Anson Applies for Patents for Technology Innovations for the Removal of Iron from Lithium-rich Brines

ASX: ASN Announcement

Highlights:

- **Anson has lodged two patent applications with the US Patent and Trademark Office for technology innovations for the removal of Iron (Fe) from lithium-rich brines**
  - **pilot plant unit capable of processing 5-10 gallons per minute of raw bine,**
  - **demonstration plant unit capable of processing 200-250 gallons per minute or raw brine,**
- **More than 10,000 gallons of raw brine have been processed through the pilot plant pre-treatment,**
- **Over 102 assays conducted that confirmed Fe reduced to less than 1ppm.**

Anson Resources Limited (ASX: **ASN**) ("**Anson Resources**" or the "**Company**") through its 100% owned subsidiary A1 Technologies Inc., (A1 Technologies), is pleased announce that it has lodged for two patent applications with the US Patent and Trademark Office for a technology innovation to use a "chemical-free" processes to remove iron (Fe) from brines. After successfully designing and assembling a small unit to process of 5 to 10 gallons per minute (gpm) of raw brine extracted from Anson's Boysdaba #1 well, to less than 1 ppm, a larger unit using the same technology and capable of processing 200 to 250gpm of raw brine has been designed and is being assembled at the Anson' Lithium Innovation Center (LIC) in the USA.

The "up-scaled" iron removal system designed by the LIC with a capacity of 200 to 250 gallons per minute of raw brine and considered suitable for the 100tpa LCE demonstration plant is expected to be completed by the end of the year. The equipment used for the first stage of the Fe removal is shown in Figure 1.

Figure 1: View of the 5 -10gpm Fe removal unit showing sparging in the center of the image.

Iron contamination in the brine is known to reduce the performance of the resin in the Direct Lithium Extraction (DLE) process as, over time, it coats the resin preventing optimal performance. Pre-treatment of raw brine to remove Fe, and other minerals if applicable, is widely recognized as a critical step in the DLE process. Iron can reduce the performance and longevity of DLE resin by coating the DLE resin preventing lithium from accumulating on the resin.

The A1 Technologies process introduces compressed air into the brine, which increases the dissolved oxygen concentration in the brine and hence assists in the increase of the oxidation rate of Fe molecules and forms ferric oxide (Fe_2O_3), which then precipitates to the bottom of tank, removing it from the brine that enters the DLE process.

Conventional pre-treatment methods use chemical oxidants and pH-control agents to convert soluble ferrous ions into ferric ions to achieve precipitation.

The capital and operating costs associated with the A1 Technologies process are estimated to be significantly lower than those of the conventional industry-standard process as no chemical used to precipitate iron from the brine. The 5 – 10gpm unit has been transported to the SDP in Green River, Utah for test work with a continuous feed of raw brine, see Figure: 2.

Figure 2: View of the 5 -10 gpm Fe removal unit boxed for transportation to Green River

Strategy Implications

Anson lithium extraction process is to seek to use the most up to date technologies contribute to higher lithium recovery with low impact upon the environment. Anson objective is to limit its projects environmental impact and can achieve this by eliminating the use of chemicals in the Fe removal pre-treatment process. Reducing the use of chemicals in the flow sheet is also expected to lower production costs and increase shareholder returns.

Background

Since mid-2024, A1 Lithium has worked on an innovative chemical-free technology to remove iron from raw brine. The technology was successfully pilot tested at Green River in 2024/2025 during the test work conducted by Koch Technology Systems (KTS) although with a smaller, using a simple technology used in the oil and gas industry. This demonstrated instantaneous oxidation of iron into ferric oxide, resulting in almost reducing iron in the feed brine for DLE processing. This technology was enhanced and refined at the Company's Lithium Innovation Centre.

As a result of the successful trial at Green River in 2024/2025, the Innovation Center has continued to improve the process and developed a patentable process. To date, more than 10,000 gallons of raw brine have been processed through the pre-treatment system. Iron concentrations in the feed tested ranged from 5ppm to 44ppm, while the treated brine consistently achieved an average iron concentration of less than 1 ppm, demonstrating the effectiveness of the proprietary pre-treatment process, see Table 1. Green River brine Fe levels typically range from 5 to 10 ppm. It should be noted that the Fe removal process developed by Anson does not alter the lithium concentration in the raw brine during oxidation.

	Fe (ppm)	Fe (ppm)	Fe (ppm)	Fe (ppm)	Fe (ppm)	Fe (ppm)
Raw Brine	44.1	5.33	1.72	13.26	32.72	17.11
Pre-Treated Brine	0.3	0.06	0.03	0.14	0.2	0.16

Table 1: Typical Green River Pre-Treatment Test Results

The technology is now being up-scaled by Anson, at its Lithium Innovation Center, to 200-250gpm in a modular, continuous-flow configuration, eliminating the need for large holding and settling tanks and supporting a more efficient commercial operating model. This up-scaled unit will be included in Anson's planned demonstration plant.

The inventor of the pre-treatment technology is *R. Jachuck and A1 Technologies Inc., a 100% owned subsidiary of Anson Resources is the 100% owner of the IP. Anson Resources plans to use the IP to develop process systems for use at Green River as well as explore licensing opportunities for secondary revenue generation.

About the Lithium Innovation Center

The Innovation Center has established a state-of-the-art testing facility for evaluating and optimizing the performance of Direct Lithium Extraction (DLE) resins, polishing ion exchange resins, and downstream concentration technologies including nanofiltration, reverse osmosis, and evaporation. The Center has developed robust DLE testing protocols that have enabled A1 Lithium to systematically assess the capabilities of multiple resin suppliers and determine their suitability for processing Green River brines.

*R. Jachuck, is a consultant for A1 Lithium since 2023 and any IP developed by him is 100% owned by A1 Lithium Inc. He is also the founder of CoFlo Technologies Inc. and has developed Evaporation Technologies for thermal systems which have been in commercial use since 2015. His CoFlo patents are in a completely different field to the IP he has developed for A1 Lithium.

Comprehensive parametric studies have been conducted to evaluate the effects of operating temperature, bed volume, and flow rate on resin performance across a range of DLE technologies. The resulting data has provided critical insights into both installation requirements and operational performance, helping to build in-house expertise and establish best practices for commercial deployment. This knowledge base has been instrumental in the selection of technology partners for both DLE and downstream lithium processing.

In addition, proprietary technologies developed by the Innovation Center, particularly for the pretreatment of raw brine, have created significant opportunities to reduce capital and operating costs. These innovations are expected to deliver substantial economic benefits for both the demonstration facility and the future full-scale commercial plant, enhancing overall project viability and competitiveness.

This announcement has been authorized 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 mineral resources company with a portfolio of minerals projects in key demand-driven commodities. Its core assets are the Green River and Paradox Lithium Project in Utah, in the USA. Anson is focused on developing these assets into a significant lithium producing operations. 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 mineralization 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 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 mineralization 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 has reviewed and validated the metallurgical data and consents to the inclusion in this Announcement of this information in the form and context in which it appears. Mr Knox is a director of Anson.

JORC Code 2012 “Table 1” Report

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code Explanation	Commentary
Sampling techniques	• *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.* • *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 mineralization 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 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.*	• Sampling followed the protocols produced by SRK for lithium brine sampling. • Samples were collected in IBC containers and samples taken from them. • Storage samples were also collected and securely stored. • Bulk samples were also collected for future use.
Drilling Techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face sampling bit or other type, whether core is oriented and if so, by what method, etc.).*	• N/A
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.*	• Brine has been regularly collected over the Leadville Limestone (target horizon) for geochemical analysis. • Bulk brine is collected in IBC containers for future assaying.
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.*	• N/A

Criteria	JORC Code Explanation	Commentary
Sub-sampling Techniques and 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 maximize 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.*	• Samples were submitted to Laboratories in Texas, USA that are certified and experienced with oilfield brines • Each sample bottle was taped and marked with the sample number. • The sample sizes (250ml) are considered to be appropriate for the brine being sampled. • Sample preparation techniques represent industry good practice.
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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	• Laboratory testing was carried out using ICP-OES. • SGS is ISO9001 certified and specializes in oil field brines. • Multiple samples were collected to confirm assay results (duplicates).
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.	• Sampling and assaying were carried out on site before sending to SGS. • Assaying technique to be used was ICP-OES which is suitable for this sample type. • Stable blank samples (RO water) were regularly tested to evaluate potential sample contamination. • Regular calibration using standard buffers was continuously carried out.
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.	• The grid system used is UTM Zone 12 (NAD83). • Location of Bosydaba#1 drillhole was positioned by a qualified land surveyor. • Drillhole collars, (Dip -90^0, Azim 0^0) • Bosydaba#1: 4,303,268.5N, 576,941.4E, EL:4125.7’
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.	• There has been no compositing of brine samples.

Criteria	JORC Code Explanation	Commentary
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 mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material.•*	• The Paradox Basin hosts bromine and lithium bearing brines within a sub-horizontal sequence of salts, anhydrite, shale and dolomite.
Sample Security	• *The measures taken to ensure sample security.*	• Samples were transported to laboratories on collection at the well.
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 andLand 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 license to operate in the area.*	• The Green River Lithium Project is located in southeastern Utah, USA, consisting of 728 placer claims that encompasses a land position of 5,960 hectares (14,730 acres). • Purchased private property consists of a 60.6-hectare (147.5 acre) land parcel • 1 OBA lease 2,705hectares (6,685 acres). • All claims are held 100% by Anson's U.S. based subsidiary, Blackstone Minerals NV LLC. • The claims/leases are in good standing, with payment current to the relevant governmental agencies.
Exploration Done byOther Parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Historical exploration for brines within the Paradox Basin includes only limited work in the 1960s. No brine resource estimates had been completed in the area, nor has there been any historical economic production of bromine or lithium from these fluids. • The historical data generated through oil and gas development in the Paradox Formation and the Leadville Limestone unit has supplied some information on brine chemistry.
Geology	• *Deposit type, geological setting and style of mineralization.*	• 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. • The Leadville Limestone consists of dolomite and limestone which hosts the supersaturated brines.

	Criteria	JORC Code Explanation	Commentary
	Drill Hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for allMaterial drill holes:* – *easting and northing of the drill hole collar* - *elevation or RL (Reduced Level - elevation above sea level in meters) ofthe 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 and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• The grid system used is UTM Zone 12 (NAD83). • Drillhole collars, (Dip -90^0, Azim 0^0) • Bosydaba#1: 4,303,268.5N, 576,941.4E, EL: 4,125.7' • **Grand Fault (drilled in 1961)** 567,095E,4,313,344N El: 4,215' • **Mt Fuel Skyline (drilled in 1973)** 576,958E, 4,303,271N El: 4,120'
	Data Aggregation Methods	• *In reporting Exploration Results, weighting averaging techniques, maximumand/or minimum grade* • *Brine samples taken in holes were averaged (arithmetic average) without 14Criteria JORC Code explanation Commentary truncations (e.g. cutting of highgrades) 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.*	• No weighting has been carried out.
	Relationship Between Mineralization Widths and Intercept Lengths	• *These relationships are particularly important in the reporting ofExploration Results.* • *If the geometry of the mineralization with respect to the drill hole angle isknown, 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').*	• The sediments hosting the brine aquifer are interpreted to be essentiall perpendicular to the vertical oil wells. Therefore, all reported thicknesses ar believed to be accurate. • Brines are collected and sampled over the entire perforated width of the zone • The Mississippian Units are assumed to be porous and permeable over it entire vertical width based on drilling records.
	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.*	• The appropriate diagrams are shown in the text showing the location of th wells.
	Balanced Reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/orwidths should be practiced to avoid misleading reporting of ExplorationResults.*	• No new exploration results have been reported. • The historical wells intersected muds and brines but only one sample was assayed while drilling the oil exploration well • The wells have been Plugged and Abandoned and tested for oil shows an was not assayed for lithium brines

Criteria	JORC Code Explanation	Commentary
Other SubstantiveExploration 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.*	• N/A
Further Work	• *The nature and scale of planned further work (e.g. 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, providedthis information is not commercially sensitive.*	• N/A