

17 August 2026

High-Priority Base Metal Targets Confirmed at Great Bear

Copper, Gold & Silver Targets to be Tested in Initial Campaign

Great Bear Exploration Ltd ("GBL" or "the Company") provides the following update on targets ahead of its field activities at the Great Bear Lake Project in the Northwest Territories, Canada.

Highlights

- Independent review by Resource Potentials has generated more than 200 high-priority exploration targets across the Project, focused on copper, gold, silver and IOCG-style mineralisation.
- Based on multiple datasets, there is a strong correlation between all mineralisation within the Great Bear Magnetic Zone ('GBMZ') including larger IOCG targets. Dome or collapsed caldera structures are considered prime targets for all major mineral deposits in the area and are the key targets for this season work.
- With target selection now complete, assays are expected to provide comprehensive coverage of the project area, strengthening confidence in the project and informing subsequent drilling.
- All targets will be advanced through field and geochemical sampling over the coming weeks, accelerating the Company towards drill-ready opportunities this spring.
- Xcalibur Smart Mapping are in the final stages of mobilising their FALCON Airborne Gravity Gradiometer, with the planned Magnetic and Radiometric survey over the entire Project Area expected to start imminently.
- Engagement with First Nation representatives in Deline is ongoing regarding current and future work programmes, including winter camp establishment.

Executive Director Rod McIlree commented: "We are now in the final stages of pre-mobilisation for our maiden field programme at Great Bear. The independent target generation work by Resource Potentials has given us a clear, high-conviction pipeline of copper, gold and silver targets across a project that has seen remarkably little modern exploration.

The Great Bear Magmatic Zone is widely regarded as Canada's premier IOCG province. Our focus over the coming weeks is to systematically test the highest-priority targets on the ground, integrate the forthcoming FALCON survey and advance the project to drill-ready status for an early start next spring.

I will be on site for the commencement of the field programme. Shareholders can expect regular updates as results come to hand."

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Independent Review Highlights Significant New Potential

- Resource Potentials (ResPot), a globally recognised mineral targeting consultancy, was engaged to complete a comprehensive review and integration of publicly available historical and recent geological, geochemical and geophysical datasets across the Great Bear Project.
- Drawing on decades of experience identifying global mineralised systems, including Iron Oxide Copper Gold (IOCG) and uranium mineral systems located around the world, ResPot has assimilated relevant historical datasets as well as 2024 work done by White Cliff Minerals Ltd to identify geological and geophysical signatures most prospective for targeting large-scale Copper, Gold, Silver and IOCG-Uranium, mineralisation at Great Bear.
- This review identified several new areas where limited exploration has occurred.

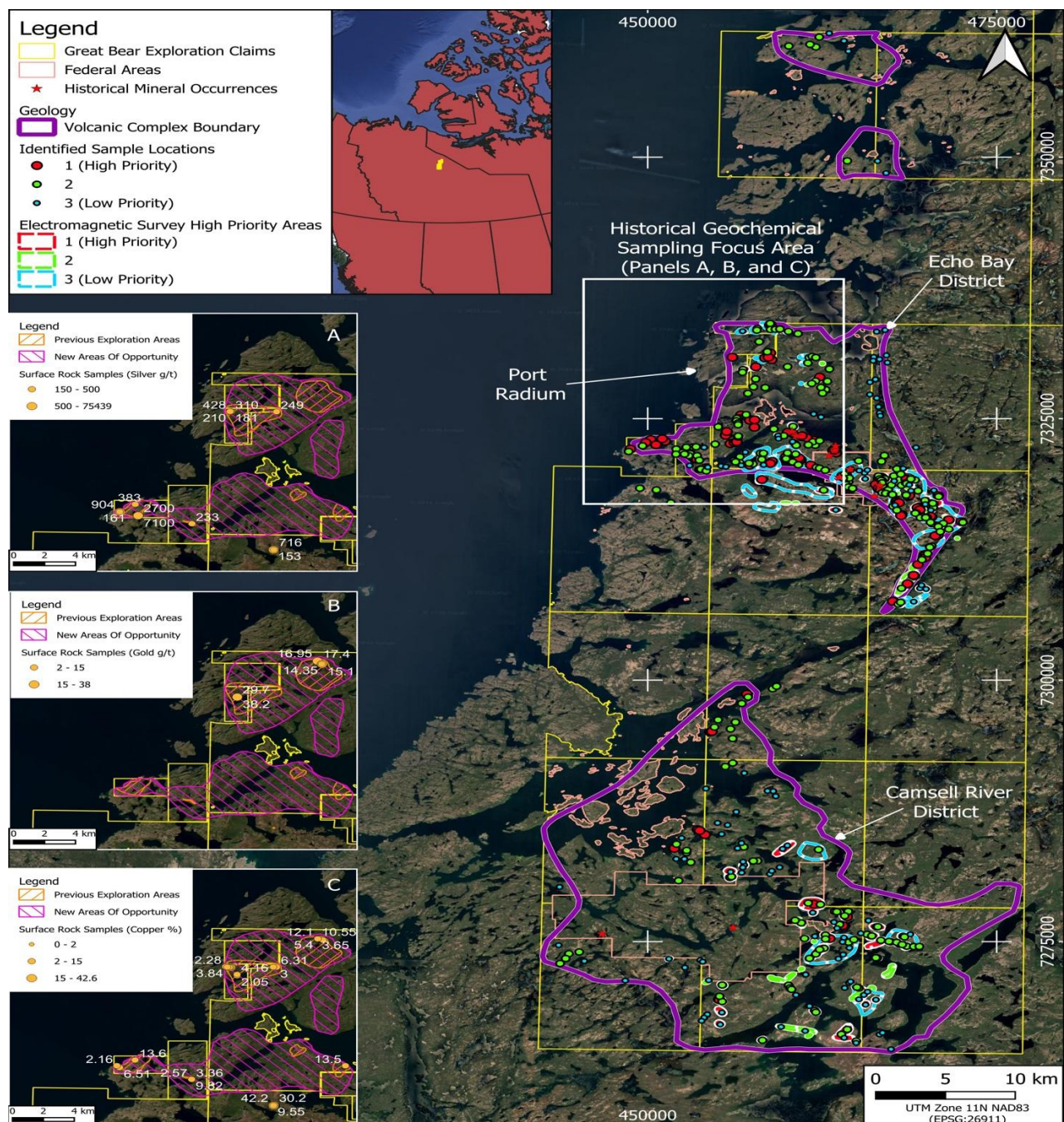


Figure 1 - Great Bear Regional Prospectivity

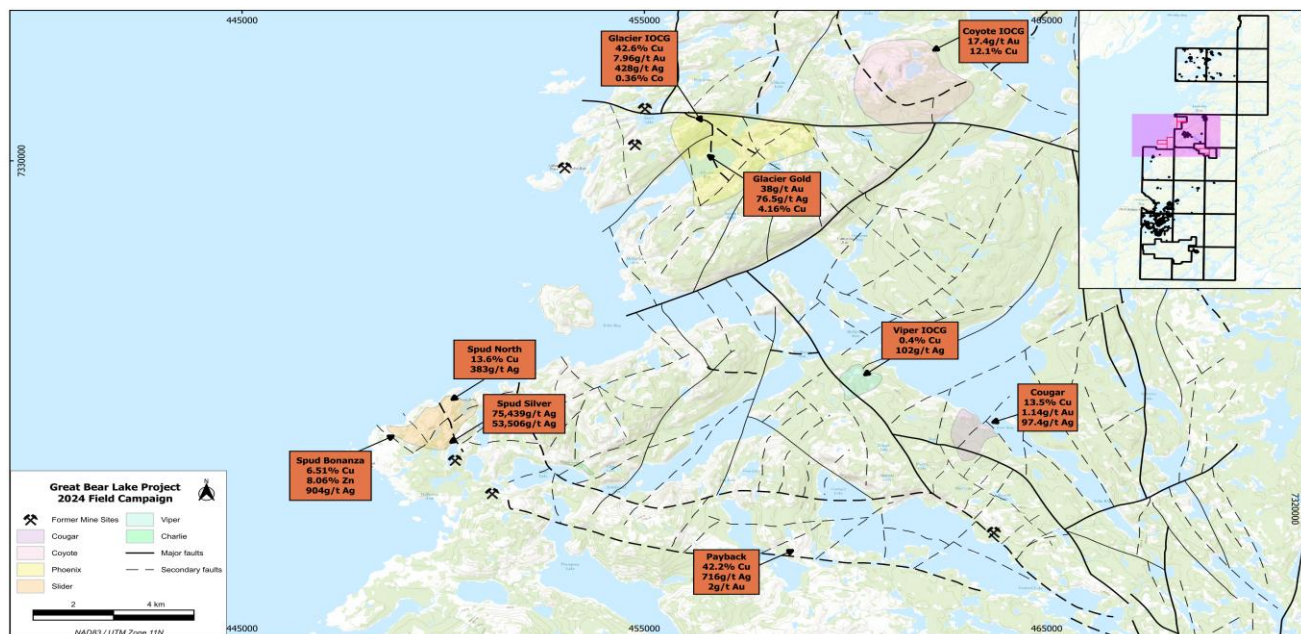


Figure 2 - Limited modern exploration in the region to date has demonstrated the potential of the region. Up coming exploration activities will build on this limited prior exploration.

- Key geophysical datasets compiled by ResPot include airborne magnetics, radiometrics, electromagnetics, regional ground-based gravity and high-resolution digital elevation model (DEM) survey datasets. These are crucial datasets for mineral exploration over IOCG systems, specifically for targeting different mineralisation styles within the various hydrothermal alteration facies of an IOCG system (see Figure 3). These geophysical survey datasets were compiled from the Northwest Territories and Canadian governments, and from historic company Assessment Reports dating back to the 1970s. ResPot processed the various datasets and merged them to generate suites of filtered geophysical anomaly images over the project area using the highest-resolution data available.
- Magnetic datasets help with outlining the extents of IOCG systems high in magnetite, identifying different hydrothermal alteration zones within the system, and with interpretation of faults which may have acted as important conduits for mineralising fluids. Magnetic data resolution is highly variable across the project area, with some parts covered with high-resolution 100m survey line spaced magnetic data, and other parts being covered with lower 200m, 400m or even 800m survey line spacing. Different mineral assemblages occur in the various alteration zones, such as the hematite alteration core (dense and non-magnetic) prospective for Fe, U, REE, Cu, Au, Ag, P and others, and magnetite alteration zones (dense and magnetic) prospective for hosting Cu-Au and REE in apatite veins with P, as well as skarn type mineralisation at contacts of granitic intrusions with carbonate rocks.
- Radiometric survey datasets were acquired with some of the airborne magnetic surveys, but not all. As with the magnetic data coverage, some areas have been well-covered with radiometrics, but other areas are only covered with low-resolution data. Radiometric surveys map the equivalent surface concentrations of K, Th and U. K anomalies may indicate areas having potassic alteration, U anomalies may indicate U mineralisation within the hematite core, and small Th +/- U anomalies may indicate REE-mineralised apatite dykes, alteration zones or carbonatites.
- Gravity data may be the most important geophysical tool to explore for large IOCG systems by helping to map non-magnetic hematite cores, fault structures, different alteration zones, and the extents of the IOCG system. Only very low-resolution regional-spaced gravity data are currently available over the project area, recorded from ground-based survey stations located approximately 10km apart, compiled from the Canadian government. The regional gravity anomaly images clearly show strong, high-density anomalies over the broader Echo Bay and Camsell River stratovolcano complexes, and a 3rd anomaly zone in the southern part of the project area (Figure 3), but the gravity data resolution is too low for structural mapping and direct targeting. Therefore, a 300m survey line spaced FALCON airborne gravity gradiometry survey

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(AGG) is planned to be surveyed in August over all 3 volcano complex target areas, which will also acquire magnetic and radiometric survey datasets.

- Electromagnetic (EM) survey data, which were acquired during 7 different time-domain EM surveys over the project area (5 VTEM and 2 TEMPEST), plus a recent Mobile Magnetotelluric (MMT) over the Echo Bay volcanic complex, can detect electrically conductive zones related to sulphide mineralisation. EM datasets are useful for detecting electrically conductive anomalies related to Cu sulphide minerals in the IOCG cores, and skarn deposits if occurring near reactive carbonate host rocks. Many EM conductor anomalies of interest were identified over the Echo Bay and Camsell River volcano complexes, and these EM anomalies warrant follow-up work on the ground.

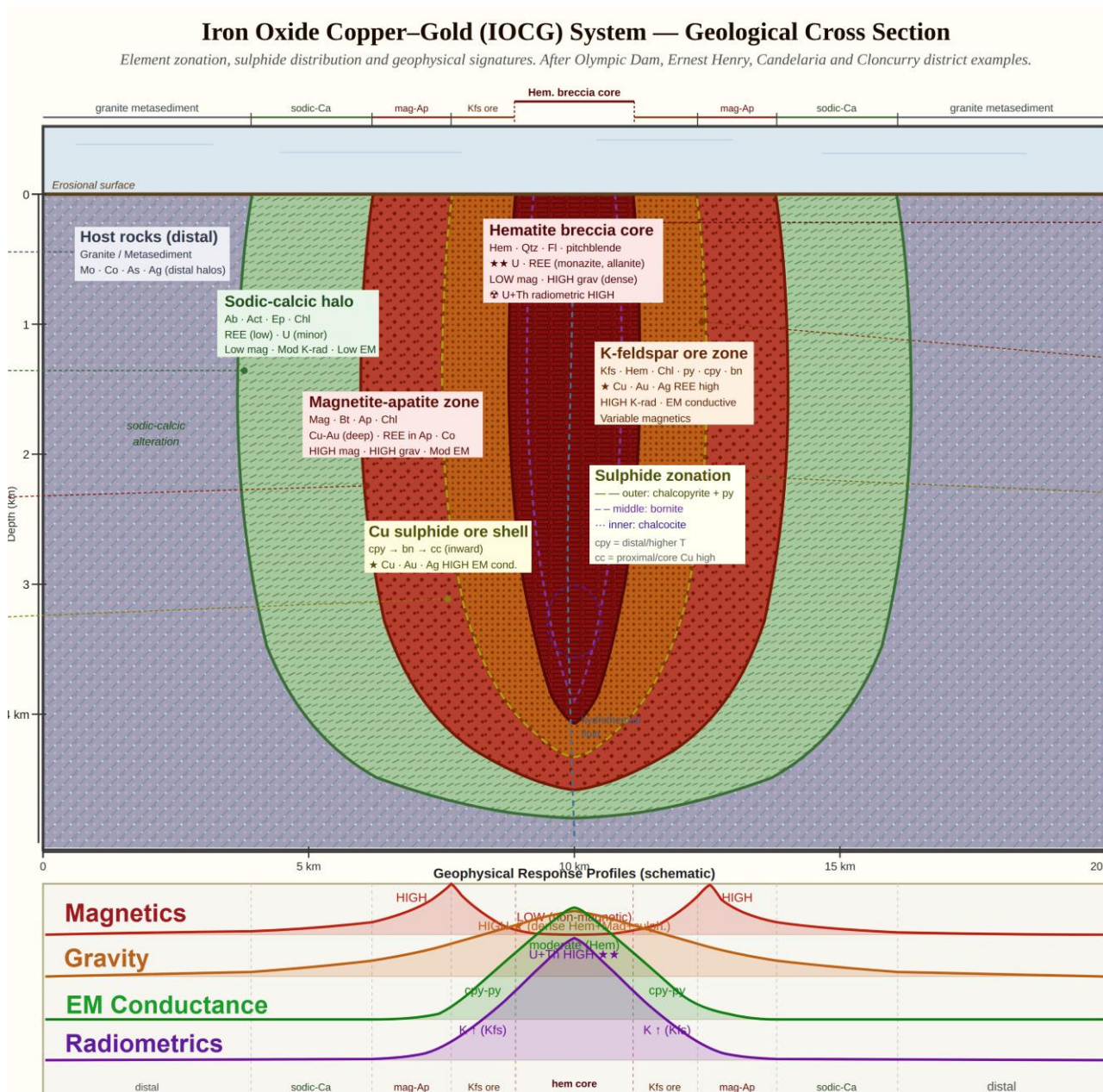


Figure 3 - Facies of Iron Oxide and Alkali-Calcic Alteration (IOAA) mineral system model illustrating different hydrothermal alteration zones and their expected geophysical anomaly responses. Compare this alteration diagram and expected geophysical anomaly profiles with observed data over the Great Bear project in Figure 1.

- The merged and filtered geophysical anomaly images were analysed and integrated with other exploration datasets, such as geological mapping and interpretation, geochemical sample data, DEM and satellite spectral datasets. Suites of prioritised target areas were outlined in GIS by ResPot, and a field campaign is underway to check these target areas on the ground for visible signs of alteration, sulphide minerals and other mineralisation indicators, and to acquire rock chip samples for assaying and analysis. These field

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survey results, combined with the upcoming FALCON AGG survey results, will provide valuable information to help interpret the different alteration zones of the IOCG systems, and to generate targets for direct drill testing.

- The IOCG systems at GBMZ contain all of the geological characteristics for hosting world-class IOCG and U deposits. This area was identified by the Geological Survey of Canada as Canada's premier IOCG province. A third IOCG target area, Grouard Lake, located to the south has been historically overlooked from an exploration perspective even though it is identified in numerous historical publications as being highly prospective. The area is also only covered by low-resolution geophysical survey datasets with the available imagery suggesting a dense rock core surrounded by high magnetic intensity anomalism normally associated with IOCG mineralisation. Upcoming field mapping and sampling, plus new FALCON AGG, magnetic and radiometric data over this target area, will provide sufficient data for targeting at this new southern target area.

Great Bear Magmatic Zone – Canada's Premier IOCG Province

The Great Bear Magmatic Zone is a Paleoproterozoic (1.875–1.84 Ga) continental magmatic arc within the Wopmay orogen. It is recognised by the Geological Survey of Canada as Canada's premier Iron Oxide Copper-Gold province.

The Great Bear project claims cover a large area of over 2,800 km² over key portions of the Great Bear Magmatic Zone

The zone is prospective for a range of deposit styles, including:

- Iron Oxide Copper-Gold (IOCG)
- Iron Oxide-Apatite (IOA)
- Polymetallic epithermal veins
- Skarn
- Uranium

Metals of primary interest to the Company are copper, gold, silver and uranium, with associated potential for cobalt, bismuth, rare earth elements and other critical metals.

Historical Production

The northern portion of the Great Bear Magmatic Zone supported significant historical mining between the 1930s and 1980s. Approximate production from the northern district alone included:

- **13.7 million pounds of U₃O₈**
- **34.2 million ounces of silver**
- **11.4 million pounds of copper (with gold credits)**

Past producers included the Eldorado (Port Radium), Echo Bay, Contact Lake and Norex mines. While historical activity focused on high-grade vein systems, modern interpretation recognises these as the upper expressions of much larger IOCG-style systems. Copper and gold potential, in particular, was largely overlooked during earlier exploration.

Strategic Context

The GBMZ remains under-explored relative to its demonstrable metal endowment and geological prospectivity. Large areas have only low-resolution historical geophysical coverage, and vast areas of the belt have not been sampled at all or seen only very limited modern systematic exploration outside of the historical near-mine environs. The presence of established infrastructure corridors, winter road access potential, and airstrips within our project area significantly improves the practicality of prospecting such a large and significant metallogenic belt.

About the Great Bear Project Area

The Great Bear project claims cover a large area of over 2,800km² over key portions of the Great Bear Magmatic Zone (GBMZ), which is highly prospective for hosting a broad range of Iron Oxide Copper Gold (IOCG) deposits, including epithermal and skarn type deposits, with local economical deposits containing Au, Ag, Cu, Fe, U, Mo, Pb, Zn, W, Co and REEs. Historical exploration and mining in the project area (red stars) predominantly focused on U and Ag, whereas the potential for Cu, Au and other metals was largely overlooked.

Approved by the Board of Great Bear Exploration Ltd

Forward-Looking Statements

This announcement contains forward-looking statements. These statements are based on current expectations and assumptions and are subject to risks and uncertainties that could cause actual results to differ materially. The Company undertakes no obligation to update these statements except as required by applicable law.

Competent Persons Statement

The information in this report that relates to exploration results, mineral resources or ore reserves is based on information compiled by Roderick McIlree, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr McIlree is a Director of Great Bear Exploration Ltd. Mr McIlree has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the 'Australian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code). Mr McIlree consents to the inclusion of this information in the form and context in which it appears in this report.

For further information please contact:

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APPENDIX 1

The following Tables are provided to ensure compliance with the JORC Code (2012 Edition) requirements for the reporting of Exploration Results at Radium Point. Whilst some of these recent results were derived by previous operator White Cliff Minerals. The Current Competent Person was at that time Chairman of that Company and as the Competent Person reviewed the historical ALS certificates, QAQC, and data and takes responsibility for reporting it as exploration results herein.

Section 1: Sampling Techniques and Data

(Criteria in this section applies to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<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 downhole gamma sondes, handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i>	The objective of the sampling program was to confirm the presence of base and precious metal mineralisation at various targets across the Great Bear Project area. Surface rock chip (grab) sampling of outcrop, sub crop and floats. An RS-125 Super-SPEC scintillometer was utilised to measure counts per second (CPS) as a guide for sampling uranium prospective structures and veins. No other measurement tools were used during the sampling program.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	Samples of different lithologies, alterations and mineralisation styles were collected based on visual appearance. Rock chip samples are composites of the mineralised or altered outcrops. Rock samples ranged in weight between 0.27 and 3 kg. Blanks inserted to the sample stream were 0.08-0.09 kg. A field spectrometer was utilised to assist sampling of radioactive mineralisation styles and results are reported as counts per second (CPS). Before using the scintillometer, a background measurement is run.
	<i>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 (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>	Rock chip sampling was undertaken on surface alongside lithologic, alteration and mineralisation logging. Rock chip samples were transported to Yellowknife by charter flight from the field camp, where an Aurora Geosciences employee delivered them to the ALS Laboratory for preparation utilising code PREP-31D, ensuring sample security. All samples underwent 4-acid digestion followed by multi-element ICP-MS (ME-MS61) with over assays completed by OG62 techniques. All samples underwent fire assay followed by ICP-AES for gold analysis (Au-ICP21), with over assay gold (> 10 ppm) by Au-GRA21. Any Ag greater than 1500 ppm from Ag-OG62 are reassayed using Ag-GRA21. Samples exceeding 10,000 ppm Ag were reassayed using Ag-CON01.

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Criteria	JORC Code explanation	Commentary
Drilling techniques	<i>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 orientated and if so, by what method, etc.).</i>	No drilling reported.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	No drilling reported.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	No drilling reported.
	<i>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.</i>	No drilling reported.
Logging	<i>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.</i>	Rock chip sampling was undertaken on surface alongside lithologic, alteration and mineralisation logging. Data input presented in tabulated form alongside coordinates and sample numbers.
	<i>The total length and percentage of the relevant intersections logged.</i>	No intersections logged as only rock chip samples reported.
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all cores taken.</i>	No drilling reported.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i>	
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	
	<i>Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.</i>	No sub sampling undertaken.
	<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>	No sub sampling undertaken.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Sample sizes are deemed appropriate for the style of mineralisation targeted and able to quantify the precious and base metal content.
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Samples underwent a 4-acid digest, near total dissolution (ME-MS61) at ALS Laboratories, followed by ICP-MS. Gold analysis by fire assay ICP-AES on a 30g charge (Au-ICP21)
	<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>	A handheld RS-125 Super-SPEC scintillometer was utilised to record counts per second (CPS) when targeting uranium mineralisation. This was conducted in survey mode; walking transects across the prospective structures and data points recorded were anomalous.
	<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>	Blanks (BL-10 CDN Laboratories) were inserted at a rate of 4 %. No field duplicates or certified reference materials were inserted into the sample stream.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Assays reported are rock chip samples. Therefore, no intersections with interval lengths are reported. All

Criteria	JORC Code explanation	Commentary
		results have been verified by the previous operators - Great Bear Exploration personnel.
	<i>The use of twinned holes.</i>	No drilling reported, no twin holes.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	All results received by country manager and senior geologist of the previous operators - Great Bear Exploration directly from ALS Laboratories as PDF certificates and CSV files. GBL will store these electronic files under 2-factor authorization storage.
	<i>Discuss any adjustment to assay data.</i>	Uranium has been converted to uranium oxide. $U * 1.1792 = U_3O_8$ Assay results below the detection limit, returning nonnumeric characters have been changed to half the detection limit for plotting in GIS software. For example, <0.001 ppm Au has been changed to 0.0005 ppm Au.
Location of data points	<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>	Locations of reported rock chip assay results are in NAD83 / UTM Zone 11 N.
	<i>Specification of the grid system used.</i>	Positions of samples determined in the field by handheld Garmin GPSMAP 66sr or Garmin GPSMAP 65 units.
	<i>Quality and adequacy of topographic control.</i>	
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	Reported results are spaced based on locations of prospective lithologies, alterations and visible mineralisation.
	<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 Reserve estimation procedure(s) and classifications applied.</i>	Rock chip assay results are taken from zone of prospective lithologies, alterations or visible mineralisation for the purpose of characterizing metal content. They are not suitable for inclusion in a mineral resource or reserve estimate.
	<i>Whether sample compositing has been applied.</i>	No sample compositing has been applied.
Orientation of data in relation to geological structure	<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>	Grab sampling is conducted where mineralisation or alteration of interest is observed. No channel saw samples or drillholes have been reported. The collection of rock chip samples does not quantify the scale or subsurface orientation of mineralisation at each location.
	<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>	No drilling reported.
Sample security	<i>The measures taken to ensure sample security.</i>	Samples have been stored in rice sacks in a remote exploration camp on the property, sealed with zip ties. Samples are sent to Yellowknife via a private charter flight and picked up by an employee of Aurora Geosciences Ltd who delivers them to ALS Laboratories Yellowknife. This ensures safe custody of the samples.
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	The sample collection was undertaken by experienced geological staff, competent in identifying the target mineralisation and alteration. No independent site visit or audit/review of the procedures/assay results has been conducted.

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	<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>	The Radium Point Project is made up of 18 granted Prospecting Permits, and 7 Mineral Claim Applications. Prospecting Permits are valid for up to 3 years. Mineral Claims valid for an initial 2-year period, which can be extended subject to continued activity and expenditure on the claim areas. Field activities require a land use permit from the Northwest Territories Government.
	<i>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.</i>	The licenses are granted.
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Previous exploration and mining in the Radium Point area is listed under Exploration History in the release and mainly consists of sampling of outcrops/showings. There are multiple decades of reporting of historic mapping, sampling, mining and exploration. These were completed by multiple companies as well as state sponsored regulatory bodies such as state and federal exploration and mines departments. All data will be used by the company once fully incorporated into the company's database. At this stage the reports are largely being used for reference due to their age. Results from reports that are believed to be accurate, or representative are included in the release.
Geology	<i>Deposit type, geological setting and style of mineralisation.</i>	The Early Proterozoic Echo Bay Group consists of tuffs, flow rocks, argillite, quartzite, and dolomitic limestone. The Echo Bay area is prospective for iron-oxide copper gold +/- U (IOCG-U) style mineralisation and the associated epithermal vein hosted mineralisation.
Drill hole Information	<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>	No drilling reported.
	<i>easting and northing of the drill hole collar</i>	
	<i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i>	
	<i>dip and azimuth of the hole, down hole length and interception depth, hole length.</i>	
	<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 report, the Competent Person should clearly explain why this is the case.</i>	
Data aggregation methods	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations</i>	No data aggregation.

Criteria	JORC Code explanation	Commentary
	<i>(e.g., cutting of high grades) and cut-off grades are usually Material and should be stated.</i>	
	<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>	No data aggregation.
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	No metal equivalent values are being used.
Relationship between mineralisation widths and intercept lengths	<i>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 (e.g., 'down hole length, true width not known').</i>	No drilling is being reported. Any lengths or widths of mineralisation noted in the release are on surface measurements at outcrop scale.
Diagrams	<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>	Location maps provided of projects within the release with relevant exploration information contained.
Balanced reporting	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.</i>	The reporting of exploration results is considered balanced by the competent person.
Other substantive exploration data	<i>Other exploration data, if meaningful, should be reported including 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>	No further exploration data of note is being reported. Work is ongoing to integrate available geological datasets.
Further work	<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> <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>	Plans for further work include the assessment of geophysical (airborne or ground) surveys, geological and alteration mapping, further rock chip or channel saw sampling. Data integration is ongoing and will inform future diamond drilling campaigns.

APPENDIX 2: Glossary of Geological and Technical Terms

- **Airborne Gravity Gradiometry (AGG):** An aircraft-mounted tool that measures subtle variations in ground density to find heavy, dense mineral cores hiding underwater or underground.
- **Copper Sulphides (Chalcopyrite, Bornite, Chalcocite):** The primary target minerals that hold the copper metal.
- **Electromagnetics (EM):** A survey tool that sends electrical signals into the ground to detect conductive metallic minerals.
- **Epithermal Veins:** Thin, highly concentrated "cracks" or fractures in the rock filled with precious metals (like gold and silver) left behind by warm underground water.
- **Hematite Breccia Core:** The central "target" zone of an IOCG system, consisting of shattered rock cemented together by heavy iron minerals, usually holding the highest concentrations of copper, gold, and uranium.
- **Hematite vs. Magnetite:** The two main iron oxides. Magnetite is strongly magnetic, while hematite is heavy and dense but not magnetic.
- **Hydrothermal Alteration:** The chemical process where super-heated water changes the original minerals inside a surrounding rock into new ones.
- **Iron Oxide Copper-Gold (IOCG):** A massive underground mineral system formed by hot fluids that deposit large amounts of iron oxides (rust-like minerals) alongside high concentrations of copper, gold, silver, and uranium.
- **Iron Oxide-Apatite (IOA):** A close relative to IOCG systems that contains high amounts of iron and phosphate minerals, making it a key source for Rare Earth Elements.
- **Limestone / Carbonates:** Soft, reactive rocks that easily absorb fluids and form metal-rich skarn deposits.
- **Magmatic Arc / Volcano-Plutonic Belt:** A long belt of ancient volcanoes and underground magma chambers that once provided the heat and fluids needed to create major mineral deposits.
- **Magnetics:** A survey method that measures magnetic variations in the Earth to map out magnetic rocks and structural faults that guided the flow of metal-bearing fluids.
- **Magnetite-Apatite Zone:** An inner ring surrounding the central core that contains strongly magnetic iron and phosphate minerals.
- **Pitchblende:** A dark, naturally radioactive mineral that is the primary ore for uranium.
- **Radiometrics:** Airborne sensors that detect natural, trace radioactivity (potassium, thorium, uranium) coming from the top layer of ground to highlight mineralised or altered rocks.
- **Rare Earth Elements (REE):** A group of 17 specialised metals critical for modern electronics, electric vehicles, and high-tech applications.
- **Scintillometer:** A handheld Geiger-counter-like device used by field geologists to detect localised radiation when searching for uranium.
- **Skarn:** A type of deposit formed when super-heated liquid from deep underground reacts directly with soft, chalky rocks like limestone, trapping valuable metals.
- **Sodic-Calcic Halo:** A wide outer shell around the deposit where sodium and calcium minerals were left behind by early fluid movement.