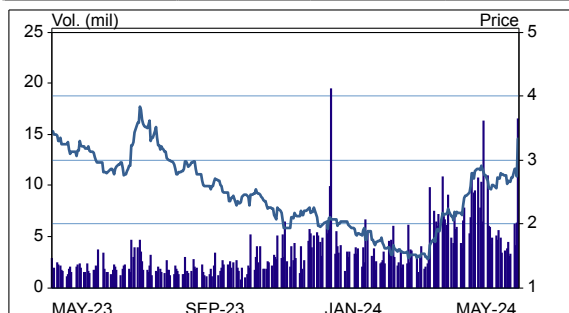


**Endeavour Silver Corp. (EXK)**  
**Rating: Buy**

 Heiko F. Ihle, CFA  
 212-356-0510  
[hihle@hcwresearch.com](mailto:hihle@hcwresearch.com)
**1Q24 Financials; Meaningful YoY Revenue Growth as Cash Costs Come In Below Guidance; Reiterate Buy**

Stock Data		5/9/2024	
Price		\$3.33	
Price Target		\$6.25	
52-Week High		\$3.89	
52-Week Low		\$1.42	
Enterprise Value (M)		\$751.3	
Market Cap (M)		\$800	
Shares Outstanding (M)		240.3	
3 Month Avg Volume		5,953,645	
Short Interest (M)		13.94	
Balance Sheet Metrics			
Cash (M)		\$56.2	
Total Debt (M)		\$7.3	
Total Cash/Share		\$0.23	
<i>Cash (M): Includes cash &amp; equivalents and finished goods inventory.</i>			
EPS (\$) Diluted			
Full Year - Dec	2023A	2024E	2025E
FY	0.03	0.04	0.15
Revenue (\$M)			
Full Year - Dec	2023A	2024E	2025E
FY	205.5	229.7	327.4



**1Q24 financial results.** On May 9, Endeavour Silver announced its 1Q24 financial results. During the quarter, the company recorded \$63.7M in revenue, yielding a net loss of \$1.2M, or (\$0.01) per share. These figures compare to 1Q23 revenue of \$55.5M and net income of \$6.5M, or \$0.03 per share. In short, the 15% YoY increase in revenue was predominantly attributable to a 5% YoY increase in silver ounces (oz) sold. This effect was further exacerbated by a 19% YoY increase in gold ounces sold. We also note that EXK's realized silver price slightly grew to \$23.47/oz (+1% YoY), while the realized gold price surged about 10% YoY to \$2,114/oz. Overall silver and gold revenues grew 7% and 31% YoY, respectively. Although royalty payments remained relatively flat, the firm's direct production costs rose to \$36.7M (+38% YoY), which ultimately drove a decrease in mine operating earnings to \$11.7M (-27% YoY).

**Unit costs increase but stay below guidance.** During the quarter, the firm's consolidated silver cash costs came in at \$13.19/oz, for a 19% increase YoY. We note that the higher cash costs were based on a 10% decrease in silver ounces produced. In addition, we stress that the firm incurred a 13% increase in direct operating costs, though this was ultimately at least partially offset by the aforementioned gold pricing, which provided a 19% increase in by-product gold sales. The company also incurred a 6% YoY increase in all-in sustaining costs (AISC) to \$21.44/oz, though lower sustaining capital expenditures partially offset decreased silver production. Finally, we stress that Endeavour's overall consolidated quarterly cash costs were below management's 2024 guidance of \$14.00 – 15.00/oz and prior AISC guidance of \$22.00 – 23.00/oz.

**We are reiterating our Buy rating on Endeavour and our PT of \$6.25.** Although we have adjusted our model for EXK's increased share count, this change was essentially offset by money already spent at Terronera. In addition, we slightly adjust our NAV multiple on the firm from 1.4x to 1.5x to account for Terronera nearing its completion. Our valuation for the company remains based on a DCF analysis for Guanaceví, Bolañitos, and Terronera. We continue to utilize a 7.0% discount rate for Guanaceví and Bolañitos, while maintaining our 9.0% discount rate for Terronera. In our view, these discount rates remain in line with comparable assets in jurisdictions with equal geopolitical risk factors and account for recent strength in peer transactions. We then add Endeavour's liquid assets of \$56.2M (\$0.23 per share) before subtracting debt of \$7.3M (\$0.03 per share) to calculate our NAV of \$1.02B or \$4.24 per share. Lastly, we apply our aforementioned and revised 1.5x NAV multiple to achieve our rounded price target of \$6.25.

H.C. Wainwright 1868

**Near-term catalysts.** Looking ahead, Endeavour's experienced management team remains focused on advancing the Terronera Project for initial production in 4Q24. Importantly, we expect surface construction during 2Q24 to primarily focus on the installation of machinery amid initial electrical work. In addition, concrete work is expected to start for liquefied natural gas power generation, concentrate, and tailings filtration. We also anticipate development activities at La Luz to begin sometime in 2Q24, which should include portal construction and ramp advancements. Longer-term, we highlight that ore access is expected sometime in 4Q24.

**Risks.** 1) Commodity price risk; 2) financing risk; 3) increase in capital to construct Terronera and 4) operating and technical risk.

<u>Guanacevi</u>	<u>2024E</u>	<u>2025E</u>	<u>2026E</u>	<u>2027E</u>	<u>2028E</u>	<u>2029E</u>	<u>2030E</u>	<u>2031E</u>
<b>Tonnes Processed (000's)</b>	<b>430</b>	<b>420</b>	<b>420</b>	<b>420</b>	<b>420</b>	<b>420</b>	<b>420</b>	<b>420</b>
Silver grade (gpt)	401	350	350	350	350	350	350	350
Silver Recovery	89.4%	88.6%	88.6%	88.6%	88.6%	88.6%	88.6%	88.6%
<b>Annual silver production (000's oz)</b>	<b>4,948</b>	<b>4,189</b>	<b>4,189</b>	<b>4,189</b>	<b>4,189</b>	<b>4,189</b>	<b>4,189</b>	<b>4,189</b>
% growth	-7.4%	-18.0%	-15.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Silver sales price	\$ 26.00	\$ 26.00	\$ 26.00	\$ 26.00	\$ 26.00	\$ 26.00	\$ 26.00	\$ 26.00
Gold grade (gpt)	1.06	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Gold recovery	90.6%	91.0%	91.0%	91.0%	91.0%	91.0%	91.0%	91.0%
<b>Annual gold production (000's oz)</b>	<b>13.3</b>	<b>13.5</b>	<b>13.5</b>	<b>13.5</b>	<b>13.5</b>	<b>13.5</b>	<b>13.5</b>	<b>13.5</b>
% growth	-15.2%	-9.6%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Gold sales price	\$ 2,100	\$ 2,100	\$ 2,100	\$ 2,100	\$ 2,100	\$ 2,100	\$ 2,100	\$ 2,100
<b>Total silver equivalent ounces produced</b>	<b>6,026</b>	<b>5,280</b>	<b>5,280</b>	<b>5,280</b>	<b>5,280</b>	<b>5,280</b>	<b>5,280</b>	<b>5,280</b>
% growth	-11.3%	-15.4%	-12.4%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total silver equivalent production</b>	<b>6,026</b>	<b>5,280</b>	<b>5,280</b>	<b>5,280</b>	<b>5,280</b>	<b>5,280</b>	<b>5,280</b>	<b>5,280</b>
<b>Total Revenues</b>	<b>\$ 156,669</b>	<b>\$ 137,288</b>	<b>\$ 137,288</b>	<b>\$ 137,288</b>	<b>\$ 137,288</b>	<b>\$ 137,288</b>	<b>\$ 137,288</b>	<b>\$ 137,288</b>
<b>Cash cost per oz</b>	<b>\$ 14.00</b>	<b>\$ 11.50</b>	<b>\$ 11.50</b>	<b>\$ 11.50</b>	<b>\$ 11.50</b>	<b>\$ 11.50</b>	<b>\$ 11.50</b>	<b>\$ 11.50</b>
<b>Mining costs</b>	<b>\$ 84,360</b>	<b>\$ 60,723</b>	<b>\$ 60,723</b>	<b>\$ 60,723</b>	<b>\$ 60,723</b>	<b>\$ 60,723</b>	<b>\$ 60,723</b>	<b>\$ 60,723</b>
<b>Gross profit (in 000's)</b>	<b>\$ 72,309</b>	<b>\$ 76,564</b>	<b>\$ 76,564</b>	<b>\$ 76,564</b>	<b>\$ 76,564</b>	<b>\$ 76,564</b>	<b>\$ 76,564</b>	<b>\$ 76,564</b>
CapEx (in 000's)	\$ (5,000)	\$ (5,000)	\$ (5,000)	\$ (5,000)	\$ (5,000)	\$ (5,000)	\$ (5,000)	\$ (5,000)
(Tax)	32.0%	\$ (21,539)	\$ (22,901)	\$ (22,901)	\$ (22,901)	\$ (22,901)	\$ (22,901)	\$ (22,901)
<b>Operating cash flow</b>	<b>\$ 45,770</b>	<b>\$ 48,664</b>	<b>\$ 48,664</b>	<b>\$ 48,664</b>	<b>\$ 48,664</b>	<b>\$ 48,664</b>	<b>\$ 48,664</b>	<b>\$ 48,664</b>
Cash flow discount rate		7.0%						
<b>PV of operating cash flow</b>	<b>\$ 45,770</b>	<b>\$ 48,664</b>	<b>\$ 45,480</b>	<b>\$ 42,505</b>	<b>\$ 39,724</b>	<b>\$ 37,125</b>	<b>\$ 34,697</b>	<b>\$ 32,427</b>
<b>Total current cash flow/ Project NAV</b>	<b>\$</b>	<b>326,392</b>						
Common shares		240,341						
<b>Project NAV per share</b>		<b>\$1.36</b>						

<b>Bolañitos</b>	<b>2024E</b>	<b>2025E</b>	<b>2026E</b>	<b>2027E</b>	<b>2028E</b>	<b>2029E</b>	<b>2030E</b>	<b>2031E</b>
<b>Tonnes Processed (000's)</b>	<b>407</b>	<b>400</b>	<b>400</b>	<b>400</b>	<b>400</b>	<b>400</b>	<b>400</b>	<b>400</b>
Silver grade (gpt)	44	52	52	52	52	52	52	52
Silver Recovery	82.3%	81.0%	81.0%	81.0%	81.0%	81.0%	81.0%	81.0%
<b>Annual silver production (000's oz)</b>	<b>476</b>	<b>536</b>	<b>536</b>	<b>536</b>	<b>536</b>	<b>536</b>	<b>536</b>	<b>536</b>
% growth	-23.6%	-5.4%	12.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Silver sales price	\$ 26.00	\$ 26.00	\$ 26.00	\$ 26.00	\$ 26.00	\$ 26.00	\$ 26.00	\$ 26.00
Gold grade (gpt)	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Gold recovery	86%	86%	86%	86%	86%	86%	86%	86%
<b>Annual gold production (000's oz)</b>	<b>22.0</b>	<b>21.2</b>	<b>21.2</b>	<b>21.2</b>	<b>21.2</b>	<b>21.2</b>	<b>21.2</b>	<b>21.2</b>
% growth	0.9%	-7.6%	-3.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Gold sales price	\$ 2,100	\$ 2,100	\$ 2,100	\$ 2,100	\$ 2,100	\$ 2,100	\$ 2,100	\$ 2,100
<b>Total silver equivalent ounces produced</b>	<b>2,253</b>	<b>2,246</b>	<b>2,246</b>	<b>2,246</b>	<b>2,246</b>	<b>2,246</b>	<b>2,246</b>	<b>2,246</b>
% growth	-14.4%	-2.7%	-0.3%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total silver equivalent production</b>	<b>2,253</b>	<b>2,246</b>	<b>2,246</b>	<b>2,246</b>	<b>2,246</b>	<b>2,246</b>	<b>2,246</b>	<b>2,246</b>
<b>Total Revenues</b>	<b>\$ 58,577</b>	<b>\$ 58,402</b>	<b>\$ 58,402</b>	<b>\$ 58,402</b>	<b>\$ 58,402</b>	<b>\$ 58,402</b>	<b>\$ 58,402</b>	<b>\$ 58,402</b>
<b>Cash cost per oz</b>	<b>\$ 14.00</b>	<b>\$ 8.00</b>	<b>\$ 8.00</b>	<b>\$ 8.00</b>	<b>\$ 8.00</b>	<b>\$ 8.00</b>	<b>\$ 8.00</b>	<b>\$ 8.00</b>
<b>Mining costs</b>	<b>\$ 31,541</b>	<b>\$ 28,078</b>	<b>\$ 28,078</b>	<b>\$ 28,078</b>	<b>\$ 28,078</b>	<b>\$ 28,078</b>	<b>\$ 28,078</b>	<b>\$ 28,078</b>
<b>Gross profit (in 000's)</b>	<b>\$ 27,035</b>	<b>\$ 30,324</b>	<b>\$ 30,324</b>	<b>\$ 30,324</b>	<b>\$ 30,324</b>	<b>\$ 30,324</b>	<b>\$ 30,324</b>	<b>\$ 30,324</b>
CapEx (in 000's)	\$ (5,000)	\$ (5,000)	\$ (5,000)	\$ (5,000)	\$ (5,000)	\$ (5,000)	\$ (5,000)	\$ (5,000)
(Tax)	32.0%	\$ (7,051)	\$ (8,104)	\$ (8,104)	\$ (8,104)	\$ (8,104)	\$ (8,104)	\$ (8,104)
<b>Operating cash flow</b>	<b>\$ 14,984</b>	<b>\$ 17,220</b>	<b>\$ 17,220</b>	<b>\$ 17,220</b>	<b>\$ 17,220</b>	<b>\$ 17,220</b>	<b>\$ 17,220</b>	<b>\$ 17,220</b>
Cash flow discount rate	7.0%							
<b>PV of operating cash flow</b>	<b>\$ 14,984</b>	<b>\$ 16,094</b>	<b>\$ 15,041</b>	<b>\$ 14,057</b>	<b>\$ 13,137</b>	<b>\$ 12,278</b>	<b>\$ 11,475</b>	<b>\$ 10,724</b>
<b>Total current cash flow/Project NAV</b>	<b>\$</b>	<b>107,790</b>						
Common shares		240,341						
<b>Project NAV per share</b>		<b>\$0.45</b>						

Source: H.C. Wainwright & Co. estimates.

<u>Terronera</u>	<u>2024E</u>	<u>2025E</u>	<u>2026E</u>	<u>2027E</u>	<u>2028E</u>	<u>2029E</u>	<u>2030E</u>	<u>2031E</u>
Tonnes Processed (000's)	45	480	680	680	680	680	680	680
	<i>Note: Production extends to 2035 but not shown .</i>							
Silver grade (gpt)	55	245	267	280	221	173	199	212
Silver Recovery	87%	87%	87%	87%	87%	87%	87%	87%
<b>Annual silver production (000's oz)</b>	<b>277</b>	<b>3,289</b>	<b>5,078</b>	<b>5,326</b>	<b>4,204</b>	<b>3,291</b>	<b>3,785</b>	<b>4,032</b>
Silver sales price	\$ 26.00	\$ 26.00	\$ 26.00	\$ 26.00	\$ 26.00	\$ 26.00	\$ 26.00	\$ 26.00
Gold grade (gpt)	1.22	1.90	1.87	1.85	2.00	2.10	2.02	1.68
Gold recovery	75%	75%	75%	75%	75%	75%	75%	75%
<b>Annual gold production (000's oz)</b>	<b>1.3</b>	<b>22.0</b>	<b>30.7</b>	<b>30.3</b>	<b>32.8</b>	<b>34.4</b>	<b>33.1</b>	<b>27.5</b>
Gold sales price	\$ 2,100	\$ 2,100	\$ 2,100	\$ 2,100	\$ 2,100	\$ 2,100	\$ 2,100	\$ 2,100
Gold:Silver ratio	81	81	81	81	81	81	81	81
<b>Total silver equivalent ounces produced</b>	<b>384</b>	<b>5,066</b>	<b>7,555</b>	<b>7,776</b>	<b>6,852</b>	<b>6,072</b>	<b>6,460</b>	<b>6,257</b>
<b>Total silver equivalent production</b>	<b>384</b>	<b>5,066</b>	<b>7,555</b>	<b>7,776</b>	<b>6,852</b>	<b>6,072</b>	<b>6,460</b>	<b>6,257</b>
<b>Total Revenues</b>	<b>\$ 9,980</b>	<b>\$ 131,706</b>	<b>\$ 196,430</b>	<b>\$ 202,170</b>	<b>\$ 178,158</b>	<b>\$ 157,864</b>	<b>\$ 167,967</b>	<b>\$ 162,688</b>
<b>Cost per tonne</b>	<b>\$ 90.00</b>	<b>\$ 85.00</b>	<b>\$ 85.00</b>	<b>\$ 85.00</b>	<b>\$ 85.00</b>	<b>\$ 85.00</b>	<b>\$ 85.00</b>	<b>\$ 85.00</b>
<b>Mining costs</b>	<b>\$ 4,050</b>	<b>\$ 40,800</b>	<b>\$ 57,800</b>	<b>\$ 57,800</b>	<b>\$ 57,800</b>	<b>\$ 57,800</b>	<b>\$ 57,800</b>	<b>\$ 57,800</b>
<b>Gross profit (in 000's)</b>	<b>\$ 5,930</b>	<b>\$ 90,906</b>	<b>\$ 138,630</b>	<b>\$ 144,370</b>	<b>\$ 120,358</b>	<b>\$ 100,064</b>	<b>\$ 110,167</b>	<b>\$ 104,888</b>
CapEx (in 000's)	\$ (70,000)	\$ (15,000)	\$ (13,000)	\$ (13,000)	\$ (13,000)	\$ (13,000)	\$ (13,000)	\$ (13,000)
(Tax)	32.0%	(excluding \$ spent through 1Q24)		\$ (42,038)	\$ (34,355)	\$ (27,860)	\$ (31,093)	\$ (29,404)
	<i>Tax loss carryforwards for 2024-2026</i>							
<b>Operating cash flow</b>	<b>\$ (64,070)</b>	<b>\$ 75,906</b>	<b>\$ 125,630</b>	<b>\$ 89,332</b>	<b>\$ 73,003</b>	<b>\$ 59,203</b>	<b>\$ 66,073</b>	<b>\$ 62,484</b>
Cash flow discount rate	9.0%							
<b>PV of operating cash flow</b>	<b>\$ (64,070)</b>	<b>\$ 69,638</b>	<b>\$ 105,740</b>	<b>\$ 68,980</b>	<b>\$ 51,717</b>	<b>\$ 38,478</b>	<b>\$ 39,397</b>	<b>\$ 34,181</b>
<b>Total current cash flow</b>	<b>\$ 416,602</b>							
Common shares	240,341							
<b>Project NAV per share</b>	<b>\$1.73</b>							

Source: H.C. Wainwright & Co. estimates.

	<u>2024E</u>	<u>2025E</u>	<u>2026E</u>	<u>2027E</u>	<u>2028E</u>	<u>2029E</u>	<u>2030E</u>	<u>2031E</u>
<b>Consolidated silver equivalent production</b>	<b>8,663</b>	<b>12,592</b>	<b>15,082</b>	<b>15,302</b>	<b>14,379</b>	<b>13,598</b>	<b>13,987</b>	<b>13,784</b>

	<b>Total</b>	<b>per share</b>	
<b>Current value of cash flow</b>			
Valuation for Guanaceví	\$ 326,392	\$ 1.36	<i>HCW estimate</i>
Valuation for Bolañitos	\$ 107,790	\$ 0.45	<i>HCW estimate</i>
Valuation for Terronera	\$ 416,602	\$1.73	<i>HCW estimate</i>
Valuation for Bruner at cost	\$ 10,000	\$ 0.04	<i>HCW estimate</i>
Valuation for Pitarrilla	\$ 70,000	\$ 0.29	<i>HCW estimate</i>
Valuation for other exploration properties	\$ 35,000	\$ 0.15	<i>HCW estimate</i>
Market value for shares of Guanajuato Silver (GSVRF; not rated)	\$ 3,918	\$ 0.02	<i>Market value as of 05/09/2024</i>
Plus cash & equivalents and finished goods inventory	\$ 56,198	\$ 0.23	<i>As of March 31, 2024</i>
Less debt	\$ 7,331	\$ 0.03	<i>As of March 31, 2024</i>
<b>Total current value</b>	<b>\$ 1,018,568</b>	<b>\$ 4.24</b>	

**Common shares** 240,341 *As of 05/08/2024*

EXK share price	\$ 3.33	<i>As of 05/09/2024</i>
EXK NAV	\$ 4.24	
NAV Premium for target price	1.5x	
<b>Rounded (\$0.25) price target</b>	<b>\$ 6.25</b>	

Source: H.C. Wainwright & Co. estimates.

### Important Disclaimers

This material is confidential and intended for use by Institutional Accounts as defined in FINRA Rule 4512(c). It may also be privileged or otherwise protected by work product immunity or other legal rules. If you have received it by mistake, please let us know by e-mail reply to unsubscribe@hcwresearch.com and delete it from your system; you may not copy this message or disclose its contents to anyone. The integrity and security of this message cannot be guaranteed on the Internet.

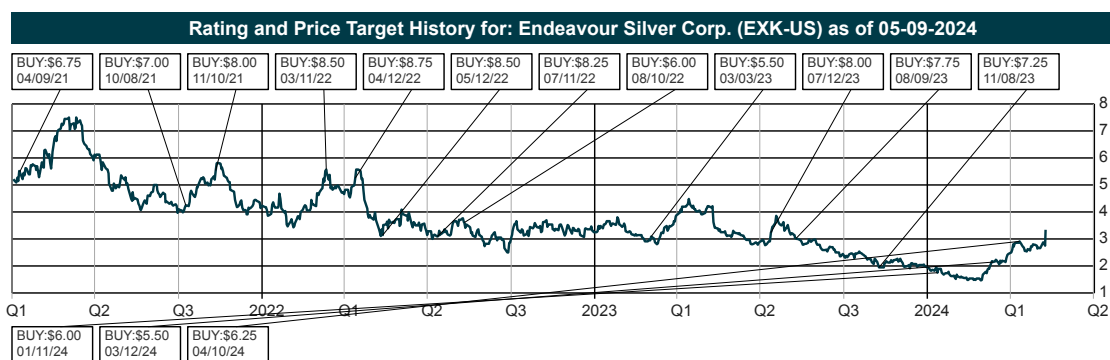
**H.C. WAINWRIGHT & CO, LLC RATING SYSTEM:** H.C. Wainwright employs a three tier rating system for evaluating both the potential return and risk associated with owning common equity shares of rated firms. The expected return of any given equity is measured on a RELATIVE basis of other companies in the same sector. The price objective is calculated to estimate the potential movements in price that a given equity could reach provided certain targets are met over a defined time horizon. Price objectives are subject to external factors including industry events and market volatility.

### RETURN ASSESSMENT

**Market Outperform (Buy):** The common stock of the company is expected to outperform a passive index comprised of all the common stock of companies within the same sector.

**Market Perform (Neutral):** The common stock of the company is expected to mimic the performance of a passive index comprised of all the common stock of companies within the same sector.

**Market Underperform (Sell):** The common stock of the company is expected to underperform a passive index comprised of all the common stock of companies within the same sector.



Investment Banking Services include, but are not limited to, acting as a manager/co-manager in the underwriting or placement of securities, acting as financial advisor, and/or providing corporate finance or capital markets-related services to a company or one of its affiliates or subsidiaries within the past 12 months.

Ratings	Count	Percent	IB Service/Past 12 Months	
			Count	Percent
Buy	558	89.14%	138	24.73%
Neutral	61	9.74%	7	11.48%
Sell	1	0.16%	0	0.00%
Under Review	6	0.96%	1	16.67%

H.C. Wainwright & Co, LLC (the "Firm") is a member of FINRA and SIPC and a registered U.S. Broker-Dealer.

I, Heiko F. Ihle, CFA, certify that 1) all of the views expressed in this report accurately reflect my personal views about any and all subject securities or issuers discussed; and 2) no part of my compensation was, is, or will be directly or indirectly related to the specific recommendation or views expressed in this research report; and 3) neither myself nor any members of my household is an officer, director or advisory board member of these companies.

None of the research analysts or the research analyst's household has a financial interest in the securities of Endeavour Silver Corp. (including, without limitation, any option, right, warrant, future, long or short position).

As of April 30, 2024 neither the Firm nor its affiliates beneficially own 1% or more of any class of common equity securities of Endeavour Silver Corp..

Neither the research analyst nor the Firm knows or has reason to know of any other material conflict of interest at the time of publication of this research report.

The research analyst principally responsible for preparation of the report does not receive compensation that is based upon any specific investment banking services or transaction but is compensated based on factors including total revenue and profitability of the Firm, a substantial portion of which is derived from investment banking services.

The Firm or its affiliates did receive compensation from Endeavour Silver Corp. for investment banking services within twelve months before, and will seek compensation from the companies mentioned in this report for investment banking services within three months following publication of the research report.

H.C. Wainwright & Co., LLC managed or co-managed a public offering of securities for Endeavour Silver Corp. during the past 12 months.

The Firm does not make a market in Endeavour Silver Corp. as of the date of this research report.

The securities of the company discussed in this report may be unsuitable for investors depending on their specific investment objectives and financial position. Past performance is no guarantee of future results. This report is offered for informational purposes only, and does not constitute an offer or solicitation to buy or sell any securities discussed herein in any jurisdiction where such would be prohibited. This research report is not intended to provide tax advice or to be used to provide tax advice to any person. Electronic versions of H.C. Wainwright & Co., LLC research reports are made available to all clients simultaneously. No part of this report may be reproduced in any form without the expressed permission of H.C. Wainwright & Co., LLC. Additional information available upon request.

H.C. Wainwright & Co., LLC does not provide individually tailored investment advice in research reports. This research report is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of any specific person. Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this research report.

H.C. Wainwright & Co., LLC's and its affiliates' salespeople, traders, and other professionals may provide oral or written market commentary or trading strategies that reflect opinions that are contrary to the opinions expressed in this research report.

H.C. Wainwright & Co., LLC and its affiliates, officers, directors, and employees, excluding its analysts, will from time to time have long or short positions in, act as principal in, and buy or sell, the securities or derivatives (including options and warrants) thereof of covered companies referred to in this research report.

The information contained herein is based on sources which we believe to be reliable but is not guaranteed by us as being accurate and does not purport to be a complete statement or summary of the available data on the company, industry or security discussed in the report. All opinions and estimates included in this report constitute the analyst's judgment as of the date of this report and are subject to change without notice.

Securities and other financial instruments discussed in this research report: may lose value; are not insured by the Federal Deposit Insurance Corporation; and are subject to investment risks, including possible loss of the principal amount invested.