

Mineral Industry Surveys

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COBALT IN NOVEMBER 2024

The amount of cobalt contained in U.S. imports of cobalt metals and chemicals in November 2024 was 47% more than that imported in October 2024. For the first 11 months of 2024, the amount of cobalt contained in imports was 14% more than that imported during the first 11 months of 2023 (table 2). The amount of cobalt contained in U.S. exports of unwrought cobalt and chemicals in November 2024 was 27% more than that exported in October 2024 and the amount exported during the first 11 months of 2024 was 9% less than the amount exported during the same period of 2023 (table 4).

Prices and Stocks

In October, global London Metal Exchange (LME) cobalt stocks decreased slightly compared with that in October 2024 (table 1). The LME cash mean price was \$10.91 per pound in November compared to \$10.88 per pound in October and was 27% less than that in November 2023. The November 2024 monthly average U.S. spot cobalt price was \$15.68 per pound compared to \$15.90 in October, and 17% less than that in

November 2023 (fig. 1). The following listed prices are for cobalt metal in November, in dollars per pound.

Type	Price range	Average price
U.S. spot ¹	Not available	15.68
LME cash mean ²	10.90–10.91	10.91

¹Source: S&P Global Platts Metals Week, minimum 99.8% cobalt cathode.

²London Metal Exchange, mean of the cash buyer and cash seller price, minimum 99.8% cobalt briquettes, cathode, coarse grain powder, or rounds (converted from dollars per metric ton and rounded to the nearest cent).

Industry News

On November 19, 2024, Electra Battery Materials Corp. (Canada) announced it secured a 10-year exploration permit for the Iron Creek Cobalt-Copper Project in Idaho. The project is located 18 miles southwest of Salmon, Idaho, in the Blackbird cobalt-copper mining district of the Idaho Cobalt Belt. The project area included seven mineralized deposits, Iron Creek being the main deposit, that contained cobalt in pyrite and chalcopyrite minerals. As of January 2023, indicated and inferred resources for the Iron Creek Project were 9,300 metric

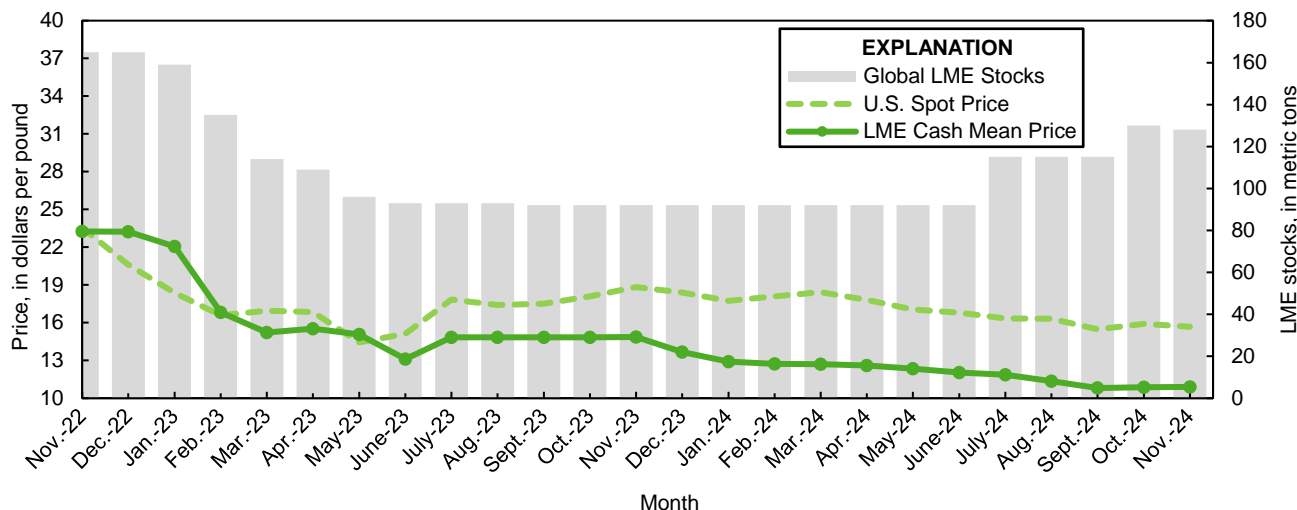


Figure 1. Global LME cobalt stocks, average U.S. spot cobalt prices, and average LME cash mean cobalt prices for November 2022 through November 2024. Sources: London Metal Exchange and S&P Global Platts Metals Week.

tons of contained cobalt, with 90% of the resources in the indicated category (Electra Battery Materials Corp., 2023, p.17, 23; 2024b).

During the year, Electra received multiple funding awards in support of its cobalt refinery and lithium-ion battery recycling projects. In August, Electra was awarded \$20 million by the U.S. Department of Defense (DOD) for the development of a cobalt sulfate refinery in Tamiskaming Shores, Ontario, Canada. The refinery had an initial planned capacity of 5,000 metric tons per year of cobalt in sulfate and was expected to support the North American battery supply chain. The DOD award followed two \$3.7 million funding awards from the Government of Canada announced in February and June 2024.¹ One of the awards supported construction of the refinery, the other supported research on metal recovery from shredded lithium-ion battery scrap, or black mass (Electra Battery Materials Corp., 2024a, 2024c., p. 3–5; U.S. Department of Defense, 2024).

References Cited

Electra Battery Materials Corp., 2023, NI 43-101 technical report and mineral resource estimate for the Iron Creek Cobalt-Copper Property, Lemhi County, Idaho, USA: Toronto, Ontario, Canada, Electra Battery Materials Corp., March 10, 196 p. (Accessed January 17, 2025, at <https://electrabmc.com/wp-content/uploads/2023/03/Iron-Creek-Tech-Report-2023-Final.pdf>.)

Electra Battery Materials Corp., 2024a, Electra awarded \$20 million from U.S. Department of Defense under the Defense Production Act: Toronto, Ontario, Canada, Electra Battery Materials Corp. news release, August 19. (Accessed January 17, 2025, at <https://electrabmc.com/news-releases/news/electra-awarded-20-million-from-us-department-of-defense-under-the-defense-production-act>.)

Electra Battery Materials Corp., 2024b, Electra secures 10-year permit to advance exploration for Idaho copper and cobalt properties: Toronto, Ontario,

Canada, Electra Battery Materials Corp. news release, November 19. (Accessed January 17, 2025, at <https://www.electrabmc.com/news-releases/news/electra-secures-10-year-permit-to-advance-exploration-for-idaho-copper-and-cobalt-properties>.)

Electra Battery Materials Corp., 2024c, Management’s discussion and analysis for the three and six months ended June 30, 2024: Toronto, Ontario, Canada, Electra Battery Materials Corp., 28 p. (Accessed October 17, 2024, at https://www.electrabmc.com/_resources/financials/2024/Electra-MDA-Q2-2024.pdf.)

U.S. Department of Defense, 2024, Department of Defense awards \$20 million to establish sustainable cobalt sulfate production for large capacity battery supply chain: Washington D.C., U.S. Department of Defense press release, August 19. (Accessed October 17, 2024, at <https://www.defense.gov/News/Releases/Release/Article/3877791/>.)

A worksheet has been added to the Excel table files that includes a button to remove text and numerical footnotes from data cells. This will allow users to only have numbers in data cells. Please see the worksheet titled RemoveTextButton for instructions in how to use the tool. Note: you must download the excel file in order to use the tool.

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¹ Where necessary, values have been converted from Canadian dollars (CA\$) to U.S. dollars (US\$) at an annual average exchange rate of CA\$ 1.3698=US\$1.00, for 2024.

Table 1. Reported LME¹ stocks of cobalt metal, end of period.²
[Data are in metric tons, cobalt content.]

Period	U.S. warehouse	Non-U.S. warehouse	Total
2023			
November	34	58	92
December	34	58	92
2024			
January	34	58	92
February	34	58	92
March	34	58	92
April	34	58	92
May	34	58	92
June	34	58	92
July	34	81	115
August	34	81	115
September	34	81	115
October	34	96	130
November	34	94	128

¹London Metal Exchange.

²U.S. Government National Defense Stockpile inventory statistics are no longer available.

Table 2. U.S. imports for consumption of cobalt, by country or locality.

[Data are rounded to no more than three significant digits; may not add to totals shown. Revised data are marked with a superscript "r". —, not applicable. Source: U.S. Census Bureau.]

Period and country or locality of origin	Metals ¹		Oxides and hydroxides		Salts and compounds ²		Total cobalt content for the period ³ (metric tons)	Cobalt content, year to date ^{3, 4} (metric tons)
	Gross weight (metric tons)	Value ⁵ (thousand dollars)	Gross weight (metric tons)	Value ⁵ (thousand dollars)	Gross weight (metric tons)	Value ⁵ (thousand dollars)		
2023								
November	842	29,500	82	2,100	278	2,290	979	8,550
December	750	26,800	75	1,780	491	4,630	952	9,500
January–November	6,920	266,000 ^r	1,320	34,300	2,270 ^r	23,100 ^r	8,550 ^r	—
January–December	7,670	293,000	1,390	36,100	2,760	27,700	9,500	—
2024								
January	807	30,200	324	6,830	217	2,630	1,110	1,110
February	668	22,000	189	3,960	289	2,660	895	2,010
March	501	17,100	132	2,570	210	1,860	664	2,670
April	901	29,500	109	1,980	241	2,640	1,050	3,720
May	1,220	40,700	195	4,080	102	917	1,390	5,110
June	638	19,900	126	2,350	162	1,230	778	5,890
July	548	16,400	73	1,440	128	920	637	6,530
August	587	18,800	114	2,410	116	1,110	704	7,230
September	540	15,500	67	1,180	141	1,520	632	7,860
October	590	17,400	169	3,160	106	1,300	747	8,610
November								
Australia	72	1,590	0	0	0	0	72	92
Belgium	(⁶)	4	38	685	0	0	27	250
Brazil	0	0	0	0	0	0	0	45
Canada	173	5,890	0	0	(⁶)	11	174	1,510
China	1	7	0	0	0	0	1	156
Finland	14	521	137	2,510	68	538	132	1,180
France	7	459	0	0	(⁶)	3	7	89
Germany	2	143	0	0	0	0	2	117
Hong Kong	0	0	0	0	0	0	0	14
Indonesia	58	1,280	0	0	0	0	58	58
Italy	0	0	(⁶)	4	0	0	(⁶)	11
Japan	134	3,040	0	0	0	0	134	1,660
Madagascar	165	3,960	0	0	0	0	165	1,430
Morocco	0	0	0	0	0	0	0	85
Norway	241	8,280	0	0	0	0	241	2,280
Russia	0	0	0	0	0	0	0	57
South Africa	46	368	0	0	40	197	57	239
Taiwan	0	0	0	0	4	16	1	67
Turkey	8	106	0	0	0	0	8	25
United Kingdom	8	704	19	284	(⁶)	5	22	304
Zambia	0	0	0	0	0	0	0	37
Other	(⁶)	2	0	0	0	0	(⁶)	17
Total	930	26,300	193	3,490	113	769	1,100	9,710
January–November	7,930	254,000	1,690	33,500	1,820	17,600	9,710	—

¹Unwrought cobalt, excluding alloys; includes cobalt cathode and cobalt metal powder; may include intermediate products of cobalt metallurgy.

²Includes cobalt acetates, cobalt carbonates, cobalt chlorides, and cobalt sulfates.

³Estimated from gross weights.

⁴May include revisions to previously published data.

⁵Customs value.

⁶Less than ½ unit.

Table 3. U.S. imports for consumption of additional cobalt materials, by country or locality.

[Data are rounded to no more than three significant digits; may not add to totals shown. Revised data are marked with a superscript "r". Source: U.S. Census Bureau.]

Period and country or locality of origin	Unwrought cobalt alloys		Cobalt waste and scrap		Wrought cobalt and cobalt articles	
	Gross weight (metric tons)	Value ¹ (thousand dollars)	Gross weight (metric tons)	Value ¹ (thousand dollars)	Gross weight (metric tons)	Value ¹ (thousand dollars)
2023						
November	17	861	213	3,430	55	4,350
December	18	924	212	3,120	34	4,020
January–November	289	14,900	1,680 ^r	24,600 ^r	411	50,100
January–December	306	15,800	1,890	27,800	445	54,100
2024						
January	24	1,110	118	1,060	27	4,750
February	53	2,400	179	2,150	28	4,120
March	32	1,410	146	1,980	45	4,990
April	23	1,010	120	1,220	54	4,640
May	46	2,430	73	757	56	5,460
June	20	1,000	189	1,960	47	4,900
July	60	2,720	170	1,370	51	5,470
August	43	1,820	130	1,630	50	5,220
September	33	1,530	146	1,460	39	5,080
October	31	1,330	132	836	24	4,090
November						
Austria	0	0	0	0	2	128
Belgium	6	230	1	47	0	0
Canada	(²)	25	30	450	2	942
China	0	0	3	27	2	836
Costa Rica	0	0	7	83	0	0
France	0	0	12	16	21	1,990
Germany	1	70	6	9	15	962
Ireland	0	0	53	181	0	0
Singapore	0	0	2	25	0	0
Taiwan	0	0	6	232	(²)	27
Tunisia	0	0	9	95	(²)	4
United Kingdom	15	914	69	1,320	13	1,500
Other	1	40	(²)	5	(²)	291
Total	22	1,280	198	2,490	54	6,680
January–November	387	18,000	1,600	16,900	475	55,400

¹Customs value.²Less than ½ unit.

Table 4. U.S. exports of cobalt materials.

[Data are rounded to no more than three significant digits; may not add to totals shown. Revised data are marked with a superscript "r". —, not applicable. Source: U.S. Census Bureau.]

[Data are rounded to no more than three significant digits; may not add to totals shown. Revised data are marked with a superscript †. —, not applicable. Source: U.S. Census Bureau.]

Period	Unwrought cobalt, powders, matte, waste and scrap ¹		Oxides and hydroxides		Salts and compounds ²		Total cobalt content for the period ³ (metric tons)	Cobalt content, year to date ^{3, 4} (metric tons)
	Gross weight	Value ⁵	Gross weight	Value ⁵	Gross weight	Value ⁵		
	(metric tons)	(thousand dollars)	(metric tons)	(thousand dollars)	(metric tons)	(thousand dollars)		
2023								
November	331	11,200	26	715	0	0	350	4,750
December	351	12,900	2	91	0	0	352	5,110
January–November	4,700 †	153,000	82	2,140	2	24	4,750	—
January–December	5,050	166,000	84	2,230	2	24	5,110	—
2024								
January	365	12,600	(⁶)	6	0	0	365	365
February	332	13,300	(⁶)	4	0	0	332	698
March	540	14,600	86	538	0	0	601	1,300
April	319	12,000	1	28	(⁶)	3	320	1,620
May	401	14,100	1	5	0	0	402	2,020
June	391	11,400	3	49	0	0	393	2,410
July	334	12,100	(⁶)	12	0	0	334	2,750
August	276	10,300	(⁶)	11	(⁶)	4	277	3,020
September	438	10,600	3	76	0	0	441	3,470
October	370	11,500	(⁶)	10	0	0	370	3,840
November	469	14,400	2	47	0	0	471	4,310
January–November	4,330	137,000	97	787	1	7	4,310	—

¹May include other intermediate products of cobalt metallurgy and unwrought cobalt alloys.

²Cobalt acetates and cobalt chlorides.

³Estimated from gross weights.

⁴May include revisions to previously published data.

⁵Free alongside ship (f.a.s.) value.

⁶Less than ½ unit.

Table 5. U.S. exports of wrought cobalt, cobalt ore, and concentrates.

[Data are rounded to no more than three significant digits; may not add to totals shown. Revised data are marked with a superscript "r". Source: U.S. Census Bureau.]

Period	Wrought cobalt and cobalt articles		Cobalt ore and concentrates	
	Gross weight (metric tons)	Value ¹ (thousand dollars)	Gross weight (metric tons)	Value ¹ (thousand dollars)
2023				
November	140	18,000	0	0
December	137	18,500	0	0
January–November	1,470	205,000 ^r	3	94
January–December	1,610	224,000	3	94
2024				
January	185	21,200	0	0
February	156	21,500	0	0
March	145	19,500	0	0
April	174	20,800	0	0
May	158	20,900	0	0
June	140	17,500	(²)	32
July	149	24,700	0	0
August	138	19,800	0	0
September	116	17,100	0	0
October	160	22,800	0	0
November	150	19,900	0	0
January–November	1,670	226,000	(²)	32

¹Free alongside ship (f.a.s.) value.

²Less than ½ unit.