American Critical Minerals Announces Large-Scale Exploration Targets for Lithium and Bromine for its Green River Project Complementing its Existing Exploration Target for Potash

06.10.2025 | ACCESS Newswire

- 2.1 billion cubic meters (brine volume) grading from 71.6 to 216.3 parts per million lithium (1.7Million Tonnes Lithium Carbonate Equivalent "LCE" high case)****;
- 2.1 billion cubic meters (brine volume) grading from 3,656 to 4,741 parts per million bromine (9.1 Mt Bromine high case);
- Existing Potash Exploration Target of 0.6-1.0 billion tonnes ("Bt") of sylvanite grading from 12% to 18% potassium oxide based on elog (eK2O=19% and 29% potassium chloride based on elog (eKCl) ***.

VANCOUVER, October 6, 2025 - American Critical Minerals Corp. ("American Critical Minerals" or the"Company") (CSE:KCLI)(OTCQB:APCOF)(Frankfurt:2P3) is pleased to announce that Agapito Associates LLC. ("Agapito") has completed the work announced by the Company on July 29, 2025 and has defined a National Instrument ("NI") 43-101 exploration target for lithium at its Green River Project in the Paradox Basin, Utah. Agapito has also defined a NI43-101 exploration target for bromine as a potentially highly material and large-scale by-product of lithium production. Neighboring Anson Resources has also reported significant Bromine content associated with its lithium brines in the Paradox Basin (www.ansonresources.com).

These Exploration Targets for two critical minerals and a key potential by-product, showcase the large-scale potential of the Green River Project and provide valuable data which the Company will utilize to finalize drill targets for confirmation and resource drilling. In the interim, Agapito is adding these new exploration targets, as well as additional new data, to an updated NI 43-101 Technical Report which the company will publish and file shortly.

The Exploration Target(s) for the Project are based on available geological data, historical drill data from 23 oil and gas wells drilled across and around our Project area (with Lithium and Bromine values) and 18 oil and gas wells (with porosity values) and analogues from adjacent projects. This includes over 50 years pf potash production from the same potash cycles at the nearby Moab Mine, now owned and operated by Intrepid Potash and advanced lithium development work by Anson Resources on contiguous land to our north and adjacent land to our south.

Target tonnages are estimated to range between 1.27 to 2.1 billion cubic meters of brine. Corresponding grades are estimated at 71-216 parts per million ("ppm") for lithium (1.7 Mt LCE), and 3,656-4,741 ppm for bromine (9.1 Mt Bromine high case). These ranges highlight the prospective nature and potential scale of the mineralized clastic zones. The lower end of the target range from 42.9ppm to 129.8ppm lithium (0.6 Mt LCE) and 2194 to 2844 ppm bromine (3.3 Mt Bromine Low Case). The upper end with grades up to 29% eKCl, 152 ppm Lithium, and 4,412 ppm Br? reflects the upside potential should continuity and thickness be confirmed through further drilling. These estimates provide a framework for prioritizing exploration activities, including step-out drilling and detailed geophysical interpretation.

Management Commentary

Simon Clarke President & CEO stated, "this is a big milestone for the Company. The importance of lithium

and bromine in the Paradox has been recognized for a number of years but has been very much highlighted and validated in recent times by our close neighbour Anson Resources. The work they have done on drilling and successfully piloting their projects and attracting definitive offtake partners like LG Solution for battery grade lithium, is potentially directly applicable to, and positive for, our Green River Project given their land is contiguous and adjacent to ours. The work now done by Agapito in defining exploration targets for lithium, and also bromine takes this potential a step further and showcases the large-scale potential of the Green River Project for lithium and bromine based on a lot of additional historic and recent data.

The potential of our Project is even larger than our neighbours, given we also have large-scale potash potential and a large existing exploration target for potash. We now have 3 large exploration targets for 3 different minerals, as well as drill permits in hand and we can test for all 3 minerals in each hole we drill. This latest work further positions the Company to launch confirmation and resource drilling in the coming months."

Lithium and Bromine Exploration Targets

The Exploration Target estimate for lithium and bromine is based on brine-hosting intervals within the Paradox Basin. Key geologic units, including the Leadville Formation and Paradox clastic zones 17, 19, 29, 31, and 33, were evaluated individually using available porosity, volume, and brine chemistry data to establish potential ranges for contained lithium and bromine.

The Pennsylvanian-age Paradox Formation comprises thick, regionally extensive halite units interbedded with evaporitic anhydrite and potash horizons, as well as clastic and carbonate intervals including sandstone, shale, limestone, and dolomite. Core data published from Anson Resources' Paradox Lithium and Green River Lithium Project areas provide direct petrophysical and lithological measurements that can be correlated to the clastic zones identified within the Green River Project area. These datasets confirm the lateral continuity and stratigraphic equivalency of the principal reservoir intervals. Eighteen drillholes from adjacent project areas that report porosity values, which are considered representative values for the Green River Property clastic zones. Effective porosity ranges of 10.3-17.1%, 11.0-18.4%, 9.9-16.4%, and 12.4-20.7% were assigned to Clastic Zones 17, 19, 29, 31, and 33, respectively, with the reported values representing average effective porosity estimates for each interval.

The Mississippian Leadville Formation is a marine carbonate sequence that is typically composed of limestone and dolomite. Because the Leadville currently and historically has been a target for hydrocarbons, CO2 and helium, there is abundant well data available. At the Green River Property, the Leadville has been shown to have excellent vuggy porosity and good reservoir deliverability. A range of 5.1% - 8.5% average effective porosity was used for the Mississippian Leadville Formation.

In total, 23 drillholes from adjacent project areas reporting lithium and bromine concentrations, which are interpreted as representative values for the Green River Property clastic zones and the Mississippian Leadville Formation. Average lithium concentration ranges of 42.9-71.6 ppm, 86.1-143.4 ppm, 76.1-126.9 ppm, 129.8-216.3 ppm, 47.6-79.4 ppm, and 120.8-201.3 ppm were applied to Clastic Zones 17, 19, 29, 31, 33, and the Mississippian interval, respectively. Corresponding average bromine concentration ranges of 2,551-4,251 ppm, 2,333-3,888 ppm, 2,508-4,180 ppm, 2,587-4,311 ppm, 2,194-3,656 ppm, and 2,845-4,741 ppm were assigned to the same stratigraphic units in order.

The two tables, designated as Tables 1 and 2, present a range of potential in situ mineral quantities for an exploration target containing lithium and bromine brines. These tables define the estimates for a High Case (Table 1) and a Low Case (Table 2) scenario, a standard practice in mineral exploration to bracket the potential resource based on the current level of geological knowledge and data uncertainty. The foundational calculation for both estimates begins with the geometric properties of the aquifer, specifically its total volume. This aquifer volume is then combined with a range of effective porosity values-a lower percentage for the conservative Low Case and a higher percentage for the optimistic High Case-to calculate the total volume of brine potentially hosted within the rock pores.

The subsequent calculations apply grade estimates to these brine volumes to determine the total contained metal. For instance, a Low Case brine volume of 25 million cubic meters multiplied by a conservative lithium grade of 200 parts per million could yield a total lithium metal estimate on the order of tens of thousands of tonnes. This lithium figure is also converted into its Lithium Carbonate Equivalent (LCE), the industry-standard unit for commercial transactions, which could range from a Low Case in the realm of

615,000 tonnes to a High Case potentially exceeding 1,710,000 tonnes. Simultaneously, the bromine content is calculated using its own range of concentration values, potentially resulting in a Low Case estimate of approximately 3,288,000 tonnes of elemental bromine (Br?) and a significantly larger High Case figure of 9,134,000 tonnes. The substantial spread between the low and high estimates for both minerals effectively captures the geological uncertainties at this early stage, serving to illustrate the potential scale of the discovery and guide future exploration efforts to better define the resource.

Table 1: Lithium and Bromine Exploration Target High Case Estimates****

Aquifer	Average Thickness (m)	Aquifer Volume (m^3)	Effective Porosity	High Brine Volume (m^3)	Lithium High (p
Paradox CZ 17	19.16	2,646,919,140	17.1%	453,284,903	71.6
Paradox CZ 19	16.56	2,287,641,660	18.4%	420,354,155	143.4
Paradox CZ 29	4.88	674,457,574	16.4%	110,863,964	126.9
Paradox CZ 31	7.49	1,034,897,445	20.7%	214,310,013	216.3
Paradox CZ 33	4.34	599,997,312	20.7%	124,249,443	79.4
Mississippian	67.02	9,259,243,356	8.5%	787,035,685	201.3
Total		16,503,156,487		2,110,098,163	152

Table 2: Lithium and Bromine Exploration Target Low Case Estimates****

Aquifer	Average Thickness (m)	Aquifer Volume (m^3)	Effective Porosity	Low BrineVolume (m^3)	Lithium Low (pp
Paradox CZ 17	19.16	2,646,919,140	10.3%	271,970,942	42.9
Paradox CZ 19	16.56	2,287,641,660	11.0%	252,212,493	86.1
Paradox CZ 29	4.88	674,457,574	9.9%	66,518,378	76.1
Paradox CZ 31	7.49	1,034,897,445	12.4%	128,586,008	129.8
Paradox CZ 33	4.34	599,997,312	12.4%	74,549,666	47.6
Mississippian	67.02	9,259,243,356	5.1%	472,221,411	120.8
Total		16,503,156,487		1,266,058,898	91

About American Critical Minerals' Green River Potash and Lithium Project

The Green River Potash and Lithium Project is situated within Utah's highly productive Paradox Basin, located 20 miles northwest of Moab, Utah and has significant logistical advantages including close proximity to major rail hubs, airport, roads, water, towns and labour markets. It also benefits from close proximity to the agricultural and industrial heartland of America and numerous potential end-users for its products.

The history of oil and gas production across the Paradox Basin provides geologic data from historic wells across the Project, and the wider Basin, validating and de-risking the potential for high grade potash and large amounts of contained lithium. Wells in and around the project reported lithium up to 500 ppm, bromine up to 6,100 ppm and boron up to 1,260 ppm (Gilbride & Santos, 2012). This data is reinforced by nearby potash production and the advanced stage of neighbouring lithium projects. The Paradox Basin is believed to contain up to 56 billion tonnes of lithium brines, potentially the largest such resource in US

(Source:AnsonFastmarketsPresentation- https://wcsecure.weblink.com.au/pdf/ASN/02823465.pdf). The Company also has a 43-101 Exploration Target of 600 million to 1 billion tonnes of sylvinite (the most important source for the production of potash in North America) with average grades ranging from 19% to 29% eKCL.**

The Company holds a 100% interest in eleven State of Utah ("SITLA") mineral and minerals salt leases covering approximately 7,050 acres, 1,094 federal lithium brine claims (BLM Placer Claims) covering 21,150 acres, and 11 federal (BLM) potash prospecting permits covering approximately 25,480 acres. Through these leases, permits and claims the Company has the ability to explore for potash, lithium and potential by-products across the entire Green River Project (approx. 32,530 acres). The Company is authorized to drill a total of 7 drill holes across the Project (pending bonding the recently approved 4 drill holes).

Intrepid Potash Inc. is America's largest potash company and only U.S. domestic potash producer and currently produces potash from its nearby Moab Solution Mine, which the Company believes provides strong evidence of stratigraphic continuity within this part of the Paradox Basin (www.intrepidpotash.com). Anson Resources Ltd. has advanced lithium development projects contiguous to the northern boundary of our Green River Project and neighbouring to the south. Anson has a large initial resource, robust definitive feasibility study and has recently completed successful piloting operations through its partnership with Koch Technology Solutions, as well as an offtake agreement with LG Energy Solution. The Anson exploration targets encompass the combined Mississippian Leadville Formation and the Pennsylvanian Paradox Formation brine-bearing clastic layers, which also underlie American Critical Minerals' entire project area (www.ansonresources.com)*.

In 2022, the U.S. imported approx. 96.5% of its annual potash requirements with domestic producers receiving a higher sales price due to proximity to market (intrepidpotash.com/ August 15, 2024, Investor Presentation). In March 2024, the US Senate introduced a bill to include key fertilizers and potash on the US Department of Interior list of Critical Minerals which already includes lithium, and this process is well advanced with potash being added to the USGS Draft Critical Minerals List in August 2025. Recent market estimates suggest that the global potash market is over US$50 billion annually and growing at a compound annual growth rate ("CAGR") of close to 5%. Annual lithium demand is now estimated to be over 1 million tonnes globally and continuing to grow rapidly.

****Exploration Targets are conceptual in nature and there has been insufficient exploration to define them as Mineral Resources, and, while reasonable potential may exist, it is uncertain whether further exploration will result in the determination of a Mineral Resource under NI 43-101.

Qualified Person

The Technical content of this news release has been reviewed and approved by Dean Besserer, P.Geo., the Chief Operations Officer of the Company and a qualified person for the purposes of NI 43-101.

On behalf of the Board of Directors

Simon Clarke, President & CEO
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*American Critical Minerals' management cautions that results or discoveries on properties in proximity to the American Critical Minerals' properties may not necessarily be indicative of the presence of mineralization on the Company's properties.

**A report titled "NI 43-101 Technical Report - Green River Potash Project, Grand County, Utah, USA", prepared by Agapito Associates Inc., and dated effective September 12, 2012, quantifies the Green River Potash Project's potash exploration potential in the form of a NI 43-101 Exploration Target. The Exploration Target estimate was prepared in accordance with the National Instrument 43-101 -Standards of Disclosure for Mineral Projects ("NI 43-101"). It should be noted that Exploration Targets are conceptual in nature and there has been insufficient exploration to define them as Mineral Resources, and, while reasonable potential may exist, it is uncertain whether further exploration will result in the determination of a Mineral Resource under NI 43-101. The Exploration Target stated in the Agapito Report is not being reported as part of any

Mineral Resource or Mineral Reserve. A copy of the report can be accessed on the corporate website for the Company: www.acmineralscorp.com. A new report documenting the current data will be filed accordingly.

***United States Geological Survey, Mineral Commodity Summaries, January 2024 (https://pubs.usgs.gov/periodicals/mcs2024/mcs2024-potash.pdf).

***Exploration Targets are conceptual in nature and there has been insufficient exploration to define them as Mineral Resources, and, while reasonable potential may exist, it is uncertain whether further exploration will result in the determination of a Mineral Resource under NI 43-101. The Potash 5 Exploration Targets are not being reported as part of any Mineral Resource or Mineral Reserve.

Cautionary Statements Regarding Forward Looking Information

This news release contains forward-looking information within the meaning of applicable securities legislation. Forward-looking information is typically identified by words such as: believe, uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking information. Important factors that could cause actual results to differ from this forward-looking information include those described under the heading "Risks and Uncertainties" in the Company's most recently filed MD&A. The Company does not intend, and expressly disclaims any obligation to, update or revise the forward-looking information contained in this news release, except as required by law. Readers are cautioned not to place undue reliance on forward-looking expect, anticipate, intend, estimate, postulate and similar expressions, or are those, which, by their nature, refer to future events. Such statements include, without limitation, statements regarding the intended use of proceeds from the Offering. Although the Company believes that such statements are reasonable, it can give no assurances that such expectations will prove to be correct. All such forward-looking information is based on certain assumptions and analyses made by the Company in light of their experience and perception of historical trends, current conditions and expected future developments, as well as other factors management believes are appropriate in the circumstances. This information, however, is subject to a variety of risks and information.

SOURCE: American Critical Minerals Corp.

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