Technical Report Summary of

Mineral Reserves and Mineral Resources

for

Morenci Mine

Arizona, U.S.

Effective Date: **December 31, 2023**
Report Date: **January 31, 2024**

IMPORTANT NOTE

This Technical Report Summary (TRS) has been prepared for Freeport-McMoRan Inc. (FCX) in support of the disclosure and filing requirements of the United States (U.S.) Securities and Exchange Commission (SEC) under Subpart 1300 of Regulation S-K. The quality of information, conclusions, and estimates contained herein apply as of the date of this TRS. Events (including changes to the assumptions, conditions, and/or qualifications outlined in this TRS) may have occurred since the date of this TRS, which may substantially alter the conclusions and opinions herein. Any use of this TRS by a third-party beyond its intended use is at that party's sole risk.

CAUTIONARY STATEMENT

This TRS contains forward-looking statements in which potential future performance is discussed. The words "anticipates," "may," "can," "plans," "believes," "estimates," "expects," "projects," "targets," "intends," "likely," "will," "should," "could," "to be," "potential," "assumptions," "guidance," "aspirations," "future," "commitments," "pursues," "initiatives," "objectives," "opportunities," "strategy" and any similar expressions are intended to identify those assertions as forward-looking statements. Forward-looking statements are all statements other than statements of historical facts, such as plans, projections, forecasts or expectations relating to business outlook, strategy, goals, or targets; global market conditions; ore grades and processing rates; production and sales volumes; unit net cash costs and operating costs; net present values; economic assessments; capital expenditures; operating or Life-of-Mine (LOM) plans; cash flows; FCX's commitment to deliver responsibly produced copper, including plans to implement, validate, and maintain validation of its operating sites under specific frameworks; improvements in operating procedures and technology innovations and applications; potential environmental and social impacts; exploration efforts and results; development and production activities, rates and costs; future organic growth opportunities; tax rates; export quotas and duties; the impact of price changes in the commodities FCX produces, primarily copper; mineral resource and mineral reserve estimates and recoveries; and information pertaining to the financial and operating performance and mine life of the Morenci mine.

Readers are cautioned that forward-looking statements in this TRS are necessarily based on opinions and estimates of the Qualified Persons (QPs) authoring this TRS, are not guarantees of future performance, and actual results may differ materially from those anticipated, expected, projected or assumed in the forward-looking statements. Material assumptions regarding forward-looking statements are discussed in this TRS, where applicable. In addition to such assumptions, the forward-looking statements are inherently subject to significant business, economic and competitive uncertainties, and contingencies. Important factors that can cause actual results to differ materially from those anticipated in the forward-looking statements include, but are not limited to, supply of and demand for, and prices of the commodities FCX produces, primarily copper; availability and increased costs associated with mining inputs and labor; price and availability of consumables and components purchased as well as constraints on supply and logistics, and transportation services; changes in cash requirements, financial position, financing or investment plans; changes in general market, economic, geopolitical, regulatory, or industry conditions; reductions in liquidity and access to capital; changes in tax laws and regulations; political and social risks, including relations with local communities and Indigenous Peoples; operational risks inherent in mining, with higher inherent risks in underground mining; mine sequencing; changes in mine plans or operational modifications, delays, deferrals, or cancellations; production rates; timing of shipments; results of technical, economic, or feasibility studies; potential inventory adjustments; potential impairment of long-lived mining assets; expected results from improvements in operating procedures and technology, including innovation initiatives; industry risks; financial condition of FCX's customers, suppliers, vendors, partners, and affiliates; cybersecurity risks; any major public health crisis; labor relations, including labor-related work stoppages and costs; compliance with applicable environmental, health and safety laws and regulations; weather- and climate-related risks; environmental risks, including availability of secure water supplies, and litigation results; tailings management; FCX's ability to comply with its responsible production commitments under specific frameworks and any changes to such frameworks; and other factors described in more detail under the heading "Risk Factors" contained in Part I, Item 1A. of FCX's Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC.

Investors are cautioned that many of the assumptions upon which the forward-looking statements are based are likely to change after the date the forward-looking statements are made, including for example commodity prices, which FCX cannot control, and production volumes and costs or technological solutions and innovations, some aspects of which FCX may not be able to control. Further, FCX may make changes to its business plans that could affect its results. FCX and the QPs who authored this TRS caution investors that FCX undertakes no obligation to update any forward-looking statements, which speak only as of the date made, notwithstanding any changes in the assumptions, changes in business plans, actual experience, or other changes.

This TRS also contains financial measures such as site cash costs and unit net cash costs per pound of metal and free cash flow, which are not recognized under U.S. generally accepted accounting principles.

Qualified Person Signature Page

Mine: Morenci
Effective Date: December 31, 2023
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/s/ James Young

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Jacklyn Steeples, RM-SME
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Director of Metallurgy and Strategic Planning

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1 EXECUTIVE SUMMARY

This Technical Report Summary (TRS) is prepared by Qualified Persons (QPs) for Freeport-McMoRan Inc. (FCX), a leading international mining company with headquarters located in Phoenix, Arizona, United States (U.S.). The purpose of this TRS is to report mineral reserve and mineral resource estimates at the Morenci mine using estimation parameters as of December 31, 2023.

1.1 Property Description, Current Status, and Ownership

The Morenci mine is an open-pit copper and molybdenum mining complex. The mine is located in Greenlee County, Arizona, approximately 50 miles northeast of the city of Safford on U.S. Highway 191.

The mine operates 365 days per year on a 24 hour per day schedule. Mining and ore processing operations are currently in production and the mine is considered a production stage property.

The Morenci mine is an unincorporated joint venture owned 72 percent by FCX, with the remaining 28 percent owned by Sumitomo Metal Mining Arizona, Inc. (15 percent) and SMM Morenci, Inc. (13 percent). Each partner takes in kind its share of Morenci's production. FCX is the operator of the joint venture and holds registered title to the mineral claims.

As of December 31, 2023, the Morenci mine encompasses approximately 61,700 acres, comprising 51,300 acres of fee lands and 10,400 acres of unpatented mining claims held on public mineral estate and numerous state or federal permits, easements, and rights-of-way.

1.2 Geology and Mineralization

The mineral deposits of the Morenci district consist of copper oxide, secondary sulfide, and primary sulfide mineralization associated with a large porphyry copper system. Geologic studies indicate that a complex series of Tertiary igneous intrusive rocks were emplaced within Precambrian-age granite and overlying Paleozoic and Mesozoic sedimentary rocks. A porphyry copper deposit formed and was associated with the emplacement and crystallization of intrusive rocks. Several cycles of leaching and enrichment of the primary sulfides formed the secondary sulfide enrichment blanket and copper oxide zones currently being mined. Mineralization spans approximately 5 miles in a north-south direction and 4 miles in an east-west direction.

1.3 Mineral Reserve Estimate

Mineral reserves are summarized from the Life-of-Mine (LOM) plan, which is the compilation of the relevant modifying factors for establishing an operational, economically viable mine plan.

Mineral reserves have been evaluated considering the modifying factors for conversion of measured and indicated resource classes into proven and probable reserves. Inferred resources are considered to be waste in the LOM plan. The details of the relevant modifying factors included in the estimation of mineral reserves are discussed in Sections 10 through 21.

The LOM plan includes the planned production to be extracted from the in-situ mine designs and from previously extracted material, known as Work-In-Process (WIP) inventories. WIP includes material on crushed leach and Run of Mine (ROM) leach pads for processing, and in stockpiles set aside to be rehandled and processed at a future date. WIP is estimated as of December 31, 2023, from production of reported deliveries through mid-year and the expected production to the end of the year.

As a point of reference, the mineral reserve estimate reports the in-situ ore and WIP inventories from the LOM plan containing copper and molybdenum metal and reported as commercially recoverable metal.

Table 1.1 summarizes the mineral reserves reported on a 100 percent and pro rata property ownership basis. The mineral reserve estimate is based on commodity prices of $3.00 per pound for copper and $12 per pound for molybdenum.

Table 1.1 – Summary of Mineral Reserves

MORENCI MINE		Ownership	Tonnage[b]		Cutoff	Average Grade		Average Recovery[d]		Recoverable Metal[b]	
Summary of Mineral Reserves[a]			Short	Metric	Grade[c]	Copper	Molybdenum	Copper	Molybdenum	Copper	Molybdenum
As of December 31, 2023		%	M Tons	M Tons	%EqCu	%	%	%	%	M lbs	M lbs
Open-Pit Inventories											
Mill	Proven		1,112	1,008		0.32	0.02	82.4	43.5	5,797	183
	Probable		299	272		0.29	0.02	82.0	44.3	1,439	48
	Total		**1,411**	**1,280**	**0.17**	**0.31**	**0.02**	**82.3**	**43.7**	**7,236**	**231**
Crushed Leach	Proven		366	332		0.37		81.7		2,202	
	Probable		128	116		0.33		82.3		691	
	Total		**494**	**448**	**0.10**	**0.36**		**81.9**		**2,893**	
ROM Leach	Proven		1,798	1,631		0.12		36.5		1,607	
	Probable		507	460		0.14		39.7		556	
	Total		**2,305**	**2,091**	**0.03**	**0.13**		**37.3**		**2,163**	
Total Open-Pit Reserves	Proven		3,276	2,972		0.22	0.01	67.9	43.5	9,605	183
	Probable		934	847		0.21	0.01	67.2	44.3	2,687	48
	Total		**4,210**	**3,819**		**0.22**	**0.01**	**67.8**	**43.7**	**12,292**	**231**
Stockpile Inventories											
Mill Stockpile	Proven		1	1		0.54		83.8		6	
Leach Stockpile	Proven		8,360	7,584		0.24		0.8		331	
	Total		**8,361**	**7,585**		**0.24**		**0.8**		**337**	
Total Reserves Inventories											
Total Mineral Reserves	Proven		11,637	10,557		0.23	0.00	18.4	43.5	9,943	183
	Probable		934	847		0.21	0.01	67.2	44.3	2,687	48
	Total	**100%**	**12,571**	**11,404**		**0.23**	**0.00**	**21.7**	**43.7**	**12,629**	**231**
Net Equity Interest[e]											
Total FCX		**72%**	**9,046**	**8,207**		**0.23**	**0.00**	**21.7**	**43.7**	**9,093**	**166**
Total Other		**28%**	**3,524**	**3,197**		**0.23**	**0.00**	**21.7**	**43.7**	**3,536**	**65**

Notes:

a. Reported as of December 31, 2023 using metal prices of $3.00 per pound copper and $12.00 per pound molybdenum.

b. Amounts may not foot because of rounding.

c. Operational cutoff grade reported as equivalent copper (EqCu).

d. Process recoveries include all applicable processes such as concentration, smelting, transportation losses, etc.

e. The Morenci mine is an unincorporated joint venture owned 72 percent by FCX, with the remaining 28 percent owned by Sumitomo Metal Mining Arizona, Inc. (15 percent) and SMM Morenci, Inc. (13 percent). Each partner takes in kind its share of Morenci's production. FCX is the operator of the joint venture and holds registered title to the mineral claims.

The mineral reserve estimate has been prepared using industry accepted practice and conforms to the disclosure requirements of the U.S. Securities and Exchange Commission (SEC) under Subpart 1300 of Regulation S-K (S-K1300). Mineral reserve and mineral resource estimates are evaluated annually, providing the opportunity to reassess the assumed conditions. All the technical and economic issues likely to influence the prospect of economic extraction are anticipated to be resolved under the stated assumed conditions.

1.4 Mineral Resource Estimate

Mineral resources are evaluated using the application of technical and economic factors to a geologic resource block model and employing optimization algorithms to generate digital surfaces of mining limits, using specialized geologic and mine planning computer software. The resulting surfaces volumetrically identify material as potentially economical, using the assumed parameters. Mineral resources are the resultant contained metal inventories.

The mineral resource estimate is the inventory of material identified as having a reasonable likelihood for economic extraction inside the mineral resource economic mining limit, less the mineral reserve volume, as applicable. The modifying factors are applied to measured, indicated, and inferred resource classifications to evaluate commercially recoverable metal. As a point of reference, the in-situ ore containing copper and molybdenum metal is inventoried and reported by intended processing method.

The reported mineral resource estimate in Table 1.2 is exclusive of the reported mineral reserve, on a 100 percent and pro rata property ownership basis. The mineral resource estimate is based on commodity prices of $3.50 per pound for copper and $15 per pound for molybdenum.

Table 1.2 – Summary of Mineral Resources

MORENCI MINE / Summary of Mineral Resources[a] / As of December 31, 2023		Ownership	Tonnage[b]		Cutoff Grade[c]	Average Grade		Contained Metal[b,d]	
			Short	Metric		Copper	Molybdenum	Copper	Molybdenum
		%	M Tons	M Tons	%EqCu	%	%	M lbs	M lbs
Open-Pit Inventories									
Mill	Measured		1,629	1,478		0.24	0.02	7,947	615
	Indicated		1,525	1,383		0.25	0.02	7,715	630
	Subtotal		**3,154**	**2,861**		**0.25**	**0.02**	**15,662**	**1,245**
	Inferred		1,037	941		0.24	0.02	5,021	475
	Total		**4,190**	**3,802**	**0.13**	**0.25**	**0.02**	**20,683**	**1,720**
Crushed Leach	Measured		267	242		0.38		2,045	
	Indicated		141	128		0.36		1,022	
	Subtotal		**408**	**370**		**0.38**		**3,068**	
	Inferred		46	42		0.35		328	
	Total		**455**	**412**	**0.07**	**0.37**		**3,396**	
ROM Leach	Measured		1,215	1,102		0.11		2,751	
	Indicated		973	883		0.12		2,241	
	Subtotal		**2,188**	**1,985**		**0.11**		**4,992**	
	Inferred		629	571		0.10		1,202	
	Total		**2,818**	**2,556**	**0.01**	**0.11**		**6,194**	
Total Resources Inventories									
Total Mineral Resources	Measured		3,111	2,822		0.20	0.01	12,743	615
	Indicated		2,640	2,395		0.21	0.01	10,979	630
	Subtotal		**5,750**	**5,216**		**0.21**	**0.01**	**23,722**	**1,245**
	Inferred		1,712	1,553		0.19	0.01	6,551	475
	Total	**100%**	**7,463**	**6,770**		**0.20**	**0.01**	**30,273**	**1,720**
Net Equity Interest[e]									
Total FCX		**72%**	**5,371**	**4,872**		**0.20**	**0.01**	**21,790**	**1,238**
Total Other		**28%**	**2,092**	**1,898**		**0.20**	**0.01**	**8,482**	**482**

Notes:

a. Reported as of December 31, 2023 using metal prices of $3.50 per pound copper and $15.00 per pound molybdenum. Mineral resources are exclusive of mineral reserves.
b. Amounts may not foot because of rounding.
c. Internal cutoff grade reported as equivalent copper (EqCu).
d. Estimated expected recoveries are consistent with those for mineral reserves but would require additional work to substantiate.
e. The Morenci mine is an unincorporated joint venture owned 72 percent by FCX, with the remaining 28 percent owned by Sumitomo Metal Mining Arizona, Inc. (15 percent) and SMM Morenci, Inc. (13 percent). Each partner takes in kind its share of Morenci's production. FCX is the operator of the joint venture and holds registered title to the mineral claims.

The mineral resource estimate has been prepared using industry accepted practice and conforms to the disclosure requirements of S-K1300. Mineral reserve and mineral resource estimates are evaluated annually, providing the opportunity to reassess the assumed conditions. Although all the technical and economic issues likely to influence the prospect of economic extraction of the estimated mineral resource are anticipated to be resolved under the stated assumed conditions, no assurance can be given that the estimated mineral resource will become proven and probable mineral reserves.

1.5 Capital and Operating Cost Estimates

The capital and operating costs are estimated by the property's operations, engineering, management, and accounting personnel in consultation with FCX corporate staff, as appropriate. The cost estimates are applicable to the planned production, mine schedule, and equipment requirements for the LOM plan. The capital costs are summarized in Table 1.3.

Table 1.3 – Sustaining Capital Costs

	$ billions
Mine	$1.0
Leach and SX/EW	1.7
Concentrator	1.5
Supporting Infrastructure and Environmental	0.1
Total Capital Expenditures	$4.3

Estimates are derived from current costs and adjusted to the reserve price environment. The estimates are not adjusted for escalation or exchange rate fluctuations. Actual realized costs are reviewed periodically, and estimates are refined as required.

Capital costs are primarily sustaining projects consisting of mine equipment replacements and planned site infrastructure projects, most notably to increase leach pad and tailings storage facility (TSF) capacities over the production of the scheduled reserves. Capital cost estimates are derived from current capital costs based on extensive experience gained from many years of operating the property and do not include future inflation. FCX and the Morenci mine staff review actual costs periodically and refine cost estimates as appropriate.

The operating costs for the LOM plan are summarized in Table 1.4.

Table 1.4 – Operating Costs

	$ billions
Mine	$12.2
Leach and SX/EW	5.9
Concentrator	9.5
Balance	6.8
Total site cash operating costs	34.4
Freight	0.7
Treatment charges	0.6
By-product credits	(2.4)
Total net cash costs	$33.3
Unit net cash cost ($ per pound of copper)	$2.64

Estimates are derived from current costs and adjusted to the reserve price environment. The estimates are not adjusted for escalation or exchange rate fluctuations. Actual realized costs are reviewed periodically, and estimates are refined as required.

The operating cost estimates are derived from current operating costs and practices based on extensive experience gained from many years of operating the property and do not include future inflation.

1.6 Permitting Requirements

In the QP's opinion, the Morenci mine has adequate plans and programs in place, is in good standing with environmental regulatory authorities, and no current conditions related to environmental compliance, permitting, and local engagement represent a material risk to continued operations. The Morenci mine staff have a high level of understanding of the requirements of environmental compliance, permitting, and local stakeholders in order to facilitate the development of the mineral reserve and mineral resource estimates. The periodic inspections by governmental agencies, FCX corporate staff, third-party reviews, and regular reporting confirm this understanding.

Based on the LOM plan, additional permits will likely be necessary in the future for continued operation of the Morenci mine, including Aquifer Protection Permit (APP) amendment applications and obtaining of Arizona Department Environmental Quality (ADEQ) approval for increased leach pad stockpile and tailings storage capacities under the existing APP.

1.7 Conclusions and Recommendations

FCX and the QPs believe that the geologic interpretation and modeling of exploration data, economic analysis, mine design and sequencing, process scheduling, and operating and capital cost estimation have been developed using accepted industry practices and that the stated mineral reserves and mineral resources comply with SEC regulations. Periodic reviews by third-party consultants confirm these conclusions.

No recommendations for additional work are identified for the reported mineral reserves and mineral resources as of December 31, 2023.

2 INTRODUCTION

This TRS is prepared by QPs for FCX, a leading international mining company with headquarters located in Phoenix, Arizona, U.S. The purpose of this TRS is to report mineral reserve and mineral resource estimates at the Morenci mine using estimation parameters as of December 31, 2023.

2.1 Terms of Reference and Sources of Information

FCX owns and operates several affiliates or subsidiaries. This TRS uses the name "FCX" interchangeably for Freeport-McMoRan Inc. and its consolidated subsidiaries.

FCX operates large, long-lived, geographically diverse assets with significant proven and probable reserves of copper, gold, and molybdenum. FCX has a dynamic portfolio of operating, expansion, and growth projects in the copper industry and believes it is the world's largest producer of molybdenum.

FCX maintains standards, procedures, and controls in support of estimating mineral reserves and mineral resources. The QPs, including the Manager of Mine Planning for Reserves, annually review the estimates of mineral reserves and mineral resources prepared by mine site and FCX corporate employees, the supporting documentation, and compliance with internal controls. Based on their review, the QPs recommend approval of the mineral reserve and mineral resource estimates to FCX senior management.

The reported estimates and supporting background information, conclusions, and opinions contained herein are based on company reports, property data, public information, and assumptions supplied by FCX employees and other third-party sources, including the reports and documents listed in Section 24 of this TRS, available at the time of writing this TRS.

Unless otherwise stated, all figures and images were prepared by FCX. Units of measurement referenced in this TRS are based on local convention in use at the property and currency is expressed in U.S. dollars.

The effective date of this TRS is December 31, 2023. This TRS updates the previously filed "Technical Report Summary of Mineral Reserves and Mineral Resources for Morenci Mine", which was effective as of December 31, 2022. The mineral reserve and mineral resource estimates in this TRS supersede any previous estimates of mineral reserves and mineral resources for the Morenci mine.

Mineral reserves and mineral resources are reported in accordance with the requirements of S-K1300.

2.2 Qualified Persons

This TRS has been prepared by the following QPs:

- James Young, Manager of Mine Planning for Reserves.
- Paul Albers, Manager of Exploration Americas.
- Luis Tejada, Manager of Geomechanical Engineering.
- Jacklyn Steeples, Manager of Processing Operational Improvement.
- Leonard Hill, Director of Metallurgy and Strategic Planning.

James Young is Manager of Mine Planning for Reserves for the Strategic Planning department of FCX. He has over 20 years of experience working for large-scale, open-pit operations in Peru, Chile, Indonesia, Canada, and the U.S. He holds a Bachelor of Applied Science in Mining and Mineral Process Engineering from the University of British Columbia and is registered as a Professional Engineer (P.Eng.) with Engineers and Geoscientists of British Columbia, Canada. Mr. Young is a Registered Member of the Society for Mining, Metallurgy and Exploration (RM-SME). In his role with FCX, he discusses aspects of the mine with site staff regarding overall approach to mine planning, current operating conditions, targeted production expectations, and options for potential resource development. He has visited the site various times throughout his career. His most recent visit to the Morenci mine was on July 25, 2023.

Paul Albers is Manager of Exploration Americas for FCX. He has over 18 years of mineral exploration and mining experience, including 13 years in copper-molybdenum porphyry deposits in North America and South America. He holds a Bachelor of Science degree in Geology from St. Norbert College and Master of Science degree in Geology from the University of Minnesota-Duluth. He is registered as a Certified Professional Geologist (P.Geo.) with the State of Minnesota. Mr. Albers is a RM-SME. In his role with FCX, he provides technical support and collaborates with site staff on exploration and mineral resource modeling programs. He has visited the site various times throughout his career. His most recent visit to the Morenci mine was on July 12, 2023.

Luis Tejada is Manager of Geomechanical Engineering for the Strategic Planning department of FCX. He has over 20 years of experience working for large-scale, open-pit operations in Peru and the U.S. He holds a Bachelor of Science in Geological Engineering from the San Agustin University in Arequipa, Peru, and is registered as a Geological Engineer (Ing. Geol.) with the Colegio de Ingenieros del Peru. He is a RM-SME. In his role, he provides technical support and collaborates with site staff on geomechanical engineering, slope monitoring systems, mine hydrogeology, options for slope design improvements, and slope optimization. He worked at the Morenci mine from 2016 to 2019 and has visited the site various times since. His most recent visit to the Morenci mine was on October 3 to 5, 2023.

Jacklyn Steeples is Manager of Processing Operational Improvement for FCX and has over 15 years of experience working for large-scale, open-pit copper processing operations including leach, solution extraction (SX), electrowinning (EW), concentrator, and crush and convey divisions. She holds a Bachelor of Science in Chemical Engineering from the Colorado School of Mines. She is a RM-SME. In her role with FCX, she collaborates with site staff on leach pad placements, SX/EW operations, current operating conditions performance, and improvements for hydrometallurgical operations. She worked at the Morenci mine from 2005 to 2013 and has visited the site various times throughout her career. Her most recent visit to the Morenci mine was on July 25, 2023.

Leonard Hill is Director of Metallurgy and Strategic Planning for FCX. He has over 30 years of experience working for large-scale, copper and molybdenum processing operations in the U.S. With FCX, he has worked in technical services, concentrator operations, supply chain management, and operational improvement. He holds a Bachelor of Science degree in Metallurgical Engineering from the Colorado School of Mines and a Master of Business Administration degree in Supply Chain Management from Arizona State University. He is a RM-SME. In his role with FCX, he provides technical support to Morenci mineral processing facilities, including capital project process design, process performance assessments, and process optimization recommendations. His most recent visit to the Morenci mine was on March 7, 2023.

The QPs reviewed the reasonableness of the background information for the estimates. The details of the QPs' responsibilities for this TRS are outlined in Table 2.1.

Table 2.1 – Qualified Person Responsibility

Qualified Person	Responsibility
James Young	Sections 2 through 5, 11.2 through 13.1, 13.1.3 through 13.3, 15 through 26, and corresponding sections of the Executive Summary
Paul Albers	Sections 2, 6 through 7.5, 7.8, 8, 9, 11.1, 21 through 26, and corresponding sections of the Executive Summary
Luis Tejada	Sections 2, 7.6 through 7.8, 13.1.1, 13.1.2, 21 through 26, and corresponding sections of the Executive Summary
Jacklyn Steeples	Sections 2, 10, 12, 14, 15, 18, 21 through 26, and corresponding sections of the Executive Summary
Leonard Hill	Sections 2, 10, 12, 14, 15, 18, 21 through 26, and corresponding sections of the Executive Summary

3 PROPERTY DESCRIPTION AND LOCATION

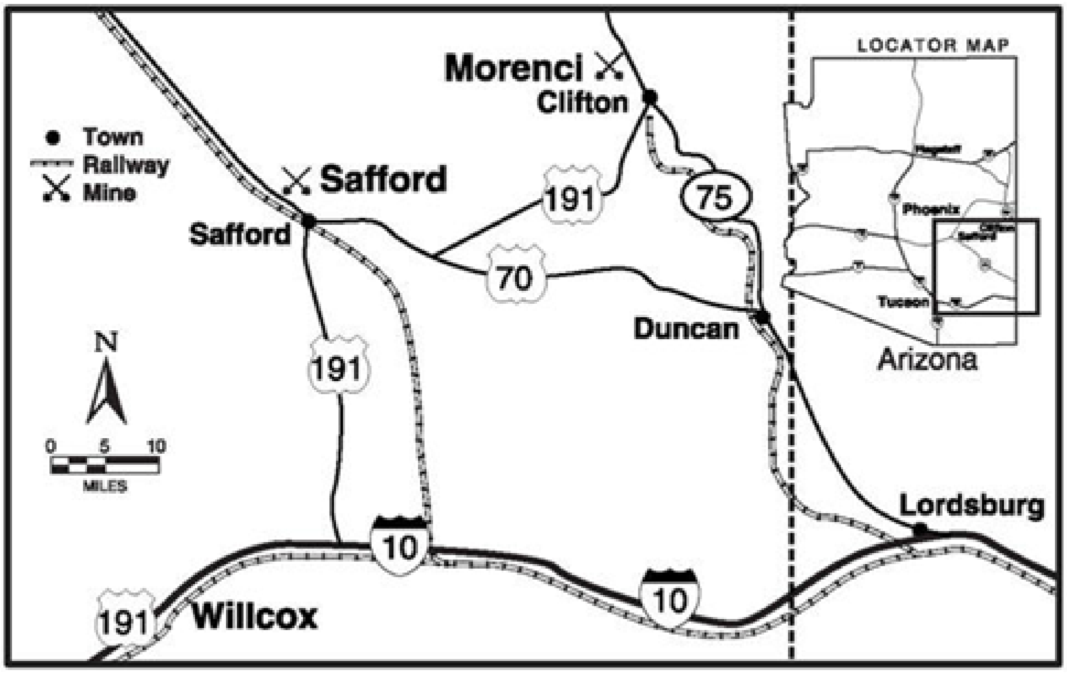
The Morenci mine is an open-pit copper and molybdenum mining complex. The mine is located in Greenlee County, Arizona, approximately 50 miles northeast of the city of Safford on U.S. Highway 191.

The mine operates 365 days per year on a 24 hour per day schedule. Mining and ore processing operations are currently in production and the mine is considered a production stage property.

3.1 Property Location

The property location map is illustrated in Figure 3.1.

Figure 3.1 – Property Location Map



The property is located at latitude 33.07 degrees north and longitude 109.35 degrees west using the World Geodetic System 84 coordinate system.

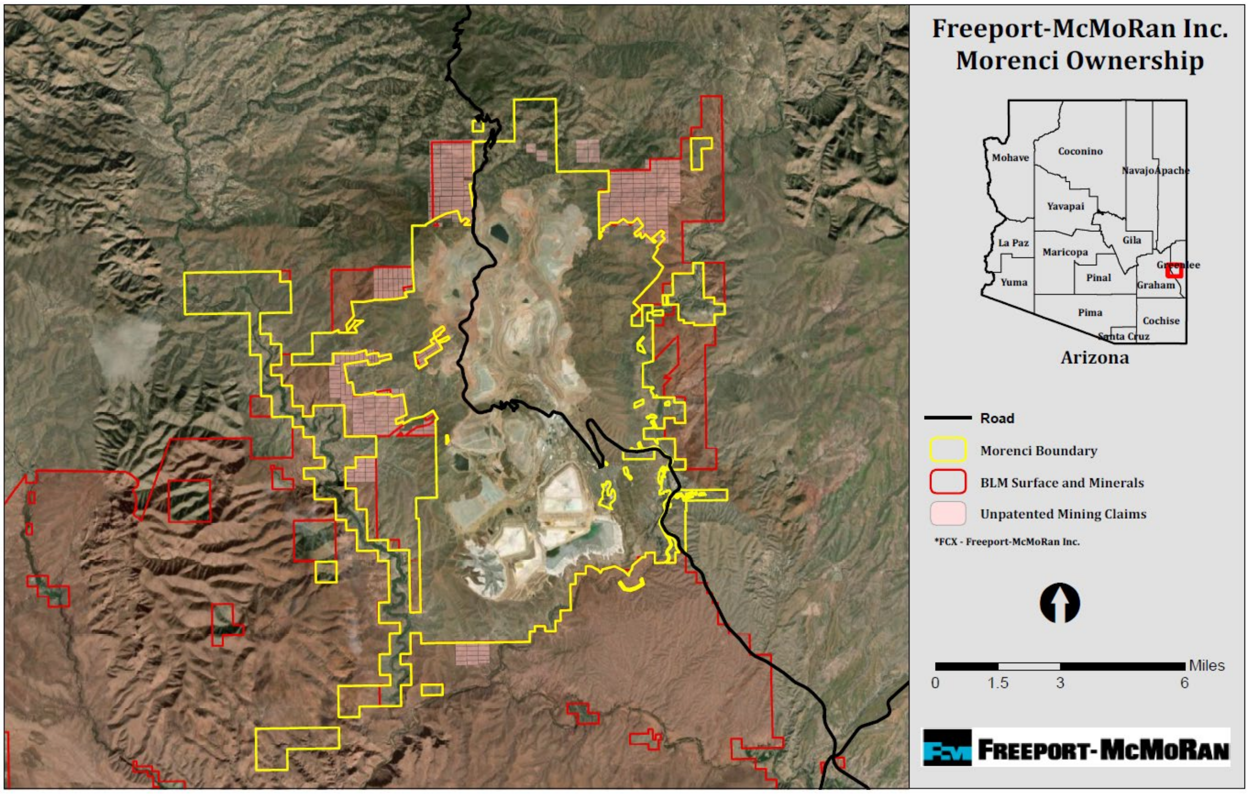
3.2 Ownership

The Morenci mine is an unincorporated joint venture owned 72 percent by FCX, with the remaining 28 percent owned by Sumitomo Metal Mining Arizona, Inc. (15 percent) and SMM Morenci, Inc. (13 percent). Each partner takes in kind its share of Morenci’s production. FCX is the operator of the joint venture and holds registered title to the mineral claims.

3.3 Land Tenure

As of December 31, 2023, the Morenci mine encompasses approximately 61,700 acres, comprising 51,300 acres of fee lands and 10,400 acres of unpatented mining claims held on public mineral estate and numerous state or federal permits, easements, and rights-of-way. Figure 3.2 shows a map of the land claim status.

Figure 3.2 – Morenci Mine Mineral Claim Map



3.4 Mineral Rights and Significant Permitting

The 51,300 acres of fee lands are considered private lands and include the surface and all the mineral rights on this patented land. There is no limit to the depth of the mineral rights or time provisions in which the minerals must be extracted. The fee lands are subject to property taxes.

FCX holds 533 unpatented mining claims, comprising 10,400 acres located in Greenlee County, with the Bureau of Land Management (BLM). FCX pays the annual maintenance fee for maintaining the claims to BLM and has owned and controlled most of these claims for many decades. These mineral claims were obtained from the U.S. federal government. The claims are public records and are on file in the County Recorder's Office, Greenlee County, located in Clifton, Arizona.

The Morenci mine encompasses one small mineral lease with the state of Arizona. This lease covers approximately 332 acres, less than 1 percent of the Morenci concession. The lease agreement maintains a royalty payment in accordance with production from the leased area. As of December 31, 2023, mining has ceased on the leased area and the agreement is set to expire on October 22, 2029.

3.5 Comment on Factors and Risks Affecting Access, Title, and Ability to Perform Work

FCX and the Morenci mine staff believe that all major permits and approvals are in place to support operations at the Morenci mine. Based on the LOM plan, additional permits will likely be necessary in the future for increased capacities of leach pad stockpiles and TSFs as discussed in Section 17. Such processes to obtain these permits and the associated timelines are understood and similar permits have been granted in the past. FCX and the

Morenci mine have environmental, land, water, and permitting departments that monitor and review all aspects of property ownership or other rights and permit requirements so that they are maintained in good standing and any issues are addressed in a timely manner.

U.S. Highway 191 is located inside the operating areas of the Morenci mine as of December 31, 2023. As the mine develops, the highway is planned to be relocated as needed. The Morenci mine staff have relocated portions of this highway various times throughout the operating history of the mine.

As of December 31, 2023, FCX and the Morenci mine believe the mine's access, payments for titles and rights to the mineral claims, and ability to perform work on the property are all in good standing. Further, to the extent known to the QPs, there are no significant encumbrances, factors, or risks that may affect the ability to perform work in support of the estimates of mineral reserves and mineral resources.

4 ACCESSIBILITY, CLIMATE, PHYSIOGRAPHY, LOCAL RESOURCES, AND INFRASTRUCTURE

The property is located in Greenlee County, Arizona, in the southwestern part of the U.S.

4.1 Accessibility

The Morenci mine is accessible by paved road along U.S. Highway 191. The mine is approximately 50 miles northeast of Safford, Arizona. A railway line to the property provides support for delivery of supplies and transport of metal products.

4.2 Climate

The property is situated in a mountainous area at an elevation ranging between 2,750 and 6,560 feet above sea level. This region sits on the edge of the Madrean Archipelago, between the northwestern Chihuahuan Desert and the northeastern Sonoran Desert. Average monthly temperatures typically range between 46 and 85-degrees Fahrenheit. The Morenci mine is located in a desert environment with rainfall averaging 13 inches per year. The mine operates throughout the year with production marginally affected during periods of heavy rain.

4.3 Physiography

Vegetation in the area is a mix of shrubs/forbs and grasses representing the Sonoran Desert scrub and the Chihuahuan Desert species. These include interior chaparral, semidesert grassland, Great Basin conifer woodland, and post-climax conifer woodland.

4.4 Local Resources and Infrastructure

Infrastructure is in place to support mining operations. Section 15 contains additional detail regarding site infrastructure.

The mine maintains a company-owned townsite at the operation. Additional accommodations for mine employees and supplies are available in the nearby communities of Clifton, Safford, Tucson, and Phoenix in Arizona and Lordsburg, Silver City, and Deming in New Mexico.

Water for the Morenci mine is supplied by a combination of sources including decreed surface water rights in the San Francisco River, Chase Creek, and Eagle Creek drainages, groundwater from the Upper Eagle Creek Wellfield, and Central Arizona Project water leased from the San Carlos Apache Tribe and delivered to Morenci via exchange through the Black River Pump Station. FCX and the Morenci mine staff believe Morenci has sufficient water claims through water rights controlled by FCX to cover its operational demands in normal or slightly above-normal climatic conditions; however, FCX is a party to litigation that could impact the mine's water rights claims or rights to continued use of currently available water supplies, which could adversely affect the water supply for Morenci mine operations.

The Morenci operation's electrical power is supplied by FCX's wholly owned subsidiary the Morenci Water and Electric Company (MW&E). MW&E sources its generation services through FCX's wholly owned subsidiary Freeport-McMoRan Energy Services (FMES) through capacity rights at the Luna Energy Facility in Deming, New Mexico, and other power purchase agreements.

Site operations are adequately staffed with experienced operational, technical, and administrative personnel. FCX and the Morenci mine believe all necessary supplies are available as needed.

5 HISTORY

The first record of copper mineralization near Morenci appears in a report prepared by soldiers in January 1863 (Watt, 1956). Early exploration was primarily conducted by prospecting high-grade copper mineralization along lode deposits and fissure veins leading to the development of historical underground mines scattered across the district by the early 1900's. Systematic churn drilling programs designed to delineate and evaluate this resource commenced in 1912. Subsequent exploration confirmed the resource was part of the large Clay ore body being mined on the neighboring Arizona Copper property (Patton, 1945, Briggs, 2016). Various producers (namely, the Longfellow Mining Company, Detroit Copper Mining Company, Arizona Copper Company, and the Shannon Copper Company, as well as a number of other smaller producers) developed underground mine workings and integrated concentrator and smelter operations early in the district's history.

By 1921, the various producers had been consolidated under the management of a single company, the Phelps Dodge Corporation (PDC). Modern exploration in the district began in the late 1920's when PDC drilled many test holes in the Clay ore body. Although grades were too low to warrant mining by underground methods, this drilling demonstrated continuity of mineralization that was amenable to be mined in an open-pit. Subsequent decades of drilling resulted in delineation of mineralization in the Metcalf, Coronado, Garfield, Sun Ridge, Western Copper, Shannon, and American Mountain areas.

Underground operations had ceased by 1932 and by the late 1930's, the district had converted to open-pit operations. The Morenci concentrator was commissioned in 1942 with a reverberatory smelter. An additional concentrator, Metcalf, was constructed in the Morenci district and started receiving ore in 1975. The Morenci smelter was closed in December 1984. Dismantling started in 1993 and was completed by the end of 1996.

In February 1986, PDC sold a 15 percent joint venture interest in the Morenci operation to Sumitomo Metal Mining Arizona, Inc., a jointly owned subsidiary of Sumitomo Metal Mining

Company (SMM) (80 percent ownership) and Sumitomo Corporation (20 percent ownership). Morenci's first SX/EW facilities were commissioned in September 1987. During the fall of 1999, the Metcalf concentrator was closed, with the Morenci concentrator placed in care and maintenance status in 2001. Morenci operated as a leach-only operation until 2006 when the Morenci concentrator resumed production, with the addition of a concentrate leach plant (CLP) commissioned in October 2007. In 2009, the Morenci concentrator was placed in care and maintenance status until 2011.

In March 2007, FCX acquired PDC. From 2007 through 2013, FCX completed 868 district wide exploration and infill drill holes totaling approximately 1.7 million feet. In 2014, mining and milling production were expanded with the construction of a new concentrator housed in the old Metcalf concentrator facility. In May 2016, FCX sold an additional 13 percent interest in its Morenci unincorporated joint venture to SMM.

In 2020, one of the Morenci concentrators was placed in care and maintenance status but was restarted in July 2021 and resumed operating at full capacity in early 2022.

The Morenci mine is a well-developed property currently in operation and all previous exploration and development work has been incorporated where appropriate in the access and operation of the property. Exploration and development work is included in the data described in Sections 6 through 11 of this TRS.

6 GEOLOGICAL SETTING, MINERALIZATION, AND DEPOSIT

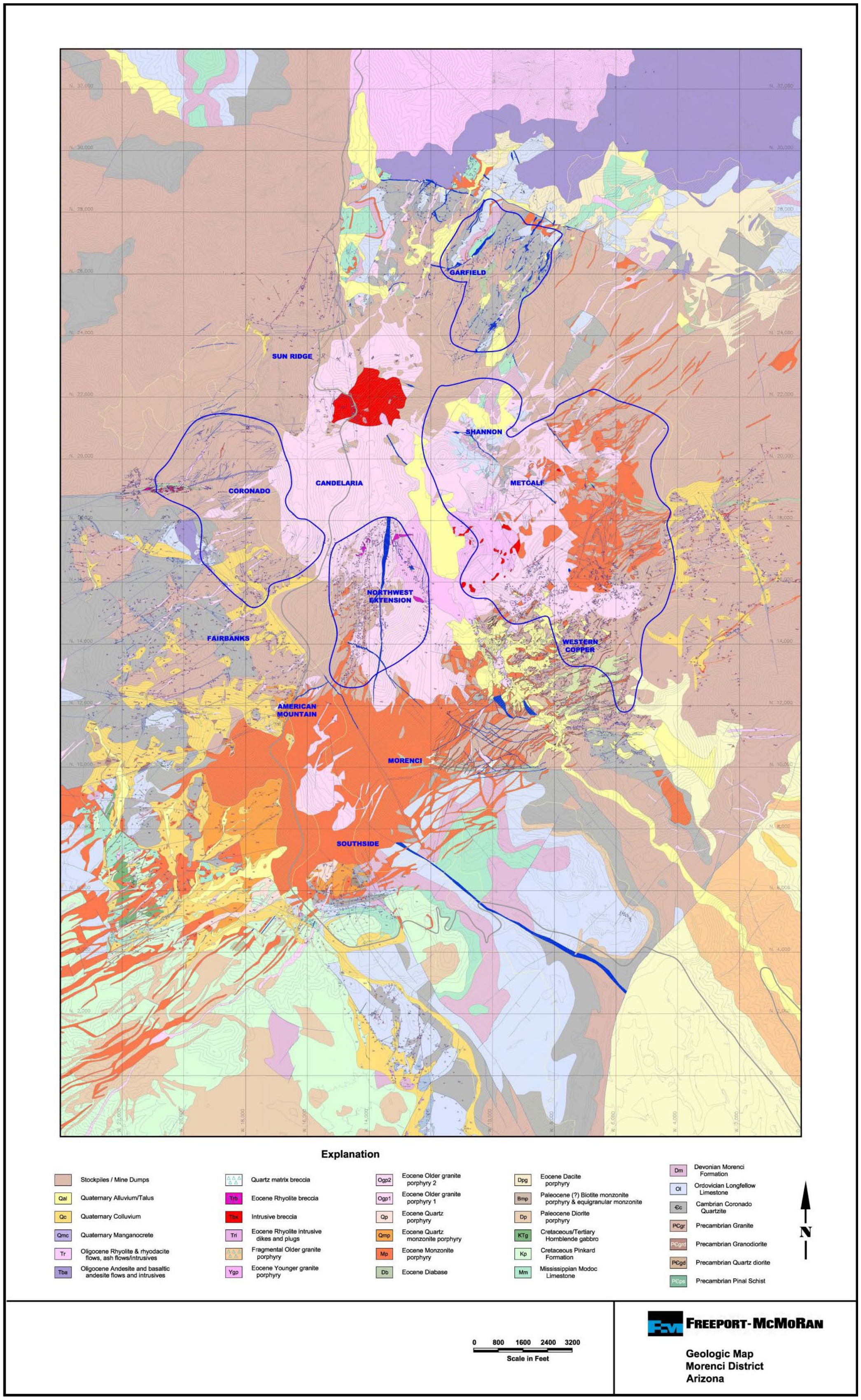
6.1 Regional Geology

The Morenci district is located along the southeastern edge of a transition zone between two major geologic and physiographic provinces. The Colorado Plateau is situated about 20 miles to the north whereas the Basin and Range provinces adjoin the mining district to the south and southeast. The district appears as a triangular window of Precambrian through Tertiary-aged rocks that are surrounded and overlain by younger Tertiary and Quaternary rocks.

6.2 Deposit Geology

The mineral deposits of the Morenci district consist of copper oxide, secondary sulfide, and primary sulfide mineralization associated with a large porphyry copper system. Geologic studies indicate a complex series of Tertiary igneous intrusive rocks were emplaced within Precambrian-age granite and overlying Paleozoic and Mesozoic sedimentary rocks as shown in Figure 6.1. A porphyry copper deposit formed and was associated with the emplacement and crystallization of intrusive rocks. Several cycles of leaching and enrichment of the primary sulfides formed the secondary sulfide enrichment blanket and copper oxide zones currently being mined. Mineralization spans approximately 5 miles in a north-south direction and 4 miles in an east-west direction.

Figure 6.1 – Geologic Map of Lithology in the Morenci District



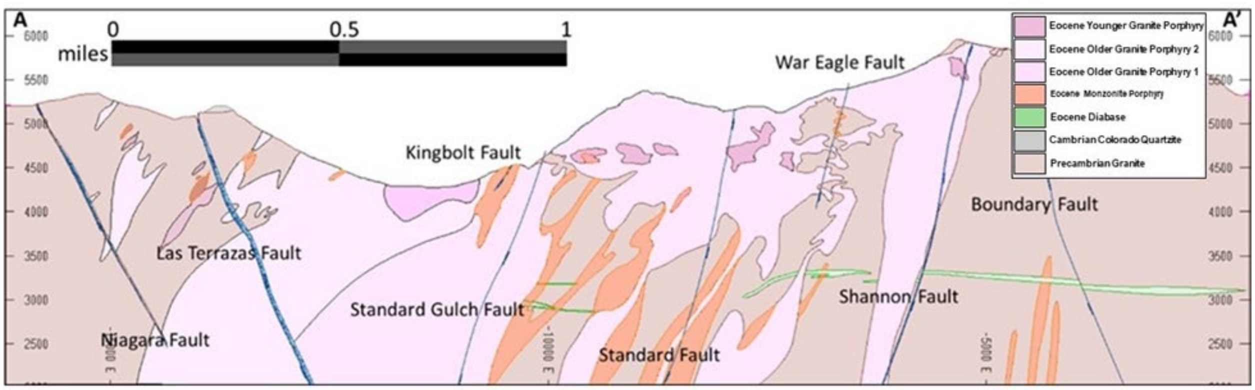
The Morenci pit in the figure is sometimes referred to as the Ponderosa pit.

6.2.1 Structural Geology

The rocks in the Morenci district have been affected by multiple generations of normal faults reflecting major changes in regional tectonism and stress regimes that have affected the southwestern North American continent and local stress fields (Dickinson, 1989). These structures provided pathways for supergene solutions that were fundamental to the development of secondary sulfide ore bodies in the district. Displacement along normal faults formed basins that localized volcanic and sedimentary cover sequences that preserved the mineralized block from erosion. At least four distinct orientations of faults and veins can be recognized in the Morenci district.

The earliest structural trend consists of high-angle normal faults striking 55 to 75 degrees as shown in Figure 6.2. The Quartzite and Coronado faults placed Paleozoic rocks against Proterozoic granite. Diabase dikes of Tertiary age intruded along the Quartzite and Coronado faults indicate that these structures were open during Laramide intrusive events.

Figure 6.2 – Cross Section of Lithology Through the Western Copper Mining Area



East-west cross section at 15,000 N projected to original topography. Section A-A' correlates with the Western Copper Mining Area in Figure 6.4. Elevations are in feet.

Northeast-striking normal faults are the dominant structural orientation of the district and are important controls of magmatism and hypogene mineralization. The monzonite porphyry, older granite porphyry stocks, and associated dike swarms are elongated along this trend, and it is the predominant orientation for quartz-sericite-sulfide veins. The San Francisco fault also strikes northeast; however, while the age of this structure is poorly understood, the San Francisco fault juxtaposes Precambrian and Paleozoic rocks against Tertiary to Quaternary volcanics, conglomerates, and gravels indicating it is significantly younger than the majority of northeast trending structures in the district.

Northerly striking faults form major boundaries to the ore bodies in the district. The Chase Creek fault dips 60 to 70 degrees to the east and extends over 9 miles in the central portion of the district.

Northeast-oriented structures are cut and offset by high-angle northwest-striking faults associated with late Cenozoic Basin and Range development. Northwest-striking faults such as the Kingbolt, Copper Mountain, Morenci Canyon, and Apache faults along the southwestern edge of the Morenci pit and the North fault bounding the northeastern edge of the Shannon block are important controls in the distribution of supergene mineralization.

Structural models are used to guide the interpretation of mineralization fabric and to bound lithological units. Interpretations of district structures were updated in 2016 to incorporate recent drilling and the latest technology for modeling the faults.

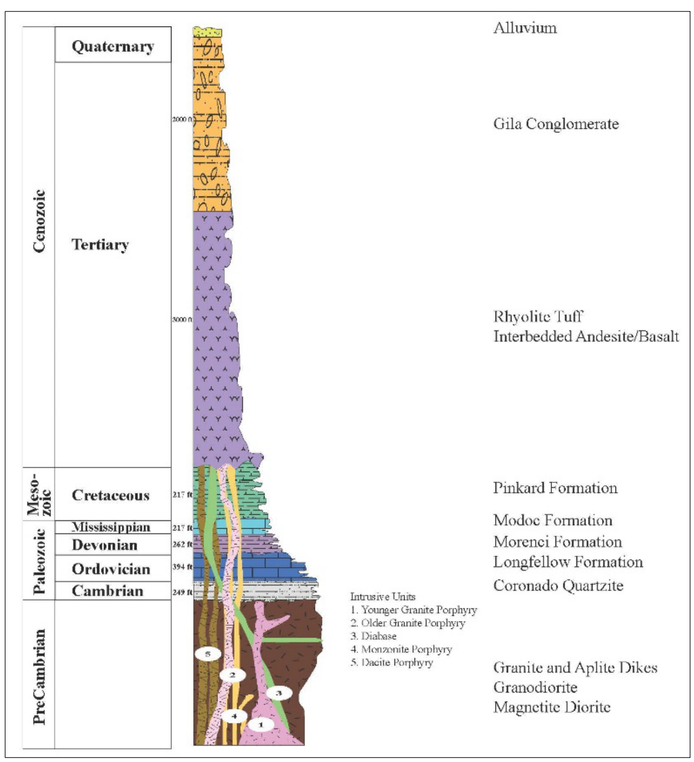
6.2.2 Rock Types

In the Morenci district, rocks ranging from Early Proterozoic schist and granite through Paleozoic and Cretaceous sedimentary sequences are overlain and intruded by early to middle Tertiary igneous rocks. Following a protracted period of uplift and erosion, the Clifton-Morenci area was covered by up to 3,200 feet of Oligocene volcanic rocks with subsequent erosion resulting in thick late Miocene through Holocene basin deposits that filled structural lows to the east and southwest of the Morenci block.

Major host rocks include the Precambrian basement, which consists of granite to the north and northwest and granodiorite in the southwestern and southeastern portion of the district, and Paleozoic sedimentary rocks which are restricted to fault-bound blocks that occur in the southwestern portion of the district and in the Shannon and Garfield mine areas.

Laramide intrusive activity is manifested in the Morenci district by a staged series of Paleocene to early Eocene hypabyssal intrusions. Laramide stocks, laccoliths, and associated dikes and sills constitute a comagmatic, calc-alkaline series of porphyritic intrusions, ranging in composition from diorite to granodiorite to quartz monzonite and granite. These intrusions are separated into at least six texturally and mineralogically distinct stages. Three of these stages are associated with hydrothermal fluids responsible for porphyry copper-style chalcopyrite-molybdenite stockwork and skarn mineralization: dacite, monzonite, and older granite porphyries. Figure 6.3 shows a regional stratigraphic column and intrusive history of rocks in the district.

Figure 6.3 – Regional Stratigraphic Column



6.2.3 Alteration and Mineralization

Primary hypogene mineralization is associated with emplacement of Laramide-age granodiorite to quartz monzonite stocks and dike swarms intruded into Precambrian granite and Paleozoic sedimentary rocks. Quartz-sericite-sulfide alteration and attendant copper-molybdenum mineralization is temporally and spatially associated with the emplacement and cooling of these intrusions. Low-grade hypogene copper mineralization is manifested as quartz-sericite alteration with pyrite-chalcopyrite-molybdenite stockwork veins that overprinted early quartz-orthoclase and biotite vein assemblages.

The style and sequence of hydrothermal alteration and mineralization in the Morenci district can be characterized from vein mineral assemblages and crosscutting relationships. As in many other well-studied porphyry copper systems (Nielsen, 1968; Phillips, Gambell and Fountain, 1974; Beane and Titley, 1981), alteration and vein assemblages in the Morenci ore body appear to vary systematically from potassic alteration near the core and deep within the deposit to sericite-dominated alteration in the upper and central portions. A propylitic zone is present in the fringes of the deposit. Crosscutting relationships among veins associated with these discrete alteration assemblages reflect the evolution of fluids responsible for copper-molybdenum mineralization. Key characteristics of hypogene mineralization are that the potassic-related assemblages are sulfide poor and do not contain significant amounts of copper and the later sericite dominant assemblages contain the bulk of the copper, principally as chalcopyrite.

The supergene zone characteristically displays a massive white appearance reflecting pervasive argillic alteration. Textural destruction is commonly so intense that even coarse-grained granitic textures are obscured, making field identification of lithological units difficult.

Anhydrous skarns containing garnet, diopside, wollastonite, marble and hornfels, and hydrous skarns containing tremolite-actinolite, chlorite, epidote, and magnetite developed where the Laramide porphyries intruded Paleozoic sedimentary units.

Most ore mined from the Morenci district and carried in the current operation is the product of supergene oxidation and enrichment processes. Long-lived multiple supergene cycles resulted in an enriched zone localized in the ancestral Chase Creek Canyon. In supergene sulfide zones, chalcocite occurs as thick coatings and complete replacements of pyrite and chalcopyrite.

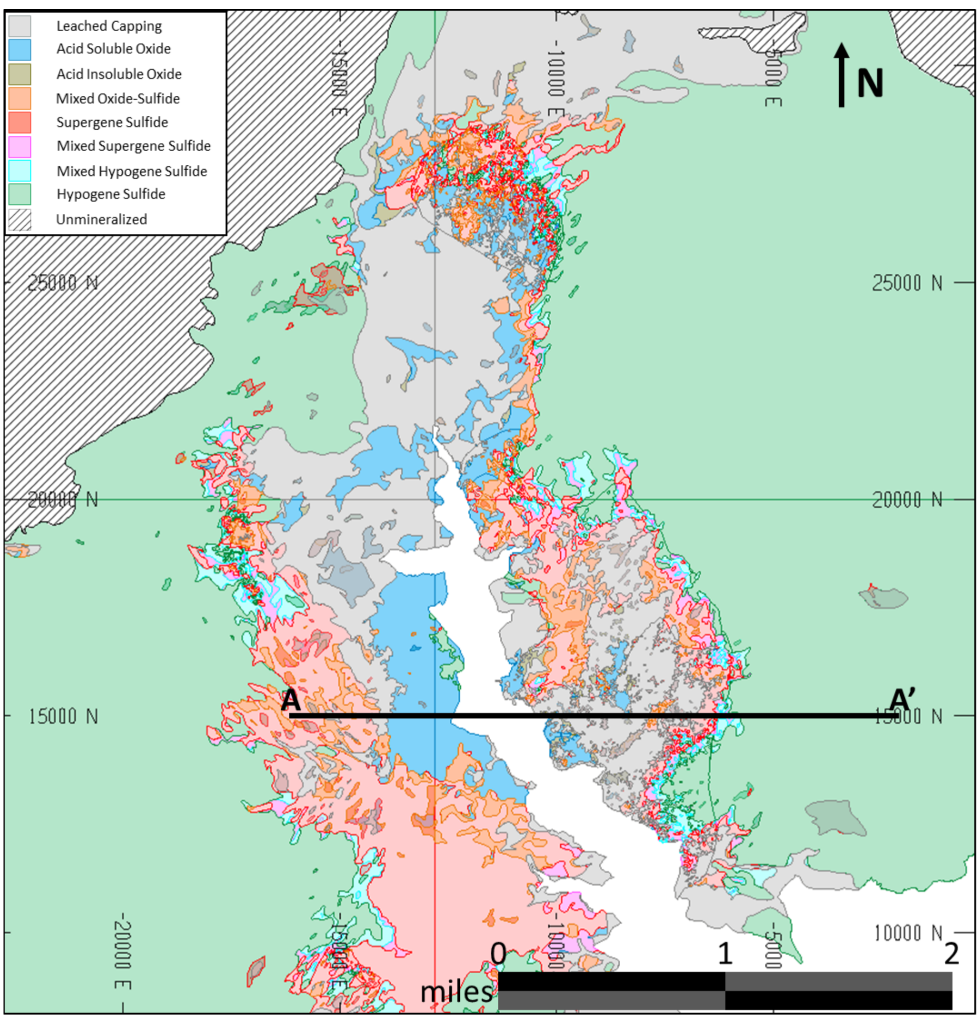
The form and distribution of supergene mineral assemblages is largely a function of the physical character of the ore body and the nature of the climate and the hydrologic setting at the time of formation. Faults and fractures provide conduits for infiltration of supergene solutions into the host rocks. Supergene profiles typically mirror the current topographic surface. Enrichment and oxidation zones are generally thicker in valleys and thinner at ridge tops.

The predominant oxide copper mineral is chrysocolla. Chalcocite is the most important secondary copper sulfide mineral, and chalcopyrite and molybdenite are the dominant primary sulfide minerals. The mineralogical ore types are described in Table 6.1. A plan view map and cross section highlighting ore type interpretations are provided in Figure 6.4 and Figure 6.5.

Table 6.1 – Morenci District Mineralogical Ore Types

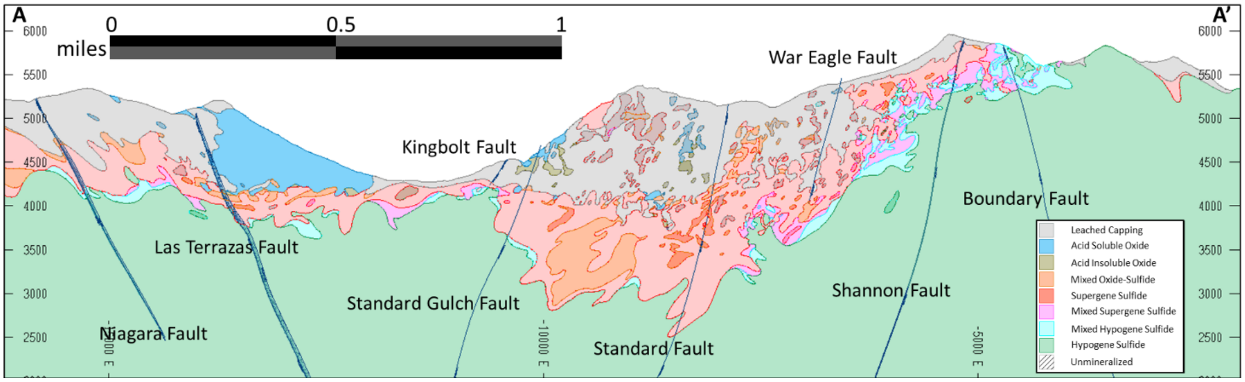
Ore Type	Mineralogy
Leached Cap	Iron oxide; may contain residual copper oxide and chalcocite.
Acid Insoluble Oxide	Native copper, neotocite, tenorite, copper wad, manganese and iron mineraloids; may contain cuprite.
Acid Soluble Oxide	Malachite, chrysocolla, azurite, brochantite; may contain minor chalcocite, pyrite, and/or cuprite.
Mixed Oxide-Sulfide	Chalcocite, pyrite, and/or lesser iron and copper oxide minerals.
Supergene Sulfide	Chalcocite, pyrite; may contain accessory chalcopyrite, covellite.
Mixed Supergene Sulfide	Chalcocite, covellite, chalcopyrite.
Mixed Hypogene Sulfide	Chalcopyrite greater than covellite, chalcocite.
Hypogene Sulfide	Chalcopyrite/pyrite dominant, may contain lesser bornite and/or covellite.
Unmineralized	No visible copper minerals present; may contain pyrite.

Figure 6.4 – Mineralogical Ore Types through Western Copper Mining Area



Plan view of 4,525-foot level.

Figure 6.5 – Cross Section of Mineralogical Ore Types through Western Copper Mining Area



East-west cross section at 15,000 N projected to original topography. Elevations are in feet.

7 EXPLORATION

Morenci is a mature mining district with a long history of exploration. The data, methods, and historical activities presented in this section document actions that led to the initial and continued development of the mine but are not intended to convey any discussion or disclosure of a new, material exploration target as defined by S-K1300.

Exploration outside of the current operation is in collaboration with the FCX Exploration Group and incorporated into the geologic model. A drilling program for material characterization and ore delineation is ongoing at the Morenci mine. Multi-purpose geotechnical and environmental drilling is characterized for inclusion into the geologic model. New drilling was included in the update of the geological resource model to support the mineral reserves and mineral resources. Drilling results added for the model update provide local refinement of the geologic interpretations and grade estimates, but do not materially alter these interpretations and estimates on a district-wide scale.

7.1 Drilling and Sampling Methods

The district has been drilled using churn, conventional rotary, diamond drill core, and reverse circulation (RC) techniques with the majority of the drilling comprised of core and RC methods as shown in Table 7.1. Since 1985, core and RC have been the only drilling methods utilized for exploration and infill drilling. Approximately 83 percent of the historical churn drill hole composites have been mined. There are scattered instances of drilling programs undertaken for environmental or other purposes that have used other drilling methods post-1985. Drill holes with inaccurate or insufficient geological, analytical, or spatial data are not incorporated in the geologic resource model but maintained in the drill hole database.

Table 7.1 – Summary of Drill Programs

Years	Company	# Holes	Method	Footage
1915 to 1961	PDC and Others	559	Churn	420,818
1985 to 1995	PDC and Others	30	Rotary	15,280
1937 to Current	PDC and FCX	3,001	Core	4,057,551
1986 to Current	PDC and FCX	2,041	RC	1,537,444
Total		5,631		6,031,093

7.2 Collar / Downhole Surveys

Collar surveying techniques have changed to reflect technology advances in surveying methods, beginning with transit and stadia, progressing to total-station infrared theodolites, and finally to Global Positioning System (GPS) units today. All coordinates are based on the local mine grid system.

Historically, downhole surveys were not systematically performed. In recent drilling programs, downhole surveys are completed for all angle drilling and for all drill holes exceeding 500 feet in depth.

Currently, core and RC drill holes are surveyed downhole using gyroscopic or magnetic methodologies. Surface recording gyroscopic surveys are conducted on 50-foot intervals down the hole. In cases where downhole surveys are not conducted on shallow holes, values from the hole design are used. Downhole surveys are carefully evaluated to review that the current declination has been accounted for and no magnetic rocks were encountered that would influence the accuracy of the survey method. Survey data are part of the district-wide database and are used in the modeling process to locate drill hole intercepts.

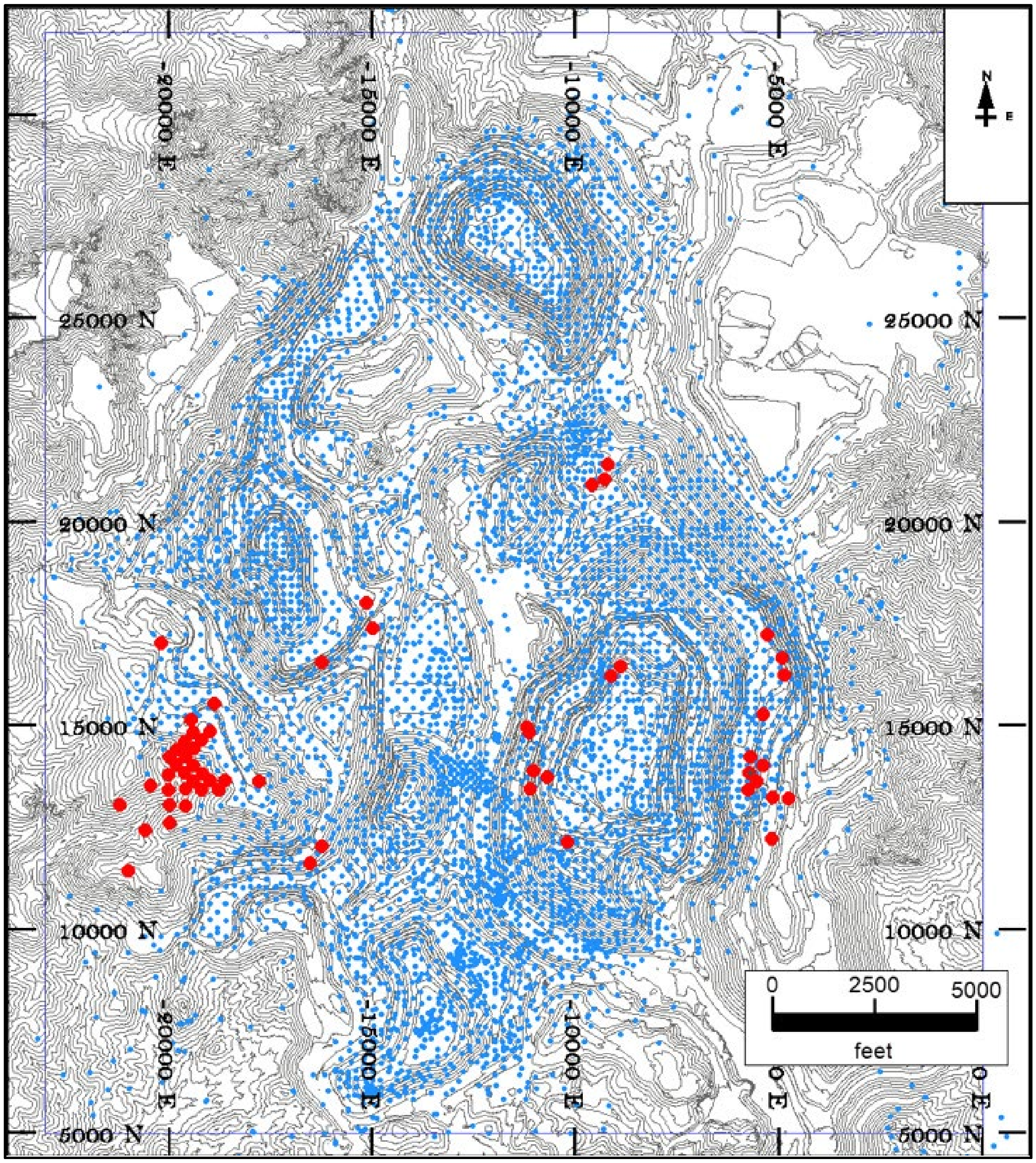
Final reports for collar and downhole surveys are included in the drill hole log files. Original films and survey records are stored in a secure facility. Spatial locations of the drill holes are visually validated in the resource modeling software.

7.3 Drill Hole Distribution

Indicated resources are typically drilled on a 400-foot grid. Center holes to that grid with approximately 285-foot spacing are used to delineate measured resources. A 200-foot drill grid is required in some pit areas for planning purposes. First-pass evaluations of areas in the district with favorable geological and mineralogical characteristics are often drilled on an 800-foot grid. Depending on the results, additional drilling is undertaken to obtain the tighter spacing required for measured and indicated resources. Drill programs are guided by geological and mineralogical characteristics and by the district mining sequence.

Most of the holes drilled in the district are vertical and are distributed along east-west and north-south orientations. Angle holes constitute about 12 percent of the drilling and are placed in areas to address local geological and mineralogical requirements. Angle drilling is also used where site access issues make it difficult to intersect a drill target with a vertical hole. A portion of the core and RC holes are “twinned” by the other drilling method in each project area to validate sample assay quality. The distribution of drill holes in the district is shown in Figure 7.1.

Figure 7.1 – Drill Hole Collar Locations



Topography is as of January 2023. Red dots indicate drill holes completed during 2022. Blue dots indicate historical drilling included in the model. The purple boundary marks the extents of the resource model.

7.4 Sample Quality

The current sampling quality is good and is continually being evaluated and validated. Core recovery is consistently in excess of 98 percent. Historically, the core was typically drilled NQ-size diameter (1.875 inches). Since the mid-2000's, core is typically drilled HQ-size diameter (2.5 inches) except where drilling conditions require reducing to a smaller diameter.

All core and RC samples are taken on 10-foot intervals from the collar. Core samples are split with hydraulic core splitters. A geologist is present during RC drilling to log samples and monitor sample quality. RC samples are split at the drill rig utilizing rotary hydraulic splitters to capture a sample. Split sample analyses show that recovery and grades are representative of the material drilled and show no preferential bias of grades due to sampling methods.

Historical churn drill hole samples were evaluated for sample quality by comparing chip board abstracts with the geologic drill log and assay reports. Geologists identified approximately 22,000 feet of historical churn drilling and 24,000 feet of RC drilling as low-quality data that are not used in the geologic resource model.

7.5 Sample Logging

Detailed logging is performed on 10-foot assay intervals with finer detail as needed. As of 2013, logging is entered directly into a database. Prior to 2013, logging was performed on paper log forms. Historical logs have been scanned and the corresponding survey, assay, and geologic information has been entered into the database.

Geologic logs include detailed descriptions for lithology, alteration, and mineralization. Geomechanical logs include rock quality designation (RQD) and core recovery information. Procedures for RQD, RC, and core logging are documented, and codes and abbreviations are standardized and published in department guidelines. Photographs of drill hole core within the boxes are taken.

7.6 Hydrogeology

Hydrogeologic work is part of an innovative workflow that allows reconciliation of observed open-pit slope pore pressures against geotechnical targets and predicted depressurization results. The prediction of expected hydrogeologic responses from the existing and planned additions to the piezometer network, horizontal drain holes, and vertical dewatering wells is generated using a three-dimensional numerical groundwater flow model. Hydrogeological modelling is based on continuing work by third-party consultants.

The Morenci mine works to achieve slope depressurization and dewatering goals and continues to update water management plans to intercept groundwater with horizontal drain hole drilling programs for specific slope depressurization needs, annual piezometer and vertical well installation focused on targeted areas, and necessary dewatering rates.

Ongoing hydrogeologic investigation includes:

- Design and implementation of appropriate proactive dewatering and slope depressurization measures including a piezometer network, pilot holes, vertical production wells, and horizontal drain holes.
- Field activities associated with mine dewatering and pit slope depressurization, including RC pilot borehole hydrogeologic logging, airlift and recovery testing and characterization, water quality testing, dewatering well design, and piezometer design and construction.
- Monitoring of production from vertical well and horizontal drain flows, piezometer performance, and pit sump pumping.
- Routine construction and replacement of a groundwater and pore pressure monitoring system utilizing a piezometer network, pilot holes, dewatering wells, and associated pumping and piping infrastructure.

7.7 Geomechanical Data

Geomechanical work includes an integrated workflow to manage needs that include field investigation, slope stability studies, mine dewatering, and pit slope depressurization. A comprehensive geology model is used as a baseline to integrate the stability models to hypothesize failure mechanisms, define geomechanical domains, estimate strength parameters, and identify slope depressurization targets.

The Morenci mine uses limit equilibrium and numerical models to evaluate slope stability and establish annualized depressurization targets required to achieve the slope stability design acceptance criteria for factor-of-safety and strength-reduction-factors. Moreover, stability studies update the recommendations for bench geometries, inter-ramp slope angles, and overall slope configurations. Efforts also include site characterization, material characterization, stability studies, and risk assessment for certain waste dumps and ROM stockpiles. Geomechanical modelling is based on continuing work by third-party consultants.

Televiewer surveying is used on geomechanical holes. A third-party consultant uses the data collected in conjunction with physical examination of the drill hole core to characterize the orientation and properties of the geologic structures.

Ongoing geomechanical investigation includes:

- Design and implementation of appropriate proactive geotechnical measures including geomechanical core drilling, televiewer surveying, cell mapping, photogrammetry, and rock testing.
- Geomechanical core drilling is planned and executed to characterize the orientation and properties of geologic structures with televiewer surveying to obtain geomechanical parameters, rock testing, and install instrumentation.
- Geomechanical models including RQD are used for predicting the spatial variability and assessing rock quality as it relates to the degree of fracturing within the in-situ rock mass.
- Structure data is collected through cell mapping and photogrammetry to characterize the orientation and properties of geologic structures.
- Rock testing quantities are governed by rock quality and sample availability and include, but are not limited to, triaxial tests, uniaxial tests, disk tension tests, and small-scale direct shear tests. Testing is performed in accordance with the American Society of Testing and Materials, the International Society for Rock Mechanics, and the British Standards.
- Routine replacement and addition of geomechanical drill holes in areas of interest.

These activities are supervised and guided by an expert group specialized in mining geomechanics, hydrogeology, mine dewatering, and pit slope depressurization allowing completion of the geomechanical and hydrogeologic activities to established FCX mining geomechanical standards. The group consists of site personnel, FCX Corporate Geomechanical and Hydrogeology teams, primary geomechanical and hydrogeological third-party consultants, external reviewers, and industry experts.

7.8 Comment on Exploration

In the opinion of the QPs:

- The exploration programs completed at Morenci (drilling, sampling, and logging) are appropriate for geologic resource modeling.
- The data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for mineral reserve and mineral resource estimation.
- The geomechanical and hydrogeologic programs are appropriate to support slope design recommendations according to the established slope design criteria and mine plans.

8 SAMPLE PREPARATION, ANALYSES, AND SECURITY

8.1 Sampling Techniques and Sample Preparation

Samples are collected on 10-foot intervals. Historically, the first interval of a drill hole was often shortened in order to get the remainder of the samples to correspond to bench elevations. After 1995, the only modifications to sample length are done to accommodate poor recovery zones, or to correct for errors in splitting and sampling. Splits from these samples are composited into 50-foot intervals that correspond to the mining bench height.

The drill core is hydraulically split, with half being sent for assay and the other half retained in the original core box. Split core to be assayed is stored in labeled sample bags in tote containers on-site until shipment is arranged with the assay laboratory. Sample totes are loaded at the Morenci core processing facility and transported to a third-party laboratory facility, Skyline Assayers and Laboratories Incorporated (Skyline) in Tucson, Arizona, by Skyline personnel. Periodically, Morenci core is processed (logged and/or sampled) by the FCX Exploration team at the FCX facility in Tucson where it may be hydraulically split or sawed. Sampled core is stored in labeled sample bags in totes until shipment is arranged with Skyline. Samples are transported to Skyline by their personnel.

RC samples are collected at the rig from a rotary splitter. Sample quality is monitored by a FCX geologist and includes evaluating conditions such as water flow rate, downhole contamination, and acidity. A sample split is collected as an abstract for visual characterization and a chip tray is created and retained to reflect the relevant material for reference.

All preparation for samples collected prior to July 2005 was completed at the FCX Morenci Analytical Services facility, which was not accredited. A minor amount of historical drilling by other companies on local claim blocks was processed by third-party laboratories in Arizona, Utah, and Texas. Samples collected after this date have been prepared by Skyline. Skyline is certified to the internationally recognized ISO/IEC-17025:2017 standard. Their quality management system has been certified to the requirements of the internationally recognized ISO-9001:2015 quality management system standard. The Morenci mine and Skyline laboratories use nearly identical analytical procedures.

8.2 Assaying Methods

Currently, all samples are analyzed for total copper (TCu), acid-soluble copper (ASCu), ferric sulfate-soluble copper assay, known as quick leach test (QLT), and total molybdenum (TMo). The Morenci Leach Test (MLT) assay was developed in 1991 and was the precursor to the current FCX standard QLT analysis. MLTs were typically run only on 50-foot composites until about 2000. An extensive re-assay program was undertaken to obtain QLT assays data for all available 10-foot pulps; however, historical pulps from areas that were mined out were not submitted to the laboratory for QLT analysis.

Atomic absorption spectroscopy is used for TCu assays, while inductively coupled plasma optical emission spectroscopy is used for TMo analyses. Determinations for iron, sulfur, zinc, silver, gold, lead, and manganese are also performed as required.

QLT determinations are obtained for every 10-foot drill sample with a TCu grade that exceeds 0.10 percent. Specific ranges of QLT have been developed for each mineralogical ore type and are used as a tool combined with the observed mineralogy and TCu and ASCu analyses for consistency and standardization of the mineralogical ore type designation for each drill hole interval. The ranges are based on results from column leach tests using standardized extraction parameters.

8.3 Sampling and Assay QA/QC

Quality assurance and quality control (QA/QC) procedures were standardized at Morenci by 2008 and have been consistently followed since 2013. Historical QA/QC programs at Morenci are not well documented and any check sample results prior to 2008 are not currently stored in the Morenci database.

Current procedures at the Morenci mine for QA/QC on drill hole samples are as follows:

- Standards are inserted on a 1 in 20 basis by Morenci for assay by Skyline. The Morenci mine has historically used both commercial standard reference samples as well as internal standards prepared using locally sourced material. The standards are blind to the laboratory and are added to assess accuracy.
- Blanks are utilized and inserted on a 1 in 20 basis to confirm that there is no contamination between samples due to the sample preparation errors at the laboratory. Blanks are derived from washed concrete sand from Safford, Arizona via an on-site concrete batch plant. The blanks are blind to the laboratory.
- Duplicates are analyzed on a 1 in 20 basis at every stage of sample reduction: splitting (sample), crushing (crush), and pulverization (pulp). For core samples, the remaining half of split core, normally reserved for reference and metallurgical testwork, is sent to the laboratory as a duplicate sample. For RC samples, a duplicate sample is collected during drilling from the rig mounted cyclone splitter. The sample duplicates are blind to the laboratory. Crush duplicates and pulp duplicates are prepared by Skyline during sample preparation. Each crush duplicate is taken as a split from the crushed material of the corresponding field duplicate sample and each pulp duplicate is taken as a split from the pulverized material of the corresponding crush duplicate sample. Duplicate results are used to assess analytical precision and to evaluate the sampling nomograph.
- Secondary laboratory checks are performed as part of the QA/QC procedures. A select number of pulps containing assays above the threshold of 0.10 percent TCu were sent to FCX's Technology Center facilities in Tucson, Arizona (TCT) and re-assayed as a check for analytical bias at Skyline. Standards and blanks are blindly inserted into this batch of samples. The TCT laboratory is certified to the ISO-9001:2015 quality management system standard.
- An additional QA/QC measure is the creation of 50-foot laboratory composite samples for assay. These 50-foot analytical composite assays are compared with arithmetic composite values using the 10-foot assay results for the same interval. Prior to implementation of the current check sample insertion procedure outlined above, the comparison of analytical composites to arithmetic composites was the

primary quality control measure for drilling results. Currently, this comparison is done periodically during investigation of anomalous results prior to importing analytical results to the drill hole database.

- QA/QC data is entered directly into the drill hole database. All QA/QC check assays are examined for acceptability using QA/QC tools in the database software. Assays that meet QA/QC requirements are accepted into the database; those that did not are rejected and reruns are ordered from Skyline.
- Skyline maintains internal and independent QA/QC procedures.

8.4 Bulk Density Measurements

Specific gravity (SG) measurements on spatially distributed drill core samples have shown little variability among rock types, alteration assemblages, and copper mineralization. Samples were evaluated using the water displacement method from holes drilled historically and in the 1994 to 1995 drilling campaign by using the following formula:

SG = weight in air / (weight in air – weight in water)
Assumes water has an SG of 1 and surface tension is not a factor.

Based on historical testing, in-situ bedrock is assigned a tonnage factor of 12.5 cubic feet per ton, and stockpile and fill materials are assigned a tonnage factor of 16.5 cubic feet per ton. A 1997 Morenci mine study shows an average in-situ tonnage factor for all rock types of 12.53 cubic feet per ton. The primary host rock in the district is Precambrian granite and tests indicate a tonnage factor of 12.51 cubic feet per ton. These internal studies support the tonnage factor used for in-situ rock. SG measurements are incorporated into the district-wide database.

8.5 Comment on Sample Preparation, Analyses, and Security

In the QP's opinion, sample preparation, analytical methods, security protocols, and QA/QC performance are adequate and support the use of the analytical data for mineral reserve and mineral resource estimation.

9 DATA VERIFICATION

9.1 Data Entry and Management

Drill hole information is maintained in a database and managed by a database manager that has full access and the ability to restrict and monitor access for other end users. This database manager coordinates and controls the entry of all geologic information into the district-wide drill hole database.

Analytical data is loaded into the database directly from the laboratory via software importers. Prior to loading, the information is checked and validated. As needed, analytical results are rejected, and the relevant samples are reanalyzed. There is no manipulation of the assay information.

Outlier evaluations are routinely completed for 10-foot assay intervals for all mineralogical coding. The analytical values are compared to visual estimates as a check of the logging quality and the assay values. Assay intervals are validated and checked against the actual sample intervals.

Collar survey data is loaded directly from GPS units into the database. Collar locations are checked against surveyed topographic surfaces. Downhole surveys are examined for anomalous changes in azimuth and dip between adjacent surveys in cross section before they are imported into the database.

For historical drill holes, collar coordinates, downhole surveys, assays, lithology, mineralogy, fault structure, and alteration codes were manually entered from the original core logging sheets. The transfer and validity of this data has been frequently checked during various model updates throughout the years.

9.2 Comment on Data Verification

As confirmation of the mineral reserve and resource process, third-party consultants are occasionally hired to perform verification studies. The Morenci mine was last reviewed for year-end reporting during 2019. The study included database checks and concluded that the lithological logs and assay sheets correlate well with the lithology and mineralization observed in the core and no discrepancies were identified in total or acid soluble copper or molybdenum grades when comparing Skyline assay certificates from assay data in the drill hole database.

The QP has been involved in recent model audits of the Morenci mine including reviews of the drill hole data. The data has been verified and no limitations have been identified. Furthermore, the QP worked on Morenci drill hole core logging and various aspects of resource model updates from 2011 to 2016.

In summary, data verification for the Morenci mine has been performed by mine site and FCX corporate staff, and external consultants contracted by FCX. Based on reviews of this work, it is the QP's opinion that the Morenci mine drill hole database and other supporting geologic data align with accepted industry practices and are adequate for use in mineral reserve and mineral resource estimation.

10 MINERAL PROCESSING AND METALLURGICAL TESTING

Mineral reserves and mineral resources are evaluated to be processed using hydrometallurgy and/or concentrating (mill) operations. The applicable processes and testing are discussed below.

10.1 Hydrometallurgical Testing and Recovery

Hydrometallurgical recovery is estimated based on the recoverable copper content and the time required to extract the recoverable copper. The final recovery is realized only after multiple leaching passes or cycles on the stockpiles. A leach cycle consists of solution application to a leach pad, followed by a rest period without solution application. Subsequent leach cycles recover diminishing portions of remaining copper.

Hydrometallurgical recoveries at the Morenci mine have been developed from a combination of assay results to determine the range of mineral solubilities, column leach testing using standardized practices by FCX's Technology Center (TC) facilities outside Safford, Arizona, on-site pilot plant testing, and monitoring of field results. The TC is FCX owned and operated, and the analytical labs are certified to the ISO-9001:2015 quality management system standard. Recoverable copper content and kinetic recovery curves vary by ore type and applied leach cycles. Leach production results are tracked over many years to confirm actual hydrometallurgical recoveries. The long-term leach recoveries by ore type and process are listed in Table 10.1 for hydrometallurgy operations.

Table 10.1 – Hydrometallurgical Recoveries

Ore Type Description	Copper Recovery by Process (%)				
	MFL	S-ROM	X-ROM	Low-Grade	MEH
Leached Cap	61.1	53.0	53.0	35.0	53.0
Mixed Oxide-Sulfide	82.6	59.0	59.0	40.0	59.0
Supergene Sulfide	79.6	57.0	57.0	35.0	57.0
Hypogene Sulfide	13.0	13.0	13.0	10.0	30.0
Acid Soluble Oxide	86.7	65.0	70.0	50.0	65.0
Acid Insoluble Oxide	61.1	53.0	53.0	35.0	53.0
Mixed Hypogene Sulfide	30.6	27.0	27.0	19.0	30.0
Mixed Supergene Sulfide	51.6	37.0	37.0	25.0	45.0

Crushed leach ore has sufficient grade to facilitate crushing and conveying to the leach pads in order to improve liberation of the contained copper minerals. This is the Mine for Leach (MFL) process. ROM leach pad stockpiles receive ores that are transported directly to the pads. Sulfide and oxide ROM leach pads (S-ROM, X-ROM) are used to distinguish mineralogies. Low-Grade ROM leach pads are dumped into thicker lifts than other pads with a resultant lower estimated recovery. Morenci Engineered Heap (MEH) are ROM leach pad stockpiles where air is added to facilitate recovery of sulfide mineralogy. Discounts in recovery are made to recognize differing host lithologies.

Field results are a combination of ore type deliveries to the leaching processes. Actual results of the aggregate copper recovery compare favorably to the estimated recoveries, and it is the QP’s opinion that the recovery estimates and kinetic recovery curves are reasonable.

10.2 Concentrating Metallurgical Testing and Recovery

The estimated copper and molybdenum recoveries of the concentrating process have been validated with actual concentrator performance data. Table 10.2 and Table 10.3 summarizes copper and molybdenum recoveries.

Table 10.2 – Concentrator Copper Recoveries

Ore Type Description	Copper Recovery (%)
Supergene Sulfide	81.7
Hypogene Sulfide	86.7
Supergene Mixed	79.7
Hypogene Mixed	86.7

Table 10.3 – Concentrator Molybdenum Recoveries

Mine Areas	Molybdenum Recovery (%)	
	Morenci Concentrator	Metcalf Concentrator
Western Copper and Ponderosa Areas	51.0	49.3
All Other Areas	34.0	32.3

Discounts in recovery are made to recognize differing host lithologies. Due to ore blending, it is not possible to measure concentrator recovery by ore type. Actual results of the aggregate recoveries compare reasonably well with estimated recoveries, indicating that recovery estimates are applicable to current operations and mineral reserve and resource estimation.

Metallurgical testing has been conducted by Morenci metallurgical staff and TC personnel to develop a data set that will be used for geometallurgical modeling. The major metallurgical activities included flotation and comminution testing, and mineralogical analysis including quantitative evaluation of minerals by scanning electron microscopy and x-ray diffraction. Details of geometallurgical testwork include:

- Geometallurgical test program on 67 drill hole samples collected from the Western Copper open-pit area conducted during 2015 to 2017. Scope of work for the program included laboratory kinetic flotation tests and Bond Work Index comminution tests to support the development of a throughput model and to generate rougher flotation response data to support development of recovery models.
- Geometallurgical flotation test program on 161 drill hole samples during 2016 to support development of recovery models.

10.3 Comment on Mineral Processing and Metallurgical Testing and Recoveries

In the opinion of the QPs, the metallurgical testwork completed has been appropriate to establish reasonable processing methods for the different mineralization encountered in the deposits. Geometallurgical samples are properly selected to represent future ores and recovery factors have been confirmed from production data collected from ore processed in the open-pit. As a result, the processing and associated recovery factors are considered appropriate to support mineral reserve and mineral resource estimation and mine planning.

11 MINERAL RESOURCE ESTIMATE

Mineral resources are evaluated using the application of technical and economic factors to a geologic resource block model and employing optimization algorithms to generate digital surfaces of mining limits, using specialized geologic and mine planning computer software. The resulting surfaces volumetrically identify material as potentially economical, using the assumed parameters. Mineral resources are the resultant contained metal inventories.

11.1 Resource Block Model

Relevant geologic and analytical information is incorporated into a three-dimensional digital representation, referred to as a geologic resource block model. The Morenci mine resource block model was updated on February 20, 2023, with an effective date for exploration drill hole data of November 15, 2022. The Morenci resource block model includes mineralogical ore type interpretations for the Morenci district based on drilling and projections from production data and interpolation parameters which distinguish geostatistical domains between the Western Copper area and the remainder of the district, to recognize unique geologic trends between mining areas.

11.1.1 Compositing Strategy

Ten-foot drill hole assay intervals are combined into 50-foot composites, corresponding to the mine bench height. No minimum or maximum length requirement is imposed on the compositing routine; however, holes shallower than 45 degrees are composited to a fixed length of 50 feet, preventing excessive composite lengths for flatter holes. Geologic codes, such as mineralogic ore type, are composited by majority code.

Intervals of less than 25 feet are not used for grade estimation unless found at the end of the drill hole, where they are merged with the previous composite. Outlier evaluations of composite grade values and mineralogic ore type codes are performed to help ensure the composite codes are properly supported by and validated against the corresponding values from the assay file. All outliers are evaluated by a geologist and codes are edited as needed.

11.1.2 Statistical Evaluation

Assay values and geologic codes for each mineralogical ore type are evaluated using classical statistical parameters (mean, standard deviation, number of samples, etc.). Histograms and cumulative frequency plots are used to conduct detailed analyses of sample population data. Assay and composite statistics are compared for each ore type. Outlier evaluations of TCu, ASCu, and QLT versus mineralogy codes are routinely performed on the basis of assigned ore type for each assay interval and composite sample intervals. The comparisons between the sample types and outlier evaluations of these samples are integral parts of the modeling process and are utilized for consistency and standardization of the ore type code assignment.

General relative variograms are calculated for each ore type and models are fit to the experimental data to evaluate continuity of grade and directional trends within ore type domains. Experimental variograms are fit with nested models. Nested models provide a better fit to the variogram data, especially for sample pairs nearest to the origin. Use of nested models improves local grade estimation and slightly extends the range for selected ore types.

The Morenci district model is split into seven lithological and structural domains for interpolation. In domains where blast hole data is available in sufficient quantity, anisotropy defined by this blast hole data is used to generate the directions for the drill hole variograms. The rest of the district domains use variograms generated strictly from exploration drill hole data. The distance, range, nugget, sill, and spatial variance values obtained from the variogram for each ore type are dependent on the mineralization style and geology for that specific area of the district. These variogram parameters are evaluated by cross validation techniques for kriging and inverse distance interpolation methods. Point validation is performed to calibrate variogram parameters. Mean absolute difference among kriged block values and mean grade of composites used to assign grade is also optimized through point validation techniques.

11.1.3 Block Model Setup

Model limits and block sizes for the geologic resource block model are shown in Table 11.1. The Morenci model is a single district-scale block model constructed using geological modeling software. The model is not rotated, and coordinates are based on the Morenci mine coordinate system. The spatial limits of the model encompass the known extents of mineralization. Horizontal block size is based on geostatistical rules and the size of the smallest geological features that can be reasonably modeled. Vertical block size matches the bench height for the Morenci mine open-pit operations.

Table 11.1 – Morenci Block Model Parameters

Direction	Minimum	Maximum	Size (feet)	# of Blocks
X-East	-23,040	0	80	288
Y-North	4,960	32,000	80	338
Z-Elevation	-2,000	7,500	50	190

11.1.4 Topography

Three types of topographic representations are used in the geologic resource model. The original, current, and planned stockpile topographic surfaces are provided by the site mine engineering staff. Geological features are interpreted to original topography. The estimated year-end topographic surface is used for mine planning and to estimate remaining in-situ mineral reserves and mineral resources.

11.1.5 Geologic Model Interpretation

Mineralogical ore types are interpreted on cross sections and bench levels and are updated with blast hole and drill hole data. East-west and north-south cross sections spaced at 200-foot increments are interpreted. Levels are interpreted at the mid-bench height every 50 feet. There are 117 east-west sections, 116 north-south sections, and 102 level plans interpreted.

Large district-scale faults have been interpreted and are used to constrain lithology and ore type interpretations. Lithology is coded using Nearest Neighbor (NN) assignment from drill hole composites, followed by coding from level plan polygons in areas that have section and level interpretation or from three-dimensional wireframe solids generated from drill hole and blast hole data. Ore type interpretations are guided by rock types and structural fabrics.

11.1.6 Grade Estimates

Grade interpolation and search distances for Ordinary Kriging (OK), Inverse Distance Weighting (IDW), Area Influenced Kriging (AIK), and NN methods are based on the statistical and geostatistical analyses. Copper grade interpolation is constrained by similar ore types in the drill hole composites, block model boundaries, variography of each ore type, and by geologic and mineralogical ore type features of the deposit. Interpolation constraints utilize geologic matching of modal ore type in composites with block ore type to create soft boundaries for supergene and hypogene copper mineralization. Molybdenum uses grade shell boundaries with modal ore type matching on concentrator versus copper leach ore types.

Distribution of block model grades are evaluated visually, statistically compared to corresponding drill hole and composite values, and vetted against production data. TCu, ASCu, and TMo grades from AIK are used for mine planning purposes with the exception of one domain that utilizes OK for TCu and ASCu that performs better in predicting narrow zones of grade that are recognized in the domain.

A minimum of 3 composites is required to interpolate a block, using a maximum search distance of 800 feet in all directions. The maximum number of composites is set to 12 with a maximum of 3 per hole. Validation of these methods comes from geostatistical evaluation of composite data, grade-tonnage curves, and reconciliation to production models. Interpolation search distances are derived from variogram modeling and are spatially appropriate for a porphyry copper system.

For AIK and OK interpolation methods, ore type specific high-grade restrictor values are determined via geostatistical outlier analysis and used in interpolation domains.

11.1.7 Bulk Density

Since bulk density has minimal variability between the different rock types, all blocks coded as hard rock are assigned a tonnage factor of 12.5 cubic feet per ton. All blocks coded as stockpile and fill material are assigned a tonnage factor of 16.5 cubic feet per ton.

11.1.8 Mineral Resource Classification

Drill hole spacing and the number of composites used for interpolation are key components in evaluating the uncertainty of mineral resource estimates. Approximately 92 percent of the drilling at the Morenci mine is core and RC. Suspect drill holes have been identified so as not to be used; therefore, sample type is not a consideration in assessing uncertainty of the mineral resource estimates.

FCX's experience with porphyry copper deposits has established drill hole spacing criteria that provide estimates of ore tonnage, grade, and contained and recoverable metal meeting corporate standards for each process method. The required drill hole spacing considers uncertainty in grade estimates as well as geometric uncertainty associated with geologic interpretation of copper ore types, rock types, copper and molybdenum grade shells. Experience has shown that drill spacing of 285 and 400 feet are adequate for determination of measured and indicated mineral resources, respectively, and inferred resources can be projected up to 800 feet from a drill hole.

Resource classification is established based on a single set of criteria across the district, using restrictions on the total number of composites used and the number of composites per drill hole as a proxy for drill hole spacing. To establish resource classification, the following parameters are used:

- The distance to the closest composite used for interpolation.
- The average distance to all composites used.
- The number of composites and the number of drill holes used.

These items are used in conjunction with geostatistical analyses and the criteria described above to establish measured, indicated, and inferred resource classifications as shown in Table 11.2.

Table 11.2 – Resource Classification Criteria

Resource Classification	Minimum # Composites	Maximum Range (feet)
Measured	12	285
Indicated	8	400
Indicated	6	285
Inferred	1	800

Range is the average distance to the composites. Maximum range is the maximum allowed average distance to composites for resource classification assignment. The maximum ranges correlate with the district drill hole sample spacing for each resource classification. Indicated resource classification is determined by either strategy using less composites at a closer range or more composites at a further range.

11.1.9 Model Validation and Performance

The geologic resource model is evaluated by visual inspection, statistical analysis, and comparison with the blast hole model. Reconciliations between the resource model and blast hole models provide a measure of uncertainty associated with mineral resource classification.

Cross sections and level plans showing block model codes and drill hole composites are visually examined to verify proper coding of rock type and mineralogical ore type. Similarly, block model grades are compared with supporting composite values. These inspections show that block model values compare well with the drill hole composites.

Comparisons among assay, composite, and block model grades are performed for each mineralogical ore type as an integral part of the model process. Estimated grades in the model are evaluated by statistical analyses including cumulative probability plots of assays, composites, and blocks. The cumulative probability plots are developed to review that the block grade distributions mimic the distributions of the underlying data. Block model AIK, OK, and IDW results are compared with the composite data and NN estimates.

As confirmation of the mineral reserve and resource process, third-party consultants are occasionally hired to perform verification studies. The Morenci mine was last reviewed for year-end reporting during 2019. The study concluded that “the block model was developed using industry standard practices and is a fair and reasonable representation of the drill hole data.”

FCX standards provide that the resource model should be within 10 percent of the blast hole model for tonnage, grade, and contained or recoverable metal over a 12-month period. For sites such as the Morenci mine with multiple processing methods, comparisons are made for each, but consideration is given to the processing method that represents the greatest proportion of production. As of December 31, 2023, the comparison between the resource model and the blast hole model indicate that the resource model is overpredicting molybdenum recoverable pounds; however, over a 36-month period, the model meets FCX criteria. Reconciliation data is routinely reviewed, and action plans are administered to investigate noted variances.

11.1.10 Comment on Geologic Resource Model

The Morenci mine has a long history of mining and has been the subject of numerous geological studies. In the opinion of the QP, who is a member of the FCX Resource Model Audit Team and has participated in reviews of the most recent model updates:

- The Morenci geology staff has a good understanding of the lithology, structure, alteration, and copper mineral types in the district. The understanding of the controls on mineralization are adequate to support estimation of mineral reserves and mineral resources.
- The understanding and interpretation of ore types based on copper mineralogy is a key component to supporting classification of mineral reserves and mineral resources by process method.
- The geological knowledge of the district is sufficient to provide reliable inputs to mine planning, geomechanics, and metallurgy.
- The geologic resource model has been completed using accepted industry practices.
- The geologic resource model is suitable for estimation of mineral reserves and mineral resources.

11.2 Resource Evaluation

Mineral resource estimates are developed by applying technical and economic modifying factors to the geologic block model to identify material with potential for economic extraction. The process of evaluation is iterative, involving an initial draft using the assumptions, understanding the implications of the resulting economical mining limits, and adjusting the assumptions as warranted for subsequent evaluations.

Mineral resource estimates are determined using measured, indicated, and inferred classified materials as viable ore sources during evaluations with the modifying factors.

11.2.1 Economic Assumptions

FCX executive management establishes reasonable long-term metal pricing to be used in determining mineral reserves and mineral resources. These prices are based on reviewing external market projections, historical prices, comparison of peer mining companies' reported price estimates, and internal capital investment guidelines. The long-term sale prices align the company's strategy for evaluating the economic feasibility of the mineral reserves and mineral resources.

The mineral reserves and mineral resources are based on specific volumes of potentially economic, mineralized material in which FCX has the most confidence to produce an acceptable economic result, given a set of evaluation assumptions. As work continues to increase FCX's confidence through drilling, testwork, and the evaluation of engineering work and other modifying factors, FCX anticipates conversion of resources to reserves in the future, which may require, among other things, higher metal prices.

In developing the economic assumptions used to determine mineral reserves and mineral resources during early 2023, FCX and its QPs made comparisons of the commodity price assumptions against various periods of historical average prices and current spot prices. Additionally, long-term forward-looking price projections from various sources of third-party market consensus services and financial institution reports covering periods ranging from 2023 to 2035 were reviewed. This information is used as reference for reasonableness of the assumptions. FCX concluded that mineral reserve price assumptions of $3.00 per pound for copper and $12 per pound for molybdenum were reasonable in comparison to the reference points and expected volumes of potentially economic material. FCX also concluded mineral resource price assumptions of $3.50 per pound for copper and $15 per pound for molybdenum were reasonable and aligned with industry-accepted practice to use higher metal prices for the mineral resource estimates than the pricing used for determining mineral reserves.

For copper, London Metal Exchange copper settlement prices over various historical periods were reviewed. For the 10-year period ended December 31, 2023, the price ranged from $1.96 per pound to $4.87 per pound and averaged $3.11 per pound. During 2023, forward-looking prices ranged from $2.70 per pound to $4.08 per pound.

For molybdenum, weekly average molybdenum prices quoted by Platts Metals Daily over various historical periods were reviewed. For the 10-year period ended December 31, 2023, the price ranged from $4.46 per pound to $37.42 per pound and averaged $12.34 per pound. During 2023, forward-looking prices ranged from $8.00 per pound to $15.00 per pound.

Unit costs are derived from current operating forecasts benchmarked against historical results and other similar operations. Additional input from appropriate internal FCX departments such as Global Supply Chain, Sales and Marketing, and Finance and Accounting are considered when developing the economic assumptions.

To recognize the relationship between commodity prices and principal consumable cost drivers, FCX scales unit costs to reflect the cost environment associated with the reported metal prices. This is evidenced in the differences in economic assumptions between mineral reserves and mineral resources.

The metal price and cost assumptions are used over the timeframe of the expected life of the mine and reflect steady-state operating conditions in the metal price cost environment. Details of the economic assumptions are outlined in Table 11.3.

11.2.2 Processing Recoveries

Processing recoveries are outlined in Section 10.

11.2.3 Physical Constraints

Slope angle recommendations are provided by FCX geomechanical groups and third-party consultants. The recommendations are derived from empirical analysis of geological and hydrogeological modeling, drill hole results, and in-field measurements.

Boundary limits for resource evaluation include property ownership and permitting limits, and additional major infrastructure relocation requiring capital investment for boundary expansions.

11.2.4 Time-Value Discounting

To recognize the time delay in extracting increasingly deeper portions of the mine as part of the mining process, FCX uses bench discount factoring for resource evaluation processes. This factor discounts each block's value relative to the block's elevation in the geologic block model, effectively assigning a higher relative value to material located closer to the surface than deeper material, which cannot be accessed until overlying material has been removed.

Additionally, hydrometallurgical processes achieve final recoveries after a period of years of repeated solution applications whereas concentrating process recoveries are realized on a more immediate timeframe. In recognition of this distinction, a time-value discount is applied to hydrometallurgical recovery based on the planned recovery curves.

11.2.5 Cutoff Grades

A cutoff grade is used to determine whether material should be mined and if that material should be processed as ore or routed as waste. The mine planning software evaluates the revenue and cost for each block in the block model to determine routing, selecting material that has a reasonable basis for economic extraction using the provided assumptions. The following formula demonstrates how the cutoff grades are determined within the software:

Internal cutoff grade = Sum of [processing costs + general site and sustaining costs] / Sum of [payable recoverable metal * (metal price – metal refining and sales costs)]

A break-even cutoff grade calculation is similar to the internal cutoff grade formula but includes mining costs. Blocks with grades above the break-even cutoff grade generate positive value, while blocks with grades above the internal cutoff grade minimize negative value. The cutoff grades reported for mineral resources reflect the internal cutoff grades based on economical destination routing from the software results.

Input parameters are applied to individual deposits and distinct ore types as appropriate. Unique parameters can result in distinct cutoff grades. Cutoff grades are reported in terms of an Equivalent Copper Grade (EqCu) defining the relative value of all commercially recoverable metals in terms of copper by ore processing methods.

11.2.6 Economic and Technical Assumptions

The economic and technical assumptions used for the generation of potentially economical mining limits are summarized in Table 11.3.

Table 11.3 – Economic and Technical Assumptions for Resource Evaluation

Morenci Mine as of December 31, 2023	Units	Mineral Reserve Assumptions	Mineral Resource Assumptions
Economic Parameters			
Metal Prices			
Copper	$ per pound	3.00	3.50
Copper Cathode Premium	$ per pound	0.025	0.025
Molybdenum	$ per pound	12	15
Mining Costs			
Mining Rate	ton per day	715,000	715,000
Base Waste Mining Cost	$ per dst-Mined	1.81	1.90
Haulage Increment per bench	$ per dst-Mined per bench	0.03	0.03
Incremental Mill Haulage Cost/(Credit)	$ per dst-Mined	(0.29)	(0.31)
Incremental Crushed Leach Haulage Cost/(Credit)	$ per dst-Mined	(0.14)	(0.15)
Incremental ROM Leach Haulage Cost/(Credit)	$ per dst-Mined	0.21	0.22
Leaching Costs			
ROM Placement Rate	ton per day	350,000	350,000
ROM Leach Cost	$ per dst-ROM	0.30	0.32
Crushed Stacking Rate	ton per day	75,000	75,000
Crushed Leach Cost	$ per dst-Crushed	3.73	3.96
SX/EW Processing Rate	million pounds per year	475	475
SX/EW Cost	$ per pound copper	0.30	0.30
EW Cathode Freight to Market and Sales Cost	$ per pound copper	0.05	0.05
Milling Costs			
Milling Rate	ton per day	130,000	130,000
Milling Cost	$ per dst-Milled	6.21	6.36
Freight, Smelting, Refining and Sales Costs	$ per pound copper	0.35	0.36
Copper Concentrate Grade	% copper	28.9%	28.9%
Smelting	$ per dst-Concentrate	91	91
Refining	$ per pound copper	0.10	0.10
Transportation Losses	%	0.2%	0.2%
Copper Smelter Payable Term	%	96.5%	96.5%
Molybdenum Production Rate	million pounds per year	9	9
Molybdenum Cost	$ per pound molybdenum	3.63	4.00
Molybdenum Roasting Recovery	%	99.0%	99.0%
General Site Costs			
Site G&A Assigned to Mining	$ per dst-Mined	0.57	0.57
Total Site Taxes	$ per pound copper	0.03	0.03
Sustaining Capital Costs			
Mine Equipment Capital Allowance	$ per dst-Mined	0.30	0.30
ROM Sustaining Capital Allowance	$ per dst-ROM	0.11	0.11
Crushed Leach Sustaining Capital Allowance	$ per dst-Crushed	0.21	0.21
Mill Sustaining Capital Allowance	$ per dst-Milled	0.50	0.50
Major Commodity Costs			
Delivered Acid Cost	$ per wst-acid	93	109
Power Cost	$ per kWh	0.07	0.07
Delivered Diesel Cost	$ per U.S. gallon	2.21	2.46
Technical Parameters			
Bench Height	feet	50	50
Bench Discount Factor	% per bench	1.71%	1.71%
Range of Open-Pit Slope Angles	degrees	28 minimum to 53 maximum	
Process Recoveries	%	Refer to Section 10	

Notes:
dst = dry short ton
wst = wet short ton

Metal prices and other assumptions for mineral reserve and mineral resource evaluations are reviewed at least annually with FCX management. As of December 31, 2023, FCX and its QPs concluded that the assumptions for mineral reserve and mineral resource determinations were reasonable.

11.3 Mineral Resource Statement

The mineral resource estimate is the inventory of material identified as having a reasonable likelihood for economic extraction inside the mineral resource economical mining limit, less the mineral reserve volume, as applicable. The modifying factors are applied to measured, indicated, and inferred resource classifications to evaluate commercially recoverable metal. As a point of reference, the in-situ ore containing copper and molybdenum metal is inventoried and reported by intended processing method.

The reported mineral resource estimate in Table 11.4 is exclusive of the reported mineral reserve, on a 100 percent and pro rata property ownership basis. The mineral resource estimate is based on commodity prices of $3.50 per pound for copper and $15 per pound for molybdenum.

Table 11.4 – Summary of Mineral Resources

MORENCI MINE Summary of Mineral Resources[a] As of December 31, 2023		Ownership %	Tonnage[b] Short M Tons	Metric M Tons	Cutoff Grade[c] %EqCu	Average Grade Copper %	Molybdenum %	Contained Metal[b,d] Copper M lbs	Molybdenum M lbs
Open-Pit Inventories									
Mill	Measured		1,629	1,478		0.24	0.02	7,947	615
	Indicated		1,525	1,383		0.25	0.02	7,715	630
	Subtotal		**3,154**	**2,861**		**0.25**	**0.02**	**15,662**	**1,245**
	Inferred		1,037	941		0.24	0.02	5,021	475
	Total		**4,190**	**3,802**	**0.13**	**0.25**	**0.02**	**20,683**	**1,720**
Crushed Leach	Measured		267	242		0.38		2,045	
	Indicated		141	128		0.36		1,022	
	Subtotal		**408**	**370**		**0.38**		**3,068**	
	Inferred		46	42		0.35		328	
	Total		**455**	**412**	**0.07**	**0.37**		**3,396**	
ROM Leach	Measured		1,215	1,102		0.11		2,751	
	Indicated		973	883		0.12		2,241	
	Subtotal		**2,188**	**1,985**		**0.11**		**4,992**	
	Inferred		629	571		0.10		1,202	
	Total		**2,818**	**2,556**	**0.01**	**0.11**		**6,194**	
Total Resources Inventories									
Total Mineral Resources	Measured		3,111	2,822		0.20	0.01	12,743	615
	Indicated		2,640	2,395		0.21	0.01	10,979	630
	Subtotal		**5,750**	**5,216**		**0.21**	**0.01**	**23,722**	**1,245**
	Inferred		1,712	1,553		0.19	0.01	6,551	475
	Total	**100%**	**7,463**	**6,770**		**0.20**	**0.01**	**30,273**	**1,720**
Net Equity Interest[e]									
Total FCX		**72%**	**5,371**	**4,872**		**0.20**	**0.01**	**21,790**	**1,238**
Total Other		**28%**	**2,092**	**1,898**		**0.20**	**0.01**	**8,482**	**482**

Notes:

a. Reported as of December 31, 2023 using metal prices of $3.50 per pound copper and $15.00 per pound molybdenum. Mineral resources are exclusive of mineral reserves.
b. Amounts may not foot because of rounding.
c. Internal cutoff grade reported as equivalent copper (EqCu).
d. Estimated expected recoveries are consistent with those for mineral reserves but would require additional work to substantiate.
e. The Morenci mine is an unincorporated joint venture owned 72 percent by FCX, with the remaining 28 percent owned by Sumitomo Metal Mining Arizona, Inc. (15 percent) and SMM Morenci, Inc. (13 percent). Each partner takes in kind its share of Morenci's production. FCX is the operator of the joint venture and holds registered title to the mineral claims.

Extraction of the mineral resource may require significant capital investment, specific market conditions, expanded or new processing facilities, additional material storage facilities, changes to mine designs, or other material changes to the current operation.

In the opinion of the QP, risk factors that may materially affect the mineral resource estimate include (but are not limited to):

- Metal price and other economic assumptions.
- Changes in interpretations of continuity and geometry of mineralization zones.
- Changes in parameter assumptions related to the mine design evaluation including geotechnical, mining, processing capabilities, and metallurgical recoveries.
- Changes in assumptions made as to the continued ability to access and operate the site, retain mineral and surface rights and titles, maintain the operation within environmental and other regulatory permits, and social license to operate.

Uncertainty in geological resource modeling is monitored by reconciling model performance against actual production results, as part of the FCX geologic resource model verification process.

11.4 Comment on Mineral Resource Estimate

The mineral resource estimate has been prepared using industry accepted practice and conforms to the disclosure requirements of S-K1300. Mineral reserve and mineral resource estimates are evaluated annually, providing the opportunity to reassess the assumed conditions. Although all the technical and economic issues likely to influence the prospect of economic extraction of the resource are anticipated to be resolved under the stated assumed conditions, no assurance can be given that the estimated mineral resource will become proven and probable mineral reserves.

12 MINERAL RESERVE ESTIMATE

Mineral reserves are summarized from the LOM plan, which is the compilation of the relevant modifying factors for establishing an operational, economically viable mine plan. The LOM plan incorporates:

- Scheduling material movements for ore and waste from designed final mining excavation plans with a set of internal development sequences, based on the results of the resource evaluation process.
- Planned production from scheduled deliveries to processing facilities, considering metallurgical recoveries and planned processing rates and activities.
- Capital and operating cost estimates for achieving the planned production.
- Assumptions for major commodity prices and other key consumable usage estimates.
- Revenues and cash flow estimates.
- Financial analysis including tax considerations.

Mineral reserves have been evaluated considering the modifying factors for conversion of measured and indicated resource classes into proven and probable reserves. Inferred resources are considered to be waste in the LOM plan. The details of the relevant modifying factors included in the estimation of mineral reserves are discussed in Sections 10 through 21.

The LOM plan includes the planned production to be extracted from the in-situ mine designs and from previously extracted material, known as WIP inventories. WIP includes material on crushed leach and ROM leach pads for processing, and in stockpiles set aside to be rehandled and processed at a future date. WIP is estimated as of December 31, 2023, from production of reported deliveries through mid-year and the expected production to the end of the year.

12.1 Cutoff Grade Strategy

The cutoff grade strategy is a result of the mine plan development, determined by the economic evaluation of the mineral reserves via strategic long-range mine and business planning. Operational cutoff grades are determined from the LOM planning results and can vary based on processing throughput expectations, ore availability, future ore and overburden requirements, and other factors encountered as the mine operates. This approach is consistent with accepted mining industry practice. Cutoff grades reported are the minimum grades expected to be delivered to a processing facility.

12.2 Mineral Reserve Statement

As a point of reference, the mineral reserve estimate reports the in-situ ore and WIP inventories from the LOM plan containing copper and molybdenum metal and reported as commercially recoverable metal.

Table 12.1 summarizes the mineral reserves reported on a 100 percent and pro rata property ownership basis. The mineral reserve estimate is based on commodity prices of $3.00 per pound for copper and $12 per pound for molybdenum.

Table 12.1 – Summary of Mineral Reserves

MORENCI MINE Summary of Mineral Reserves[a] As of December 31, 2023		Ownership %	Tonnage[b] Short M Tons	Metric M Tons	Cutoff Grade[c] %EqCu	Average Grade Copper %	Molybdenum %	Average Recovery[d] Copper %	Molybdenum %	Recoverable Metal[b] Copper M lbs	Molybdenum M lbs
Open-Pit Inventories											
Mill	Proven		1,112	1,008		0.32	0.02	82.4	43.5	5,797	183
	Probable		299	272		0.29	0.02	82.0	44.3	1,439	48
	Total		**1,411**	**1,280**	**0.17**	**0.31**	**0.02**	**82.3**	**43.7**	**7,236**	**231**
Crushed Leach	Proven		366	332		0.37		81.7		2,202	
	Probable		128	116		0.33		82.3		691	
	Total		**494**	**448**	**0.10**	**0.36**		**81.9**		**2,893**	
ROM Leach	Proven		1,798	1,631		0.12		36.5		1,607	
	Probable		507	460		0.14		39.7		556	
	Total		**2,305**	**2,091**	**0.03**	**0.13**		**37.3**		**2,163**	
Total Open-Pit Reserves	Proven		3,276	2,972		0.22	0.01	67.9	43.5	9,605	183
	Probable		934	847		0.21	0.01	67.2	44.3	2,687	48
	Total		**4,210**	**3,819**		**0.22**	**0.01**	**67.8**	**43.7**	**12,292**	**231**
Stockpile Inventories											
Mill Stockpile	Proven		1	1		0.54		83.8		6	
Leach Stockpile	Proven		8,360	7,584		0.24		0.8		331	
	Total		**8,361**	**7,585**		**0.24**		**0.8**		**337**	
Total Reserves Inventories											
Total Mineral Reserves	Proven		11,637	10,557		0.23	0.00	18.4	43.5	9,943	183
	Probable		934	847		0.21	0.01	67.2	44.3	2,687	48
	Total	**100%**	**12,571**	**11,404**		**0.23**	**0.00**	**21.7**	**43.7**	**12,629**	**231**
Net Equity Interest[e]											
Total FCX		**72%**	**9,046**	**8,207**		**0.23**	**0.00**	**21.7**	**43.7**	**9,093**	**166**
Total Other		**28%**	**3,524**	**3,197**		**0.23**	**0.00**	**21.7**	**43.7**	**3,536**	**65**

Notes:

a. Reported as of December 31, 2023 using metal prices of $3.00 per pound copper and $12.00 per pound molybdenum.
b. Amounts may not foot because of rounding.
c. Operational cutoff grade reported as equivalent copper (EqCu).
d. Process recoveries include all applicable processes such as concentration, smelting, transportation losses, etc.
e. The Morenci mine is an unincorporated joint venture owned 72 percent by FCX, with the remaining 28 percent owned by Sumitomo Metal Mining Arizona, Inc. (15 percent) and SMM Morenci, Inc. (13 percent). Each partner takes in kind its share of Morenci's production. FCX is the operator of the joint venture and holds registered title to the mineral claims.

In the opinion of the QP, risk factors that may materially affect the mineral reserve estimate include (but are not limited to):

- Metal price and other economic assumptions.
- Changes in interpretations of continuity and geometry of mineralization zones.
- Changes in parameter assumptions related to the mine design evaluation including geotechnical, mining, processing capabilities, and metallurgical recoveries.
- Changes in assumptions made as to the continued ability to access and operate the site, retain mineral and surface rights and titles, maintain the operation within environmental and other regulatory permits, and social license to operate.

As confirmation of the mineral reserve and resource process, third-party consultants are occasionally hired to perform verification studies. The Morenci mine was last reviewed for year-end reporting during 2019. The study concluded that "the reserves reported by Morenci mine are consistent with industry standard practices."

The positive economics of the financial analysis of the LOM plan demonstrate the economic viability of the mineral reserve estimate.

12.3 Comment on Mineral Reserve Estimate

The mineral reserve estimate has been prepared using industry accepted practice and conforms to the disclosure requirements of S-K1300. Mineral reserve and mineral resource estimates are evaluated annually, providing the opportunity to reassess the assumed conditions. All the technical and economic issues likely to influence the prospect of economic extraction are anticipated to be resolved under the stated assumed conditions.

Mineral reserve estimates consider technical, economic, environmental, and regulatory parameters containing inherent risks. Changes in grade and/or metal recovery estimation, realized metal prices, and operating and capital costs have a direct relationship to the cash flow and profitability of the mine. Other aspects such as changes to environmental or regulatory requirements could alter or restrict the operating performance of the mine. Significant differences from the parameters used in this TRS would justify a re-evaluation of the reported mineral reserve and mineral resource estimates. Mine site administration and FCX dedicate significant resources to managing these risks.

13 MINING METHODS

The Morenci mine has a long operational history and mining conditions are well understood by the site and FCX corporate staff. The mining method is a conventional truck and shovel, open-pit operation.

13.1 Mine Design

The results of the economical mining limit evaluation discussed in Section 11 are used as guides to develop the final mine design and the phased pushback designs for mine sequencing. Mine designs are developed using specialized mine design computer software.

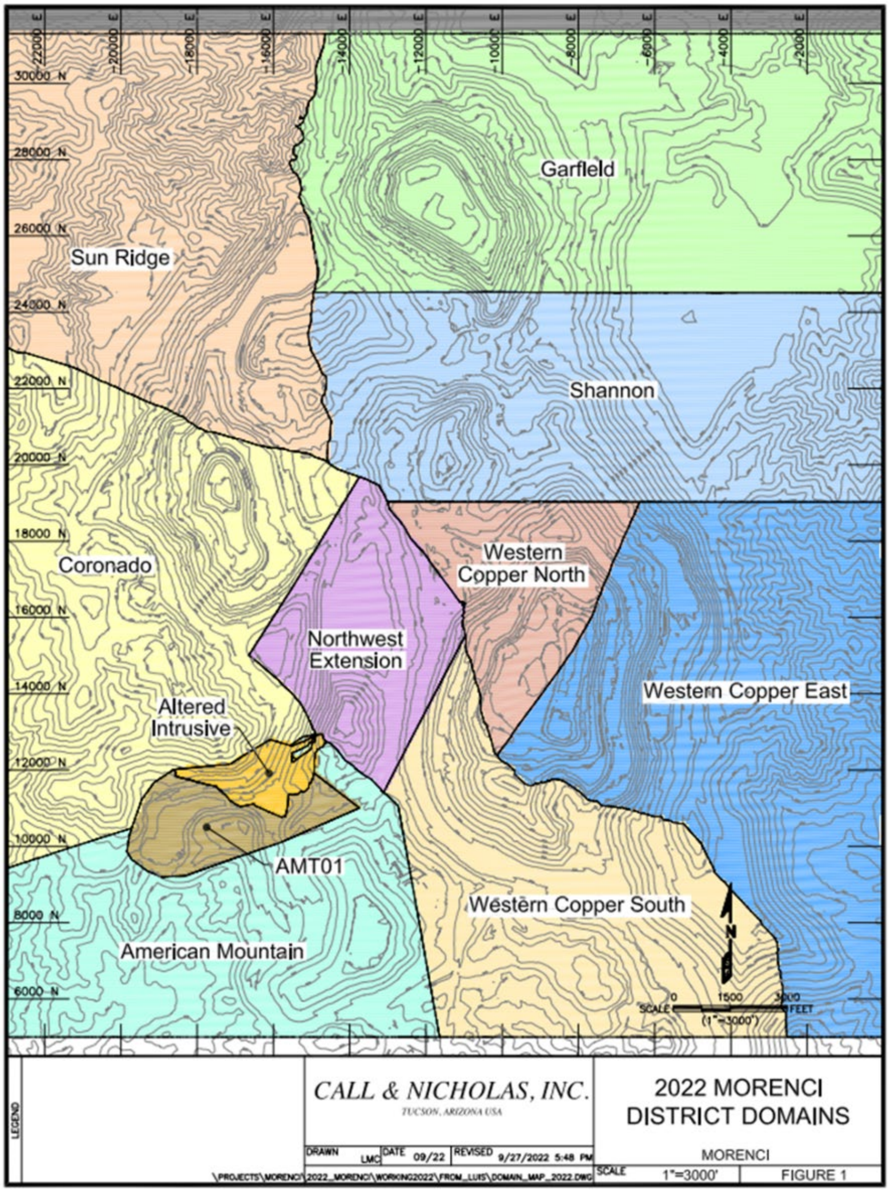
13.1.1 Pit Slope Design Parameters

Slope angle recommendations are determined and reviewed by FCX engineers and third-party consultants. These recommendations are based on comprehensive geomechanical testing, studies, and the geomechanical monitoring procedures in the field.

Haul roads and geomechanical catchment berms or step-ins, in conjunction with the recommended inter-ramp slope angles, determine the overall pit slope angles for the design. Inter-ramp slope angles account for differences in rock quality and can include single or double bench designs and various catch bench widths. Eleven geotechnical domains have been defined at the pit areas, each with different design inter-ramp slope angles. The inter-ramp slope angles vary between 42 to 54 degrees.

Figure 13.1 provides the geotechnical domain areas for the Morenci mine. Pit wall slopes are designed with inter-ramp slope angles assigned to each of those domains.

Figure 13.1 – Geotechnical Domains



13.1.2 Geomechanical and Hydrological Modeling

Geomechanical and hydrological modeling is discussed in Section 7.

The performance of the open-pit wall slopes is monitored with a network of geomechanical and hydrogeological instrumentation. The Morenci mine uses instrumentation that includes slope stability radars, laser scanners, satellite monitoring, extensometers, inclinometers, time domain reflectometry, piezometers, seismic blast monitoring, GPS tracking, and robotic survey stations. Groundwater and pore pressure are controlled with dewatering wells and horizontal drain holes for specific slope depressurization needs as the pit area increases during the life of the mine. The monitoring plan defines responsibilities and outlines the monitoring procedures and trigger points for the initiation of specified remedial measures if movement is detected, and it is the basis for the design of any required remedial measures.

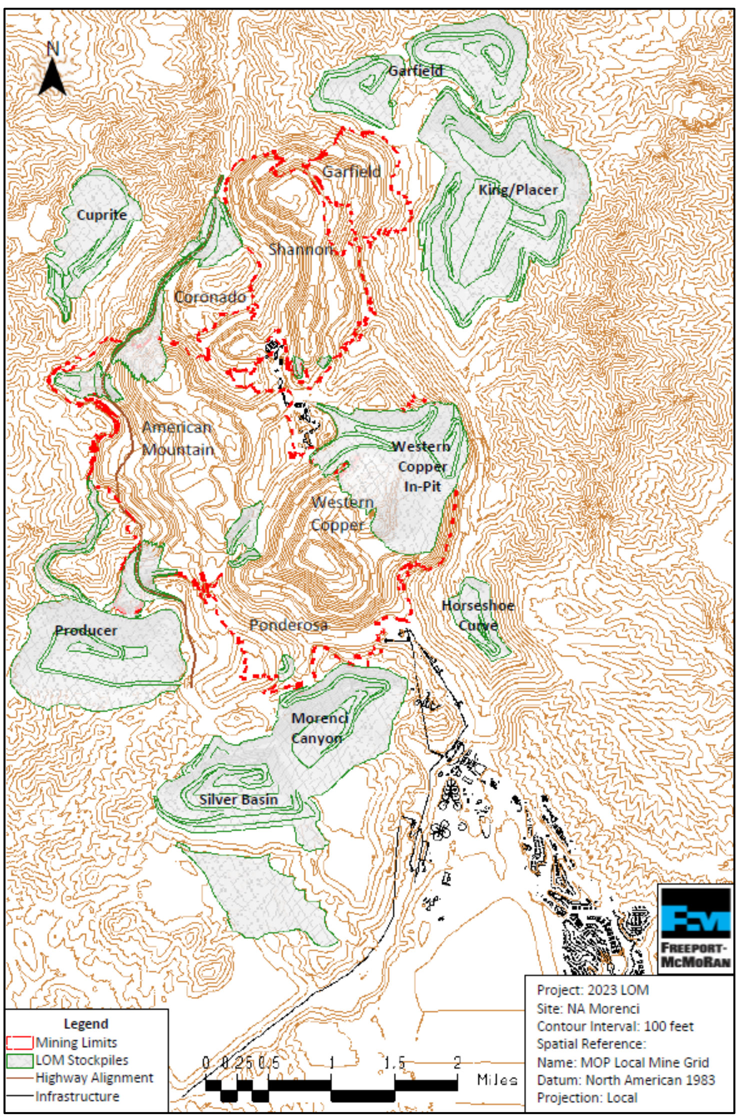
13.1.3 Final Mine Design

Using specialized computer software, mine designs are developed with key considerations that include:

- Compliance with the geomechanical recommendations.
- Reasonable haul road widths and effective grades.
- Operational bench height that is safely manageable with the loading equipment, in single and/or double bench configurations where allowable.
- Adequate mining width for practical mining.
- Locating pit exits near to material destinations as practical.
- Infrastructure location requirements and other boundary restrictions.
- Mine sequencing that maintains continuous production throughout the mine life.

Mine designs are reviewed for compliance to key parameters and reasonableness with comparison to historical and current operating practices. The reserve final mine design is illustrated in Figure 13.2.

Figure 13.2 – Final Mine Design



The final mine design is approximately 3.3 miles in width (east-west) and 4.5 miles in length (north-south). The expected depth of the pit is about 3,750 feet, ranging from 2,500 to 6,250 feet above sea level. Mining is designed to take place on 50-foot benches, with pit slopes allowing for double bench configuration where feasible.

The haul ramps are planned with a width of 130 feet and with a 10 percent grade but can vary in different sections of the ramp. They are designed to accommodate the current truck fleet.

13.2 Mine Plan Development

The mine plan is developed based on supplying ore to the processing facilities considering equipment production rates, the mining advance rate through the deposit, ore/waste routing, waste stripping requirements, material storage facility capacities, and expansion opportunities. LOM plan schedules are developed using specialized mine planning software.

The mine plan is developed utilizing measured and indicated mineral resource material only. Resource material that is classified as inferred within the mine design is considered waste for LOM planning and mineral reserve estimation.

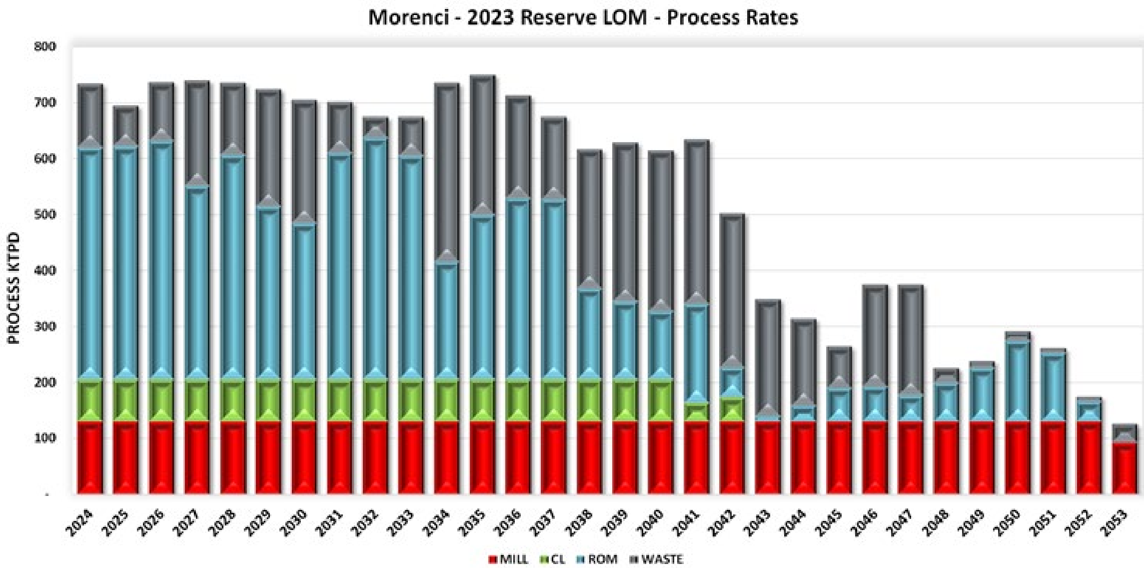
The deposit is a typical disseminated porphyry type copper deposit, where contact dilution is incorporated into the grade estimation process. As a result, no additional dilution assumption is applied.

Mining ore block recovery is directly related to the mining dilution. Mining recovery in open-pit mines tends to be very high, particularly in disseminated deposits associated with large loading equipment. As result, mining ore block recovery is assumed at 100 percent.

The mine plan is scheduled to deliver a targeted average mill production rate of 130,000 tons of ore per day with the final year at a reduced rate. The plan is scheduled to deliver a targeted average crushed leach production rate of 75,000 tons of ore per day through 2040 with final deliveries in 2042. ROM leach deliveries are variable with an average of 210,000 tons of ore per day through 2052. The LOM plan stripping ratio (waste tonnage over ore tonnage) at the Morenci mine is 0.39. Mining activities are projected to end in 2053, when the current reserves are expected to be exhausted.

The mine production rate and expected mine life are illustrated in Figure 13.3.

Figure 13.3 – Total Tonnage Planned Material Movement



The LOM plan does not include plans for underground development. There is limited backfilling of the open-pit planned to accommodate the U.S. Highway 191 relocation and the Western Copper in-pit stockpile. Future studies could further these options as viable improvements to the mine plan development.

13.3 Mine Operations

Mine unit operations include drilling, blasting, loading, hauling, and auxiliary support.

Primary production equipment is used to mine ore and waste, and as of December 31, 2023, comprises of 14 blast hole drills, 13 electric rope shovels with bucket sizes ranging from 62 to 74 cubic yards, 6 front end loaders, and 141 trucks with a 267-ton payload factor. The primary production equipment is supported by a fleet of ancillary equipment including track dozers, wheel loaders, motor graders, backhoes, and water trucks. Support equipment is used for building access roads, road maintenance, and other mine services.

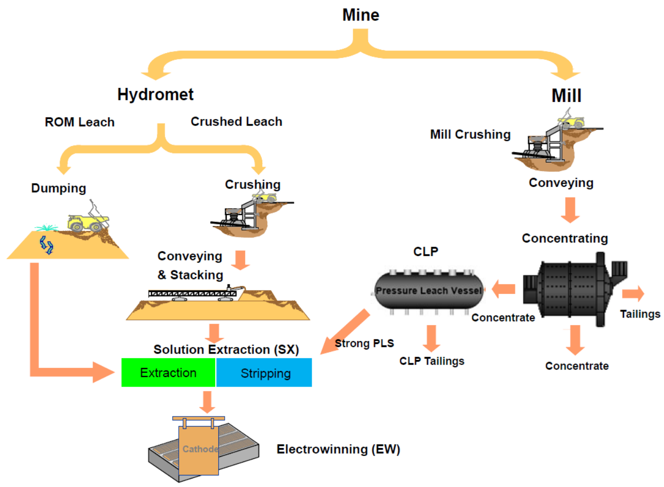
The LOM plan includes equipment units up to 10 electric rope shovels and 112 haul trucks. Mine equipment is replaced or rebuilt after its useful life is achieved. Costs for mine equipment replacements and additions are accounted for in the financial modeling.

The site is in operation with experienced management and sufficient personnel. The mine operates 365 days per year on a 24 hour per day schedule. Operational, technical, and administrative staff are on-site to support the operation. As of December 31, 2023, mine operations have 1,776 employees with additional contractors available as needed.

14 PROCESSING AND RECOVERY METHODS

The process facilities operate 365 days per year with exceptions for maintenance. The facilities have a long operating history. FCX and the Morenci mine anticipate that the site will have adequate energy, water, process materials, and permits to continue operating throughout the LOM plan. Figure 14.1 illustrates an overview process map.

Figure 14.1 – Site Process Diagram



Ore can be directed through hydrometallurgical or concentrating facilities. The hydrometallurgical operation consists of crushed and ROM leach pads, stacking equipment for ore placement, a CLP facility, four SX plants, and three EW facilities. The hydrometallurgical process produces a high-quality copper cathode.

Primary and certain secondary sulfide ores are processed in the concentrating facilities. The concentrating operation contains two concentrators and a molybdenum processing plant, which produce a copper concentrate and a molybdenum concentrate.

These processing methodologies are accepted industry practices for the types of mineralization found at the mine site and are supported by recovery results.

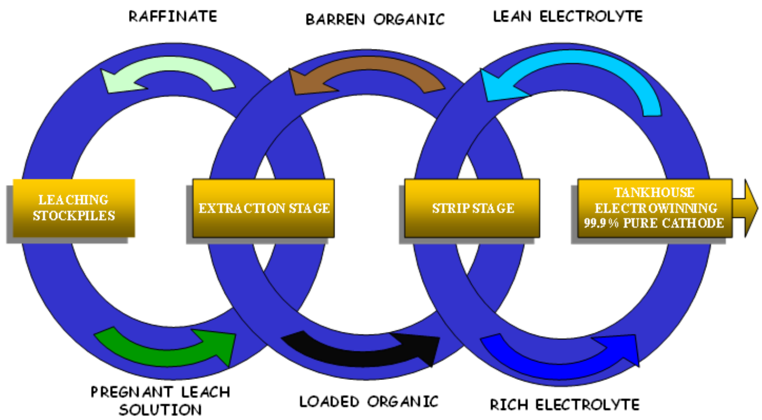
14.1 Hydrometallurgical Processing Description

Oxide and secondary sulfide ores from the mine are delivered to leach pads. The SX/EW plant is designed to extract copper from the pregnant leach solutions (PLS) collected from the site's leach pads. Copper is extracted from the ores by using a grid solution system to deliver an aqueous solution containing acid from the plant, called raffinate, to the leach pads. As this acidic solution passes through the heaped material, it extracts copper in the form of copper ions in the PLS.

The PLS is delivered to the SX/EW plant via collection ditches, ponds, and pumping systems. The process takes PLS and extracts the copper ions in extraction mixer-settlers. The copper is extracted via a liquid ion-exchange reagent carried in diluent. A chemical reaction selectively causes the copper to transfer from the PLS to the organic phase. The barren raffinate leaving the SX plant is pumped to the leach pads to extract additional copper from the stacked ore. The loaded organic phase is separated and flows to a strip mixer-settler where the copper is transferred from the organic to the electrolyte that is circulated to the EW plant.

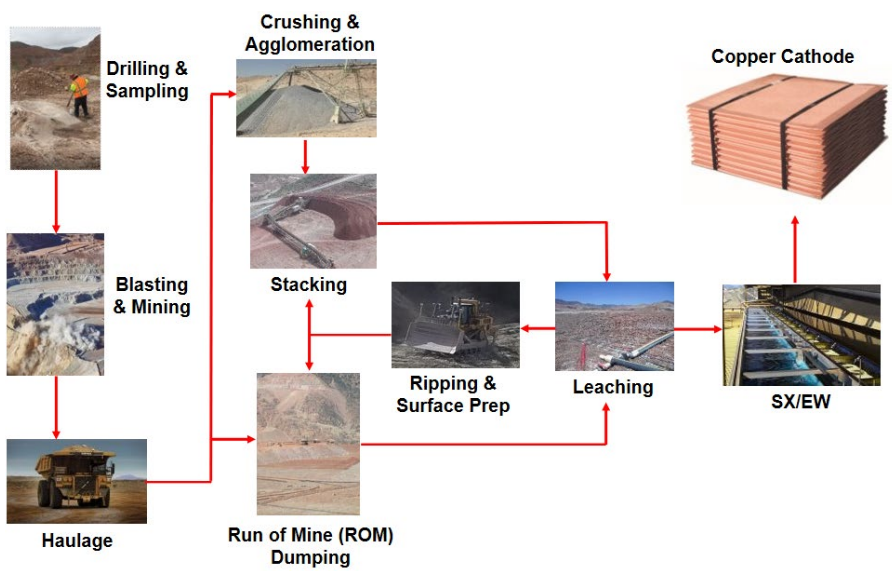
The electrolyte is filtered and heated before being passed through the EW cells where the copper is plated onto stainless steel blanks. Once an adequate amount of copper has been plated out of solution as cathodes, these are removed from the cells, washed, and the copper sheets are mechanically harvested. Figure 14.2 illustrates the hydrometallurgical copper transfer process.

Figure 14.2 – Hydrometallurgical Transfer Process



A diagram illustrating the Morenci mine's hydrometallurgical process is shown in Figure 14.3. The SX plants have the ability to run over 100,000 gallons per minute PLS flow and the EW tank house cathode production capacity is approximately 900 million pounds per year.

Figure 14.3 – Hydrometallurgical Process Diagram



In addition to the crushed and ROM leach and SX/EW processes, the Morenci mine has a CLP as an intermediary process, which takes final copper concentrate produced from the concentrator process and subjects the concentrate to pressure oxidation converting copper from solid form into liquid copper ions. The resulting solution contains higher concentrations of copper and acid than the typical solutions from the heap leaching process. The solutions are combined with other PLS sources and processed through the SX/EW plants and copper cathode is produced as a final product for shipment to market.

Hydrometallurgical recoveries are tracked from the leach stockpiles through to the production of copper cathode. Items that can affect the rate of recovery through the stockpiles include, but are not limited to, application rate and method, particle size, leach cycle (i.e., days under leach), acid addition and consumption, solution chemistry, ore type and mineralization, pyrite content, stacking methodology, and stacking height.

Recoveries are tracked over multiple years. Additionally, performance is reviewed periodically through FCX corporate audits to monitor that recoveries are on track to being achieved and continue to be appropriate.

14.2 Concentrator Processing Description

Primary and secondary sulfide ores are processed in the concentrators, which produce a copper concentrate and a molybdenum concentrate. The copper concentrate is either shipped off-site to market or processed on-site through the CLP process.

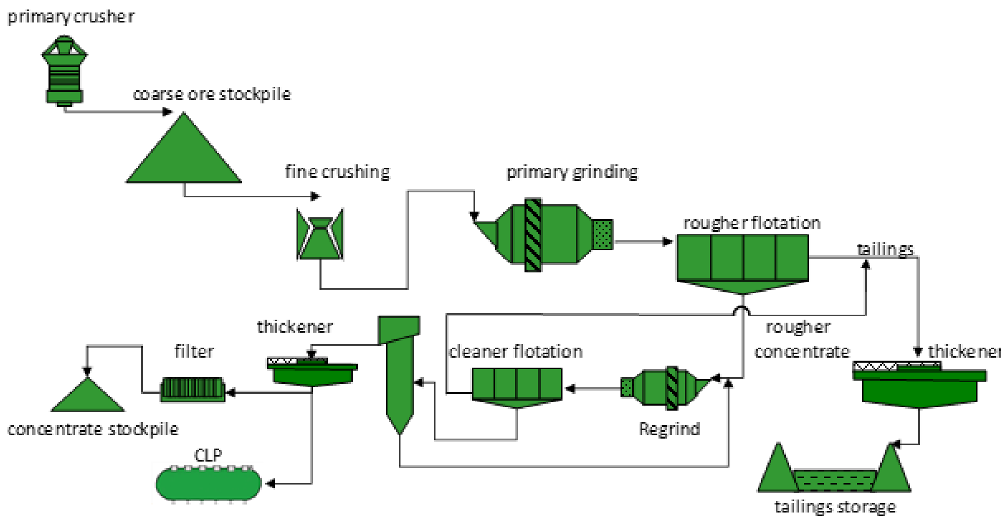
Ore is delivered from the mine to the primary crushers where it is crushed and conveyed to a coarse ore stockpile that feeds the concentrators. A portion of the ore is conveyed from the stockpile to the Morenci concentrator where it is stage crushed through secondary and tertiary cone crushers before being conveyed to a fine ore storage bin. It is then fed to 32 primary ball mills that operate in closed circuit with spiral classifiers to liberate copper and molybdenum minerals from gangue minerals. These classifiers return coarse particles to the mills for further grinding and advance fine particles to collective flotation for copper and molybdenum recovery. Concentrate from the first stage of flotation advances to regrind mills and cleaner flotation stages that produce an intermediate copper/molybdenum concentrate. This concentrate is thickened before it advances to the copper/molybdenum separation flotation circuit.

Ore is also conveyed from the coarse ore stockpile to a separate secondary crushing facility for the Metcalf concentrator. Product from these secondary cone crushers is advanced to a tertiary hydraulic roll crusher (HRC) before being conveyed to a surge bin that supplies the primary grinding circuit. Ore is conveyed from the surge bin to wet screens that feed the primary ball mills. Wet screen oversize is recycled back to the HRC for further crushing. Wet screen undersize mixes with ball mill product and this stream is classified in hydrocyclones, with coarse particles returning to the ball mills and fine particles advancing to the collective flotation circuit for recovery of copper and molybdenum. Concentrate advances to regrind mills and cleaner flotation producing an intermediate concentrate. The copper/molybdenum concentrate is thickened before combining with Morenci concentrate and advancing to the copper/molybdenum separation flotation circuit.

The copper/molybdenum separation flotation circuit consists of a primary flotation stage and four cleaner flotation stages. The purpose of the flotation circuit is to produce separate marketable concentrates. Tailings from the primary flotation stage is final copper concentrate, which advances to a thickener. Thickener underflow is either sent to CLP for further processing or filtered and stored in the concentrate storage building. Filtered copper concentrate is then loaded in railcars or truck-trailer road vehicles and shipped to an off-site smelter. Molybdenum concentrate is produced from the fourth cleaner flotation stage. From there it is thickened, filtered, and packaged into supersacks prior to being shipped to off-site conversion facilities.

Flotation tailings from both concentrators advance to tailings thickeners where process water is recovered and recycled back to the concentrators. Conventionally thickened tailings flow via gravity down an open channel launder to pump stations where they are pumped to the TSFs. Figure 14.4 illustrates a process flow diagram of the Morenci and Metcalf facilities.

Figure 14.4 – Morenci and Metcalf Concentrator Process Flow Diagram



The processing facility performance is reviewed regularly, and adjustments are made as necessary to improve performance and reduce costs.

14.3 Processing Requirements

FCX believes adequate supplies for energy, water, process materials, and sufficient personnel are currently available to maintain operations and are anticipated throughout the LOM plan. Process materials are provided to the site on an as-needed basis through the FCX and the Morenci mine global supply chain departments. The actual consumption of key processing materials varies depending on ore feed and operating conditions in the plants. Table 14.1 includes the typical ranges of consumption for key processing requirements.

Table 14.1 – Processing Facilities Consumables

Parameter		Typical Range
Concentrator Energy (kWh per ton ore)		14 to 17
Hydrometallurgical Energy (kWh per pound of copper)		1.5 to 2.0
Mill Process Water (gallon of water per ton ore)		110 to 140
Hydrometallurgical Makeup Water (gallon of water per ton ore)		15 to 30
Process Materials		
	Liners and Wear Parts (pounds of steel per ton ore)	0.3 to 0.5
	Balls (pounds of steel per ton ore)	1.0 to 1.5
	Primary Collector (pounds of collector per ton ore)	0.03 to 0.05
	Lime (pounds of lime per ton ore)	2.75 to 3.25
	Acid (pounds of acid per ton ore)	7 to 14

Consumable and personnel requirements for the processing facilities are expected to be near current levels in the near-term with variation dependent on production levels in the various unit operations. As of December 31, 2023, the concentrating operations have 489 employees and the hydrometallurgical operations have 692 employees. FCX believes contractors are available as needed.

15 SITE INFRASTRUCTURE

The site infrastructure at the Morenci mine has been established over the history of the project and supports the current operations. The current major mine infrastructure includes waste rock storage facilities, ROM leach pads, crushed leach pads and stacking systems, temporary stockpiles, TSFs, power and electrical systems, water usage systems, various on-site warehouses and maintenance shops including large-scale mine truck shops, and offices required for administration, engineering, maintenance, and other related mine and processing operations. The communication system at site includes internet and telephone access connected by hard-wire, fiberoptic, and mobile networks. Access to the property is discussed further in Section 4 of this TRS. The site infrastructure is shown in Figure 15.1.

Figure 15.1 – Site Infrastructure Map

15.1 Waste Rock Storage Facilities

The Morenci LOM plan considers placing mined waste material in the waste rock storage facilities. FCX believes there is sufficient storage capacity to handle the waste deliveries as scheduled in the LOM plan.

15.2 Leach Pads and Stockpiles

The Morenci mine utilizes stockpiles including ROM and crushed leach pads. Mined material is routed directly to the ROM leach pads whereas the crushed leach pads receive mined material that has been reduced in size through a primary crushing stage. The LOM plan includes leach placements concluding in 2052 with the leach pads continuing to be leached through 2053 when the SX/EW plant is expected to conclude operations. Additional leach pad stockpile capacity is required in the LOM plan. Estimated costs for the additional capacity are included in the financial analysis.

The mine also has temporary mill stockpiles. Mined material is directed to these stockpiles to be rehandled and processed through the concentrators. FCX believes the mill stockpiles have sufficient capacity for the planned deliveries in the LOM plan.

Leach pads, stockpiles, and waste rock storage facilities are surveyed regularly, and daily production records are used to track the mine deliveries.

15.3 Tailings Storage Facilities

There are multiple TSFs managed at the Morenci mine that receive flotation tailings from the concentrators. The flotation tailings are thickened and pumped to the TSFs where they are deposited, and water is recycled back to the mill. The TSFs are generally located south of the mills.

The TSFs, as currently designed, lack sufficient storage capacity for the entire planned mineral reserves estimate in the LOM plan. However, FCX and the Morenci mine anticipate having sufficient tailings storage available as required in the LOM plan since the current storage capacity is sufficient until 2032 at planned rates, and options to increase capacity have been identified in potential expansions of the currently designed TSFs and alternate locations for additional TSFs. Estimated costs for the additional capacity are included in the LOM plan financial analysis.

15.4 Power and Electrical

The Morenci mine’s electrical power is supplied by MW&E. MW&E is a retail utility regulated by the Arizona Corporation Commission. MW&E sources its generation services through FMES. FMES is a Federal Energy Regulatory Commission licensed exempt wholesale generator with transmission and generation rights throughout Arizona and New Mexico. The mine’s power is delivered through transmission agreements with Tucson Electric Power Company, El Paso Electric, and Arizona Electric Power Cooperative. MW&E has contracted with FMES for 125MW of capacity rights at the Luna Energy Facility and other term power purchase agreements. Morenci also has 24MW of natural gas fired combustion turbines on-site able to provide electrical power when required.

15.5 Water Usage

The Morenci mine's water is supplied by a combination of sources including decreed surface water rights in the San Francisco River, Chase Creek, and Eagle Creek drainages, groundwater from the Upper Eagle Creek Wellfield, and Central Arizona Project water leased from the San Carlos Apache Tribe and delivered to Morenci via exchange through the Black River Pump Station. Makeup water supply is sourced from the Lower Eagle Creek diversion and delivery system. Potable and domestic use water is sourced from the makeup water supply. Process facilities operate using a combination of make-up water and recycled water from the in-pit dewatering system, district interceptor wells, and existing TSFs.

15.6 Product Handling

Copper concentrate and cathode is loaded by FCX to be shipped off-site by railcars or trucks. Molybdenum concentrate is shipped off-site via truck. Third-party shipping is used for both rail and truck transport.

15.7 Logistics, Supplies, and Site Administration

The operation is integrated between mining and processing facilities and has common management and services, as well as a logistics network that includes warehouses, vehicles, and personnel required to distribute and store the large quantity of supplies used by the operation and its workforce. Warehouses are maintained at various locations throughout the site.

Supporting infrastructure at the Morenci mine has been built, improved, and expanded over the life of the project, including a townsite providing employees and their dependents with services ranging from retail stores, restaurants, residential facilities, schools, libraries, banks, postal services, training, and recreational facilities to health service facilities.

16 MARKET STUDIES

The Morenci mine produces copper concentrate and cathode products. A molybdenum concentrate is also produced.

16.1 Market for Mine Products

Copper is an internationally traded commodity, and its prices are determined by the major metal exchanges. Prices on these exchanges generally reflect the worldwide balance of copper supply and demand and can be volatile and cyclical. In general, demand for copper reflects the rate of underlying world economic growth, particularly in industrial production and construction. FCX believes copper will continue to be essential in these basic uses as well as contribute significantly to new technologies for clean energy, to advance communications, and to enhance public health.

Molybdenum is a key alloying element in steel and the raw material for several chemical-grade products used in catalysts, lubrication, smoke suppression, corrosion inhibition, and pigmentation. Molybdenum chemicals are used to produce high-purity molybdenum metal used in electronics such as flat-panel displays and in super alloys used in aerospace. Reference prices for molybdenum are available in several publications including Platts Metals Daily, CRU Prices Service, and Fastmarkets Metals Bulletin.

FCX owns smelting, refining, and product conversion facilities for copper and molybdenum products, operated as separate business segments. Sales between FCX's business segments are based on terms similar to arms-length transactions with third-parties at the time of the sale.

A portion of Morenci mine's copper concentrate is processed through FCX's wholly owned copper smelter in Miami, Arizona and refinery and rod mill located in El Paso, Texas and through FCX's wholly owned subsidiary smelting and refining operation in Huelva, Spain. A portion of Morenci's copper cathode is converted to copper rod in FCX's wholly owned rod mills located in Miami and El Paso. The resultant copper rod from FCX's North America rod mills is sold to downstream wire and cable producers throughout North America while the electro-refined copper cathode produced in Spain is sold to third-party consumers and merchant traders throughout Europe and the Mediterranean region. The balance of copper concentrate and cathode is sold to third-party smelters or consumers and merchant traders.

The mine's molybdenum concentrate is processed through FCX's wholly owned roaster operations at Fort Madison in Iowa, Sierrita mine in Arizona, and Rotterdam in the Netherlands, and a portion through the concentrate leach process at FCX's Bagdad mine in Arizona. The resultant molybdenum products from the Rotterdam plant supply the chemical and steel industries in Europe while the molybdenum products from the U.S. plants supply the industries in the U.S. and Asia. Climax Molybdenum Company, FCX's wholly owned subsidiary, administers the molybdenum business segment.

Most of the copper and molybdenum products resulting from the Morenci mine are sold to customers with whom FCX has built and maintained long-term relationships. The majority of the sales agreements are negotiated annually and are relatively standardized. The underlying copper price is determined by, and fluctuates with, the commodity exchange price while the treatment and refining charges and premiums are negotiated annually based on market conditions. The underlying molybdenum price is determined by published Platts Metals Daily index reference pricing, which is determined by globally reported spot transaction reporting.

16.2 Commodity Price Assumptions and Contracts

Long-term metal prices reported are used to demonstrate the economic viability of the mineral reserves and should not be construed as a prediction of future commodity prices. Assumed prices for mineral reserve estimation are:

- $3.00 per pound for copper.
- $12 per pound for molybdenum.

All contracts currently necessary for supplies and services to maintain the Morenci mine's facilities and production are in place and are anticipated to be renewed or replaced within timeframes and conditions of common industry practices.

FCX and the QPs believe that the marketing and metal price assumptions for metal products are suitable to support the financial analysis of the mineral reserve evaluation. Further information regarding the sale and marketing of the mine's metal products are discussed in FCX's Annual Report on Form 10-K for the year ended December 31, 2023.

17 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL IMPACT

The Morenci mine adheres to FCX's environmental and sustainability programs, including policies and management systems regarding environmental, permitting, and community issues. Morenci has implemented an Environmental Management System that is certified to the internationally recognized ISO-14001:2015 standard. FCX's programs are based on policies and systems that align with the International Council on Mining and Metals Sustainable Development Framework and the Copper Mark. FCX routinely evaluates implementation of these policies through internal and external independent assessments and publicly reports on its performance.

Further discussion regarding environmental and social or community impacts is available in the latest FCX Annual Report on Sustainability. None of the information on, or accessible through, the FCX website is part of this TRS or is incorporated by reference herein.

17.1 Environmental Considerations

Environmental monitoring is ongoing at the Morenci mine and will continue over the life of the operations and beyond through closure. The Morenci mine has received multiple environmental regulatory approvals from the State of Arizona, Greenlee County, and federal agencies for the operation and closure of the mine. Many of these regulatory approvals had public participation components. Several of these authorizations required that the Morenci mine conduct environmental baselines and impact studies for environmental resources including, but not limited to, air quality, surface and groundwater quality, landscape, soil, climate, traffic, biodiversity, and cultural resources. The Morenci mine continues to monitor these baselines and impact studies regularly at compliance points and report to required agencies.

17.2 Permitting

FCX and the Morenci mine staff believe that all major permits and approvals are in place to support operations at the Morenci mine, however additional permits will likely be necessary in the future. Where permits have specific terms, renewal applications are made to the relevant regulatory authority as required, prior to the end of the permit term.

The Morenci mine has obtained multiple Clean Water Act (CWA) Section 404 permits from the U.S. Army Corps of Engineers in support of past and ongoing mine operations. Mining activities authorized by these permits are complete and Morenci is now monitoring several mitigation sites as required by these permits. Morenci reports monitoring results to the Army Corps of Engineers. Morenci is evaluating CWA Section 404 applicability for the incremental expansion of its mining facilities.

An area-wide APP from ADEQ is a key permit that authorizes design, construction, operation, monitoring, reporting, and closure of mining facilities that have the potential to discharge to groundwater. The permit requires that the Morenci mine operate these facilities to prevent an exceedance of the State of Arizona Aquifer Water Quality standards at designated point of compliance wells, which are monitored on a routine basis. Results of this monitoring are reported to ADEQ as per conditions in the permit.

Based on the LOM plan, additional permits will likely be necessary in the future for continued operation of the Morenci mine, including APP amendment applications and obtaining ADEQ approval for increased leach pad stockpile and tailings storage capacities under the existing APP. Additional projects that would require an amendment to the APP are being evaluated. Closure strategies will be developed for these proposed facilities as part of the permitting process.

Consistent with State of Arizona rules and regulations for mine closure and reclamation, the Morenci mine has an approved closure strategy through its APP for closure and post-closure monitoring and maintenance of its active facilities such as TSFs, waste and leach pad stockpiles, and associated process water impoundments. The Morenci mine also has an approved mine reclamation plan with the Arizona State Mine Inspector Office for surface reclamation that will be implemented following cessation of mine operations in coordination with the closure strategy. Both state programs require development and agency approval of cost estimates and the establishment of financial assurance. The Morenci mine maintains financial assurance with the State of Arizona for these programs.

17.3 Waste and Tailings Storage, Monitoring, and Water Management

The Morenci mine has developed and continues to implement detailed, comprehensive mine waste and tailings management programs to meet the applicable State of Arizona environmental protection regulations and FCX environmental management practices. These programs include State of Arizona APP requirements and the Engineer of Record designs, for the specific cases of TSFs and certain leach pad stockpiles. The site also follows FCX's Tailings Management Policy.

17.4 Mine Closure Plans

ADEQ governs facility closure under the state's APP program and requires preparation of a closure strategy, post closure plan, and development of cost estimates and financial assurance for permitted facilities such as TSFs, leach pad stockpiles, and other mine facilities. Separately, the Arizona State Mine Inspector's Office requires mines to develop mine reclamation plans that describe steps to stabilize the mine site following cessation of operations to achieve an approved post mining land use. The Morenci mine closure strategy and mine reclamation plan are two documents, developed by third-parties, that consider long-term physical and chemical stability and implementation of approved post mining land uses for the site following the end of mine operations. The closure strategy and reclamation plan detail tasks to be performed at closure and the post-closure phase of the mine's life cycle. The Morenci mine's APP requires updates to the closure strategy and cost estimates every six years. The Morenci mine has State of Arizona approved closure strategies for its waste rock and leach pad stockpiles, tailings, and other water management facilities subject to APP. The latest update to the closure strategy and cost estimates submitted to ADEQ was approved in 2023. FCX provided ADEQ with an updated financial assurance for this update.

The closure strategy for the Morenci mine APP facilities incorporates various approaches including, but not limited to, removal and reclamation of process water impoundments, in-place closure of TSFs and leach pad stockpiles, and post closure monitoring and maintenance of closed facilities and points of compliance wells. Closure of TSFs includes regrading tailings and installing soil cover systems incorporating revegetation that manage water through evaporation and transpiration. Water management systems are intended to stabilize closed facilities, minimize erosion, and protect water resources.

The total closure cost estimate in the LOM plan is approximately $1.5 billion based on a cash flow schedule for the implementation of closure, post closure, and reclamation tasks. The Morenci mine has satisfied the State of Arizona's financial assurance requirements by using a variety of mechanisms, primarily involving FCX's performance guarantees and financial capability demonstrations.

17.5 Local Stakeholder Considerations and Agreements

As part of the ongoing permitting and compliance obligations with the county, state, and federal agency authorizations, and as part of the mine's commitment to local stakeholder engagement, the Morenci mine is dedicated to local community and social matters. The Morenci mine seeks to conduct its activities in a transparent manner that promotes proactive and open relationships with the local community, government, and other stakeholders to maximize the positive impacts of its operations and mitigate potential adverse impacts throughout the LOM plan.

The Morenci mine seeks to provide opportunities to support economic development by purchasing local goods and services. To support and grow the capacity of local businesses in the region, FCX maintains working relationships with various local business development organizations.

In addition, the Morenci mine seeks to provide opportunities to support economic development by hiring and training employees and contractors from local and regional communities. The mine is located in rural Arizona with a relatively low population density and as such, the Morenci mine directly or indirectly employs a relatively large portion of the local and regional labor force.

17.6 Comment on Environmental Compliance, Permitting, and Local Engagement

In the QP's opinion, the Morenci mine has adequate plans and programs in place, is in good standing with environmental regulatory authorities, and no current conditions related to environmental compliance, permitting, and local engagement represent a material risk to continued operations. The Morenci mine staff have a high level of understanding of the requirements of environmental compliance, permitting, and local stakeholders in order to facilitate the development of the mineral reserve and mineral resource estimates. The periodic inspections by governmental agencies, FCX corporate staff, third-party reviews, and regular reporting confirm this understanding.

18 CAPITAL AND OPERATING COSTS

The capital and operating costs are estimated by the property's operations, engineering, management, and accounting personnel in consultation with FCX corporate staff, as appropriate. The cost estimates are applicable to the planned production, mine schedule, and equipment requirements for the LOM plan. The capital costs are summarized in Table 18.1.

Table 18.1 – Sustaining Capital Costs

	$ billions
Mine	$1.0
Leach and SX/EW	1.7
Concentrator	1.5
Supporting Infrastructure and Environmental	0.1
Total Capital Expenditures	$4.3

Estimates are derived from current costs and adjusted to the reserve price environment. The estimates are not adjusted for escalation or exchange rate fluctuations. Actual realized costs are reviewed periodically, and estimates are refined as required.

Capital costs are primarily sustaining projects consisting of mine equipment replacements and planned site infrastructure projects, most notably to increase leach pad and TSF capacities over the production of the scheduled reserves. Capital cost estimates are derived from current capital costs based on extensive experience gained from many years of operating the property and do not include future inflation. FCX and the Morenci mine staff review actual costs periodically and refine cost estimates as appropriate.

The operating costs for the LOM plan are summarized in Table 18.2.

Table 18.2 – Operating Costs

	$ billions
Mine	$12.2
Leach and SX/EW	5.9
Concentrator	9.5
Balance	6.8
Total site cash operating costs	34.4
Freight	0.7
Treatment charges	0.6
By-product credits	(2.4)
Total net cash costs	$33.3
Unit net cash cost ($ per pound of copper)	$2.64

Estimates are derived from current costs and adjusted to the reserve price environment. The estimates are not adjusted for escalation or exchange rate fluctuations. Actual realized costs are reviewed periodically, and estimates are refined as required.

The operating cost estimates are derived from current operating costs and practices based on extensive experience gained from many years of operating the property and do not include future inflation. The operating cost estimates reflect certain pricing assumptions, primarily for energy and foreign exchange rates, that are reflective of the copper market environment ($3.00 per pound for copper price) at which the reserve plan has been prepared. As the property has a long operating history, FCX believes that the accuracy of the cost estimates is better than the minimum of approximately +/- 25 percent required for a pre-feasibility study level of mineral reserves as per S-K1300, and the level of risk in the cost forecasting is low. FCX and the Morenci mine staff review actual costs periodically and refine cost estimates as appropriate.

The LOM plan summary in this TRS is developed to support the economic viability of the mineral reserves. The latest guidance regarding updated operational forecast cost estimates is available in FCX's Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC.

19 ECONOMIC ANALYSIS

The LOM plan includes comprehensive operational drivers (mine and corresponding processing plans, metal production schedules, and corresponding equipment plans) and financial estimates (revenues, capital costs, operating costs, downstream processing, freight, taxes, and royalties, etc.) to produce the reserves over the life of the property. The LOM plan is an operational and financial model that also forecasts annual cash flows of the production schedule of the reserves for the life of the property under the assumed pricing and cost assumptions. The LOM plan is used for economic analyses, sensitivity testing, and mine development evaluations.

The financial forecast incorporates revenues and operating costs for all produced metals, processing streams, and overall site management for the life of the property. The economic analysis summary in Table 19.1 includes the material drivers of the economic value for the property and includes the net present value (NPV) of the unleveraged after-tax free cash flows as the key metric for the economic value of the property's reserve plan under these pricing and cost assumptions. This analysis does not include economic measures such as internal rate of return or payback period for capital since these measures are not applicable (and are not calculable) for an on-going operation that does not have a significant upfront capital investment to be recovered.

Table 19.1 – Economic Analysis

Metal Prices	
Copper ($ per pound)	$ 3.00
Molybdenum ($ per pound)	$ 12
Life of Mine Plan	
Copper (billion pounds)	12.6
Molybdenum (billion pounds)	0.2
Ore (billion tons)	4.2
Copper grade (%)	0.22
Copper metallurgical recovery (%)	68.9
Capital costs ($ billions)	$ 4.3
Site cash operating costs ($ billions)	$ 34.4
Unit net cash cost ($ per pound)	$ 2.64
Economic Assumptions and Metrics	
Discount Rate (%)	8
Corporate Tax Rate (%)	23
Severance Tax (%) (Arizona mines)	1.3
Net present value @ 8% ($ billions)	$ 0.5
Internal rate of return (%)	NA*
Payback (years)	NA*

* Not Applicable (NA) as the property is an on-going operation with no significant negative initial cashflow/initial investment to be recovered.

The key drivers of the economic value of the property include the copper market price, copper grades and recoveries, and costs. Depending on the changes in these key drivers, FCX can adjust operating plans (in the near-term as well as the long-term, as appropriate) to minimize negative impacts to the overall economic value of the property.

Table 19.2 summarizes the economic impact of changes to these key drivers on the property's NPV (as included in Table 19.1). The sensitivities are estimates for the changes in each key drivers' effect on the base plan summarized for the production of the mineral reserves over the life of the property.

Table 19.2 – Sensitivity Analysis

Sensitivity Analysis ($ billions)	**Incremental Impact to NPV**	
	+ 5% Change	**- 5% Change**
Copper price	$ 0.69	$ (0.69)
Copper grade/recovery	0.62	(0.63)
Capital cost	(0.11)	0.11
Operating cost	(0.57)	0.57
Discount rate	(0.01)	0.01

Sensitivity analysis does not reflect changes in mine plans or costs with changes in above items.

The after-tax NPV of the LOM plan is most sensitive to copper price, followed by grades and recovery, and then operating costs. The sensitivity analysis does not reflect changes in mine plans or costs with changes in the reported driver. Sustained periods in these economic scenarios would warrant a re-evaluation of the LOM plan assumptions, mine plan development, and reported mineral reserves.

Table 19.3 summarizes the LOM plan including the annual metal production volumes, mine plan schedule, capital and operating cost estimates, unit net cash costs, and unleveraged after-tax free cash flows over the life of the property. Free cash flow is the operating cash flow less the capital costs and is a key metric to demonstrate the cash that the property is projected to generate from its operations after capital investments for the reserve production plan at assumed pricing and cost assumptions. The property's ability to create value from the reserves is determined by its ability to generate positive free cash flow. The summary demonstrates the favorable free cash flow generated from the property's LOM plan under the assumptions. This economic analysis supports the economic viability of the mineral reserves statement.

Table 19.3 – LOM Plan Summary

	2024-2028	2029-2033	2034-2043	2044-2053
Metal Prices				
Copper ($ per pound)	$3.00	$3.00	$3.00	$3.00
Molybdenum ($ per pound)	$12	$12	$12	$12
Annual Averages				
Copper (billion pounds/year)	0.61	0.55	0.45	0.23
Molybdenum (million pounds/year)	7	7	7	9
Ore processed (million tons/year)	221	208	136	70
Copper grade (%)	0.20	0.20	0.23	0.24
Copper metallurgical recovery (%)	63.5	68.6	72.6	69.4
Copper revenues ($ billions/year)	$1.85	$1.66	$1.37	$0.70
Molybdenum revenues/by-product credits ($ billions/year)	$0.07	$0.07	$0.08	$0.09
Corporate taxes ($ billions/year)	$0.01	($0.01)	($0.03)	($0.04)
Capital costs ($ billions/year)	$0.31	$0.27	$0.13	$0.01
Site cash operating costs ($ billions/year)	$1.44	$1.42	$1.25	$0.76
Unit net cash cost ($ per pound)	$2.33	$2.54	$2.70	$3.02
Free cash flow ($ billions/year)	$0.10	$0.00	$0.07	($0.08)

Summary of annual cash flow forecast based on annual production schedule for the life of the property.

NOTE: The purpose of the presented figures is to demonstrate the economic viability of the mineral reserves. Given the long-lived nature of the reserves, and inherent variability in the timing of capital expenditures and annual mine planning processes, the annual cash flows may vary in subsequent disclosures. Investors are cautioned that the above is based upon certain assumptions which may differ from FCX's long-term outlook or actual financial results, including, but not limited to, metal prices, escalation assumptions, and other technical inputs. Significant variation of metal prices, costs, and other key assumptions may require modifications to mine plans, models, and prospects.

20 ADJACENT PROPERTIES

As of December 31, 2023, there are no adjacent properties impacting the Morenci mine mineral reserve or mineral resource estimates.

21 OTHER RELEVANT DATA AND INFORMATION

There have been news articles identifying the mining industry as a potential area for review for increased participation of U.S. state or federal revenues potentially through increased taxes, royalties, or other such programs. The mineral reserve and resource estimates in this TRS use the assumptions as previously stated; however, increased taxation would have a direct impact on the cash flows of the property. Any enacted legislation would be incorporated into future mineral reserve and resource estimates.

In the opinion of the QPs, there is no additional information necessary for the mineral reserve and mineral resource estimates in this TRS. Further discussion regarding operational risks, health and safety programs, and other business aspects of the mine are available in FCX's Annual Report on Form 10-K for the year ended December 31, 2023.

22 INTERPRETATION AND CONCLUSIONS

Estimates of mineral reserves and mineral resources are prepared by and are the responsibility of FCX employees. All relevant geologic, engineering, economic, metallurgical, and other data is prepared according to FCX developed procedures and guidelines based on accepted industry practices. FCX maintains a process of verifying and documenting the mineral reserve and mineral resource estimates, information for which are located at the mine site and FCX corporate offices. FCX conducts ongoing studies of its ore bodies to optimize economic value and to manage risk.

FCX and the QPs believe that the geologic interpretation and modeling of exploration data, economic analysis, mine design and sequencing, process scheduling, and operating and capital cost estimation have been developed using accepted industry practices and that the stated mineral reserves and mineral resources comply with SEC regulations. Periodic reviews by third-party consultants confirm these conclusions.

The Morenci mine is a large-scale producing mining property that has been operated by FCX and its predecessors for many years. Mineral reserve and mineral resource estimates consider technical, economic, environmental, and regulatory parameters containing inherent risks. Changes in grade and/or metal recovery estimation, realized metal prices, and operating and capital costs have a direct relationship to the cash flow and profitability of the mine. Other aspects such as changes to environmental or regulatory requirements could alter or restrict the operating performance of the mine. Significant differences from the parameters used in this TRS would justify a re-evaluation of the reported mineral reserve and mineral resource estimates. Mine site administration and FCX dedicate significant resources to managing these risks.

23 RECOMMENDATIONS

Although ongoing initiatives in productivity and recovery improvements are underway, the mineral reserves and mineral resources are based on the stated long-term metal prices and corresponding technical and economic performance data.

No recommendations for additional work are identified for the reported mineral reserves and mineral resources as of December 31, 2023.

24 REFERENCES

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25 RELIANCE ON INFORMATION PROVIDED BY THE REGISTRANT

FCX is experienced in managing the challenges and requirements of operating at local, regional, national, and international levels to support requirements for successfully mining metals throughout the world, using functioning divisions, departments, and teams, organized at mine sites and at the corporate level, that are tasked with meeting and supporting FCX business and operations requirements. These closely integrated departments are focused on subjects that may be peripheral to the direct production of salable metals but are essential to meeting all business requirements for FCX and to navigating the many aspects of modern mining.

As an illustrative example of the FCX organization, within the Office of President, there are departments of Financial and Operational Analysis, Information Services, Administration and Sales, Business Development and Growth, General Counsel, Global Strategic Relations, Government Relations, Communications, Finance, Accounting, Tax, and Investor Relations. Other corporate teams are similarly organized to provide additional broad services. These departments support and integrate with the operating divisions providing requirements and information. A mine site, as part of the operating divisions, will be organized into its own management teams including Mine Management, Operations, Maintenance and Construction, Processing Management, Finance and Accounting, Social Responsibility and Community Development, Environmental, Regional Supply Chain, and Human Resources. These staffed teams are organized to provide responses to the many mining requirements, and they have experience in conducting their specific duties. They represent reliable sources for information and as such, they have been consulted to prepare, support, and characterize the information in this TRS.

Specific to the preparation of this TRS, FCX departments have provided the following categories of information:

- Macro-economic trends, data, interest rates, and assumptions.
- Marketing information.
- Legal matters outside of QP expertise.

- Environmental matters outside of QP expertise.
- Accommodations through community development to local groups.
- Governmental factors outside of QP expertise.

The QPs prepared Sections 3, 4, 5, 15, 16, 17, 18, 19, 20, and 21 of this TRS in reliance on the information provided by FCX above.

As explained, FCX corporate and mine site divisions that provided information for this TRS are business-directed areas that must produce reliable information in support of FCX business objectives. This organizational form contributes to producing expected results for FCX and provides appropriate information supporting mineral reserves and mineral resource estimates.

26 GLOSSARY – UNITS OF MEASURE AND ABBREVIATIONS

Unit	*Unit of Measure*
#	*number*
$	*U.S. Dollar*
%	*percent*
dst	*dry short ton*
ft	*feet*
kWh	*kilowatt-hour*
lb	*U.S. pound*
M	*million*
MW	*megawatt*
wst	*wet short ton*

Abbreviation	*Description*
ADEQ	*Arizona Department of Environmental Quality*
AIK	*Area Influenced Kriging*
APP	*Aquifer Protection Permit*
ASCu	*Acid-Soluble Copper*
BLM	*Bureau of Land Management (U.S.)*
CLP	*Concentrate Leach Plant*
CWA	*Clean Water Act (U.S.)*
EqCu	*Equivalent Copper Grade*
EW	*Electrowinning*
FCX	*Freeport-McMoRan Inc. and its consolidated subsidiaries*
FMES	*Freeport-McMoRan Energy Services*
GPS	*Global Positioning System*
HRC	*Hydraulic Roll Crusher*
IDW	*Inverse Distance Weighting*
Ing. Geol.	*Geological Engineer (Peru)*
LOM	*Life-of-Mine*
MEH	*Morenci Engineered Heap*
MFL	*Mine for Leach*
MLT	*Morenci Leach Test*
MW&E	*Morenci Water and Electric Company*
NA	*Not Applicable*
NN	*Nearest Neighbor*
NPV	*Net Present Value*
OK	*Ordinary Kriging*
P.Eng.	*Professional Engineer (Canada)*
P.Geo.	*Professional Geologist*
PDC	*Phelps Dodge Corporation*
PLS	*Pregnant Leach Solution*
QA/QC	*Quality Assurance and Quality Control*
QLT	*Quick Leach Test, ferric sulfate-soluble copper assay*
QP	*Qualified Person*
RC	*Reverse Circulation*
RM-SME	*Registered Member of the Society for Mining, Metallurgy and Exploration (U.S.)*
ROM	*Run of Mine*
RQD	*Rock Quality Designation*
SEC	*Securities and Exchange Commission (U.S.)*
SG	*Specific Gravity*
S-K1300	*Subpart 1300 of SEC Regulation S-K*
SMM	*Sumitomo Metal Mining Company*
S-ROM	*Sulfide Run of Mine*
SX	*Solution Extraction*
SX/EW	*Solution Extraction and Electrowinning*
TC	*FCX's Technology Center facilities near Safford, Arizona, U.S.*

TCT	*FCX's Technology Center facilities in Tucson, Arizona, U.S.*
TCu	*Total Copper*
TMo	*Total Molybdenum*
TRS	*Technical Report Summary*
TSF	*Tailings Storage Facility*
U.S.	*United States*
WIP	*Work-In-Process*
X-ROM	*Oxide Run of Mine*