

# Mineralization Confirmed in Underground Workings at Sheep Creek with Samples up to 10.23% Total Rare Earth Elements

27.02.2023 | [Newsfile](#)

Vancouver, February 27, 2023 - [US Critical Metals Corp.](#) (TSXV: USCM) (OTCQB: USCMF) (FSE: 0IU0) ("USCM") and US Critical Materials Corp. ("Materials Corp.") (collectively, the "Partners") are pleased to report the results for the underground channel sampling completed at the Sheep Creek Rare Earth Project in southwestern Montana ("Sheep Creek" or the "Project"). The sampling was completed in Adit #1 and Adit #3 which were developed in the late 1950's for niobium mineralization by the Continental Columbian Company. Until now, the workings have not been accessed and evaluated for rare earth mineralization. A total of 23 samples were collected and described by the Partners, and were analyzed by Activation Laboratories (Actlabs), located in Ancaster, Canada.

## Highlights from Underground Sampling Program

- A total of 23 carbonatite samples confirmed rare earth mineralization with grades up to 102,293ppm (10.23%) Total Rare Earth Elements ("TREE") (Sample #720), including 13,940ppm (1.39%) combined neodymium and praseodymium, which are the most sought after of the Light Rare Earth Elements ("LREE") group.
- Underground results reveal an average of 50,400 (5.04%) TREE, including an average combined 6,721ppm (0.67%) neodymium and praseodymium. These grades are consistent with the surface sample results (reference press release dated February 14, 2023) and therefore suggest uniformity in the TREE content of the carbonatite bodies.
- The carbonatites within the Sheep Creek mine workings are strongly enriched in LREE with an average value of 5.03% compared to 121.6ppm for Heavy Rare Earth Elements ("HREE").
- Preliminary geologic mapping has tentatively connected several of the carbonatite bodies suggesting continuity over several hundred meters. The exposures sampled in the adits are likely contiguous with surface exposures, a vertical distance of about 50 meters. Expanding both dimensions will be the focus of a drilling program.

The samples collected in 2022 from Adit #1 and Adit #3 are summarized in Table 1 and shown in Figures 2 and 3.

Table 1. Statistical summary of underground channel samples (23) collected during the 2022 campaign, Sheep Creek Project, Ravalli County, Montana. Data is organized as LREE, HRE and TREE.

Samples (N=23)	La (ppm)	Ce (ppm)	Pr (ppm)	Nd (ppm)	Sm (ppm)	Eu (ppm)	Gd (ppm)	Total LREE
Max	39,300.0	48,100.0	3,950.0	10,500.0	645.0	108.0	207.0	102,810.0
Min	3,650.0	4,800.0	404.0	1,090.0	81.9	15.9	34.3	10,076.1
Avg	18,943.0	23,906.1	1,912.6	5,036.1	317.6	54.8	108.8	50,278.9
% of LREE	37.93	47.07	3.84	10.19	0.64	0.11	0.21	100.00

  

Samples (N=23)	Tb (ppm)	Dy (ppm)	Ho (ppm)	Er (ppm)	Tm (ppm)	Yb (ppm)	Lu (ppm)	Y (ppm)	Total HREE
Max	14.8	35.8	6.2	16.2	2.1	12.3	1.7	173.0	262.1
Min	3.2	11.6	1.6	3.3	0.4	2.6	0.4	45.0	68.1
Avg	8.5	23.2	3.0	6.0	0.7	4.2	0.6	75.4	121.6
% of HREE	5.87	15.62	2.38	5.65	0.71	4.22	0.61	64.93	100.00

Samples (N=23)	Total REE	Notes: TREE = Total Rare Earth Elements
Max	102,293.1	Total LREE = Total Light Rare Earth Elements
Min	10,144.8	Total HREE = Total Heavy Rare Earth Elements
Avg	50,400.5	

Figure 1. Pie diagrams showing the relative distribution of LREE (left) and HREE (right) from Adit #1 and Adit #3, Sheep Creek Project.

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Figure 1 displays the dominance of LREE in the Sheep Creek carbonatites with a combined neodymium and praseodymium content of 13,940ppm (1.39%). These ranges and relative amounts are consistent with the surface samples (Figure 2; summarized in press release dated February 14, 2023).

Figure 2. Location of Adits #1 and #3 relative to Total LREE values for samples collected from surface carbonatites exposures in 2021 and 2022, Sheep Creek Project, Ravalli County, Montana.

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The three adits, shown in Figure 2, were developed in the late 1950's for niobium mineralization by the Continental Columbian Company and had not been assessed for rare earth mineralization. Access was gained to Adit #1 and Adit #3 which allowed for the Partners to examine, map and sample the carbonatite dikes. Both adits were mapped by Continental Columbian (F.A. Crowley, 1956 and 1957) and this work is reproduced in Figures 4 and 5. The rare earth mineralization hosted in the carbonatite dikes is composed of calcite and barite with subordinate ancylite, allanite, monazite, columbite and trace molybdenite in sheared and widely fenitized augen gneiss or amphibolite. Examples of the mineralization are presented in Figures 3 and 4. The results from the 2022 mapping campaign are pending but several of the surface samples, hosted by carbonatite dikes, are likely contiguous with the documented subsurface exposures.

Figure 3. Photo of banded carbonatite about 4 feet wide composed of calcite (white), calcite + barite (yellow) + ancylite (pink); dark minerals are biotite and/or actinolite and possibly magnetite or allanite, Adit #3, right lateral.

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Figure 4. Photo of banded carbonatite composed of calcite (white), calcite + barite (yellow) + ancylite (pink) and monazite (honey colored); dark minerals are biotite and/or actinolite and possibly magnetite or allanite, Adit #3, right lateral.

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Adit #1 exposes a roughly N75°E trending carbonatite dike for about 95 metres which dips variably to the north and south. The carbonatite ranges in width from 1.25 to 3.0 feet. Fourteen channel samples were collected from Adit #1 and are shown in Figure 5. TREE grades up to 10.2% (Sample #709). Surface exposures of the dike are present in the adit's collar as well as in the collar of Adit #2 (about 30 meters vertically above) but are very limited by the steep, talus mantled terrain.

Figure 5. Geologic map of Adit #1 showing sample locations and TREE values. Geology from Crowley, 1957.

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Adit #3, located in Figure 2, was driven N25°E for about 130 meters where it traversed a N60°W-trending carbonatite dike with moderate dips to the NNE. The dike was exposed over a strike of about 43 meters (Figures 3 and 4). A total of 9 channel samples were collected across the carbonatite which ranged in width from 1.5 to 4.0 feet (Figure 6). TREE contents ranged from 1.3% to 10.2%. Similar mineralization is present on the surface approximately 55 meters above Adit #3.

Figure 6. Geologic map of Adit #3 showing sample locations and TREE values. Geology from Crowley, 1956.

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The work completed to date by the Partners has identified a broad area hosting REE-enriched carbonatites within a favorable regional corridor. Sampling in the historical adits provides high quality sample data along the dike's strike providing confidence in the geologic model. The next step is the completion of the surface geologic map along with receipt of the soil and stream sediment samples from 2022. The compilation of this work will serve as the basis for a Phase 1 drill program for which permitting will commence in March.

#### Management Commentary

Mr. James Hedrick, President of US Critical Materials Corp., comments: "The combination of surface and underground sampling gives us an indication that mineralization could be contiguous, and in combination with detailed mapping, will form the basis of our Phase I drill program. These results continue to support our geologic thesis and significantly advance our ability to generate high quality drill targets."

Mr. Darren Collins, Chief Executive Officer and Director of USCM, comments: "The combined result of the surface and underground sampling continues to support our investments into Sheep Creek. We look forward to the receipt of additional results in the near term and finalizing a drill program for permitting."

#### Quality Control and Quality Assurance

In June, 2022, Robert J. Johansing, BSc (geology), MSc (economic geology), who is a qualified person as defined in National Instrument 43-101 - Standards of Disclosure for Mineral Projects (the "QP"), visited the carbonatites at Sheep Creek to confirm the geologic environment and the presence of the noted mineralization. At that time, the QP recommended detailed mapping and sampling over the carbonatites and in the historical mine workings along with reconnaissance-type activities. The scientific and technical information contained in this news release has been reviewed and approved by the QP. This included a review of the lab results and certificates. Mr. Johansing is a consultant for the Company.

The samples were analyzed by Activation Laboratories, located in Ancaster, Canada ("Actlabs"). Actlabs is an independent ISO/IEC 17025 certified laboratory. Internal standards and blanks were inserted for all REEs and major elemental oxides. Additional standards were inserted by the Partners and are in good agreement with the standard's certified values. All samples were ground to 95% -200 mesh to ensure complete fusion with lithium metaborate/tetraborate and analyzed by ICP-OES and ICP-MS. The Zr-Nb-Ta-Hf are semi-quantitative owing to P<sub>2</sub>O<sub>5</sub> values in excess of 0.3%.

Additional information relating to Actlabs' analytical and testing procedures can be found at [www.actlabs.com](http://www.actlabs.com). Actlabs' Quality System monitors all steps and phases of the operations. Quality Assurance program covers all areas of sample transportation, collection, preparation, analysis and data reporting.

## Project Overview

Sheep Creek is located in Ravalli County, southwest Montana. Sheep Creek spans 223 lode claims representing approximately 4,500 acres of total land package. The claims are on multiple-use ground administered by the US Forest Service. Exploration activities performed by US Critical Materials Corp. and conducted in late 2021 have identified more than 50 carbonatite dikes in the Sheep Creek exploration area. The carbonatites are up to three meters wide and can be followed for more than 300 meters along strike. Important ore minerals identified include ancylite, allanite, low-thorium monazite, and columbite. The dikes are valuable for their contained light rare earth elements and other strategic metals. Historical grab and rock chip sampling of carbonatites indicate the potential for high-grade mineralization with up to 18.0% total rare earth elements, including 2.4% (23,810ppm) combined neodymium and praseodymium, plus credits in niobium and other strategic metals.

## About US Critical Metals Corp.

[US Critical Metals Corp.](#) ("USCM") is focused on mining projects that will further secure the U.S. supply of critical metals and rare earth elements, which are essential to fueling the new age economy. Pursuant to option agreements with private Canadian and American companies, USCM's assets consist of four agreements, each providing USCM with the right to acquire interests in five discovery-focused projects in the US. These projects include the Clayton Ridge lithium project located in Nevada, the Sheep Creek rare earth project located in Montana, the Haynes cobalt project located in Idaho, the Lemhi Pass rare earth project located in Idaho and the Long Canyon uranium project located in Idaho. A significant percentage of the world's critical metal and rare earth supply comes from nations with interests that are contrary to those of the US. USCM intends to explore and develop mineral resources with near- and long-term strategic value to the advancement of US interests.

## About US Critical Materials Corp.

US Critical Materials Corp. is a private rare earths exploration and development company with holdings in Montana and Idaho. Future development of the Properties includes additional exploration, geologic mapping, sampling and analysis, and drilling with the objective of completing a future resource and reserve estimation. The deposits in Sheep Creek are unique due to low levels of thorium, as discussed above, which potentially allows mining with minimal damage to the environment. U.S. Critical Materials goal is to develop its properties with strategic partners who have the capital and expertise to explore, mine and extract the critical minerals. US Critical Materials Corp. is based in Salt Lake City, Utah.

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