

# FINAL CESIUM TEST WORK SUCCESSFULLY COMPLETED AT CASE LAKE

## Major Highlights

- Results from the world's leading testing, inspection and certification (TIC) company, SGS, confirms outstanding cesium extraction of 97% from the Case Lake pollucite concentrate material:
  - Produced technical grade cesium formate with 2.23 g/mL density and 99.8% purity<sup>1</sup>
  - Produced technical grade cesium chloride with very low impurities, achieving 99.6% purity<sup>2</sup>
- Confirms ability to produce technical grade cesium chemicals, following the recent metallurgical test-work on Case Lake cesium concentrate
- Successful completion of all test work from West Joe signals
- The results are a major milestone in de-risking the West Joe pegmatite zone at Case Lake:
  - XRT Ore Sorting Phase I, production of cesium concentrate ( $\text{Cs}_2\text{O}$ )
  - XRT Ore Sorting Phase II, bulk sample production of cesium concentrate ( $\text{Cs}_2\text{O}$ )
  - Production of lithium concentrate material ( $\text{Li}_2\text{O}$ )
  - Production of tantalum concentrate material (Ta)
  - Production of technical grade cesium chemicals ( $\text{CsCl}$ , and  $\text{HCOOCs}$ )
- A two-stage crystallization and recrystallization process successfully produced low-impurity cesium alum crystals, grading 21.4% Cs, 4.7% Al, with 0.01% Rb, 0.01% Si as the main impurities
- Case Lake remains the only global cesium project with near term production capacity

**VANCOUVER, BRITISH COLUMBIA – 29 July 2025** – Power Metals Corp ("Power Metals" or the "Company") (TSX VENTURE: PWM) (FRANKFURT: OAA1) (OTCQB: PWRMF) is pleased to announce the production of technical grade cesium chemicals for the Case Lake Cesium Project ("Case Lake") with the confirmation of cesium chloride and cesium formate.

The production of technical grade chemicals further to our recent maiden MRE confirms the viability of Case Lake to produce industry standard cesium chemicals for the oil and gas industry, solar and battery technology, military applications and medical industry.

The Company remains focused on delivering high-grade critical minerals from Case Lake with recent test work highlighting our ability to produce clean cesium, tantalum, and lithium products to the critical minerals market.

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<sup>1,2</sup> Purity was calculated as "100 – sum of impurities" based on trace metal analysis

**Haydn Daxter, CEO of Power Metals commented:**

*"The completion of our metallurgical test work with cesium chemical production marks a significant milestone for the Company, confirming Case Lake as a near term cesium operation with a low impurity and cost-effective processing to the North American market."*

*"The latest results align with the recent completion of our maiden MRE and metallurgical test work at Case Lake, positioning the Company as a first mover in this rapidly evolving market."*

**Johnathan More, Chairman of Power Metals commented:**

*"I am very pleased to see the final round of metallurgical test work results with the production of technical grade cesium chemicals from Case Lake. The project offers three viable avenues for critical minerals as the global demand continues to grow."*

*"This final round of metallurgical test work and recent MRE has been compiled from over 7,000m of exploration drilling, demonstrating a strong amount of confidence to our shareholders and the market as we continue to de-risk the project in preparation for production."*

**Cesium Chemical Production**

The Company has successfully produced cesium formate and cesium chloride, two globally highly sought cesium chemicals, from pollucite concentrate samples generated during Phase I ore sorting testwork the company completed in 2024 (see December 3, 2024, press release). The cesium chemicals conversion test work was conducted at SGS Canada, a leading metallurgical and testing laboratory located in Lakefield, Ontario, Canada.

The testwork used a blended concentrate sample with an average feed grade of 19.5% Cs<sub>2</sub>O, created from pollucite concentrates 24-036-01P and 24-036-03P, produced during Phase I ore sorting. The composite sample was crushed to 100% passing 106 µm and then underwent a series of tests including hot acid leaching, cesium alum crystallization, and liquor treatment, resulting in production of technical grade cesium formate and cesium chloride with purities of 99.8% and 99.6%, respectively (Figure 1-3).



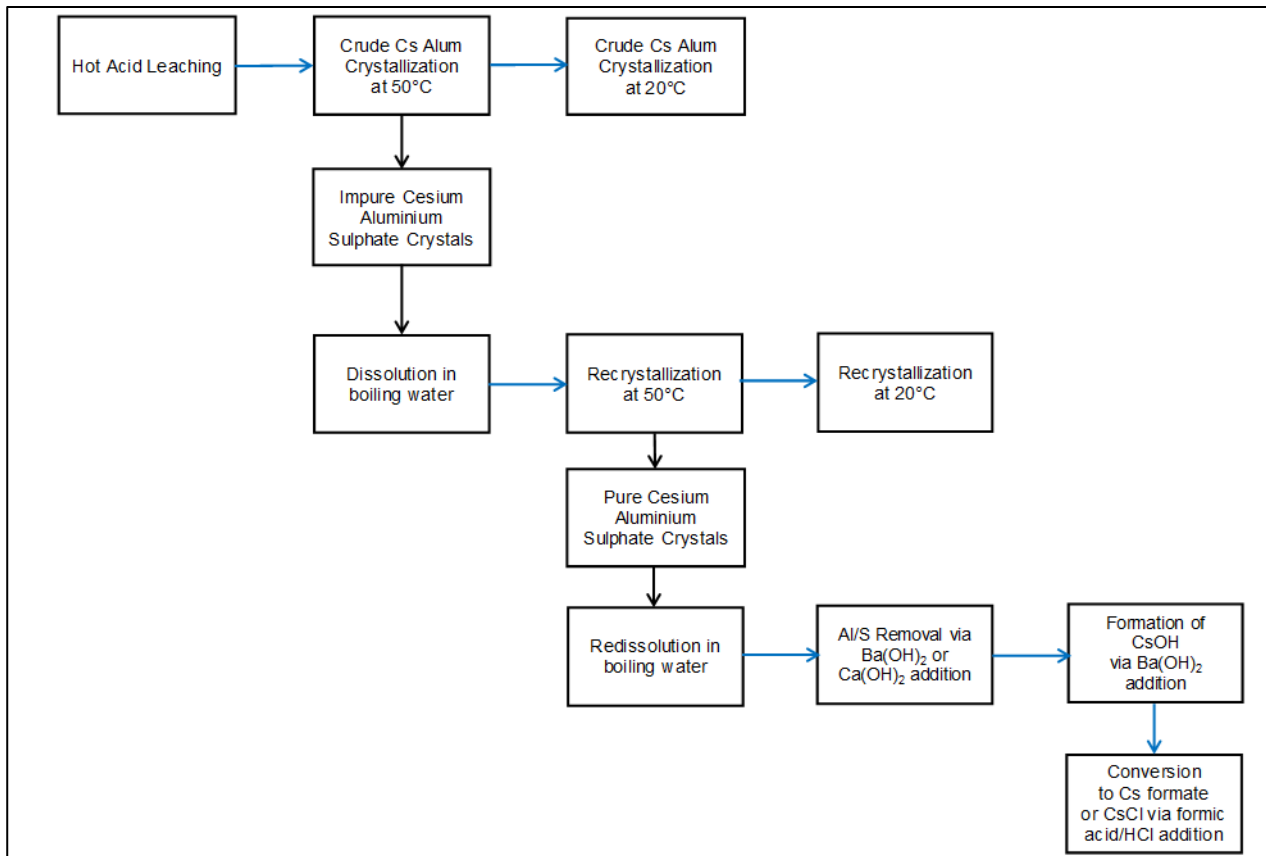
**Figure 1 – Sample of 99.8% cesium formate solution with density 2.23 g/mL produced from West Joe pollucite concentrate**



**Figure 2 – Sample of 99.6% cesium chloride crystals produced from West Joe pollucite concentrate**

The pollucite concentrate exhibited a favourable response to hot sulphuric acid leaching, achieving 97% cesium extraction efficiency (Table 1). A two stage (50°C and 20°C) cesium alum crystallization was completed on the leach liquor to generate a high-quality crystal in the first stage, followed by residual cesium crystallization in the second stage low temperature crystallization (along with some rubidium and other impurities). The majority of the cesium (up to 71%) was recovered at 50°C, with additional recovery achieved upon cooling to 20°C, resulting in crystallization efficiency rates between 95% and 98%.

The crystals from 50°C stage were redissolved and subjected to similar two-stage recrystallization. Up to 89% of the material recrystallized at 50°C, with final efficiencies reaching up to 98% following the 20°C step (Table 3).



**Figure 3 – Block Flow Diagram followed by SGS Lakefield to produce cesium formate and cesium chloride from West Joe pollucite concentrate**

Further purification and conversion tests were conducted on the 50°C pure cesium alum product, including the removal of aluminum (and some sulphate), and the subsequent conversion to cesium hydroxide. Cesium formate and cesium chloride were subsequently synthesized from the cesium hydroxide, meeting industry-standard specifications for low impurity levels in both compounds (Tables and 4, Figures 1 and 2). Additionally, the cesium formate solution demonstrated a density of 2.23 g/mL, which falls within the industry standard range of 2.2 g/mL to 2.4 g/mL for cesium formate.



**Table 1 – Extraction Rates for Leaching Tests (SAL-04 to SAL-07)**

Extraction (%)				
Element	SAL-04	SAL-05	SAL-06	SAL-07
Cs	97	95	97	97
Rb	63	61	55	54
Si	5	8	3	1
Al	58	58	57	56
Fe	91	91	87	83
Mg	55	73	77	51
Ca	71	71	70	66
Na	41	43	41	40
K	8	9	0	0
Ti	33	60	30	27
P	66	85	65	64
Mn	33	40	42	51
Cr	33	54	30	27
V	33	63	30	27

**Table 2 – Summary of Crystallization Rates (%) for Two-Stage Crude Cesium Alum<sup>3</sup>**

Element	Crude Cesium Alum Crystallization		Cesium Alum Recrystallization	
	50°C Stage	Combined (50°C and 20°C)	50°C Stage	Combined (50°C and 20°C)
Cs	71	98	89	98
Rb	18	37	17	8
Al	57	80	89	71
Fe	3	13	19	10
Mg	13	21	88	39
Ca	18	80	23	2
Na	3	8	23	3
K	6	20	40	17
Ti	61	18	96	85
P	5	9	7	15
Mn	18	15	93	49
Cr	45	40	85	45
V	40	88	70	85

<sup>3</sup> Reported results are based on the test yielding the highest Cs crystallization efficiency

**Table 3 – Summary assay results for cesium formate solution**  
(Cs, Rb, Ag, Al, As, Bi, Cd, Co, Cr, Li, Mn, Mo, Ni, P, Pb, Sb, Se, Sn, Sr, Tl, V, and Y were analyzed via ICP-MS, TOC via Skalar TOC analyzer, all remaining elements were analyzed via ICP-AES)

Cs g/L	TOC g/L	Ag mg/L	Al mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	Ca mg/L	Cd mg/L	Co mg/L	Cr mg/L
1220	128	<0.5	<2	<2	226	0.04	<0.1	19	<0.03	0.05	<0.8
Cu mg/L	Fe mg/L	K mg/L	Li mg/L	Mg mg/L	Mn mg/L	Mo mg/L	Na mg/L	Ni mg/L	P mg/L	Pb mg/L	Rb mg/L
<1	<2	90	2	<0.7	<0.1	<4	210	<1	50	<0.9	266
S mg/L	Sb mg/L	Se mg/L	Si mg/L	Sn mg/L	Sr mg/L	Ti mg/L	Tl mg/L	V mg/L	Y mg/L	Zn mg/L	
360	<9	<0.4	230	<0.6	6.7	<0.2	0.18	<0.1	<0.2	<7	

**Table 4 – Summary assay methods for the cesium chloride crystals**  
(Cs, Rb, and Pb were analyzed via ICP-MS, Cl via titration, all remaining elements were analyzed via ICP-AES)

Cs %	Cl %	Al g/t	As g/t	Ba g/t	Be g/t	Bi g/t	Ca g/t	Cd g/t	Co g/t	Cr g/t	Cu g/t
78.0	19.9	<2	<30	2.59	<0.02	<10	<9	<0.9	<3	<1	<1
Fe g/t	K g/t	Li g/t	Mg g/t	Mn g/t	Mo g/t	Na g/t	Ni g/t	P g/t	Pb g/t	Rb g/t	S g/t
4	2330	<20	7	<0.4	<6	142	<6	<50	<1	169	130
Sb g/t	Se g/t	Si g/t	Sn g/t	Sr g/t	Ti g/t	Tl g/t	V g/t	Y g/t	Zn g/t		
<10	<30	10	<20	0.2	<0.2	<30	<2	<0.2	<7		

These initial tests show that the pollucite concentrate from Power Metals West Joe deposit can be efficiently converted into cesium formate and cesium chloride using established methods, with samples meeting industry specifications and low impurities.

### **Case Lake Property**

The Case Lake Property is located 80 km east of Cochrane in northeastern Ontario, near the Ontario Quebec border. It comprises 586 cell claims across Steele, Case, Scapa, Pliny, Abbotsford and Challies townships within the Larder Lake Mining Division. The Property is 10km by 9.5km in size with 14 granitic domes.

The Case Lake pegmatite swarm consists of six spodumene dykes known as the North, Main, South, East and Northeast dykes on the Henry Dome, and the West Joe dyke on a new dome, collectively forming mineralization trend that extends for approximately 10km (Figure 4).

Power Metals has completed several exploration campaigns leading to the discovery and expansion of new and historic spodumene bearing LCT pegmatites at Case Lake. The Company has drilled a total of 23,976 meters of core between 2017 and 2024 at the Property. The Case Lake Property is owned 100%

by Power Metals Corp. A National Instrument 43-101 Technical Report has been prepared on Case Lake Property and filed on July 18, 2017 (Figure 4).

### **Decelles Property**

The Decelles Property contains 247 claims, covering 14,229 hectares of LCT prospective ground near the mining centres of Val-d'Or and Rouyn-Noranda, approximately 600km from Montreal.

Power Metals acquired the Decelles and Mazerac properties from Winsome Resources in 2023 in a deal that increased Winsome equity stake to 19.59% (refer to press release announced on [August 24, 2023](#)), the transaction remains subject to TSXV approval. The geology of Decelles property is part of the Archean Pontiac sub-province where S-type LCT prospective, pegmatite bearing, granitic Decelles Batholith intrudes into metasedimentary units of the Pontiac Group.

Spodumene and Beryl bearing pegmatites have been reported historically within the Pontiac sub-province in association with S-type garnet-muscovite granite. The Decelles property is adjacent to Vision Lithium's Cadillac property where discovery of high-grade lithium pegmatites was reported in 2022 (Figure 4).

### **Mazerac Property**

The Mazerac Property is located approximately 30 km east of Power Metals' Decelles property near well-established mining camps in the Abitibi region of Canada and is accessible by network of mining-grade forestry roads. The Mazerac property contains 115 claims that cover 6,653 hectares of LCT prospective ground near the mining centre of Val-d'Or and Rouyn-Noranda. The regional geology of Mazerac is similar to Decelles where S-type LCT prospective, pegmatite bearing, granites of Decelles Batholith intrude into metasedimentary units of the Pontiac Group. Spodumene and Beryl bearing pegmatites have been reported historically within the Pontiac sub-province in association with S-type garnet-muscovite granite (Figure 4).



**Figure 4 – Power Metals Corp Project Locations Map in Ontario and Quebec Canada**

### **Pollucite and Cesium**

Pollucite is a rare mineral that hosts high grade cesium and is associated with highly fractionated, rare element pegmatites. The main source of cesium known globally is pollucite  $(\text{Cs,Na})_2(\text{Al}_2\text{Si}_4\text{O}_{12}) \cdot 2\text{H}_2\text{O}$ , (<https://www.gov.mb.ca/iem/geo/industrial/pollucite.html>). Currently there is no operational mining of high-grade cesium from pollucite occurring globally.

### **Scientific and Technical Disclosure**

The scientific and technical disclosure included in this news release for Hydrometallurgical test work has been reviewed and approved by James Brown, M.A.Sc., P.Eng., Manager of Extractive Metallurgy at SGS Canada, a Qualified Person under National Instrument 43-101 Standards of Disclosure of Mineral Projects (NI 43-101) and a member in good standing with Professional Engineers Ontario (100114888).

SGS Canada is independent of the Company.

The scientific and technical disclosure included in this news release has been reviewed and approved by Amanuel Bein, M.Sc., P.Geo., Vice President of Exploration for Power Metals, a Qualified Person under National Instrument 43-101 Standards of Disclosure of Mineral Projects



(NI 43-101) and a member in good standing with Association of Professional Geoscientists of Ontario (3524).

### **Power Metals Corp (TSX-V: PWM)**

Power Metals Corp (TSX-V: PWM) is a Canadian exploration company focused on developing high-quality critical mineral projects.

Its flagship Case Lake Property in Ontario – 100 per cent owned by Power Metals - is a high-grade cesium, lithium and tantalum asset, poised to become one of only four cesium mines globally.

Beyond Case Lake, the Company's portfolio includes the Decelles and Mazerac Properties near Val-D'Or, Québec. Together, these assets cover 947 claims spanning more than 330km<sup>2</sup> of lithium-cesium-tantalum (LCT) prospective ground.

As global demand for critical minerals continues to grow global, and particularly in North America, Power Metals is strategically advancing its projects to support the continent's growing supply needs.

Learn more at [www.powermetalscorp.com](http://www.powermetalscorp.com).

*-ON BEHALF OF THE BOARD-*

*Johnathan More, Chairman & Director*

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*This press release contains forward-looking information based on current expectations, including the use of funds raised under the Offering. These statements should not be read as guarantees of future performance or results. Such statements involve known and unknown risks, uncertainties and other factors that may cause actual results, performance or achievements to be materially different from those implied by such statements. Although such statements are based on management's reasonable assumptions, Power Metals assumes no responsibility to update or revise forward-looking information to reflect new events or circumstances unless required by law.*

*Although the Company believes that the expectations and assumptions on which the forward-looking statements are based are reasonable, undue reliance should not be placed on the forward-looking statements because the Company can give no assurance that they will prove to be correct. Since forward-looking statements address future events and conditions, by their very nature they involve inherent risks and uncertainties. These statements speak only as of the date of this press release. Actual results could differ materially from those currently anticipated due to several factors and risks including various risk factors discussed in the Company's disclosure documents which can be found under the Company's profile on [www.sedar.com](http://www.sedar.com).*

*This press release contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended and such forward-looking statements are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. The TSXV has neither reviewed nor approved the contents of this press release.*