

Mineral Industry Surveys

For information, contact:

Samantha M. Ewing, Cobalt Commodity Specialist
National Minerals Information Center
Telephone: (703) 648-6183
Email: sewing@usgs.gov

Annie Hwang (Data)

Telephone: (703) 648-7952

Email: ahwang@usgs.gov

Internet: <https://www.usgs.gov/centers/national-minerals-information-center/mineral-industry-surveys>

COBALT IN DECEMBER 2024

The amount of cobalt contained in U.S. imports of cobalt metals and chemicals in December 2024 was 9% more than that imported in November 2024. In 2024, cobalt imports totaled 10,900 metric tons (t) of contained cobalt, a 15% increase from 9,500 t in 2023. Based on cobalt content, the following five countries supplied 82% of U.S. imports in 2024: Norway, 23%; Japan, 17%; Canada, 16%; Madagascar, 15%; and Finland, 12% (table 2).

The amount of cobalt contained in U.S. exports of unwrought cobalt and chemicals in December 2024 was 13% less than that exported in November 2024. In 2024, cobalt exports in terms of cobalt content totaled 4,720 t, an 8% decrease from 5,110 t in 2023 (table 4).

Prices and Stocks

In December, global London Metal Exchange (LME) cobalt stocks were unchanged from that in November 2024 (table 1). The LME cash mean price was \$10.91 per pound in December, unchanged from that in November and was 20% less than that in December 2023. The December 2024 monthly average U.S. spot cobalt price was \$15.56 per pound compared with \$15.68 in November, and 15% less than that in December 2023 (fig. 1).

The following listed prices are for cobalt metal in December, in dollars per pound.

Type	Price range	Average price
U.S. spot ¹	Not available	15.56
LME cash mean ²	10.91–10.91	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

By early December, Vale S.A. (Brazil) completed construction and commissioning of its Voisey's Bay Mine Expansion Project in Labrador, Canada. The project transitioned open pit mining operations at Voisey's Bay to two underground mines, the Reid Brook and Eastern Deepes Mines. The project production capacity was 2,600 metric tons per year (t/yr) of cobalt as a byproduct of nickel production. Vale expected to ramp production up to capacity by the second half of 2026. Ore mined at Voisey's Bay continued to be processed at the Long Harbour

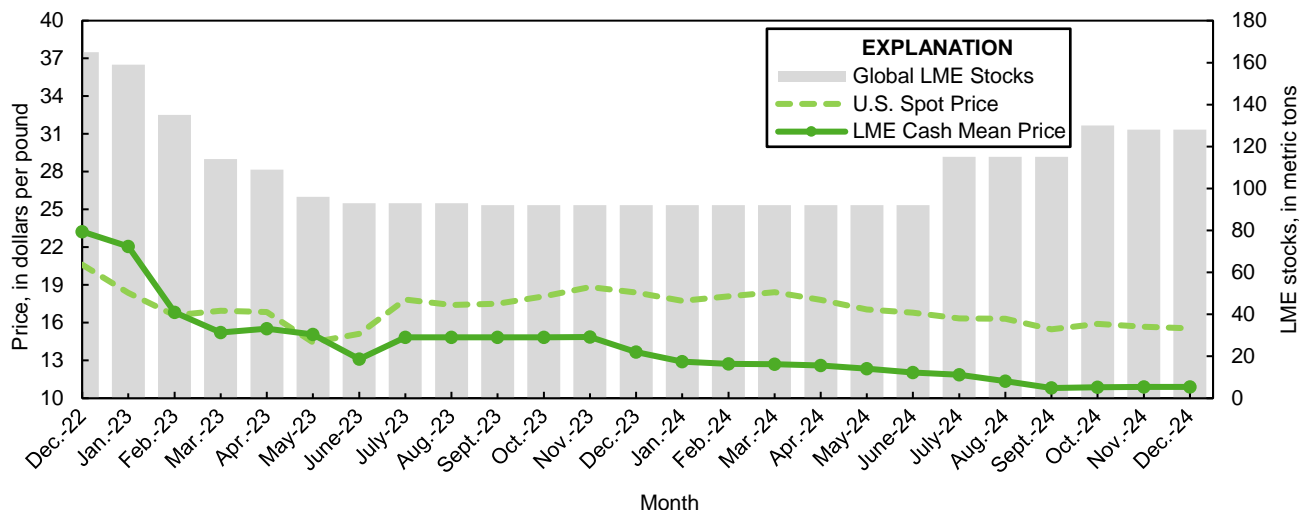


Figure 1. Global LME cobalt stocks, average U.S. spot cobalt prices, and average LME cash mean cobalt prices for December 2022 through December 2024. Sources: London Metal Exchange and S&P Global Platts Metals Week.

refinery located in Newfoundland. In 2023, refined cobalt production from ore mined at Voisey’s Bay was 637 t and accounted for 58% of Vale’s refined cobalt production from the company’s Canada mining operations (Vale S.A., 2024a, p. 67, 92; b).

CMOC Group Ltd. (China), the largest producer of mined cobalt, produced 114,165 t of cobalt in 2024. This production quantity was more than double the company’s output in 2023 and exceeded the high end of their production guidance by 63%. The production increase was owing to start-up of new capacity at their Congo (Kinshasa) mines, Kisanfu and Tenke Fungurume, in 2023. CMOC’s increased mine output contributed to an oversupplied cobalt market in 2024 (Alcantara and others, 2024; CMOC Group Ltd., 2024, p. 44, 67; 2025).

Annual Review of U.S. Mine Production

Preliminary estimated U.S. cobalt mine production in 2024 was 300 t of cobalt in concentrate, a decrease of 57% compared with the estimated production of 500 t in 2023. The decrease was owing primarily to reduced estimated production at the Lundin Mining Corp. (Canada) nickel-copper Eagle Mine in Michigan. In 2023, Lundin’s Eagle operation was impacted by fall of ground in a mine ramp that restricted access to the mine and reduced mining rates in 2024 (Ewing, 2025; Lundin Mining Corp., 2024, p. 23).

References Cited

Alcantara, M. N., Price, F., and Yu, A., 2024, Lithium and cobalt CBS December 2024 – lithium, cobalt prices rangebound: S&P Global Market Intelligence, December 19. (Accessed February 12, 2025, via <https://www.capitaliq.spglobal.com/apisv3/spg-webplatform-core/news/article?id=86849046>.)

CMOC Group Ltd., 2024, 2023 annual report: Luoyang City, China, CMOC Group Ltd., 388 p. (Accessed February 12, 2025, at <https://www1.hkexnews.hk/listedco/listconews/sehk/2024/0425/2024042500972.pdf>.)

CMOC Group Ltd., 2025, Inside information announcement in relation to the production volume of major products for the year of 2024: Luoyang City,

China, CMOC Group Ltd. press release, January 6. (Accessed February 12, 2025, at <https://www1.hkexnews.hk/listedco/listconews/sehk/2025/0106/2025010601996.pdf>.)

Ewing, Samantha M., 2025, Cobalt: U.S. Geological Survey Mineral Commodity Summaries 2025, p. 62–63. (Accessed February 12, 2025, at <https://pubs.usgs.gov/periodicals/mcs2025/mcs2025.pdf>.)

Lundin Mining Corp., 2024, Management’s discussion and analysis for the three and nine months ended September 30, 2024: Vancouver, Canada, Lundin Mining Corp., November 6, 38 p. (Accessed February 12, 2025, at https://d2hw5o33fpk7z8.cloudfront.net/assets/files/9296/q3_2024_fs_combined.pdf.)

Vale S.A., 2024a, Form 20–F—For the fiscal year ended December 31, 2023: U.S. Securities and Exchange Commission, April 19, 221 p. (Accessed February 12, 2025, at <https://api.mziq.com/mzfilemanager/v2/d/53207d1c-63b4-48f1-96b7-19869fae19fe/f98febfb-c3b8-33b4-e623-8cc22340a64d?origin=1>.)

Vale S.A., 2024b, Vale informs the Voisey’s Bay Mine Expansion project completion: Rio de Janeiro, Brazil, Vale S.A. press release, December 3. (Accessed February 12, 2025, at <https://api.mziq.com/mzfilemanager/v2/d/53207d1c-63b4-48f1-96b7-19869fae19fe/a3c7668d-d782-ca13-8bed-95e0005be434?origin=1>.)

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.

List services and web feed subscribers are the first to receive notification of USGS minerals information publications and data releases. For more information on how to subscribe, go to <https://www.usgs.gov/centers/national-minerals-information-center/minerals-information-publication-list-services>.

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			
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
December	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. —, 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							
December	750	26,800	75	1,780	491	4,630	952	9,500
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	930	26,300	193	3,490	113	769	1,100	9,710
December								
Australia	12	361	0	0	0	0	12	104
Belgium	0	0	9	133	0	0	6	256
Brazil	0	0	0	0	19	179	6	51
Canada	193	6,000	0	0	0	0	193	1,700
China	11	150	4	57	23	136	20	176
Finland	12	350	69	1,060	54	585	79	1,260
France	4	270	0	0	0	0	4	93
Germany	3	266	0	0	2	56	5	121
Hong Kong	0	0	0	0	0	0	0	14
Indonesia	111	2,310	0	0	0	0	111	169
Italy	0	0	(⁶)	3	0	0	(⁶)	11
Japan	194	4,820	0	0	0	0	194	1,850
Madagascar	251	5,910	0	0	0	0	251	1,680
Morocco	2	121	0	0	0	0	2	87
Norway	210	7,060	0	0	0	0	210	2,490
Russia	0	0	0	0	0	0	0	57
South Africa	38	304	0	0	20	94	43	282
Taiwan	0	0	0	0	4	16	1	68
Turkey	0	0	0	0	0	0	0	25
United Kingdom	18	625	55	832	(⁶)	8	58	362
Zambia	0	0	0	0	0	0	0	37
Other	0	0	0	0	(⁶)	3	(⁶)	17
Total	1,060	28,600	138	2,080	124	1,080	1,200	10,900
January–December	8,990	283,000	1,830	35,500	1,950	18,600	10,900	—

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. 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						
December	18	924	212	3,120	34	4,020
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	22	1,280	198	2,490	54	6,680
December						
Belgium	9	326	0	0	0	0
Canada	(²)	30	0	0	2	1,170
China	0	0	5	40	3	1,170
France	0	0	17	13	10	672
Germany	0	0	1	8	7	921
Ireland	0	0	32	22	(²)	7
Tunisia	0	0	15	172	2	427
United Kingdom	25	1,210	38	571	14	2,050
Other	0	0	1	11	1	366
Total	34	1,570	108	837	40	6,780
January–December	421	19,600	1,710	17,700	516	62,200

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. —, not applicable. Source: U.S. Census Bureau.]

[Data are rounded to no more than three significant digits; may not add to totals shown. —, 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								
December	351	12,900	2	91	0	0	352	5,110
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
December	409	10,100	(⁶)	5	(⁶)	4	409	4,720
January–December	4,650	147,000	97	792	1	11	4,720	—

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. 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				
December	137	18,500	0	0
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
December	120	15,800	0	0
January–December	1,790	242,000	(²)	32

¹Free alongside ship (f.a.s.) value.

²Less than ½ unit.