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ASX ANNOUNCEMENT ASX: ASN, ASNOC, ASNOD OTC: ANSNF

# Drilling of Mississippian Unit at Long Canyon No. 2 Delivers 25% Increase in Lithium Assay Results

#### Highlights:

- Anson has delivered a 25% increase in Lithium assay grade in its targeted drilling of Mississippian Units at the Long Canyon No. 2 well at its Paradox Lithium Project
- Drilling reported an assay value of 100ppm Lithium and 2,460ppm Bromine compared to minimum 80ppm Li estimated in the Exploration Target
- Confirms the massive, supersaturated brine aquifer in the Mississippian Units are lithium and bromine rich
- Mississippian Units within the Paradox Project do not form part of its current JORC Resource – Anson's drilling of the Mississippian Units is designed to deliver a significant upgrade of JORC Resource estimate
- The brines are similar to those of the Clastic Zones which are included in the Project's current Indicated and Inferred JORC Resource
- Anson's resource expansion drilling program is currently progressing on the Mississippian Units at the high priority Cane Creek 32-1 well
- Historic wells on the western side ('western strategy") of the Project area have also been drilled through the Mississippian Units and are to be re-entered for testing

Anson Resources Limited (ASX: ASN, ASNOC) (Anson or the Company) is pleased to announce that drilling of the targeted Mississippian Units at the Long Canyon No. 2 well at the Paradox Lithium Project (the Project) in Utah, USA, has delivered a 25% increase in lithium grade over previously reported assays at the Project.

Anson's recently completed drilling at Long Canyon No. 2, as part of its ongoing resource expansion drilling program at Paradox, delivered an assay value of 100ppm lithium and 2,460ppm bromine.

This grade is 25% higher than the historical lithium value previously recorded at the Paradox Project area - of 80ppm - which was used as the minimum lithium grade for the Mississippian Units in the Project's Exploration Target. This provides a strong indicator of the upside potential in the planned upcoming JORC Resource upgrade at the Project.

The Mississippian Units within the Paradox Project area host a massive brine aquifer with a thickness between 70m and 170m, situated approximately 500m below the Clastic Zones that have been used to calculate the current Indicated and Inferred JORC Resource estimate.

The Mississippian Units across the entire Project area currently form part of the Project's Exploration Target (*See Announcement 6 April 2021*), are not included in the current JORC Resource. The targeted drilling into the Mississippian Units in Anson's ongoing Resource expansion drilling program is designed to deliver a significant JORC Resource upgrade.

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The Exploration Target for the Mississippian supersaturated brines is; 1.3Bt - 1.8Bt of brine grading 80 - 140 ppm Li and 2,000 - 3,000 ppm Br (see ASX announcement April 6, 2021). The exploration target is summarised in Table 1.

Mississippian Units Exploration Target	Porosity (%)	Density	Brine (Mt)	Li Grade (ppm)	Li (Tonnes)	Li₂CO₃ (Tonnes)	Br Grade (ppm)	Br (Tonnes)
MIN	14	1.27	1,300	80	104,000	553,000	2,000	2,600,000
МАХ	14	1.27	1,800	140	252,000	1,340,000	3,000	5,400,000

Table 1. The Mississin	nian Unite Exploration	Target Pange with bring	R grado variables
	pian onits exploration	Target Range with brine a	x yraue variables.

The Exploration Target figure is conceptual in nature as there has been insufficient exploration undertaken on the Project to define a mineral resource for the Mississippian Units. It is uncertain that future exploration will result in a mineral resource.

The Exploration Target was calculated by an independent third party and used data generated during previous oil and gas drilling programs. Several wells within the Project area have been drilled into the Mississippian Units. They included Long Canyon No1, Long Canyon No. 2, Coors USA 1-10LC, White Cloud 1, Big Flat Unit 5 and Mineral Canyon Fed 1–3 (see Figure 1).

In addition to these wells, numerous other wells that abut the project area have been drilled into or through the Mississippian unit. These include holes such as Big Flat 1, 2 and 3, the locations of which are shown in Figure 1.

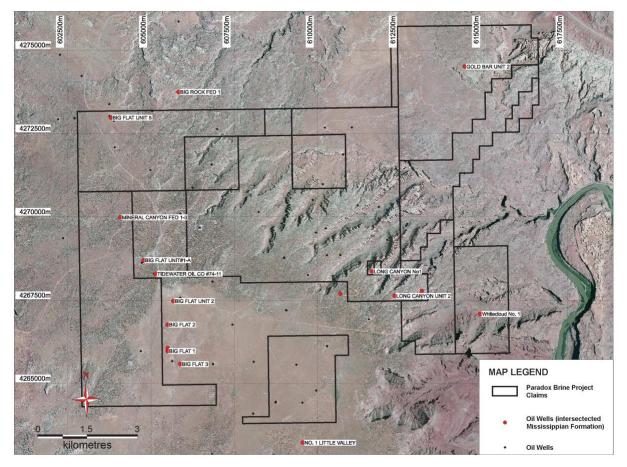


Figure 1: Plan showing the well locations that drilled into the Mississippian Units at the Paradox Lithium Project.



#### **Background and Rationale**

The supersaturated brines in the Mississippian Units have a similar mineral composition to that of the brines of the previously assayed brines of the Paradox Formation clastic zones, used in the Project's current JORC Resource estimation.

The brines from the Mississippian have previously been tested for salt minerals during historical oil exploration programs. One well, Big Flat 2, was also tested for lithium and bromine. The Big Flat 2 well, which is only 150m east of the western most Paradox Lithium claims, had a recorded assay of 81ppm Li and 2,041ppm Br.

The limestones and dolomites in south-eastern Utah are noted for vuggy (vuggs are cavities, voids or large pores in host rocks) and intracrystalline porosity. It has been noted in some of the well files that drilling tools have dropped in apparent cavernous porosity zones resulting in a loss of circulation in the Mississippian Units. This is an indication of high porosity zones.

Diamond core recently discovered shows fracturing and "vuggs" throughout the limestone and dolomite units, demonstrating the high porosity required for the storage of brine (see Figure 2). This confirms the geophysical logs and porosity calculation (*see ASX announcement 17 June, 2019*).



Figure 2: Pictures of Diamond Core Plugs from wells that sampled the Mississippian Units.

The historic drilling logs Anson has obtained from a number of wells in the same area will be combined with the logs from its exploration re-entry programs, as well as other test work, and will be processed (using ARANZ Leapfrog Hydro software) to update the original 3D geological model, to further determine volume metrics.

This conceptual model will then be applied to design a flow model for the brine, and calculate the number of supply wells and piping network required to provide sufficient brine to feed the Company's planned lithium/bromine production facility at the Project.

Anson has created a 3D model for the Project area using ARANZ Leapfrog Geo modelling software (see Figure 3). The model can provide an estimate of the potentially drainable brine within the project area.

It is a static model and takes no account of pumping other than by the application of effective porosity. In the model it can be seen that the Leadville (grey) is a massive aquifer compared to that



of Clastic Zone 31 (brown). This figure also shows the historic wells used in the estimation of both the JORC Resource and the Exploration Target.

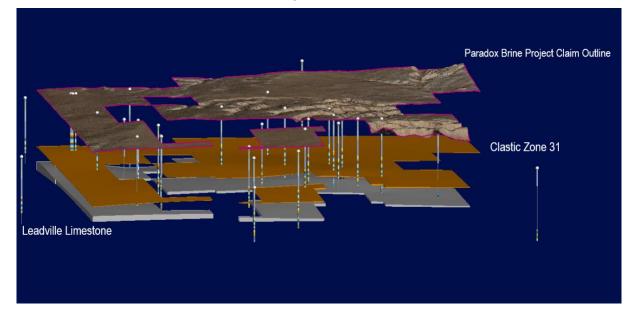


Figure 3: 3D model showing the thicknesses of the Clastic Zone 31 and Leadville Limestone units.

This announcement has been authorised for release by the Executive Chairman and CEO.

#### ENDS

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#### **About Anson Resources Ltd**

Anson Resources (ASX: ASN) is an ASX-listed junior mineral resources company, with a portfolio of minerals projects in key demand-driven commodities. Its core asset is the Paradox Lithium-Brine Project in Utah, in the USA. Anson is focused on developing the Paradox Project into a significant lithium producing operation. The Company's goal is to create long-term shareholder value through the discovery, acquisition and development of natural resources that meet the demand of tomorrow's new energy and technology markets.

**Forward Looking Statements:** Statements regarding plans with respect to Anson's mineral projects are forward looking statements. There can be no assurance that Anson's plans for development of its projects will proceed as expected and there can be no assurance that Anson will be able to confirm the presence of mineral deposits, that mineralisation may prove to be economic or that a project will be developed.

**Competent Person's Statement 1:** The information in this announcement that relates to exploration results, exploration target, and geology is based on information compiled and/or reviewed by Mr Greg Knox, a member in good standing of the Australasian Institute of Mining and Metallurgy. Mr Knox is a geologist who has sufficient experience which is relevant to the style of mineralisation under consideration and to the activity being undertaken to qualify as a "Competent Person", as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves and consents to the inclusion in this report of the matters based on information in the form and context in which they appear. Mr Knox is a director of Anson and a consultant to Anson.



#### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialized industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralization that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverized 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 mineralization types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Historical oil wells (Gold Bar Unit #2, Cane Creek #32-1-25-20, Skyline Unit 1, and Long Canyon Unit 2) were utilized to access brine bearing horizons for sampling. Geophysical logging was completed to determine geologic relationships and guide casing perforation. Once perforated, a downhole packer system was utilized to isolate individual clastic zones and Mississippian Units (production intervals) for sampling. Perforation and packer isolated sampling moved from bottom to top to allow for the use of a single element packer.</li> <li>Brine fluid samples were discharged from each sample interval to large 1,000 L plastic totes. Samples were drawn from these totes to provide representative samples of the complete volume sampled at each production interval.</li> <li>The brine samples were collected in clean plastic bottles. Each bottle was marked with the location, sample interval, date and time of collection.</li> <li>Sampling techniques for the one well assayed in the Mississippian Formation are not known.</li> </ul>
Drilling Techniques	<ul> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc.).</li> </ul>	<ul> <li>Standard mud rotary drilling was utilized to re-enter historical oil wells. The wells had been previously plugged and abandoned in some cases, requiring drill out of cement abandonment plugs. All drilling fluids were flushed from the well casing prior to perforation and sampling activities.</li> <li>Historical drilling techniques into the Mississippian are not known but the wells were deep exploratory wells accessing oil and gas.</li> </ul>
Drill Sample Recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>No new drill holes were completed. Therefore, no drill chips, cuttings, or core was available for review.</li> <li>Drilling procedures for well re-entry only produced cuttings from cement plugs.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>No new drill holes were completed.</li> <li>Cuttings and core samples retrieved from UGS and USGS core libraries</li> <li>Not all wells were cored, but cuttings were collected.</li> <li>Cuttings were recovered from mud returns.</li> <li>Sampling of the targeted horizons was carried out at the depths interpreted from the newly completed geophysical logs.</li> <li>The Mississippian Units and Clastic Zones 17, 19, 29, and 33 were sampled.</li> </ul>



Criteria	JORC Code Explanation	Commentary
Sub-sampling Techniques and Preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> </ul>	<ul> <li>Bulk brine samples were stored for potential further analysis.</li> <li>Core samples were collected in the Long Canyon No 1, Big Flat Unit 1 and Big Flat Unit 2 wells from the Mississippian Units.</li> </ul>
	<ul> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	
	<ul> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Historic Wells <ul> <li>Sample size and quality were considered appropriate by operators/labs.</li> </ul> </li> <li>Re-Entries <ul> <li>Sampling followed the protocols produced by SRK for lithium brine sampling.</li> <li>Samples were collected in IBC containers and samples taken from them.</li> <li>Duplicate samples kept Storage samples were also collected and securely stored.</li> <li>Bulk samples were also collected for future use.</li> <li>Sample sizes were appropriate for the program being completed.</li> </ul> </li> </ul>
Quality of Assay Data and Laboratory Tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>Analysis of brine fluids was completed at several laboratories including SGS (Applied Technology and Innovative Centre), Empact Laboratories and Enviro-Chem Analytical, Inc. All labs followed a standard QA/QC program that included duplicates, standards, and blind control samples.</li> <li>The quality control and analytical procedures used by the three analytical laboratories are considered to be of high quality.</li> <li>The assaying technique for the Big Flat No 2 well in the Mississippian is not known. The sample was assayed by the Ethyl Corporation.</li> <li>Duplicate and standard analyses are considered to be of acceptable quality. Limited downhole geophysical tools were utilized for orientation within the cased oil wells prior to perforation. These are believed to be calibrated periodically to provide consistent results.</li> </ul>
Verification of Sampling and Assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Accuracy, the closeness of measurements to the "true" or accepted value, was monitored by the insertion of laboratory certified standards.</li> <li>Duplicate samples in the analysis chain were submitted as part of the laboratory batch and results are considered acceptable.</li> <li>Laboratory data reports were verified by the independent CP.</li> <li>Historical assays are recorded in Concentrated Subsurface Brines, UGS Special Publication 13, printed in 1965</li> </ul>



Criteria	JORC Code Explanation	Commentary
Location of Data Points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>The location of historical oil wells within the Paradox Basin is well documented.</li> </ul>
Data Spacing and Distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Data spacing is considered acceptable for a brine sample but has not been used in any Resource calculations.</li> <li>There has been no compositing of brine samples.</li> </ul>
Orientation of Data in Relation to Geological Structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>The Paradox Basin hosts bromine and lithium bearing brines within a sub-horizontal sequence of salts, anhydrite, shale and dolomite. The historical oil wells are vertical (dip -90), perpendicular to the target brine hosting sedimentary rocks.</li> <li>Sampling records did not indicate any form of sampling bias for brine samples.</li> </ul>
Sample Security	The measures taken to ensure sample security.	<ul> <li>Brine samples were moved from the drill pad as necessary and secured.</li> <li>All samples were marked with unique identifiers upon collection</li> </ul>
Audits or Reviews	The results of any audits or reviews of sampling techniques and data	No audits or reviews have been conducted at this point in time.

#### Section 2 Reporting of Exploration Results

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

Criteria	JORC Code Explanation	Commentary
Mineral Tenement and Land Tenure Status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li> </ul>	<ul> <li>The Paradox Basin Brine Project is located approximately 12 km west of Moab, Utah, USA, and encompasses a land position of 8,947 hectares.</li> <li>The land position is constructed from 1,310 Federal placer mineral claims, and three mineral leases from the State of Utah.</li> <li>A1 Lithium has 50% ownership of 87 of the 1,310 mineral claims through a earn-in joint venture with Voyageur Mineral Ltd. All other claims and leases are held 100% by Anson's U.S. based subsidiary, A1 Lithium Inc.</li> <li>The claims/leases are in good standing, with payment current to the relevant governmental agencies.</li> </ul>
Exploration Done by Other Parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Historical exploration for brines within the Paradox Basin includes only limited work in the 1960s. No brine resource estimates have been completed in the area, nor has there been any historical economic production of bromine or lithium from these fluids.</li> <li>The historical data generated through oil and gas development in the Paradox Formation has supplied some information on brine chemistry.</li> </ul>



Criteria	JORC Code Explanation	Commentary
Geology	• Deposit type, geological setting and style of mineralization.	<ul> <li>The geology of the Paradox Formation indicates a restricted marine basin, marked by 29 evaporite sequences. Brines that host bromine and lithium mineralization occur within the saline facies of the Paradox Formation and are generally hosted in the more permeable dolomite sediments.</li> <li>Controls on the spatial distribution of certain salts (boron, bromine, lithium, magnesium, etc.) within the clastic aquifers of the Paradox Basin is poorly understood but believed to be in part dictated by the geochemistry of the surrounding depositional cycles, with each likely associated with a unique geochemical signature.</li> <li>The source and age of the brine requires further investigation.</li> </ul>
Drill Hole Information Data Aggregation Methods	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade</li>	<ul> <li>Four existing oil wells were re-entered and worked over in 2018 and 2019 to collected brine samples. Although these wells may be directional, all wells are vertical (dip -90, azimuth 0 degrees) through the stratigraphy of interest.</li> <li>Detailed historical files on these oil wells were reviewed to plan the re-entry, workover and sampling activities.</li> <li>Following geophysical logging to confirm orientation within the cased well, potential production intervals were perforated, isolated and sampled.</li> <li>The target horizons in the Paradox Formation are approximately 1,800 meters below ground surface.</li> <li>Data on hundreds of historic wells is contained with a database published by the Utah Geological Survey. Open File Report 600 'WELL DATABASE AND MAPS OF SALT CYCLES AND POTASH ZONES OF THE PARADOX BASIN, UTAH', published in 2012.</li> <li>No weighting or cut-off grades have been applied.</li> </ul>
	<ul> <li>Brine samples taken in holes were averaged (arithmetic average) without 14 Criteria JORC Code explanation Commentary truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship Between Mineralization Widths and Intercept Lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralization with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul> <li>The sediments hosting the brine aquifer are interpreted to be essentially perpendicular to the vertical oil wells. Therefore, all reported thicknesses are believed to be accurate.</li> <li>Brines are collected and sampled over the entire perforated width of the zone.</li> <li>The Mississippian Units are assumed to be porous and permeable over its entire vertical width.</li> </ul>



Criteria	JORC Code Explanation	Commentary
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>A diagram is presented in the text showing the location of the properties and re-entered oil wells.</li> </ul>
Balanced Reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>All data generated by A1 Lithium through re-entry, workover, and sampling of historical oil wells is presented. No newly generated data has been withheld or summarized.</li> </ul>
Other Substantive Exploration Data	<ul> <li>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.</li> </ul>	All available current exploration data has been presented.
Further Work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Additional well re-entries and sampling planned following acceptance of Plan of Operations with BLM and completion of an Environmental Assessment. This will cover the Paradox Formation and Leadville Limestone.</li> <li>Future well re-entries will focus on wells located on western portion of claims.</li> <li>Future well re-entries will include further hydrogeological investigations.</li> </ul>