

Mineral Industry Surveys

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COBALT IN JANUARY 2024

The amount of cobalt contained in U.S. imports of cobalt metals and chemicals in January 2024 was 17% more than that imported during December 2023 and 39% more than that imported during January 2023 (table 2). The amount of cobalt contained in U.S. exports of unwrought cobalt and chemicals in January 2024 was 5% more than that exported during December 2023 and 11% less than that exported in January 2023 (table 4).

Prices and Stocks

During the past 2 years, London Metal Exchange (LME) cobalt stocks have generally trended downward through June 2023, then remained essentially unchanged through January 2024 (table 1). Monthly average cobalt prices trended up into the second quarter of 2022 then decreased through the first half of 2023, reaching lows in June 2023 not seen in the past two years. Prices have remained low into 2024. In January, the LME cash mean price was 6% lower than that in December 2023 and was 42% lower than that in January 2023. The January 2024 monthly average U.S. spot cobalt price was 4% less than in December 2023 and was 3% lower than that in January 2023

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

Type	Price range	Average price
U.S. spot ¹	Not available	17.75
LME cash mean ²	12.89–12.91	12.90

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

In January 2024, three nickel mines located in Western Australia, Australia announced closures citing low nickel prices. All three mines produced cobalt as a byproduct of nickel or nickel and copper production.

Panoramic Resources Ltd. (Panoramic) (Australia) announced suspension of production from the Savannah Nickel Project in Western Australia, Australia, on January 8, 2024. The Savannah nickel-copper-cobalt mine produced 368 metric tons (t) of cobalt in bulk concentrate in fiscal year 2023 (ending June 30, 2023). Panoramic initially expected to produce 400-500 t of

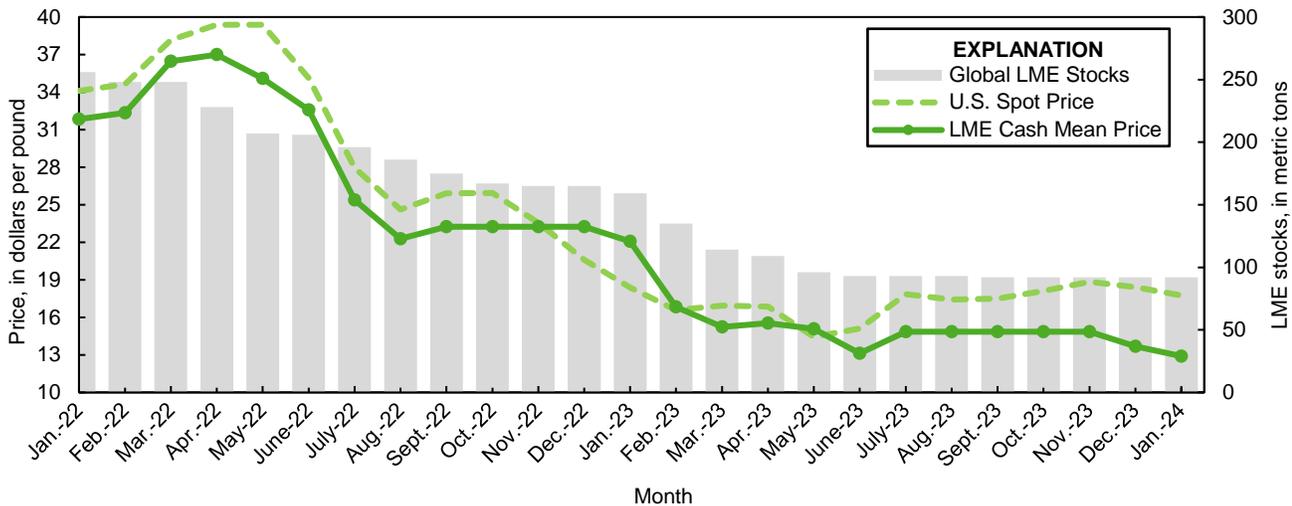


Figure 1. Global LME cobalt stocks, average U.S. spot cobalt prices, and average LME cash mean cobalt prices for January 2022 through January 2024. Sources: London Metal Exchange and S&P Global Platts Metals Week.

cobalt in bulk concentrate in fiscal year 2024 (ending June 30, 2024) (Panoramic Resources Ltd., 2023, p. 4, 6, 9; FTI Consulting Pty Ltd., 2024).

First Quantum Minerals Ltd. (First Quantum) (Canada) announced suspension of mining at Ravensthorpe, Western Australia, Australia, on January 15, 2024. Ravensthorpe Nickel Operations, which included an open pit mine and hydrometallurgical processing plant, produced an estimated 770 t of cobalt in mixed hydroxide precipitate (MHP) and 22,000 t of nickel in 2023. In 2024, First Quantum planned to process ore from existing stockpiles and released 2024 production guidance of an estimated 420-600 t cobalt in MHP and 12,000-17,000 t of nickel (First Quantum Minerals Ltd., 2023, p. 67; 2024, p. 3-4).

Wyloo Consolidated Investments Pty. Ltd. (Wyloo) (Australia) confirmed to news agencies in January that Kambalda nickel mines in Western Australia, Australia, would be placed on care and maintenance by May 31, 2024. Ore from Wyloo's Kambalda nickel mines was processed at the BHP Group Ltd. (Australia) Kambalda nickel concentrator, parts of which were also announced to be placed on care and maintenance from June 2024. The definitive feasibility study for the Kambalda nickel mines showed expected annual production of hundreds of tons of cobalt in concentrate over a mine life of 5 years (Lucas, 2024; Mincor Resources NL, 2020, p. 30).

In 2023, Australia was the fourth-ranked cobalt-producing country or locality in the world in terms of mine output. At least seven companies mined cobalt-bearing nickel or nickel-copper ores in Western Australia and produced an estimated 4,600 t of cobalt in 2023 (Ewing, 2024).

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

Period	U.S. warehouse	Non-U.S. warehouse	Total
2023			
January	34	125	159
February	34	101	135
March	34	80	114
April	34	75	109
May	34	62	96
June	34	59	93
July	34	59	93
August	34	59	93
September	34	58	92
October	34	58	92
November	34	58	92
December	34	58	92
2024			
January	34	58	92

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)	Gross weight (metric tons)	Value ⁵ (thousand)	Gross weight (metric tons)	Value ⁵ (thousand)		
2023								
January	593	27,700	184	6,160	262	3,760	803	803
February	559	26,200	94	3,220	243	1,870	694	1,500
March	838	33,000	287	7,220	226	2,940	1,120	2,610
April	670	25,100	96	2,630	170	1,700	790	3,400
May	671	25,500	20	489	96	878	712	4,120
June	562	20,000	135	3,020	170	2,060	717	4,830
July	641	24,000	110	2,810	147	1,630	770	5,600
August	426	15,000	120	2,690	191	1,730	572	6,180
September	614	21,500	71	1,330	183	1,960	722	6,900
October	502	19,100	118	2,640	282	2,040	663	7,560
November	842	29,500	82	2,100	278	2,290	979	8,540
December	750	26,800	75	1,780	491	4,630	952	9,490
January–December	7,670	293,000	1,390	36,100	2,740	27,500	9,490	—
2024, January								
Australia	10	327	0	0	0	0	10	10
Belgium	0	0	63	1,470	0	0	45	45
Canada	97	3,390	(⁶)	6	0	0	97	97
China	1	9	8	96	(⁶)	4	7	7
Finland	23	1,070	207	4,350	165	1,900	232	232
France	28	1,000	0	0	0	0	28	28
Japan	84	2,620	0	0	0	0	84	84
Madagascar	168	5,380	0	0	0	0	168	168
Norway	341	14,700	0	0	0	0	341	341
South Africa	18	144	0	0	0	0	18	18
Taiwan	0	0	8	235	40	431	15	15
Turkey	8	137	0	0	0	0	8	8
United Kingdom	6	647	38	669	12	281	38	38
Zambia	20	654	0	0	0	0	20	20
Other	2	104	0	0	1	23	2	2
Total	807	30,200	324	6,830	217	2,630	1,110	1,110

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						
January	61	3,180	150	2,350	26	3,850
February	19	1,240	140	2,210	36	5,740
March	30	1,510	146	2,220	42	4,830
April	18	929	139	1,540	38	4,450
May	38	1,900	148	2,350	34	4,430
June	34	1,680	178	2,200	30	4,650
July	19	926	131	2,330	31	4,490
August	21	1,050	134	1,800	33	4,650
September	7	331	93	1,370	58	4,680
October	23	1,270	207	2,850	28	3,980
November	17	861	228	3,750	55	4,350
December	18	924	201	2,910	34	4,020
January–December	306	15,800	1,890	27,900	445	54,100
2024, January						
Australia	0	0	2	50	0	0
Belgium	10	423	0	0	1	271
Canada	(²)	4	12	118	3	1,020
China	0	0	6	10	2	593
France	0	0	11	175	4	370
Germany	0	0	9	132	2	207
Ireland	0	0	17	12	(²)	7
Italy	0	0	37	110	4	90
Singapore	0	0	3	30	0	0
Taiwan	0	0	6	232	(²)	2
Tunisia	0	0	7	79	0	0
United Kingdom	14	684	4	87	10	1,920
Other	0	0	3	26	1	263
Total	24	1,110	118	1,060	27	4,750

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.]

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 (metric tons)	Value ⁵ (thousand)	Gross weight (metric tons)	Value ⁵ (thousand)	Gross weight (metric tons)	Value ⁵ (thousand)		
2023								
January	408	13,000	3	114	(⁶)	4	411	411
February	327	12,500	1	41	0	0	328	738
March	535	15,300	6	202	0	0	539	1,280
April	434	15,900	12	175	0	0	442	1,720
May	522	15,700	2	88	0	0	524	2,240
June	318	11,300	18	246	0	0	331	2,570
July	523	14,300	13	530	(⁶)	4	532	3,110
August	299	11,100	(⁶)	12	1	10	299	3,410
September	448	14,500	(⁶)	4	0	0	448	3,850
October	541	17,800	(⁶)	8	(⁶)	4	541	4,400
November	331	11,200	26	715	0	0	350	4,750
December	345	12,700	2	91	0	0	347	5,090
January–December	5,030	165,000	84	2,230	2	24	5,090	—
2024								
January	365	12,600	(⁶)	6	0	0	365	365

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				
January	186	27,000	0	0
February	118	19,300	(²)	4
March	126	18,500	(²)	7
April	157	19,700	1	20
May	129	16,600	2	60
June	144	18,300	0	0
July	101	17,500	(²)	3
August	119	16,600	0	0
September	113	16,300	0	0
October	135	17,700	0	0
November	140	18,000	0	0
December	137	18,500	0	0
January–December	1,610	224,000	3	94
2024				
January	185	21,200	0	0

¹Free alongside ship (f.a.s.) value.

²Less than ½ unit.