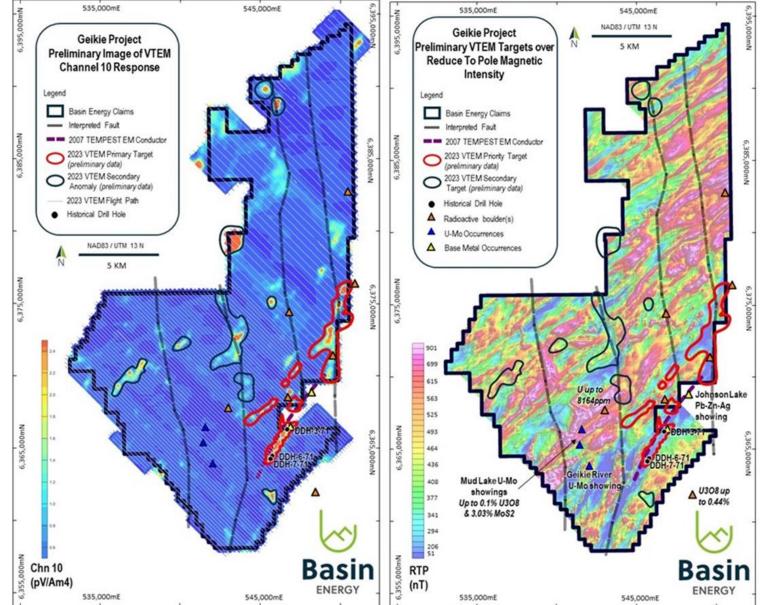


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Basin Energy ASX announcement 21<sup>st</sup> March 2023 "Airborne Electromagnetic Survey Completed at Geikie" Basin Energy ASX announcement 8<sup>th</sup> March 2023 "Geophysical Targets identified at Geikie" Basin Energy ASX announcement 14<sup>th</sup> October 2022 "Maiden Geophysical Survey Defines Multiple Targets at Geikie



## Next Steps at Geikie

- Geikie Airborne Electromagnetic Survey is now completed. Preliminary results have identified new targets and enhanced existing targets including:
  - A significant EM conductor in the Southeast of the property, showing multiple disruptions and offsets associated with previously delineated regional north south faults, which are interpreted as suitable conduits for mineralised fluids
    - Multiple additional conductive anomalies associated with regional north south faults which will be assessed as final modelled AEM data is received
- 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 with the intent to build transparent mutually beneficial positive relationships

Drill testing of disruptions within the primary AEM anomaly seen as priority

Well-funded for a significant 2023 exploration program with \$7.6 M at 31 December 2022

## **Corporate Overview**

- 1. Cash at December Quarterly
- 2. 5.0m options exercisable at \$0.25 to Board & Management expiring 3 years from the date of issue subject to 2 years escrow, 5.3m options exercisable at \$0.25 to Advisors expiring 3 years from the date of issue subject to 2 years escrow & 3.0m options exercisable at \$0.25 to Founders expiring 3 years from the date of issue subject to 2 years escrow
- 3. 20m shares subject to 12 to 24 month escrow

**Board, Management &** 

CanAlaska

Founders

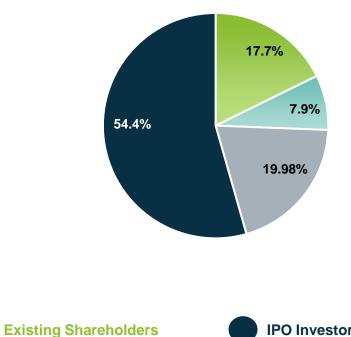
## **Capital Structure**

IPO Raise Quantum		
Share Price <sup>3</sup>	\$/share	0.125
Total Shares on Issue	m	81.2
Market Capitalisation	\$m	10.1
Cash <sup>1</sup>	\$m	7.6
Debt	\$m	-
Enterprise Value	\$m	2.5
Unlisted Options <sup>2</sup>	m	13.3
Escrow (12 to 24 months) <sup>3</sup>	%	38.9

## **Use of Funds**

IPO Cash (Pro-Forma)		
Geochemical Sampling	\$m	0.2
Geophysics	\$m	2.0 75% net of costs
Diamond Drilling	\$m	5.0 j in ground
Working capital & Corporate Costs	\$m	2.4
Total	\$m	9.6

### **Ownership**





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## Project Ownership & Joint Venture Structure

Low risk staged earn-in via value adding stages, with the flexibility to accelerate or stop

	North Millennium & Geikie (Earn up to 80%)					Marshall (100%)	
	Stage 1 - C	Completed	Stage 2 - Underway Stage 3		Stage 1 - Completed		
Timing/ Status	IP	IPO		24 months from IPO		nths IPO	IPO
Project Ownership	Basin ENERGY 40%	CanAlaska Uranium Ltd 60% Operator	Basin ENERGY 60%	CanAlaska Uranium Ltd 40% Operator	Basin ENERGY 80% Operator	CanAlaska Uranium Ltd	Basin ENERGY 100%
Spend	North Millennium N/A	Geikie N/A	North Millennium \$2.5M	Geikie \$2.5M	North Millennium \$5.0M	Geikie \$5.0M	N/A
Terms	<ul> <li>Issue c.10.8M Basin Energy shares (13.3%) to CanAlaska at IPO</li> </ul>		• \$2.5M explora on Geikie and	tion expenditure North Millennium	<ul> <li>\$5M exploration Geikie and Nord</li> <li>Issue 2.25M Ba shares to CanA</li> <li>2.75% net smel CanAlaska with option for 0.5%</li> </ul>	sin Energy laska ter royalty to a buy-back	<ul> <li>Issue c.5.4M Basin Energy shares (6.6%) to CanAlaska at IPO</li> <li>Agreed initial exploration budget of \$1.5M</li> <li>2.75% net smelter royalty to CanAlaska with a buy-back option for 0.5%</li> </ul>



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This presentation has been authorised for release by the Basin Energy Board