NI 43-101 Technical Report

Nechí Alluvial Property, Antioquia Department, Colombia

Mineros S.A.

Prepared by:

SLR Consulting (Canada) Ltd.

SLR Project No.: 233.065151.00001

Effective Date:

December 31, 2024

Signature Date:

March 31, 2025

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Prepared by:

SLR Consulting (Canada) Ltd.

Qualified Persons:
Luke Evans, M.Sc., P.Eng.
Goran Andric, P.Eng.
Eduardo Zamanillo, M.Sc., MBA, ChMC(RM)
Lance Engelbrecht, P.Eng.
Gerd M. Wiatzka, B.A.Sc., P.Eng.

Making Sustainability Happen

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Prepared by

SLR Consulting (Canada) Ltd.

55 University Ave., Suite 501

Toronto, ON M5J 2H7

for

Mineros S.A.

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Prepared by:
Luke Evans, M.Sc., P.Eng.
Goran Andric, P.Eng.
Eduardo Zamanillo, M.Sc., MBA, ChMC(RM)
Lance Engelbrecht, P.Eng.
Gerd M. Wiatzka, B.A.Sc., P.Eng.

Peer Reviewed by:
Eduardo Zamanillo, M.Sc., MBA, ChMC(RM)
Luke Evans, M.Sc., P.Eng.
Andrew P. Hampton, M.Sc., P.Eng.

Approved by:

Project Manager
Eduardo Zamanillo, M.Sc., MBA, ChMC(RM)

Project Director
Luke Evans, M.Sc., P.Eng.

FINAL

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1.1 Executive Summary

SLR Consulting (Canada) Ltd (SLR) was retained by Mineros S.A. (Mineros) to prepare an independent technical report (Technical Report) on Mineros' Nechí alluvial gold mining operations (Nechí Alluvial Property, Nechí, or the Property) located in Colombia, South America. In 2019, SLR acquired Roscoe Postle Associates Inc. (RPA), which has been involved with the Nechí Alluvial Property since 2008. For the purpose of the Technical Report, references to SLR include RPA.

The purpose of this Technical Report is to support the disclosure of Mineral Resources and Mineral Reserves as of December 31, 2024. This Technical Report conforms to National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101) as published by the Canadian Securities Administrators (the umbrella organization of Canada's provincial and territorial securities regulators). The effective date of the technical information contained herein is December 31, 2024.

SLR's qualified persons (QP) have conducted multiple site visits to the Nechí Alluvial Property over the years, including in 2008, 2010, 2017, 2019, and 2021. The most recent site visits occurred in 2023 and 2024, conducted in several phases. The environmental QP visited the site in July 2024, followed by a visit by the metallurgist and mining engineer QPs in September 2024. Several discussions were held by teleconference, and data was transferred via email and Teams Data Room site.

Mineros is a publicly traded, Colombian-incorporated mining company, with corporate headquarters in Medellín, Antioquia Department. Its Nechí Alluvial Property is based in El Bagre, approximately 190 km north of Medellín.

The Nechí Alluvial Property is in production with operations centred in the town of El Bagre, located at the confluence of the Tigüi and Nechí rivers. The Nechí alluvial deposits have been commercially exploited for gold by dredging since 1937. The alluvial and terrace deposits, along with their source-gold quartz vein deposits hosted in intrusive rocks, flanking and upstream of them, have been worked by local artisanal miners since antiquity. Alluvial and informal mining activities continue in the region to the present and have resulted in environmental impacts locally and regionally. Mineros purchased the mining concession titles covering the Nechí alluvial gold deposits from Pato Consolidated Gold Dredging Limited (Pato Consolidated) in 1974. Since its acquisition, and except for minor labour and social disruptions, the Nechí Alluvial Property has been in continuous operation and production under Mineros' ownership.

The Nechí Alluvial Property is approved and operated in accordance with applicable federal and regional requirements, its environmental management plan (EMP) and relevant permits. Mineros has integrated corporate social responsibilities and sustainability objectives into its operations, setting an industry benchmark for environmental and social management in the region.

There are three primary mining methods currently used at the Nechí Alluvial Property:

- Alluvial plain mining – The predominant method, which utilizes a combination of suction dredges for overburden removal and bucket line dredges for mining and processing gold-bearing gravels.

- Suction plain mining – Performed using "Brazilian" suction dredges, which incorporate onboard processing plants.
- Llanuras mining – Utilizes a combination of suction dredges for overburden removal and the Llanuras production unit, which consists of a modified suction dredge for mining gold-bearing gravels, and a floating plant known as the Llanuras Plant.

A fourth method, terrace/old tailings mining, was discontinued by the end of 2024. This method, which involved an amphibious excavator and a trailing floating plant, previously targeted historical tailings deposits ("cargueros") but is no longer part of Mineros' active operations.

Currently, five dredge production units are in operation, with bucket line dredging accounting for approximately 81% of production. Additionally, thirteen Brazilian rotary-head suction dredges operate within the alluvial plains, focusing on selective extraction. The Llanuras production unit is specifically used for mining smaller blocks of alluvial reserves. While these dredges can also process historical tailings, the evaluation of old tailings is not considered in this report.

1.1.1 Conclusions

1.1.1.1 Geology and Mineral Resources

- The Nechí deposit is a classic alluvial gold deposit located within the Nechí River valley. It is characterized by a stratified sedimentary sequence comprising a basal layer of compacted clays, which forms the foundation of the alluvial basin. This is overlain by sequences of coarse, medium, and fine gravels interbedded with lenses of silt, sand, and clay. The overburden primarily comprises mud and clay layers, with an average thickness of approximately 15 m.
- Gold mineralization is hosted within the gravels, with distribution strongly correlated to granulometry. Coarse gravel units typically exhibit the highest gold concentrations, often associated with ancient paleochannel systems of the Nechí River. The payable zone (PZ) comprises the gold-rich layers, which are frequently separated by layers of false bedrock (compacted clay layers) and underlain by true bedrock, neither of which contain significant gold values.
- The deposit's stratigraphy and sedimentology have been well-defined through systematic drilling and geological modelling. The transition to a three-dimensional (3D) block model has significantly improved the delineation of geological units and enhanced the spatial resolution of the mineralized zones. This advancement has facilitated more accurate resource estimation and mine planning.
- The unique geological setting and predictable mineralization styles of the Nechí deposit support its potential for long-term alluvial gold production.
- Mineros' drilling program conducted between 2021 and November 25, 2024 has been critical in refining the understanding of the Nechí Alluvial Property's mineral resources. Over this period, a total of 1,864 drill holes were completed, representing 46,375.5 m of drilling. These efforts include significant campaigns in 2021 (502 holes, 10,719.9 m), 2022 (471 holes, 11,381 m), 2023 (371 holes, 9,566.6 m), and 2024 (520 holes, 14,708.0 m).
- Mineros' drilling, sampling, sample preparation, gold analysis, and security protocols adhere to industry standards for large-scale alluvial gold deposits, providing an adequate framework for the estimation of alluvial gold Mineral Resources and Mineral Reserves.

- As of December 31, 2024, the Measured and Indicated Mineral Resources total 527 million cubic metres (Mm^3) grading 56 mg/m^3 Au, containing approximately 1,005 thousand ounces (koz) of gold, and Inferred Mineral Resources total 223 Mm^3 grading 62 mg/m^3 Au, containing 447 koz of gold. The Mineral Resources are exclusive of Mineral Reserves.

1.1.1.2 Mining and Mineral Reserves

- The Nechí Alluvial Property is a well-established and mature alluvial mining operation. Gold production at the property has been ongoing since 1974, with Mineros and its predecessors actively expending operations. Additional concession contracts have been continuously acquired since 1974, supporting ongoing exploration and delineation of Mineral Resources and Mineral Reserves.
- Alluvial Mineral Reserves were estimated within the designed pits, as detailed in Section 16 of this report. These estimates extend below the topographic surface and are depleted using the mined out shapes updated as of December 31, 2024.
- Mineros has prepared a life of mine (LOM) plan based on Proven and Probable Mineral Reserves, extending over approximately 12 years from January 2025 to November 2036. The LOM plan includes pit optimization, pit design, mine scheduling, and the application of modifying factors to the Measured and Indicated Mineral Resources.
- As of December 31, 2024, the Mineral Reserve estimate comprises:
  - Proven Mineral Reserves: 86 Mm^3 averaging 71 mg/m^3 Au, containing 195 koz of gold.
  - Probable Mineral Reserves: 438 Mm^3 averaging 82 mg/m^3 Au, containing approximately 1,159 koz of gold.
  - Total Mineral Reserves: 524 Mm^3 averaging 81 mg/m^3 Au, containing approximately 1,357 koz of gold.
- The QP has reviewed the Mineral Reserve estimates prepared by Mineros and has determined them to be reasonable and sufficient for alluvial mine planning purposes.
- The QP is not aware of any mining, metallurgical, infrastructure, permitting, or other relevant factors that could materially affect the Mineral Reserve estimate.

1.1.1.3 Mineral Processing

- Historically, gold recovery in dredging and terrace mining operations was not systematically measured due to the absence of regular sampling, process stream analysis, and flow measurement systems. Recovery was estimated indirectly by reconciliation of production with the mine plan and estimated contained gold in the mined areas.
- In 2021, Mineros implemented a program of regular process surveys on the five bucket line dredges, managed by metallurgical staff. Each dredge is currently surveyed weekly. These surveys involve sampling process streams and measuring flow rates, typically by timing how long it takes to fill a bucket. The data collected is used to identify process inefficiencies, optimize processes, and address operational challenges.
- Mineros has also initiated a recovery improvement project focused on:

    - Investigating the use of centrifugal gravity concentrators on bucket line dredges.
    - Exploring opportunities for process control enhancements and optimization.
- As part of this initiative, automatic samplers were installed on key process streams for two bucket line dredges on a trial basis. Samples are sent 2 to 3 times a week to the El Bagre laboratory for analysis. Mineros plans to extend the installation of automatic samplers on the other four bucket line dredges, further improving data collection and process monitoring.

1.1.1.4 Infrastructure

- The Property has been in operation for many decades and its infrastructure is well established. Over time, it has been expanded and upgraded to fully support the needs of the operation.
- Mineros has implemented security measures to safeguard assets, personnel, and operational continuity. The main working compound is enclosed within a gated perimeter, monitored by security personnel, and equipped with controlled access systems.
- Significant investment has been made to ensure environmental compliance and support sustainable operations, including advanced systems for effluent treatment, sediment control, and progressive reclamation of mined lands.

1.1.1.5 Environmental Studies, Permitting, and Social or Community Impact

- SLR is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource and Mineral Reserve estimates.
- It is noted, however, that escalation of illegal mining has occurred within the Nechí River, as well as in Mineros active mining areas and former mine rehabilitated areas causing operational health and safety risks, short and potential long term environment impacts, and socio-economic concerns. Government action to date has been ineffective in deterring illegal mining activities, which remain an ongoing challenge.
- Mineros has a commitment to progressive environmental and socially acceptable sustainable operations that minimize environmental impacts of its alluvial mining activities operations and major infrastructure. Impacts from mining are controlled and mining areas are progressively remediated. Major facilities are well maintained, and material recycling, reuse, and waste management systems are effective and well managed.
- Prior to 2012, mercury was used in the quaternary concentration stage of gold recovery on the dredges. The use of mercury was carefully managed and controlled in accordance with government regulatory requirements. Commencing in 2012, Mineros eliminated the use of mercury for gold recovery from some of its operations. By 2014, all use of mercury had been eliminated from its barge and plant facilities. This was a significant achievement from a technical, environmental, and social perspective, and sets a performance standard for other alluvial mining and surface mining operations in the region.
- The dredge processing is operating well, with the change from mercury amalgamation to gravity recovery contributing to a safer environment.

- Mineros' approved EMP provides the framework for meeting environmental regulations and corporate social obligations. The EMP provides overall strategic and technical guidance to operations ensuring conformance with environmental and social requirements. It is in line with industry best practice.
- Since 2020, the Nechí Alluvial Property has been designated a Project of National and Strategic Interest (PINE) in Colombia by the Ministry of Energy and Mines (MEM). This designation confirms Mineros' sustainable contribution to the country, region, and society and ensures that Mineros will receive priority considerations during procedures with any level of government.
- Starting in 2020, Mineros developed an integrated mine planning and environmental management approach in which new LOM areas/blocks were grouped within Environmental Permitting Stages. This approach ensures that environmental studies and assessments for each stage are identified early, scheduled, and undertaken as needed to support timely submission of environmental applications and reviews in advance of mining activities.
- Mineros has a long history of legal mining operation in the Nechí River region. Permits are in place for the Nechí Alluvial Property and Mineros' operations are in material compliance. The most recent National Authority of Environmental Licences ANLA approval for mining was granted in April 2022, and Mineros has environmental permits on hand and in good standing to support current mining operations in accordance with its environmental impact assessment (EIA) approvals and commitments from 2024 to 2026 and has a program for carrying out environmental studies in support of the permitting process through to 2033.
- Mineros has an effective environmental management system that is continuously evolving and improving. Environmental performance monitoring and control systems are refined to reflect changes to operations and areas of activities. Environmental tracking of key performance indicators allows for operational monitoring of achievements against planned targets and commitments.
- Mineros continues to use a new approach for alluvial mining of large blocks that reduces impacts on the environment during active mining and enhances restoration and return of mined lands to pre-mining landforms and environments. This approach reduces impacts on the main river channels, including limiting water used in mining, reduction of sediment load to the river, and reduction of the release of chemicals, wastes, and other substances into the river system. Using this new approach, restoration efforts are carried out in a manner that strives to achieve a final landform that is similar to the pre-mining setting of the area.
- Mineros maintains a mining formalization program, pursuant to which it educates, trains, contracts labour from, and in some cases provides equipment to, various local informal alluvial mining groups and their members. These initiatives provide significant job opportunities to local peoples and generate real wealth and social contributions while mitigating environmental impacts and avoiding the use of mercury. In 2024, 400 direct jobs and an estimated 1,200 indirect jobs were generated through Mineros program of collaboration and contracting with formalized third-party miners. These formalized miners pay taxes and royalties, and operate in accordance with Mineros' environmental and labour guidelines and standards, all of which contributes to the social and economic well being of the local and regional communities. The Nechí Alluvial Property LOM plan includes 13 Brazilian dredges operated under contract pursuant to Mineros' formalization

program, of which three are electric-powered and owned by Mineros, and 10 are diesel-powered and owned by formalized miners. As of December 31, 2024, formalized miners operated a total of 10 Brazilian dredges, of which three were electric-powered and owned by Mineros and seven were diesel-powered and owned by formalized miners. Mineros plans to recruit three additional diesel-powered Brazilian dredges under its formalization program to replace them in 2025.

- Mineros has excellent closure practices. Alluvial mine blocks are reclaimed on a progressive basis with the objective of re-establishing pre-mining geomorphic conditions and agreed future land use objectives consistent with local landforms. Costs associated with these efforts, including the operation of supporting activities and infrastructure (e.g., nurseries, etc.), are carried as part of the annual operating costs of the alluvial mining operations.
- For reclamation of lands and waterways impacted by past and existing mining, Mineros carries a current closure liability of US$43.8 million, with annual forecast reclamation expenditures ranging from US$0.79 million to US$5.5 million, depending on the extent of areas impacted by prior mining in various reclamation parcels. These costs appear reasonable in respect to mine reclamation and compensation for past and existing closure requirements. SLR's review notes, however, that Mineros carries no liability allowance for closure of future mining areas included in the 2025 LOM plan or for decommissioning of facilities and equipment and closure of the industrial zone infrastructure at El Bagre or other support areas.
- In addition, Mineros compensates landowners/farmers for the use of the land, damage caused by the mining operation, lost crops, lost time, etc., depending on the type of crops, size of farmland, etc., and, after completion of reclamation, carries out residential building construction and revegetation with plants and crops at agreed locations. When the farmers are returned to site after mining, Mineros assists them in obtaining proper titles with the Agencia Nacional de Tierras (ANT).
- The dramatic increase in illegal mining in Colombia, including along the Nechí River has been a significant challenge for Mineros. With the rise in gold prices, illegal miners have significantly increased their numbers and scale of operating dredges to work within the Nechí Alluvial Property, within Mineros active mining areas, and mining in areas previously mined and reclaimed by Mineros. Ongoing illegal mining impacts local and regional environment, individual and community health, safety and socioeconomics. These activities are a cause for concern and need to be addressed as expeditiously as possible by local, regional and federal governments.

1.1.1.6 Capital and Operating Costs and Economics

- The Nechí Alluvial Property is an active operation. Capital and operating cost estimates were prepared using recent operating performance data and the 2024 operating budget as a baseline.
- Mineros has undertaken a review of the cost centres associated with operating costs items. This process has improved the methodology for estimating costs compared to previous technical reports, enabling more accurate budgeting and forecasting.
- The QP has reviewed the sustaining capital and operating costs for the Nechí operations and considers these estimates reasonable and appropriate, contingent on achieving the planned production targets.

- SLR has reviewed the LOM cash flow model for the Nechí Alluvial Property and confirms that the Mineral Reserves are economically viable under current operating conditions.

1.1.2 Recommendations

1.1.2.1 Geology and Mineral Resources

1 Ensure the consistent implementation of quality assurance and quality control (QA/QC) protocols across all drilling campaigns. This includes:
   - Regular audits of sampling, logging, and assay data to maintain the reliability and reproducibility.
   - Enhance documentation and integration of QA/QC results into the resource estimation process.
   - Continue assessing and prioritizing old tailings in previously mined areas known to have higher gold grades. While this is operationally ongoing, focus on evaluating the feasibility of converting these tailings into Mineral Resources or Minerals Reserves. This will require detailed drilling, sampling, and metallurgical testing to address the challenges associated with variability, recovery, and economic viability.

2 Continue exploration and infill drilling using the Ward and sonic drill methodologies. Prioritize zones with lower data density to:
   - Facilitate the upgrading of Inferred Resources to Indicated or Measured categories, supporting better mine planning and economic evaluations.
   - Continue developing and refining the 3D block model by integrating additional geological and assay data. This should include further validation of lithological and granulometric domains to enhance the accuracy of the resource estimation process.
   - Evaluate the use of advanced estimation techniques, such as geostatistical simulations, to model the uncertainty and variability of gold distribution more effectively.
   - Explore potential extensions of the resource by targeting under-explored areas along the alluvial plain, particularly paleochannels that may host additional mineralization.
   - Continue to refine the overburden surface model to enhance the delineation of barren material, ensuring more precise resource reporting and mine planning.

1.1.2.2 Mining and Mineral Reserves

1. Sustain Exploration and Infill Drilling
   - Continue targeted exploration and infill drilling campaigns to expand Mineral Resources and upgrade existing Mineral Resources to Mineral Reserves. This is essential for offsetting Mineral Reserve depletion and extending the LOM.
2. Grade Control Drilling Program
   - Continue a systematic grade control drilling program with a tightly spaced drill pattern covering active ore zones.
   - Focus on collecting sufficient geological data to delineate ore grades and define ore blocks with greater precision.

- Employ this program to create high-resolution, short-term block models to predict ore location, grade, and volume more effectively for operational planning.

3. Regular Data Reconciliation
   - Continue with the routine reconciliation of actual mining results against planned figures to identify variances in extraction volume and metal content.
   - Monitor mineral dilution levels to ensure that mine plans remain aligned with operational goals.
   - Integrate reconciliation findings into the resource model to refine future mining plans and improve overall accuracy.
4. Optimize Pit Design and Scheduling
   - Continue with regular evaluation of pit designs and mining schedules to ensure optimal material extraction and sequencing. Incorporate updated drilling data and modifying factors into designs to maximize resource recovery.
5. Enhance Operational Monitoring
   - Continue with the implementation of advanced technology, such as global positioning system (GPS)-enabled equipment and real-time monitoring systems, to track ore extraction and movement.
   - Leverage drone-based mapping and Light Detection and Ranging (LiDAR) surveys to improve surface monitoring, identify terrain changes, and optimize short- and long-term mine planning. Integrate drone survey data with existing GIS systems to improve spatial analysis.
   - Continue with the implementation of 3D bathymetric mapping to create detailed underwater topographies, enabling more precise control over dredging operations and improved reconciliation of mined volumes against plans. This data should be regularly integrated into mine models to support route optimization and efficient resource recovery.
6. Debottleneck Overburden Removal
   - Increase the utilization of suction dredges to remove overburden more efficiently and at a lower cost compared to bucket dredges. Consider increasing the number of suction dredges.
   - Investigate options for lowering surface water levels (e.g., further dike engineering) to allow suction dredges to access deeper overburden layers.
   - Optimize the synchronization of suction dredge overburden removal rates with bucket dredge operations to prevent bottlenecks and maximize the productivity of higher-cost bucket dredge units.
7. Optimize Mining of Ore Zones
   - Avoid mining gold-bearing gravels that demonstrate negative net value.
   - Review and refine Mineral Reserve replacement strategies to ensure alignment with LOM targets.
   - Maintain a pipeline of exploration targets and prioritize areas with the highest potential for conversion to Mineral Reserves.

1.1.2.3 Mineral Processing

1. In the QP's opinion, regular or continuous measurement of recovery and plant performance is an essential exercise for metallurgical accounting and process monitoring and optimization, as well as to support reconciliation between processing, mining, and geological production and plans. Mineros has prudently begun a program of process surveying and recovery improvement. The QP recommends that Mineros continue to develop and build upon this program to maximize gold recovery and operational efficiency.
2. Finer or flake-like gold in some areas of the deposit may result in lower recoveries during dredging operations. The QP recommends starting a program of test work specifically aimed at recovery of fine or flakey gold in order to be better prepared for this eventuality.

1.1.2.4 Environment

1. SLR notes that between 2019 and 2020, the permitting regime for Mineros operations was harmonized with ANLA the federal environmental regulator, assuming administrative responsibility for all permitting. Previously, such responsibility was shared by ANLA and a regional environmental regulatory authority. Since harmonization, the permitting process has evolved, and may continue to evolve, as Mineros becomes more familiar with ANLA's approaches to and requirements for baseline data and EIAs, and as ANLA increases its understanding of Mineros' operations through the mining life cycle. In this respect, SLR continues to recommend and support Mineros efforts to:
   - Develop integrated environmental plans and schedules for permitting synchronized with LOM exploitation plan.
   - Engage with ANLA to establish appropriate terms of reference for future permit applications.
   - Initiate additional baseline studies for future mining well in advance of LOM timeframe for mining.
   - Integrate the strategic environmental plan into the overall performance management plan to ensure it is tracked regularly along with other critical performance indicators.
2. Appropriate management of surface waters in and around the facilities is a key factor for Mineros' successful alluvial mining operation. In this regard, SLR supports and encourages Mineros' efforts to investigate new technologies and approaches to ensure the Nechí Alluvial Property operations are not negatively impacted by extreme precipitation and runoff events, as well as mitigating potential environmental and social concerns associated with water discharge to the receiving environment.
3. In addition, SLR recommends that Mineros:
   - Consider adding estimated costs for the reclamation and compensation of future mining areas included in the 2025 LOM plan to the current existing closure liability allowance of US$43.8 million for closure of past and existing closure requirements.
   - Develop closure costs for decommissioning of facilities and equipment and reclamation of its industrial zone infrastructure and related items at El Bagre and other support areas.
   - Continue to engage with local, regional, and federal officials to the degree practically possible to assist them in working toward a sustainable solution to this illegal mining

and its negative impacts, which cause significant frustrations to Mineros and local and regional inhabitants.

1.1.2.5 Capital and Operating Costs and Economics

1. Continuously monitor cost trends in the Colombian market for labour, consumables, and support services to anticipate and manage potential fluctuations.
2. Proactively negotiate and secure fixed-price contracts for critical goods and services whenever feasible, reducing exposure to economic uncertainties such as inflation or exchange rate volatility.
3. Continue refining the cost allocation process across Nechí operations' cost centres to enable more accurate cost estimation and budgeting.
4. Use advanced data analytics tools to enhance the granularity of cost tracking, ensuring that all operational expenses are appropriately categorized and allocated.
5. Regularly review and prioritize capital investment projects based on their potential to improve efficiency, reduce operating costs, or extend the LOM.
6. Conduct cost-benefit analyses for proposed projects, including sensitivity studies to assess their viability under varying economic conditions.
7. Implement periodic reconciliation of actual versus planned costs to identify and address variances promptly, and ensure that expenditures remain aligned with operational goals and financial performance metrics.
8. Establish clear performance metrics and benchmarks for cost centres to improve accountability and operational transparency.
9. Invest in technologies or processes that offer long-term operational cost savings, such as automation, energy efficiency upgrades, or alternative energy sources.
10. Explore strategies to reduce fuel consumption, optimize maintenance schedules, and streamline supply chain management.
11. Maintain relationships with local suppliers and industry stakeholders to stay informed about market trends and potential cost-saving opportunities.
12. Regularly benchmark operational costs against similar operations in Colombia and globally to identify areas for improvement.

1.2 Economic Analysis

This section is not required, as Mineros is a producing issuer under NI 43-101 guidelines. The Nechí Alluvial Property is currently in production, with no planned material expansion of current production at this time.

The QP has reviewed the LOM cash flow model for the Nechí Alluvial Property and confirms that the Mineral Reserves are economically viable under current operating conditions. The analysis demonstrates the operation's ability to sustain production and meet financial expectations over the planned LOM.

1.3 Technical Summary

1.3.1 Property Description and Location

The Nechí Alluvial Property is located approximately 190 km north-northeast of Medellín in the northeast of the Antioquia Department, within the jurisdiction of the municipalities of El Bagre, Zaragoza, Caucasia, and Nechí. Approximate coordinates for the centre of alluvial operations are 74°47'45" W longitude, 7°49'31" N latitude, corresponding to UTM Zone 18N 522,500E, 865,000N in the World Geodetic System 1984 (WGS84).

Mineros' base of operations at El Bagre is readily accessible by daily commercial air service from the Olaya Herrera domestic airport in downtown Medellín. Flight time is approximately 40 minutes. The warm, tropical climate supports year-round mining operations.

1.3.2 Land Tenure

Mineros, through Mineros Aluvial S.A.S. BIC., its wholly owned subsidiary, holds a 100% interest in the Nechí Alluvial Property under two types of mining titles: Recognition of Private Property (*Reconocimiento de Propiedad Privada*, RPP) and mining concession contracts. The RPP and concession contracts that constitute the Nechí Alluvial Property are contiguous and occupy an area along the Nechí River and flood plain of approximately 41,675 ha between the towns of Zaragoza and Nechí. Mineros holds one RPP (RPP 57011) with an area of approximately 35,554 ha and seven material concession contracts with a total area of approximately 6,097 ha. Mineros' surface and mineral rights are more than adequate to accommodate the Nechí Alluvial Property.

1.3.3 History

Artisanal and small-scale alluvial mining has occurred in the vicinity of the Nechí Alluvial Property since antiquity. Illegal hard rock and alluvial miners continue to mine gold on a small and mid scale level throughout the district.

By the end of the 19th century, several gold mining companies operated in the northeast of Antioquia. Exploration drilling to establish the gold potential of the Nechí alluvium was initiated in 1903, and in 1906 mining of the west riverbank terraces using water monitors and conveyors began near the mouth of Pato Creek.

In 1908, the first bucket line dredge began operation. In the 1930s, Placer Development Limited acquired and consolidated the dredging operations under the name of Pato Consolidated. Pato Consolidated was subsequently acquired by International Mining Corp. in 1956 and Mineros purchased the land holdings and operations in 1974.

Historical gold production from the Nechí alluvial deposits from 1895 to 2024 is approximately 9.1 Moz Au, of which Mineros' operations account for approximately 3.2 Moz Au.

1.3.4 Geology and Mineralization

The Nechí Alluvial Property is situated in the alluvial valley and flood plain of the Nechí River lower basin that lies within the foothills of the Central Cordillera of the Andes Mountains. The current active area of alluvial operations extends approximately 12.5 km on the east side of the Nechí River towards the northern part of the Property. Most of the alluvial dredging is carried out in the Quaternary sediments, along the Nechí River from Zaragoza to the Cauca River. These deposits are slightly consolidated and are composed of gravel (60% to 70%) and sand (30% to 40%). The gravels contain coarse clasts/cobbles commonly composed of quartz diorite, amphibolite, sericite schist, vein quartz, andalusite, quartzite, quartz-feldspathic gneisses, and locally, conglomeratic beds characterized by white quartz fragments. Clay lenses within the alluvium are also common.

The alluvial deposits at Nechí consist of polycyclic sediments sourced predominantly from the Segovia batholith, Antioquian batholith, and other intrusive bodies along the San Lucas Ridge, as well as some metamorphic rocks that surround the Nechí valley. Most of the gold deposited with the Nechí alluvium is derived from igneous and metamorphic rocks enriched with primary disseminated and vein gold mineralization. This source area is located to the east and south along the Nechí and Porce rivers as well as their tributaries. Generally, the intrusive rocks are very susceptible to weathering in addition to other genetic and tectonic processes that promote disintegration and the liberation of resistant minerals and gold.

The alluvium has been subdivided into four units in which seven types of gold-bearing gravels can be differentiated. The stratigraphy from oldest to youngest is represented by bedrock Cajamarca schists, succeeded in turn by Tertiary clay-rich sediments (false bedrock), alluvial gravel pediment, and terraces.

Gold in the Nechí alluvial gold deposits consists of free grains that are predominantly No. 4 or smaller, hosted by flood plain Tertiary fluvial gravels and sands. No. 4 gold grains are very fine (flour or powder gold), with individual grains weighing approximately 0.02 mg. No. 2 and No. 3 gold grains are also present. In terms of grain counting, No. 4, and smaller grains account for 96% of the grains logged in drill hole sampling, however, because of the large differential in grain weight, the weight contribution of No. 3 and No. 4 grains is 86%. As determined from fire assays of bullion, the gold grains are 850 to 900 fine (85% to 90% gold), with approximately 9% silver, 1% iron, and traces of platinum. Mineros currently uses an assumption of 890 fineness for Mineral Resource and Mineral Reserve estimation.

1.3.5 Exploration Status

Mineros explores and develops alluvial gold resources on the Nechí Alluvial Property by Ward drilling vertical holes and sampling alluvium and terraces along the Nechí River, predominantly on the east flood plain that is closer to the likely source of gold, the Segovia batholith. In March 2021, Mineros began sonic drilling to explore terraces and old tailings along the west bank of the Nechí River. The current Nechí drill hole database contains 13,493 holes totalling approximately 321,940.8 m.

1.3.6 Mineral Resources

Mineros has completed a Mineral Resource estimate for the Nechí Alluvial Property based on drill hole data available as of November 25, 2024. This estimate represents a transition from conventional 2D polygonal estimation methods to a more sophisticated 3D block modelling approach, enhancing the spatial accuracy and robustness of the resource model. The use of Leapfrog's 3D modelling software has facilitated the delineation of geological domains and the separation of production, overburden, and bedrock zones, aligning resource estimation practices with industry best standards.

The adoption of a 3D modelling approach has improved the integration of geological data and facilitated more effective resource classification, mine planning, and operational decision-making. The estimated resources are presented exclusive of Mineral Reserves and include dilutive material from the overburden with zero gold grade, providing a realistic basis for project evaluation.

For the Nechí Alluvial Property, the alluvial Mineral Resources are not reported at a specific cut-off grade. Instead, they are constrained within an ultimate pit shell generated at a revenue factor (RF) of 1.0, where the block revenue equals total operating costs. The reported Mineral Resource volumes and grades reflect dilution from overburden, assigned a gold grade of zero, providing a realistic assessment of the resource.

The alluvial Mineral Resources at the Nechí deposit are reported in cubic metres (m^3) for the total volume of mineralized and overlying barren material, milligrams per cubic metre (mg/m^3) for gold grade, and troy ounces for contained gold. This reporting approach reflects the mining method employed and the nature of the alluvial mineralization, where gold grade is diluted by barren overburden, assigned a grade of zero. For resource estimation, the contained gold is assumed to be 89% fine, ensuring an accurate representation of recoverable gold content. The fine gold grade in the resource and reserve tables is the metal grade multiplied by the 0.89 gold fineness factor. Similarly, the contained gold values in the resource and reserve tables are adjusted for the 0.89 gold fineness.

The Mineral Resources for the Nechí were estimated by Mineros technical personnel using the drill hole results available to November 25, 2024. As of December 31, 2024, the Mineral Resource estimate comprises a total Measured and Indicated volume of 527 Mm^3 grading 56 mg/m^3 Au, containing approximately 1,005 koz of gold. In addition, Inferred Resources total 223 Mm^3 grading 62 mg/m^3 Au, for 447 koz of gold.

Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves dated May 10, 2014 (CIM (2014) definitions) were used for Mineral Resource classification. A summary of the Mineral Resources at the Nechí Alluvial Property is shown in Table 1-1.

Table 1-1: Summary of Mineral Resources – December 31, 2024

Category	Volume (Mm^3)	Gold Grade (mg/m^3 Au)	Contained Gold (koz Au)
Measured	79	55	140
Indicated	448	56	865
Total Measured and Indicated	**527**	**56**	**1,005**
Inferred	223	62	447

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are reported within an ultimate pit shell generated at Revenue Factor of 1.0 using an average, long-term gold price of US$1,900/oz Au and an exchange rate of COP4,000.00:US$1.00, and include low-grade blocks situated within the pit.
3. Gold grade is diluted to total volume which includes both mineralization and overburden.
4. The fineness of gold in the doré is 89%. The gold grade and the contained gold are adjusted for fineness.
5. Average thickness of the resource pay gravel is 30 m. Average thickness of overburden is 15 m.
6. Mineral Resources are depleted by mined out areas updated as of December 31, 2024.
7. Mineral Resources are exclusive of Mineral Reserves.
8. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
9. Numbers may not add due to rounding.

The QP is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

1.3.7 Mineral Reserves

The Mineral Reserve estimate for Nechí was carried out by Mineros' technical personnel and reviewed and accepted by the SLR QP. Aspects of the Mineral Reserve estimation process that were reviewed include pit optimization, pit design, production schedule, and the application of modifying factors to the Measured and Indicated Mineral Resources.

Mineral Reserves are based on the Measured and Indicated Mineral Resources presented in Section 14 of this Technical Report. Inferred Resources are not included in the Mineral Reserves.

Proven and Probable Mineral Reserves were estimated by identifying the economically mineable part of the Measured and Indicated Resources. Mineral Reserves were not reported based on a specific cut-off grade, but rather are based on Mineral Resource material within the mineralized zone that shows a positive net value after deducting associated mining costs. For material to qualify as Mineral Reserves, its estimated value must cover all associated mining costs.

The effective date for the Mineral Reserves at the Nechí Alluvial Property is December 31, 2024. These reserves are estimated within the designed pits detailed in Section 16, depleted by the mined-out shapes as of December 31, 2024.

Due to the mining method employed and the nature of the mineralization, the alluvial Mineral Reserves at the Nechí deposit are reported in cubic metres (m^3) for the volume of mineralized and overlying barren material, milligrams per cubic metre (mg/m^3) for gold grade, and troy ounces for contained gold. Alluvial gold at Nechí is 89% fine for reserve estimation.

The Mineral Reserves incorporate dilution from tailings, slope collapse, and other factors. To account for this dilution, both in situ mineralization and overburden material volumes reported within the ultimate pit design are increased by 10%. Additionally, the in-situ gold grades have been adjusted to reflect the effects of mining dilution.

The dilution factor was applied at zero grade in the Mineral Reserve estimates. The dilution factor was estimated based on reconciliation data between planned (in-situ) versus actual (diluted) surveyed volumes.

A 100% mine extraction factor was applied to convert the Measured and Indicated Mineral Resource blocks situated in the ultimate pit design into Proven and Probable Mineral Reserves, respectively.

While the loss of mineralization during mining is not directly factored into calculations, metal loss is captured through the gold recovery percentage. A mine call factor (MCF) of 0.90 was applied specifically to the Phase 2 pit within the current mining area, classified as Probable Mineral Reserves aligning with recent infill drilling results and production reconciliation data from the second and third quarters of 2024. This MCF is applied to the LOM production plan for the Phase 2 pit, covering the years 2025 to 2028.

The Mineral Reserve estimate is detailed in Table 1-2.

Table 1-2: Summary of Mineral Reserves – December 31, 2024

Category	Total Volume (Mm^3)	Gold Grade (mg/m^3)	Contained Gold (koz Au)
Proven			
Bucket Line Dredges	74	72	171
Llanuras Production Unit	9	51	15
Brazilian Dredges	3	81	8
Total Proven	**86**	**71**	**195**
Probable			
Bucket Line Dredges	335	84	901
Llanuras Production Unit	30	55	53
Brazilian Dredges	73	87	206
Total Probable	**438**	**82**	**1,159**
Total Proven and Probable	**524**	**80**	**1,355**

Notes:

1. CIM (2014) definitions were followed for Mineral Reserves.
2. Mineral Reserves are estimated using an average long-term gold price of US$1,750 per ounce.
3. An exchange rate of COP4,000.00 = US$1.00 was used.
4. The total volume includes both the diluted mineralized material and overburden material.
5. Gold grade is diluted to total volume which includes both mineralization and overburden.
6. The fineness of gold in the doré is 89%. The gold grade and the contained gold are adjusted for fineness.
7. Average metallurgical process recovery varies by equipment type, from 83% for the Cucharas (bucket line dredge), currently 58% for the Llanuras (suction dredge), and 61% for the Brazilian Dredges.
8. Recovery rates are based on the reconciliation factor or the percent of gold recovered versus the estimated amount of gold.
9. Mining dilution of 10% at zero grade is applied to the in-situ volume, affecting both the mineralization and the overburden.
10. Mining extraction is 100%.
11. Mined out blocks were assigned a zero recovery to eliminate their potential for revenue generation. Mined out areas were updated as of December 31, 2024.
12. Mineral Reserves are estimated to the maximum alluvial mining depth of 12 m for suction dredge and 30 m for bucket line dredge.
13. A minimum mining width of 90 m was used.
14. Overall pit slopes are 37°.
15. Mineral Reserves are reported on a 100% ownership basis.
16. Numbers may not add due to rounding.

The QP is not aware of any mining, metallurgical, infrastructure, permitting, or other relevant factors that could materially affect the Mineral Reserve estimate.

1.3.8 Mining Method

The deposit extends for more than 50 km along the Nechí River, with widths up to 3.5 km. The current active area of alluvial operations extends approximately 12.5 km on the east side of the Nechí River towards the northern part of the property. The current overall mining process consists of the following four basic phases:

- Overburden removal with suction dredges or Brazilian dredges.

- Gravel removal with dredges.
- Size classification and gravimetric gold extraction.
- Final metallurgical processing of doré at the metallurgical plant and laboratory at Mineros' El Bagre complex.

The production units operate on ponds constructed within the alluvial plain on the east side of the Nechí River. Three types of dredging equipment are utilized specifically for mining mineral-rich material:

- The five bucket line dredges currently in operation are Jobo (D03), Boyacá (D05), Dobaibe (D10), Santa Paula (D14), and Santa María (D16). These production units are owned and operated by Mineros and are designed for large-scale mass extraction of gold-bearing gravel material.
- The second method involves the Llanuras production unit (No. 21), which utilizes a wheel cutter and floating processing plant. This method is aimed at selective extraction of gold-bearing gravel and is also owned and operated by Mineros.
- The third method is suction plain mining using 13 Brazilian suction dredges. These dredges, operated by third parties under contract with Mineros, include onboard processing plants.

There are ten diesel, third party units (Esperanza, La 75, Morenita, Alejandría, Antioqueñita, Buenos Aires, Estatal, Lucky, La Cacica, and Contrato 10) operated by contract miners. Mineros pays 85% royalties on production to the contractors.

There are three electric, Mineros-owned production units (Danta, Mulata, Embera) operated by contract miners under a 50% royalty contract (i.e., 50% share to Mineros). Electricity is supplied by Mineros.

In addition, nine suction dredge units (Nos. 11, 12, 13, D15, 17, 18, 19, 20, and 25), owned by Mineros, handle the removal of overburden in advance of the bucket line dredge units and the Llanuras production unit. Dredge No. 25 started operating in late 2024.

Terrace mining, which focused on mining tailings from early, less efficient dredging operations, was discontinued by the end of 2024.

Currently, production units owned and operated by Mineros account for 88% of alluvial gold production, of which five mass production bucket line dredge units (Cucharas) account for 83% of production and Brazilian suction dredges (13 units) operated by formalized miners under contract account for 12% of alluvial gold production.

A mass production unit consist of a wheel cutter-suction dredge, a bucket line dredge, and support equipment including a bulldozer, a track-mounted crane, an amphibious backhoe, a boat, and other minor equipment. Each unit is a self-contained independent operation.

Dredging operations are carried out 24 hours per day, 365 days per year. At approximately 80% availability due to equipment maintenance and clean-up, actual dredging is effectively 285 days per year.

1.3.9 Mineral Processing

Mineral beneficiation takes place on board dredges or floating processing plants and is accomplished by gravimetric methods including jigging, sluice boxes with mats to capture gold grains, and spiral concentrators. Dredged material is first screened to remove coarse material or debris before being directed to gravity concentration equipment. Concentrates produced in the dredging operation are transported to the El Bagre complex for final concentration and smelting in the El Bagre metallurgical plant. Doré quality produced in the El Bagre refinery is reported to be consistently 890 fineness, or 89% gold in the final doré bars.

The use of mercury amalgamation was eliminated in part of the operation in 2012 and completely phased out by 2014, replaced by use of additional gravimetric concentration equipment.

There are three main mining and concentration methods: bucket line dredges (5), Brazilian suction dredges (13), and the Llanuras production unit (1). Terrace mining, which focused on mining tailings from early, less efficient mining method, was discontinued by the end of 2024. All of the bucket line and production suction dredges, except dredge No. 21, have their own on-board processing plants. Dredge No. 21 includes the Llanuras Plant, a separate floating processing plant that follows the dredge and is fed via floating pipeline from the dredge. The two are collectively referred to as the Llanuras Production Unit.

The five bucket line dredges have the largest processing capacity, approximately 500 m^3/h each, and the most efficient gold recovery plants involving multiple steps of concentration by jigging, blanket-lined sluice boxes, and spirals, and achieve recoveries of up to 83%. The Llanuras Plant has a capacity of 300 m^3/h to 500 m^3/h and typically recovers approximately 50% to 58% of gold in the feed by means of blanket-lined sluice boxes. The remainder of the suction dredges have capacities of 160 m^3/h and use blanket-lined sluice boxes to typically recover between 58% and 63% of the feed gold. Processed material is discharged out the back of the dredges.

Dredge concentrates are processed in the metallurgical plant in El Bagre to concentrate the gold further and melt the final concentrates to produce doré bars. The concentration equipment consists of angular rotating tables, centrifugal concentrators, sluice boxes, shaking tables, and magnetic separators. Gold recovery in the El Bagre plant is greater than 99%. The dredge concentrates are processed in batches and thus production from each dredge can be separately accounted for. Tailings from the El Bagre plant are stored in a small, lined storage pond on site.

1.3.10 Project Infrastructure

Mineros' base of operations for the Nechí Alluvial Property is a 6.4 ha complex adjacent to the municipality of El Bagre. The El Bagre complex includes a secure working compound consisting of offices for administration, engineering, exploration, and health and safety, as well as a gold concentrate processing and smelting facility, assay laboratory, maintenance/fabrication shops and warehouses, port facilities, helicopter hangar and pad, fuel stations, a diesel power generation plant, a water supply and treatment system, and an unsecured area of restaurant and recreational complexes, a hospital, and employee and guest housing. The working compound is secured within a fenced and gated area and access is controlled.

Sewage facilities are available for the entire El Bagre complex and have grease traps, septic tanks, and filtration nets. All tanks are periodically emptied and cleaned, and sludge is used as fertilizer in green areas.

Solid waste management activities occur in a complex on site. The area has separate facilities for hazardous waste storage prior to removal and disposal at licensed facilities, storage of materials that will be recycled, organic materials storage, and lined landfill disposal cells for domestic waste.

The El Bagre complex electrical infrastructure consists of the Providencia hydroelectric plant, a main substation at the plant, a transmission network from the power plant to distributing substations, voltage reducing substations, distribution networks for the different users, and distribution substations on the dredge production units. The system is backed up by two diesel emergency systems.

In 2022, Mineros completed the construction of a secondary camp strategically located 40 km north of the main camp, in the village of Astilleros. This project is part of a strategy to strengthen logistical support for operations, specifically those focused on the northern part of the company's mining titles.

1.3.11 Market Studies

The principal commodity at the Nechí Alluvial Property is gold, which is freely traded at prices that are widely known so that prospects for the sale of Mineros gold production are virtually assured. All gold production over the LOM will be sold at spot market prices.

Mineros has contracts in place with Argor Heraeus Switzerland (Argor) and Asahi US (Asahi) for doré refining. The production split for doré refining is 60% for Argor and 40% for Asahi. SLR has reviewed the contract terms and is of the opinion that they are within industry norms.

For its mining production, Mineros expanded its operations under mining operation contracts. The mining operation contractors work on commission within the formalization program, under two types of contracts: third party units operated by formalized miners and Mineros' owned production units operated by formalized miners. The formalized miners' contracts represent 12% of the Nechí gold production. In the QP's opinion, all these third-party mining operations contracts that Mineros has entered into are based on normal commercial arrangements.

In addition to doré sales and formalized miners' contracts, Mineros has numerous contracts with suppliers for consumables, reagents, maintenance, general and administrative (G&A) requirements, and other services to support mine operation. The QP has not reviewed the various support service contract details at Nechí, however, Mineros has used these contractors in the past and continues to do so.

1.3.12 Environmental, Permitting and Social Considerations

Mining activity in Colombia is regulated by the Constitution of Colombia and Law 99 (1993), according to which the responsibilities related to environmental management are shared between the Ministry of Environment, Housing and Territorial Development (Ministerio de Ambiente, Vivienda y Desarrollo Territorial, MAVDT), and the Ministry of Environment and Sustainable Development (Ministerio de Ambiente y Desarrollo Sostenible, MADS) at the national level and the Autonomous Regional Corporations (Corporaciones Autónomas Regionales, CARs) at the regional level. MADS sets the national standards for mineral activities, while CARs are responsible for administering the natural resources and controlling environmental deterioration associated with extraction activities, such as mining, in their territorial jurisdictions and issues project specific rules and requirements consistent with national regulations as suited to their jurisdictions. In the case of the Nechí Alluvial Property, mining and mining related activities occur in the municipalities of Zaragoza, El Bagre, Caucasia, and Nechí, for which the regional environmental authority is the Corporación Autónoma Regional del Centro de Antioquia (CORANTIOQUIA). CORANTIOQUIA is headquartered in the city of Medellín and has a regional office in the municipality of Caucasia. Mineros' existing operations are carried out based on the approved 2001 EMP. Since 2018, to harmonize environmental management and prepare for transition to a new environmental framework, Mineros requested that ANLA, in addition to its approval of the EMP, take on responsibility for all permits previously granted by CORANTIOQUIA pertaining to the mining and hydroelectric operation for current and future mining operations and activities. The procedural request was completed in early 2020.

In concert with the above, Mineros has, since 2018, submitted permit applications to ANLA for review and approval in support of existing operations. In 2021, Mineros submitted two permit applications for large scale mining activities in a portion of the Sampumoso Sector (Environmental Permitting Stage 1.5, April 2021 and Stage 2, October 2021) to ANLA. Stage 1.5 was approved in November 2021 and Stage 2 was approved in October 2022. Collectively these approvals allow Mineros to mine 1,081 ha in these areas until 2026. The permitting process for 2025 to 2034 is discussed in greater detail in Section 20.3.4.

The nature of the regulatory framework governing Mineros activities requires that the company carry out comprehensive environmental assessments for all new mining areas not included in the existing approved EMP. This requires undertaking environmental studies and developing environmental management plans for inclusion in an EIA that must be presented and approved for each new mining area. Mineros has established an integrated mine planning and environmental management approach to plan for and implement timely environmental assessments within Environmental Permitting Stages in concert with the LOM mine development plan. This approach ensures that environmental studies and assessments for each Environmental Permitting Stage are identified early, scheduled, and undertaken as needed to support timely submission of environmental applications and reviews in advance of mining activities.

Since 2020, the Nechí Alluvial Property has been designated a PINE project in Colombia by the MEM. This designation confirms Mineros' sustainable contribution to the country, region, and society, ensuring that Mineros will receive priority considerations during procedures with any level of government.

Mineros has established a corporate management system for guiding its operation with respect to the environment, health and safety, and social responsibility. The system provides a proactive planning framework, allows for continuous updates of regulatory and permitting requirements and the distribution of these obligations among various operating units within Mineros as appropriate, and provides a dynamic framework for regular and exceptional performance monitoring. The system is supported by a management information system (MIS) application software hosted on server-based computer systems that link various operational and corporate departments of Mineros.

Prior to its elimination in 2012 to 2014, mercury was selectively used in the final stages of sluice gravity extraction on the barges. Sealed canisters containing the mercury gold amalgam were shipped daily by helicopter to El Bagre where processing of the amalgam was carried out every ten days in a secure laboratory under controlled conditions in a retort furnace which captured the volatilized mercury for re-use. The use of mercury was carefully managed and controlled in accordance with government regulatory requirements. Tracking of mercury use and mass balance calculations were carried out to confirm that total mercury losses were within regulatory limits. Testing of air, water, and fish was carried out to confirm that mercury use complied with Mineros environmental permits.

The elimination of mercury was a significant achievement from a technical, environmental, and social perspective, and sets a performance standard for other alluvial mining and surface mining operations in the region.

SLR's site visit and review of Mineros' environmental management system and the various environmental permits and supporting documents have demonstrated that Mineros is progressively advancing and formalizing its environmental management system and has a comprehensive framework for identifying and addressing existing and potential environmental issues associated with its operations.

The integrated management system provides a strategic framework and operational platform for guiding Mineros' actions throughout the life cycle of the mineral extraction process from exploration through to final reclamation of formerly disturbed areas. It also provides the means of linking all the Mineros performance metrics, including environmental and social obligations, in a coherent system that can be used to measure Mineros' success with respect to environmental and social obligations within the context of its physical, social, and regulatory commitments.

SLR's review of information provided confirms that Mineros has substantially improved its EMPs and practices since its formation as Mineros S.A. and is in material compliance as of the issue date of this Technical Report. This improvement has been driven through corporate planning and management practices as articulated in Mineros' environmental management system and supported by the Mineros' integrated management system.

In addition to its operational environmental management, Mineros also has excellent closure practices. Alluvial mine blocks are reclaimed on a progressive basis with the objective of re-establishing pre-mining geomorphic conditions and agreed future land use objectives consistent with local landforms. Mineros' reclamation practices, combined with the setting and climate, allow for successful land reclamation to be achieved within several years of completion of mining. In addition to compensation of landowners/farmers for the use of the land and for damage caused by the mining operation, Mineros carries out residential building construction and revegetation with plants and crops at agreed locations after completion of reclamation. When farmers return to site after mining, Mineros is planning to assist them to obtain proper titles with the ANT. No evidence of legacy liabilities was noted with respect to past use of mercury by Mineros in its processing and recovery of gold.

Obligations related to closure of the alluvial mining operations as of the third quarter of 2024 include restoration of 771 ha of mined areas and forestry compensation of 4,303 ha for which Mineros carries a provision on its balance sheets for LOM closure costs, of US$43.8 million, with annual forecast reclamation costs ranging from US$0.79 million to US$5.5 million, depending on the extent of prior mining and reclamation parcels.

Mineros has developed and implemented an integrated management program (IMP) that is used to guide and monitor overall performance of all facets of the operations. The IMP is a sophisticated management system that guides and links all aspects and activities associated with the mining efforts throughout all stages of their life cycle. The IMP is used to establish and monitor internal objectives for all operations of the mine, as well as to interface with and follow the external requirements and commitments of Mineros, especially in regard to its environmental and social commitments and obligations. The IMP is supported through a sophisticated computer-based application and network architecture that allows all levels of the organization access as appropriate.

The socio-economic setting in which Mineros activities are carried out is particularly sensitive as the area is one of the poorest regions in the Antioquia Department, with poverty indices of more than 50%. Given this context, Mineros is the most important company in the region and undoubtedly one of the primary engines of the provincial economy. In carrying out the obligations under its social program, Mineros has worked with regional and municipal governments to assist them in various initiatives, including assisting ANT through the provision of cartographic support in property legalization through mapping, environmental education, restoration of lands impacted by past illegal mining; providing support to regional municipalities on housing development and cultural program initiatives; and working on various awareness and education programs including work coordinated efforts with the State Education Agency (SENA) to develop and support various skill development and job training programs.

In addition to Mineros' environmental, health and safety, and quality programs, Mineros has also implemented a Corporate Social Responsibility program, which is both broad yet a well-focused program, aimed at assisting local and regional communities/peoples in developing sustainable programs and initiatives that extend beyond mining operations.

The objectives of Mineros' social responsibility program are to facilitate and support opportunities for people in the region. The model used by Mineros focuses on the following areas:

- Environment – minimizing the negative impacts on the region.
- Education – promoting opportunities and access to education.
- Health – support for basic needs and services, specialist services, family planning.
- Economic Development – opportunity creation, micro projects, business development.
- Mineros tracks and shares information on its CSR program and reports through annual sustainability reports in accordance with the reporting framework of the Global Reporting Initiative (GRI).
- Illegal mining in the region has expanded dramatically and poses social and human health risk to local populations as well as environmental risks associated with habitat degradation, deforestation, and contaminant releases into waterways and soils. Mineros continues to support local individuals, communities, organizations, institutions and informal miners to help mitigate the degree and impact of illegal mining, but ultimately this is a challenge that must be addressed by various levels of government.

1.3.13 Capital and Operating Cost Estimates

Capital and operating cost estimates have been prepared based on recent operating performance and the latest operating budget for 2024. These costs were supplied to SLR by Mineros' corporate finance and technical teams. SLR considers these cost estimates to be reasonable, as long as the production targets are realized.

Mineros' estimate of capital costs required to maintain alluvial mining and processing operations over the LOM between January 2025 and November 2036, is estimated to be US$279.1 million, including mining development, sustaining capital, and reclamation and closure costs. A summary of Nechí Alluvial Property capital costs is shown in Table 1-3.

Table 1-3: Summary of Capital Costs

Description	Cost ($000)
Sustaining Capital - Development	64,024
Sustaining Capital - Operations	171,264
Reclamation/Closure Capital	43,811
Total LOM Capital Cost	**279,099**

Mineros' estimate of operating costs required to mine and process 284 Mm^3 of alluvial material is estimated to be US$815.4 million over the LOM. The total LOM unit operating costs are estimated to be US$2.87/$m^3$ processed and are presented by area in Table 1-4.

Table 1-4: LOM Unit Operating Costs

Description	Total LOM (US$ 000)	Unit Rate (US$/$m^3$ Processed)	Unit Rate ($/oz Au payable)
Mining Cost - Bucket Line Dredges	259,931	0.91	246
Mining Cost - Suction Dredges & Llanuras	25,232	0.09	24
Mining Costs - Formalized Dredges - Mineros Owned	48,732	0.17	46
Mining Costs - Formalized Dredges - Third party	114,745	0.40	108
Mining Costs - Waste Stripping - Suction Dredges	155,474	0.55	147
Processing Costs - Concentrate Treatment	17,035	0.06	16
Support Areas - Site G&A	194,226	0.68	184
Total Site Operating Costs	**815,376**	**2.87**	**770**

2.0 Introduction

SLR Consulting (Canada) Ltd (SLR) was retained by Mineros S.A. (Mineros) to prepare an independent technical report (Technical Report) on Mineros' Nechí alluvial gold mining operations (Nechí Alluvial Property, Nechí, or the Property) located in Colombia, South America. In 2019, SLR acquired Roscoe Postle Associates Inc. (RPA), which has been involved with the Nechí Alluvial Property since 2008. For the purpose of the Technical Report, references to SLR include RPA.

The purpose of this Technical Report is to support the disclosure of Mineral Resources and Mineral Reserves as of December 31, 2024. This Technical Report conforms to National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101) as published by the Canadian Securities Administrators (the umbrella organization of Canada's provincial and territorial securities regulators). SLR notes that the effective date of the technical information contained herein is December 31, 2024.

Mineros is a publicly traded, Colombian-incorporated mining company, with corporate headquarters in Medellín, Antioquia Department. Its Nechí Alluvial Property is based in El Bagre, approximately 190 km north of Medellín.

The Nechí Alluvial Property is in production with operations centred in the town of El Bagre, located at the confluence of the Tigüi and Nechí rivers. The Nechí alluvial deposits have been commercially exploited for gold by dredging since 1937. The alluvial and terrace deposits, along with their source-gold quartz vein deposits hosted in intrusive rocks, flanking and upstream of them, have been worked by local artisanal miners since antiquity. Mineros purchased the mining concession titles covering the Nechí alluvial gold deposits from Pato Consolidated Gold Dredging Limited (Pato Consolidated) in 1974. Since its acquisition, and except for minor labour and social disruptions, the Nechí Alluvial Property has been in continuous operation and production under Mineros' ownership. Mineros gold production from the Nechí Alluvial Property from 1974 to 2024 totals approximately 3.2 million ounces (Moz) Au.

2.1 Sources of Information

For the purpose of this Technical Report, the following QPs carried out the site visits, as follows:

1 Lance Engelbrecht and Eduardo Zamanillo visited the site from September 18 to 20, 2024. During the site visit, they inspected the assay laboratory and El Bagre metallurgical plant, visited the dredging operation as well as one of the bucket-line dredges and one of the Brazilian dredges, and had discussions with Mineros' management and metallurgical personnel.

2 Gerd M. Wiatzka visited the site from July 16 to 18, 2024. During the site visit, he met with individuals from environmental, operations, and management to obtain their insights into how their respective departments plan for and implement their activities in accordance with Mineros' vision and commitment to sustainable operations. He participated in technical presentations and discussions addressing his areas of interest including environmental management including studies, monitoring and permitting, mine planning for operations and closure, programs to minimize impacts to the environment, energy efficiency, waste minimization, reduction and reuse, and programs related to corporate social responsibility and community well being. During his visit, he took a helicopter flight along the length of the concession to see the extent and location of Mineros current activities and those related to illegal miners. He took boat tours to several of the current mining areas and several former mined and restored areas.

3 Luke Evans visited El Bagre on May 8, 2017 and reviewed alluvial project data at Mineros' corporate office in Medellín on May 9, 2017. Messrs. Evans and Wiatzka also visited El Bagre and the alluvial gold operations from August 17 to 19, 2021.

Discussions were held with Mineros personnel from various departments and functional groups.

Table 2-1 presents a summary of the QP responsibilities for this Technical Report.

Table 2-1: Qualified Persons and Responsibilities

QP, Designation, Title	Company	Responsible for
Luke Evans, M.Sc., P.Eng., Global Technical Director, Geology Group Leader	SLR	Overall preparation of the Technical Report and sections 1.1.1.1, 1.1.2.1, 1.3.1 to 1.3.6, 2 to 12, 14, 23, 25.1, 26.1
Goran Andric, P.Eng., Principal Mining Engineer	SLR	Sections 1.1.1.2, 1.1.2.2, 1.3.7, 1.3.8, 15, 25.2, 26.2
Eduardo Zamanillo, M.Sc., MBA, ChMC(RM)	SLR	Sections 1.1.1.6, 1.1.2.5, 1.2, 1.3.11, 1.3.13, 16, 19, 21, 22, 24, 25.6, 26.5
Lance Engelbrecht, P.Eng., Technical Manager – Metallurgy and Principal Metallurgist	SLR	Sections 1.1.1.3, 1.1.1.4, 1.1.2.3, 1.3.9, 1.3.10, 13, 17, 18, 25.3, 25.4, 26.3
Gerd M. Wiatzka, B.A.Sc., P.Eng., Consulting Civil/Environmental Engineer, National Expert, Vice President, and Director of Mining	Arcadis Canada Inc.	Sections 1.1.1.5, 1.1.2.4, 1.3.12, 20, 25.5, 26.4

The documentation reviewed, and other sources of information, are listed at the end of this Technical Report in Section 27 References.

2.2 List of Abbreviations

Units of measurement used in this Technical Report conform to the metric system. All currency in this Technical Report is US dollars (US$) unless otherwise noted.

μ	micron
μg	microgram
a	annum
A	ampere
bbl	barrels
Btu	British thermal units
°C	degree Celsius
C$	Canadian dollars
cal	calorie
cfm	cubic feet per minute
cm	centimetre
cm^2	square centimetre
d	day
dia	diameter
dmt	dry metric tonne
dwt	dead-weight ton
°F	degree Fahrenheit
ft	foot
ft^2	square foot
ft^3	cubic foot
ft/s	foot per second
g	gram
G	giga (billion)
Gal	Imperial gallon
g/L	gram per litre
Gpm	Imperial gallons per minute
g/t	gram per tonne
gr/ft^3	grain per cubic foot
gr/m^3	grain per cubic metre
ha	hectare
hp	horsepower
hr	hour
Hz	hertz
in.	inch
in^2	square inch
J	joule
k	kilo (thousand)
kcal	kilocalorie
kg	kilogram
km	kilometre
km^2	square kilometre
km/h	kilometre per hour
kPa	kilopascal
kVA	kilovolt-amperes
kW	kilowatt
kWh	kilowatt-hour
L	litre
lb	pound
L/s	litres per second
m	metre
M	mega (million); molar
m^2	square metre
m^3	cubic metre
MASL	metres above sea level
m^3/h	cubic metres per hour
mi	mile
min	minute
μm	micrometre
mm	millimetre
mph	miles per hour
MVA	megavolt-amperes
MW	megawatt
MWh	megawatt-hour
oz	Troy ounce (31.1035g)
oz/st, opt	ounce per short ton
ppb	part per billion
ppm	part per million
psia	pound per square inch absolute
psig	pound per square inch gauge
RL	relative elevation
s	second
st	short ton
stpa	short ton per year
stpd	short ton per day
t	metric tonne
tpa	metric tonne per year
tpd	metric tonne per day
US$	United States dollar
USg	United States gallon
USgpm	US gallon per minute
V	volt
W	watt
wmt	wet metric tonne
Wp	watt-peak
wt%	weight percent
yd^3	cubic yard
yr	year

3.0 Reliance on Other Experts

This Technical Report has been prepared by SLR for Mineros. The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to SLR at the time of preparation of this Technical Report.
- Assumptions, conditions, and qualifications as set forth in this Technical Report.

For the purpose of this Technical Report, SLR has relied on ownership information provided by Mineros. SLR has relied on legal opinions by Lloreda Camacho & Co dated September 30, 2024 and October 3, 2024 (Lloreda Camacho & Co 2024a,b), copies of which have been provided to SLR and relied upon by SLR with Lloreda Camacho & Co.'s consent. Those opinions are relied on with respect to mining title status in Section 4.2 and the Summary of this Technical Report. SLR has not researched property title or mineral rights for the Nechí Alluvial Property and expresses no opinion as to the ownership status of the property.

Except for the purposes legislated under provincial securities laws, any use of this Technical Report by any third party is at that party's sole risk.

4.0 Property Description and Location

4.1 Location

The Nechí Alluvial Property is located approximately 190 km north-northeast of Medellín in the northeast of the Antioquia Department, within the jurisdiction of the municipalities of El Bagre, Zaragoza, Caucasia, and Nechí. Approximate coordinates for the centre of alluvial operations are 74°47’45” W longitude, 7°49’31” N latitude, corresponding to UTM Zone 18N 522,500E, 865,000N in the World Geodetic System 1984 (WGS84).

Mineros has established its own mine grid system based on an arbitrary origin with coordinates 100,000 m east, 100,000 m north, and elevation 82.54 m located at the El Bagre town shoreline on the Tigüi River. For conversion to WGS 84, the approximate equivalent points for the Mineros grid origin are: Zone 18N UTM 520,532E, 840,188N. The Mineros grid origin is 918,810 m E, 1,332,300 m N with an elevation of 53.53 MASL on the official Colombian MAGNA-SIRGAS National grid established by the Agustín Codazzi Geographical Institute (Instituto Geográfico Agustín Codazzi, or IGAC) that has its origin in Bogota. Other than for small-scale maps, coordinates in this Technical Report appear in either the MAGNA-SIRGAS IGAC or WGS84 UTM system.

Figure 4-1 shows the location of the Nechí Alluvial Property.

Figure 4-1: Location Map

Source: Map Resources October 2024.

4.2 Land Tenure

Mineros, through Mineros Aluvial S.A.S., its wholly owned subsidiary, holds a 100% interest in the Nechí Alluvial Property under two types of mining titles: Recognition of Private Property (*Reconocimiento de Propiedad Privada*, RPP) and mining concession contracts (*contrato de concesion minera*). All of the Nechí Alluvial Property Mineral Resources and Mineral Reserves are located on these tenements.

Mineros formerly held approximately 36,408 ha under 29 RPP Mines tenements, which were originally acquired as private land while the State of Antioquia (now the Antioquia Department) Mining Code, Act 127 of October 21, 1867 (1867 Code), was in force. The RPP conferred rights for surface and mining exploitation. The 1867 Code was replaced by Act 20 of 1969, which eliminated the former rights to private ownership, but preserved the rights of existing RPPs. The former 29 RPPs have now been consolidated into RPP 57011. Rights associated with those claims have been preserved in RPP 57011, and successor laws, including the current Mining Code, Law 685 of August 2001, as the amended 2001 Colombian Mining Code (the 2001 Mining Code), which recognizes the private property of mining titles granted under previous laws. Between 2021 and 2024, RPP 57011 was amended to cede parcels of approximately 855 ha in the aggregate, which were transferred to formalized miners in connection with Mineros' formalization program, and to the Government of Colombia in connection with the creation of a protected ecological reserve. The primary obligations to be complied with to maintain an RPP in good standing are the payment of government royalties based on production from the RPP, the gold tax, and the periodic submission to the applicable mining regulator of Basic Mining Format (FBM) forms providing technical, economic, and statistical mining data. There are no work requirements, claim maintenance taxes, or surface fees required to be paid to maintain an RPP in good standing, and RPPs will not expire, however, the rights granted by an RPP will be extinguished and the RPP terminated if activities are suspended without just cause for a period exceeding 12 months. Mineros also has to annually file a report to inform the authority of the actual and planned mining activities for the year.

Mineros also holds seven material concession contracts covering 6,096.8486 ha. Concession contracts are granted under Article 16, Chapter II of the 2001 Mining Code. The 2001 Mining Code provides for only one type of mining title, known as a concession contract, which is granted for a term of 30 years commencing on the date of registration at the Colombian National Mining Registry (the Mining Registry) maintained by the National Mining Agency (*Agencia Nacional de Mineria*, ANM), divided into three phases:

- Exploration, with a three-year term, which may be extended for additional periods of up to two years, for a maximum term of 11 years.
- A construction and assembly phase, with a three-year term, which may be extended for one additional year.
- Exploitation with a term equivalent to the remaining term of the contract.

A concession contract can be extended up to 30 years if new technical, economic, environmental, and social studies indicate that such extension is beneficial in terms of government policy. The location of a concession contract is given by a reference point with distances and bearing, or by map coordinates.

Concession contracts need to be registered before the Mining Registry in order to be enforceable upon third parties. Registration grants the contract a plaque or number, which will be considered the reference of the mining title.

A surface fee (canon superficial) is due annually upon contract registration with the Mining Registry during the exploration and construction phases of the concession contract. The surface fee is calculated per hectare as multiples of the minimum daily wage, which is adjusted annually (for 2024, COP 975,000 or approximately $253 at an exchange rate of COP3,850.00:US$1.00). During the construction and assembly phase, the titleholder must pay a yearly surface fee equivalent to the last one paid for the exploration period.

For current concession contracts, the surface fee payable is calculated as shown in Table 4-1.

Table 4-1: Surface Fee Payment Scheme for Concessions Contracts

Number of Hectares (ha)	Minimum Daily Wage/ha		
	Up to Year 5	Years 5 to 7	Years 8 to 11
0 to 150	0.5	0.75	1
151 to 5,000	0.75	1.25	2
5,001 to 10,000	1	1.75	2

The primary obligations required to maintain concession contracts in good standing are outlined in Table 4-2.

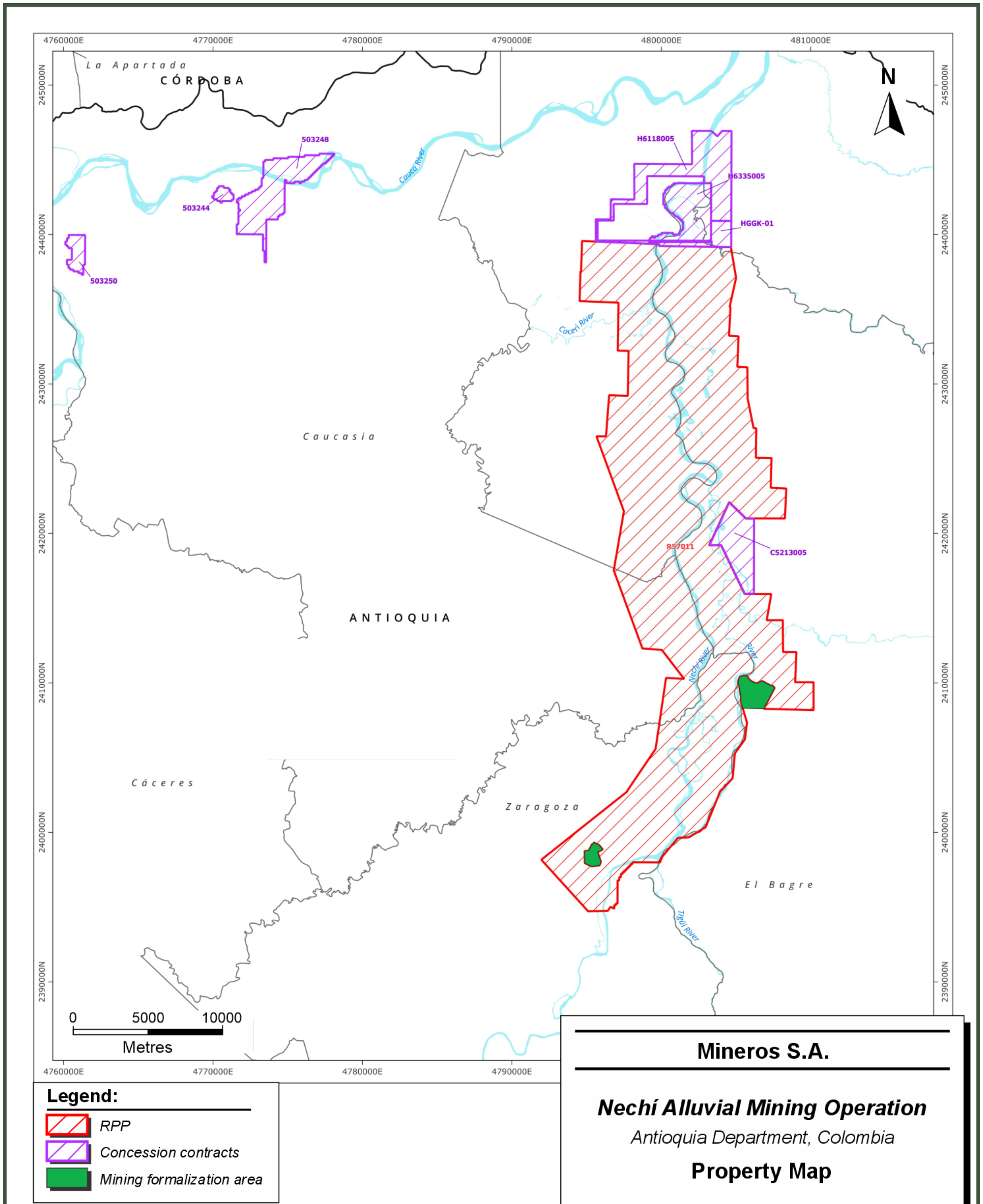
The RPP and concession contracts that constitute the Nechí Alluvial Property are contiguous and occupy an area along the Nechí River and flood plain of approximately 41,650.472 ha between the towns of Zaragoza and Nechí and are centred near the confluence of the San Pedro stream and the Nechí River. Figures 4-2 shows the location of the Nechí Alluvial Property, RPP 57011, and the seven material concession contracts. Figure 4-3 is a close up that shows the RPP 57011, and four of the concession contracts along the Nechí River.

Table 4-2: Key Obligations to Maintain Concession Contracts in Good Standing

Phase of Concession	Term + Extension	Surface Tax	Work Plan Requirement	Environmental Requirements	Environmental Mining Insurance Policy	Royalty	Reports and other filings
Exploration	Three years + two years extensions, up to 11 years in total	Yes	Minimum Exploration Program (*Programa Mínimo Exploratorio*)	Mining Environmental Guides (*Términos de Referencia – Trabajos de Exploración, Programa Mínimo Exploratorio y Plan de Trabajos y Obras (PTO) para materiales y minerales distintos del espacio y fondo marino*) No environmental license is required, however, depending on the use of renewable resources different environmental permits would be needed (i.e., Superficial Surface Water Concession, among others).	5% of planned annual exploration budget	No	Basic Mining Format (Formato Basico Minero)
Construction	Three years + one year extension	Yes	Work Development Plan (*Plan de Trabajos y Obras*)	Requires Environmental Licence – *Licencia Ambiental* (issued upon approval of Environmental Impact Assessment –*Estudio de Impacto Ambiental*, and includes all other permits required for this phase).	5% of planned investment as per work plan (*Plan de Trabajo y Obras*)	No, unless anticipated exploitation occurs. In such case, equal to a percentage of the value of the extracted mineral and that varies depending on the mineral that is extracted.	Basic Mining Format (Formato Basico Minero) Royalty Declaration (in case of anticipated exploitation)

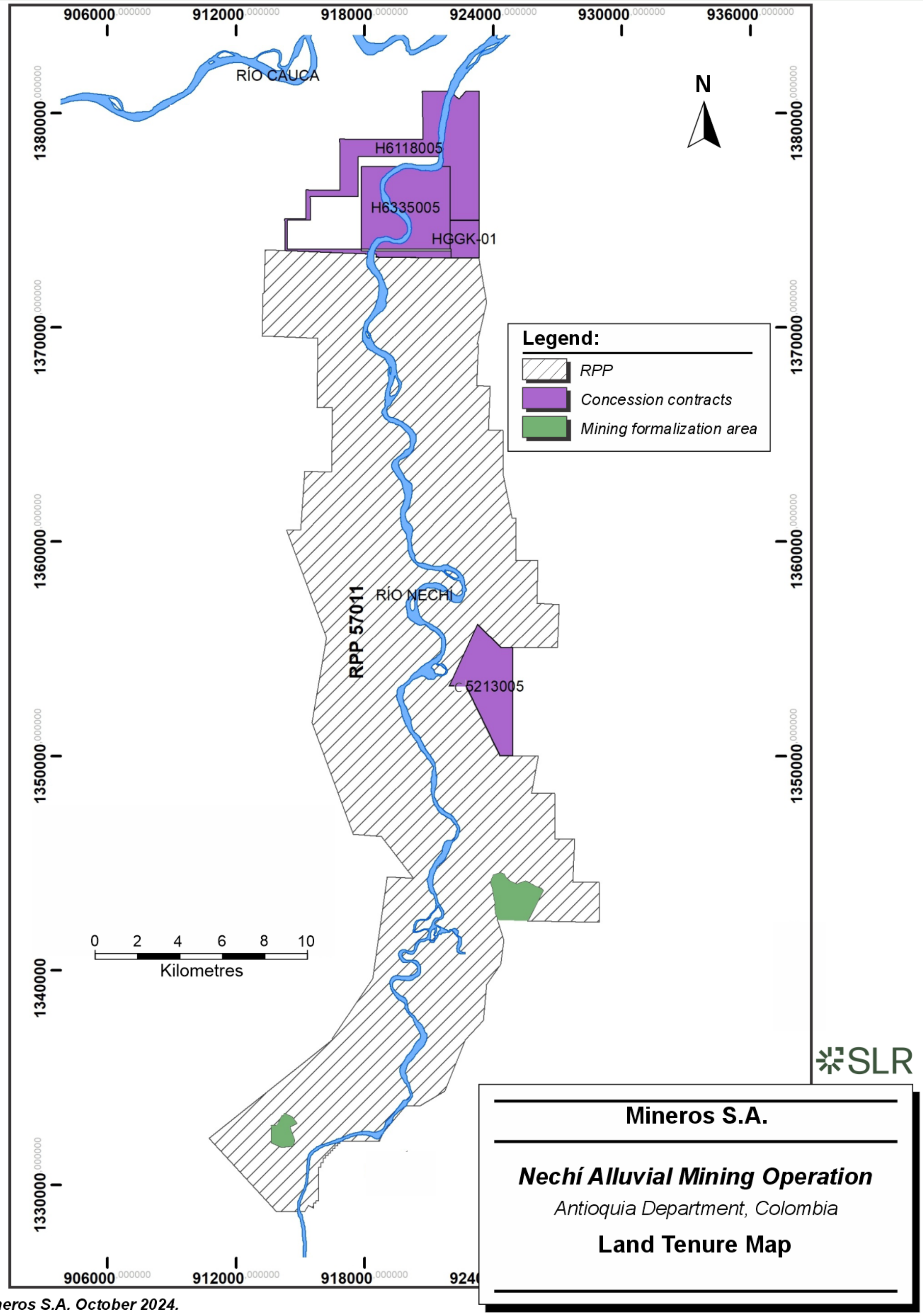
Phase of Concession	Term + Extension	Surface Tax	Work Plan Requirement	Environmental Requirements	Environmental Mining Insurance Policy	Royalty	Reports and other filings
Exploitation	30 years minus term of exploration and construction. It may be extended for additional 30-year term, subject to approval of the mining authority.	No (Exception made on areas kept by the concession holder to undertake exploration activities during a two-year period).	Work Development Plan (*Plan de Trabajos y Obras*).	Yes. Requires Environmental License (issued upon approval of Environmental Impact Assessment and includes all other permits required for this phase).	10% of the result of multiplying the estimated annual production of the mineral of the concession for the price at pithead for the applicable mineral as annually determined by the Colombian government.	Yes, equal to a percentage of the value of the extracted mineral and that varies depending on the mineral that is extracted.	Basic Mining Format (*Formato Basico Minero*) Royalty Declaration

Figure 4-2: Property Map



Source: Mineros S.A. October 2024.

Figure 4-3: Land Tenure Map



Source: Mineros S.A. October 2024.

Table 4-3 lists the RPP and concession contracts, which are held by Mineros Alluvial S.A.S. BIC., a wholly owned subsidiary of Mineros, for the Nechí Alluvial Property. Mineros' holdings provide more than adequate coverage for alluvial exploration and dredging operations. The legal opinions by Lloreda Camacho & Co dated September 30, 2024, with respect to concession contracts 503250, 503244 and 503248, and October 3, 2024 with respect to RPP 57011 and concession contracts 5213, 6118, 6335, and 6819, indicate that as at the date of such opinions, such titles were current and valid, were in full force and effect, had not been suspended, and were not subject to any application or proceedings for their revocation or modification.

Table 4-3: RPP and Contract Concessions

No.	Mine Name	National Mining Registration Code	Area (ha)	File Code	Status	Expiry (MM/DD/YYYY)
RPP Concessions						
RPP 57011	Cienaga Grande	EDKA-03	35,553.6234	R57011	Exploitation	N/A
RPP Total			**35,553.6234**			
Concession Contracts						
No. 5213	------	HCBP-01	996.8109	C5213005	Exploitation	1/21/2033
No. 6118	------	HFKM-03	1,938.0039	H6118005	Exploitation	7/31/2035
No. 6335	------	HGGD-08	1,065.4622	HGGD-08	Exploitation	8/27/2036
No. 6819	------	HGGK-01	234.1373	HGGK-01	Exploitation	11/29/2037
No. 503250	------	503250	258.4535	503250	Exploration	29/12/2051
No. 503244		503244	103.6047	503244	Exploration	29/12/2051
No. 503248		503248	1,500.3761	503248	Exploration	29/12/2051
Concession Contracts Total			**6,096.8486**			

4.2.1 Surface Rights

Table 4-4 summarizes surface rights relevant to the Nechí Alluvial Property.

Table 4-4: Surface Rights

Project	Property Name	Right	Nature of the Property	Registry Number	Area (ha)	Location
0.75	Guamo Viejo	Improvements	Vacant	Unknown	127.32	El Bagre, Antioquia
0.75	Aguas Negras	Improvements	Vacant	027 - 1805	150	El Bagre, Antioquia
0.75	Las Vegas	Improvements	Vacant	027 - 13647	674.84	El Bagre, Antioquia
0.75	El Porvenir	Improvements	Vacant	027 - 6717	400	El Bagre, Antioquia
0.75	Burdeos	Improvements	Vacant	027 - 24663	100	El Bagre, Antioquia

Project	Property Name	Right	Nature of the Property	Registry Number	Area (ha)	Location
Sampumoso	Puerto Leticia	Improvements	Vacant	Unknown	100	El Bagre, Antioquia
Sampumoso	Burdeos	Improvements	Vacant	027 - 24663	100	El Bagre, Antioquia
Sampumoso	Las Colinas	Improvements	Vacant	Unknown	62	El Bagre, Antioquia
Llanuras	Playa Rica	Improvements	Vacant	027 - 1282	483	Zaragoza, Antioquia
Llanuras	Buenos Aires (Terreno Astilleros)	Improvements	Vacant	027 - 1238	134.87	Nechí, Antioquia
Llanuras	El Socorro	Improvements	Vacant	Unknown	274.66	Nechí, Antioquia
Llanuras	El Esfuerzo	Improvements	Vacant	Unknown	149	Zaragoza, Antioquia
Llanuras	El Chaparral	Property	Private, derivate from a vacant land	027 - 17302	104	Zaragoza, Antioquia
Llanuras	El Socorro	Improvements	Vacant	027 - 1268	50	Zaragoza, Antioquia
Llanuras	La Bamba	Improvements	Vacant	027 - 1267	19	Zaragoza, Antioquia
Llanuras	Las Golondrinas	Mining easement	Private, derivate from a vacant land	027-12193	26.204	Zaragoza, Antioquia
Llanuras	La Campesina	Mining easement	Private, derivate from a vacant land	027-12195	63.883	Zaragoza, Antioquia
Llanuras	Parcela 3 Inspolicía Buenos Aires	Mining easement	Private	027-13030	1.32	Zaragoza, Antioquia
Llanuras	La Vega	Improvements	Vacant	027 - 1219	188	Zaragoza, Antioquia
Llanuras	El Oasis	Improvements	Vacant	027 - 1240	108	Zaragoza, Antioquia
CA5 - Etapa 2	Paragüay	Mining easement	Vacant	027-7391	120	El Bagre, Antioquia
CA5 - Etapa 2	Santa Rosa	Mining easement	Vacant	027 - 7390	110	El Bagre, Antioquia
CA5 - Etapa 2	Gracias a Dios	Improvements	Vacant	Unknown	250	El Bagre, Antioquia
CA5 - Etapa 2	Cagüi	Improvements	Vacant	Unknown	293	El Bagre, Antioquia
CA5 - Etapa 2	La Virgencita	Mining easement	Vacant	Unknown	43.5	El Bagre, Antioquia
CA5 - Etapa 2	Yo si	Improvements	Vacant	Unknown	160	El Bagre, Antioquia
CA5 - Etapa 2	Puerto Triunfo	Improvements	Vacant	Unknown	17	El Bagre, Antioquia
Terrazas	Villa Amparo	Mining easement	Private	027-24450	23	Zaragoza, Antioquia

Mineros holds surface rights under public deeds that are filed in the national property register, and hence is the registered owner of El Chaparral, having clean and clear title over this property.

Mineros has temporary or permanent mining easements over 168 ha of surface land corresponding to the properties named Las Golondrinas, La Campesina, Villa Amparo, Parcela 3 Inspolicía Buenos Aires, and La Virgencita, under which Mineros makes certain payments to landowners/farmers in compensation for the use of the land and for damage caused by the mining operation, lost crops, and lost time. The amounts paid depend on the type of crops, size of the farmland, and duration. After dredging, Mineros reclaims the land by levelling the dredge tailings and restoring the impacted areas with revegetation of plants and crops, that in some cases are assigned to local families. In some cases when the mine plan changes, additional compensation for an extension is negotiated with the landowners.

Mineros has mining easements over 230 ha with the registered holder of improvements in State Land properties named Paraguay and Santa Rosa. As a mining title holder, Mineros is entitled to request that the Agencia Nacional de Tierras (ANT) grant an easement over these kinds of property. Mineros also holds over 3,700 ha under *compra de mejoras* terms, specifically Paraguay, Santa Rosa, Guamo Viejo, Puerto Leticia, Las Colinas, El Socorro (No. 2), El Esfuerzo, Gracias a Dios, Cagüi, Aguas Negras, Las Vegas, Yo si, Puerto Triunfo, El Porvenir, Burdeos, Playa Rica, Buenos Aires (Terreno Astilleros), El Socorro, La Bamba, La Vega, and El Oasis. This refers to private purchase and sale agreements with residents who do not hold formal title to the land that they occupy, and therefore lack title to sell or transfer. These are outright land purchases that do not need to be renewed. When the farmers are returned to land acquired under *compra de mejoras* terms after mining, Mineros assists them to obtain proper titles with ANT.

Mineros own improvements on State Lands, specifically El Porvenir, Burdeos, Playa Rica, Buenos Aires (Terreno Astilleros), El Socorro, La Bamba, La Vega, and El Oasis. The registered right to the improvements does not confer Mineros any rights to these properties. Mineros, as holder of a Mining Title, is entitled to request from ANT the issuance of an easement over the property.

The QP is of the opinion that Mineros' surface and mineral rights are more than adequate to accommodate the Nechí Alluvial Property. SLR is not aware of any environmental liabilities on the property. Mineros has all required permits to continue working on the property. SLR is not aware of any other significant factors and risks that may affect access, title, or the right or ability to operate or carry out its proposed work at the property.

4.3 Taxes and Royalties

There are no claim maintenance taxes (surface fee) required to maintain the RPP in good standing. Mineros is subject to a royalty equal to 2% of the value of gold produced from alluvial deposits on its RPP tenement. RPPs are subject to government royalty payment obligations according to article 227 of Law 685 of 2001, in application of article 330 of Law 1955 of 2019. The royalty applicable to alluvial gold produced from RPPs is 2% of gross production. RPPs are also subject to a gold tax of 4% pursuant to Law 488 of 1998.

The concession contracts are subject to an annual mining fee that is payable during the exploration and development stages. The fee is calculated per hectare as multiples of the minimum daily wage, which is adjusted annually. For 2024, the taxes totalled COP975,000, or approximately US$244, at an exchange rate of COP4,000:US$1.00. Mineros is subject to a royalty equal to 6% of the value of gold produced from alluvial deposits on its concession contract tenements. Minerals produced from concession contracts are subject to royalty payments pursuant to Article 227 of the Mining Code, which provides that the exploitation of non-renewable natural resources owned by the State generate royalties, calculated based on a percentage, fixed or progressive, of the exploited gross product, and its sub-products, calculated or measured on gross product. The amount of the royalty payable is calculated based on the amount of exploited mineral, the price settlement basis set by the Mining and Energy Planning Unit (published every three months), and the royalty percentage determined by law. The calculation is expressed in the following formula: V = A x P x R, ("V": Value of the royalty, "A": Amount of the exploited mineral, "P": Price settlement basis, and "R": Royalty percentage). The royalty percentage varies by mineral. Gold and silver are subject to a 4% royalty, except for gold from alluvial deposits, like the Nechí Alluvial Property, which is subject to a 6% royalty.

Annual mining fees and mining and environmental performance insurance policy fees must be obtained and submitted to the applicable mining authority for registered concession contracts. Mineros confirms that these fees have been paid and the concession contracts are in good standing.

4.4 Colombian Mining and Environmental Regulatory Framework

4.4.1 Mining

Colombian mining is currently regulated under the 2001 Mining Code. Despite changes to the mining act since the RPP were acquired in 1974, the mining titles granted as RPP under historical mining regulations are exempt from the new requirements to maintain title and are not subject to surface fees. RPP areas are, however, subject to payment of royalties, and the unauthorized suspension of activities without just cause for more than 12 months may lead to termination of the RPP.

The Colombian Mining regulatory authorities with jurisdiction over Mineros' activities are:

- **Ministry of Mines and Energy of the Government of Colombia (*Ministerio de Minas y Energía*, MME)**, the principal mining authority in Colombia and in charge of formulating, adopting, directing, and coordinating the policies, plans, and programs of the sector.
- **National Mining Agency (*Agencia Nacional de Minería*, ANM)** is a national public entity ascribed to the MME and is in charge of administering the mineral resources property of the State and promoting their optimal and sustainable development. The ANM manages the Mining Registry, which is the database in which the general information of mining titles in Colombia is recorded. The ANM is also the primary authority in charge of granting mining titles in Colombia. Prior to 2023, the ANM had delegated authority to the Mining Secretary of the Department of Antioquia to grant, monitor, and administer mining titles in Antioquia Department. That delegation was terminated by a judicial ruling in 2023, resulting in the resumption of all previously delegated powers and duties by the ANM.
- **Mining and Energy Planning Unit (*Unidad de Planeación Minero Energética*, UPME)**, an entity created in order to coordinate, in conjunction with the other entities of the mining and energy sector, the development and use of mining and energetic resources, and maintains the Colombian Mining Information System (Sistema).

According to Article 332 of the Constitution of Colombia (the Constitution), the State has ownership over the subsoil and non-renewable natural resources therein located, save for those private properties recognized under former laws. As such, the authorization of the State is required in order to undertake mining projects in Colombia. This authorization is awarded by the State in the form of a mining title, which gives its holder the right to explore and exploit mineral resources, whether from the subsoil or the surface.

Under the 2001 Mining Code, the concession contract covers exploration, mine development (“construction and assembly”), and exploitation or mining phases. The concession contract is valid for 30 years and can be extended up to 30 years if new technical, economic, environmental, and social studies indicate that such extension is beneficial in terms of government policy. For the purpose of concession application, the concession contract area is located on a map from a starting point and defined by corner coordinates, i.e., the procedure is equivalent to map staking in Canadian jurisdictions. The maximum size for a concession contract is 10,000 ha.

As defined in Colombian law, the concession contract includes three stages, each with specific obligations.

4.4.1.1 Exploration Stage

The exploration stage begins when the contract is recorded in the Mining Registry. This stage covers a period of three years and can be extended for additional two-year terms, up to 11 years. Annual surface fees are payable as described below (as well as royalties) and a mining and environmental insurance policy is required that is based on 5% of the exploration budget.

A work and development program (WDP) and environmental management program (EMP) must be filed in order to proceed to the development stage. The EMP includes all the necessary environmental criteria, information, data, and recommendations; describes the region’s physical, social, and economic background; and provides an evaluation of the impacts of exploration and development with plans for prevention, mitigation, correction, and compensation. The EMP must also describe specific measures that will be used during the production and the closure process: a management plan, implementation strategy, and costs.

4.4.2 Development Stage

The development stage for construction covers a period of three years and may be extended for one additional year. The annual surface fee applies, as well as the requirement for a mining and environmental insurance policy based on 5% of the WDP budget. In order to proceed to mining, an Environmental Licence must be obtained based on completion, submission, and approval of an Environmental Impact Study, and the WDP shall be approved by the mining authority.

4.4.3 Production Stage

The production stage covers a period of 30 years, including the previous years of exploration and development, i.e., effectively a duration of 21 to 24 years with the option of a 30-year extension. Similar to the preceding stages, environmental insurance policies are required based on 10 % of estimated annual production of the mineral produced. There are no property taxes (surface fees), however, production royalties are payable as defined by regulations in force at the time the concession contract is granted.

4.5 Environmental Requirements

Mineros' Nechí Alluvial Property operations are subject to regulation by the following environmental regulators:

- **Ministry of Environment and Sustainable Development (*Ministerio de Ambiente y Desarrollo Sostenible,* MADS)**, which acts as the national administrator for environment, housing, territorial development, drinking water, and basic sanitation.
- **Autonomous Regional Corporation of Antioquia (*Corporación Autónoma Regional del Centro de Antioquia*, CORANTIOQUIA)** is the regional authority responsible for environmental preservation and management. CORANTIOQUIA grants environmental permits for atmospheric emissions, vegetation use, wastewater disposal, water use, and riverbed occupation.
- **National Authority of Environmental Licences (ANLA)** is an agency of the Government of Colombia constituted in the year 2011. It is in charge of granting or denying licences, permits, and environmental procedures. Mineros' operations at the Nechí Alluvial Property, which predate the promulgation of Law 99 of 1993, were regulated under an EMP approved by the then Ministry of Environment (MOE). After its creation, the ANLA assumed the evaluation, control, and monitoring of this program.

Table 4-5 illustrates the permitting process for Mineros.

Table 4-5: Environmental Permitting Process

Environmental Management Plan	Environmental Permits	Description
Approved by ANLA	Approved by CORANTIOQUIA and ANLA since 2019	Specific environmental requirements related to all processes and activities as identified in Mineros' environmental management system, as regulated under the ISO 14001 Standard

Mineros' environmental management system identifies all the environmental aspects for all Mineros processes and activities and links them to respective environmental regulations to ensure compliance. Each component in the system generates required actions and responses that are recorded in a centralized database managed by the Mineros Environment and Occupational Health and Safety divisions.

The *Mining Act 99* of 1993 dictated that Environmental Licences would be required to carry out mining. After a period of transition, in 1996, the MOE required Mineros to develop an EMP. The EMP was presented to the MOE on September 20, 2000 and was approved by Resolution 810 on September 3, 2001.

The EMP has been satisfactorily implemented since 2002 and audits have been carried out annually for the property, dredging operations, and the El Bagre complex. The comprehensive plan deals with solid and hazardous waste disposal, planned forest intervention areas, surface water, dust and air quality, mercury use (in the past), monitoring of air, water and fish, Nechí plain tailings reclamation and reforestation, possible well drilling for agricultural development, water quality at extraction wells and flooded areas, as well as land use and environmental education programs.

The EMP was modified in July 2003 through Resolution 805, which approved the assembly and operation of Production Unit 4 and authorized the exploitation of blocks BJ1, BJ2, BJ3.

Subsequently, through Resolution 1885 of December 2005, the exploitation of blocks RV1, RV2, RV4, N1, BL1, A1, A2, A3, RV2-A, and RV3 was authorized. Resolution 126, dated January 2008, approved the operation of Production Unit 5 and blocks BJ3, BJ5, MbJ4, CA1, CA2, CA3, and CA4 were released.

In August 2013, the EMP was modified with Resolution 833, which endorses the operation of the Providencia I hydroelectric plant, which supplies energy to the mining operations. In February 2015, through Resolution 125, the last modification of the EMP was made, where the operation of blocks CA5, RMCA5, extension BJ3, extension BL1, M27, M29, M30, M31, M505, MPA5, and PV1 was authorized. The elimination of mercury in the processing stage was endorsed, the operation of the Providencia III hydroelectric plant and its distribution line was included, and the EMP measures were updated.

In 2019, the EMP was amended by Resolution 1612 of August 2019, in order to authorize the closed pool mining method in the CA5 block, as well as the selective dredging of the BJ3, BJ4, BJ5, CA1, CA2, CA3, and CA4 blocks and the closed pool method on the marginal blocks PV1, M27, M29, M30, M31, MA2, MPA5, and M505.

Resolution 1612 also includes modifying some management practices and the updates to the Regional Integrated Management offsite compensation requirements.

In August 2020, as a part of its ordinary course operations, Mineros requested that ANLA amend the EMP for the Nechí Alluvial Property, mainly to include additional riverbed occupation permits, forestry use permits, and water concessions in the Sampumoso and Llanuras areas, all being blocks within the feasibility mining stage corresponding to the existing RPP.

On April 9, 2021, ANLA issued Resolution 00659 of 2021, authorizing some of the permits, however, denying others. Mineros appealed to ANLA for reconsideration and by Resolution 01098 dated June 23, 2021, ANLA modified its initial decision and granted all of the water concessions and forestry use permits requested on more than 4,000 ha within the Sampumoso area (but none of the riverbed occupation permits in the Sampumoso area) subject to compliance with certain conditions relating to the fact that Sampumoso is considered swampland (*cienaga*). As a result of ANLA Resolution 01098 of 2021, the EMP for the Nechí Alluvial Property supported planned exploitation activities through December 2021. On August 12, 2021, Mineros filed a new amendment to the EMP for the Nechí Alluvial Property seeking to obtain final approval for the riverbed occupation permits and the remaining forestry use permits in Sampumoso, in addition to all permits for the Llanuras area. Approval was granted by means of Resolution 1858 of October 19, 2021. In November 2021, Mineros requested that ANLA amend the EMP, to include occupation permits, forestry use permits, wastewater discharge permits, and water concessions in blocks CA5 and RMCA5. On April 25, 2022, ANLA issued Resolution 00812 of 2022, authorizing the permits requested.

The QP is not aware of any environmental liabilities on the Property from past or present operations. Mineros has all required permits to continue work on the Property. SLR is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform the proposed work program on the Property.

5.0 Accessibility, Climate, Local Resources, Infrastructure and Physiography

5.1 Accessibility

Mineros' base of operations at El Bagre is readily accessible by daily commercial air service from the Olaya Herrera domestic airport in downtown Medellín. Flight time is approximately 40 minutes. The José María Córdova international airport that serves Medellín is 30 km southeast of the city at Rionegro, a 45-minute drive.

Access by road from El Bagre to Medellín is available via two routes. One route is 250 km and approximately six hours of driving via the town of Segovia to the south of El Bagre. Alternatively, the other route is from Medellín by paved Highway 25 to the town of Caucasia, situated on the Cauca River, and then southeast to El Bagre, a distance of 300 km and approximately eight hours of driving.

Heavy and large equipment, e.g., processing plant equipment, dredges, or dissembled dredge components, may be transported to site on vessels up to 500 tonnes from Cartagena on the Caribbean Ocean via the Magdalena and Cauca rivers that are downstream of the Nechí River.

Dredging operations are currently centred approximately 43 km north of El Bagre on the Nechí River and its flood plain. Access for operations personnel is provided by approximately 6.5 m long fiberglass power boats, which seat up to 18 people, and motorized long canoes. Equipment is moved by towed barges. The water fleet is currently 18 boats, five canoes, and five barges. Access by power boat to the dredging area averages approximately 45 minutes. Helicopter platforms are installed on the bucket line dredges for personnel access and for transport of gold-rich sands to El Bagre. Mineros' Bell 505 Jet Ranger helicopter is used for this purpose.

5.2 Climate

Climate information is available in a baseline study prepared by Mineros for the MOE in 1999. This study relied on climate-related measurement data obtained over 11 years from 1970 to 1980 at the Santa Margarita weather station, as well as data collected from 1953 to 1963 at El Bagre airport. This information may be somewhat outdated given the climate change since then, but it serves to give a reasonable perspective. The climate supports year-round mining operations.

The ambient temperature is very uniform throughout the year, fluctuating by ±1ºC and averaging 27.6ºC. Higher temperatures correspond to periods of low rainfall.

Monthly precipitation as rainfall ranges from 70 mm to 550 mm. Relative humidity is medium to high and averages 81.2%, with 79% during the dry season from December to March and 83% during the wet season from May to November. The high humidity is typically manifested in hazy to cloudy skies and frequent electric thunderstorms that commonly occur in late evening and overnight.

While the climate is conducive to year-round dredging operations and exploration, the wet and dry seasons and level of precipitation have an impact on operations in that the water levels in the Nechí River vary seasonally up to 5 m. Access to river and flood plain channels, orphaned meanders, and ponds for exploration drilling and operation of the dredges is scheduled to account for water levels and for dredge working depths. Mineros operates year-round.

5.3 Local Resources

The El Bagre area has a long history of artisanal alluvial mining activity, however, only 2% of mining supplies needed for operations are available locally. General labour is readily available in the area, while skilled labour must be found elsewhere in Colombia or trained on site. The Colombian army has a base at El Bagre and its operations are supported in part by Mineros since the army provides security services for Mineros' mining operations and exploration projects in El Bagre District. Mineros also participates with the government in training students for the mining trades at El Bagre and has the option of hiring program graduates.

5.4 Infrastructure

Infrastructure at the Nechí Alluvial Property is described in Section 18 of this Technical Report. Mineros' surface rights are more than adequate to accommodate the mining operations, power generation and transmission, mining personnel, waste disposal, and processing infrastructure for the Nechí Alluvial Property.

5.5 Physiography

The Nechí Alluvial Property is located in the Central Cordillera foothills within the Lower Cauca River physiographic region, which includes the Cauca and Nechí River valleys. The municipalities of Taraza, Caceres, Caucasia, Zaragoza, El Bagre, and Nechí are situated in the valleys and are surrounded by a predominance of pastureland for livestock, jungle with mixed vegetation, and land developed for alluvial mining.

The area of alluvial operations on the Nechí River flood plain has low topographic relief with elevation in the order of 50 MASL. To the east, the area is mountainous over the Segovia batholith and San Lucas gneisses where elevations are up to 600 MASL. Low hills and terraces are found west of the Nechí River. The main geomorphological and morphodynamic units identified in the area are listed:

1 Elevated landforms, i.e., hills and mountains cored by igneous and metamorphic rocks (PMM1) that control the Nechí River valley.

2 Low, rounded, and dissected hills with elevations of less than 150 MASL along the west margin of the Nechí River flood plain. The hills are formed over subhorizontal Tertiary sedimentary rocks (TLM) that generally appear as a peneplain extending north to the Cauca River. This unit is generally covered by gold-bearing Quaternary alluvial sediments including alluvial fans (QCCA) originating from artisanal gold mining.

3 Alluvial landforms in the Nechí River flood plain consisting of:

    - Dissected alluvial plain terraces abandoned by the river but that may be subject to flooding.
    - Alluvial flood plain subject to flooding by the Nechí River and other tributaries. This is the working area of the dredges that constitutes most of the Nechí alluvial property.
    - Recent alluvial deposits occurring as mobile landforms related to the river channel such as bars, beaches, and islands. The sediments accumulate by the lateral migration of the river channels or from flood deposition.

- Tailings resulting from dredging have variable thicknesses and composition depending on the original characteristics of the pay gravels mined. After 70 years of mining, tailings have become the most important landform of the valley.
- Flood depressions consisting of extensive marsh lands or permanent ponds originating from abandoned meanders or old channels.
- Natural levees controlling the lateral migration of the riverbed and formed by flood or overbank deposition of silt and fine sand that become slightly compacted along riverbanks.

6.0 History

6.1 Ownership and Exploration History

The Nechí Alluvial Property is located in a region that has seen artisanal and small-scale alluvial mining since antiquity. By the end of the 19th century, several gold mining companies operated in the northeast of Antioquia. Among these were the Colombian Mining Company, Frontino and Bolivia Mining Company, Oroville Dredging Company, Compañía Francesa de Segovia, and Compañía Francesa del Nechí.

Exploration to establish the gold potential of the Nechí alluvium was initiated in 1903. Later, in 1906, Pato Mines Company, a subsidiary of Oroville Dredging Company (Oroville), commenced exploitation of terraces with water monitors and conveyors on the west riverbank of the Nechí River, near the mouth of Pato Creek.

In 1908, the first bucket line dredge with a digging reach of 12 m began operation. In the 1930s, Placer Development Limited acquired the shares of Oroville, creating a new company under the name of Pato Consolidated. Pato Consolidated continued exploration along the Nechí River and, after confirming large alluvial gold reserves, added bucket line dredges capable of digging up to 20 m depth. Further exploration between 1930 and 1934 indicated that the Nechí alluvial deposits contained gold up to a depth of 30 m. By 1938, Pato Consolidated had constructed the Providencia hydro plant, with a capacity in excess of that needed for power dredges, mechanical shops, and facilities at El Bagre.

The main exploration method over the past century has been Ward drilling. The Mineros drill hole database includes Pato Consolidated holes dating back to 1931.

In 1956, International Mining Corp. acquired the assets of Pato Consolidated, Nechí Valley Gold Dredging, and Cuturu Gold Dredging and amalgamated these companies into a single entity under Pato Consolidated for the exploitation of the Nechí alluvial deposits. By 1965, seven bucket line dredges were working the alluvials, however, three of them were later retired because of insufficient reach. Pato Consolidated purchased its last dredge in 1969.

Mineros Colombianos S.A. (Mineros Colombianos) was formed in the early 1970s as a Colombian holding company with investments in several mining companies. Mineros Colombianos acquired International Mining Corp.'s two Colombian properties, including Pato Consolidated's Nechí alluvial operations in 1974. Mineros Colombianos was split into Mineros de Antioquia S.A. and Mineros del Chocó S.A. Mineros de Antioquia S.A. (now Mineros) was profitable, whereas Mineros del Chocó S.A. failed and was liquidated in 1977.

In the late 1970s, Mineros experienced difficulties with the assembly of dredge No. 10 that was finally commissioned in 1980. In the following years, the company faced new operational challenges with the emergence of armed groups in Colombia. In 1983 and 1985, the El Bagre camp and offices were attacked and damage was caused to their buildings and installations. The Providencia power plant was occupied several times and dredge No. 4 was sunk in 1984. During these years, Mineros was able to successfully resist the armed groups, and dealt with civil strikes and the loss of local labour during the movement of farmers to the cities. Mineros involved the participation of the army, police, workers, and their families to manage the social challenges in Colombia.

In 1994, Mineros purchased Mineros Nacionales, a Colombian company that operated the Marmato underground gold mine, a low-grade vein deposit. After several years, the Marmato mine was sold because it did not meet Mineros' production goals.

During the 1990s, intensive in-house and outside consulting studies were commissioned to undertake a systematic assessment of each production process and operations unit with the objective of increasing productivity and making better use of existing resources. The studies led to significant changes in company organization and operations.

In 2004, Mineros de Antioquia S.A. changed its name to Mineros S.A. In 2010, an additional alluvial production unit was commissioned through the purchase of a wheel cutter-suction dredge from the Netherlands and a bucket line dredge from Brazil that was moved and re-assembled on the Nechí River.

In 2014, Mineros discontinued the use of mercury in its metallurgical processes. This year also saw the implementation of the quality assurance and quality control (QA/QC) system, which encompassed the El Bagre laboratory, processing plant, and a small tailings dam.

In 2018, Mineros started operating in closed ponds. The modified approach involves isolating the production area by constructing earthen dikes, leveraging the natural topography of the region. These dikes serve multiple purposes, including protection from potential river level fluctuation, water level management, improving efficiency for suction dredges, and reducing dilution.

In 2019, the company launched a pilot "formalization" program, a training program for local miners in partnership with Mineros. By 2020-2021, Mineros had introduced two Royal IHC wheel cutter suction electric dredges and seven Daman CSD250 rotary head suction diesel dredges, commonly referred to as "Brazilian" dredges into production. Additionally, a sonic drill rig began operations in 2021.

Between 2022 and 2023, Mineros expanded its operations through third-party operators working on commission within the formalization program, adding two diesel and one electric Brazilian dredge to its alluvial operations, for a total of twelve Brazilian dredges: nine diesel and three electric. At the end of 2023, Mineros successfully commissioned a second sonic drill rig.

In 2024, Mineros commissioned an additional suction dredge (No. 25) dedicated specifically to overburden removal, which started operating in late 2024.

6.2 Past Production

Historical gold production from the Nechí alluvial deposits from 1895 to 2024 is approximately 9.1 Moz Au, of which Mineros' operations account for approximately 3.2 Moz.

Table 6-1 provides Mineros' past gold production, adjusted for fineness, for the Nechí Alluvial Property from 1974 to 2024. Figure 6-1 illustrates Mineros' alluvial gold production, from 1974 to 2024.

Table 6-1: Mineros Alluvial Gold - Past Production

Year	Gold (oz Au)	Year	Gold (oz Au)	Year	Gold (oz Au)
1974	45,230	1991	52,918	2008	81,740
1975	41,606	1992	45,960	2009	90,040
1976	47,412	1993	42,882	2010	84,473
1977	49,063	1994	59,808	2011	95,214
1978	48,953	1995	41,940	2012	94,063

Year	Gold (oz Au)	Year	Gold (oz Au)	Year	Gold (oz Au)
1979	39,316	1996	53,834	2013	94,169
1980	48,824	1997	61,465	2014	95,355
1981	46,162	1998	59,643	2015	86,142
1982	39,354	1999	56,754	2016	89,732
1983	45,331	2000	66,337	2017	88,894
1984	49,499	2001	64,497	2018	77,151
1985	40,271	2002	63,972	2019	54,567
1986	42,634	2003	62,324	2020	69,939
1987	38,251	2004	67,170	2021	73,129
1988	38,008	2005	79,414	2022	92,386
1989	43,532	2006	92,667	2023	93,757
1990	40,265	2007	68,180	2024	82,017
1974 to 2024 Total					3,226,244

Figure 6-1: Nechí Alluvial Annual Gold Production 1974 to 2024

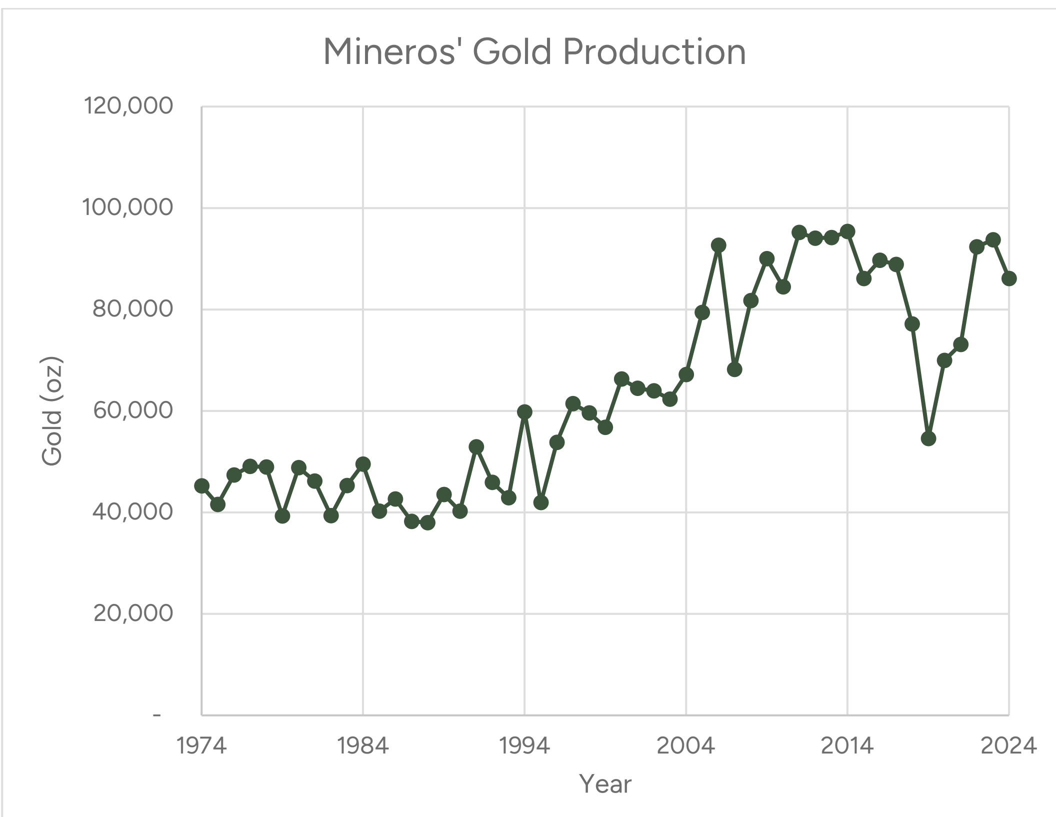


Table 6-2 shows the actual fine gold produced by each group of production unit up to the third quarter of 2024. The last column indicates a comparison between Actual Production versus the Estimated Production (P/E) weighted by gold production.

Table 6-2: 2024 Mineros Alluvial Gold Production by Production Unit

Production Unit	Gold (oz Au)	P/E [1] (%)
Bucket Line Dredge Mining Alluvial Plains		
5 Dredges	70,033	78%
Excavator Mining - Terraces		
Terraces	477	124%
Llanuras Production Unit		
1 Dredge	3,336	94%
Brazilian Dredge Alluvial Mining		
3 Electrical Dredges + 7 Diesel Dredges [2]	8,171	47%
Total	**82,017**	**74%**

Notes:

1. Produced versus Estimated (weighted by gold production)
2. Budget plan assumed 10 diesel dredges operating pursuant to the formalization program, but three of them left the program in 2024.
3. Numbers may not sum due to rounding.

The 2024 operating plan included five bucket line dredges, one Llanuras Production Unit, one excavator (terrace mining), three Brazilian electric dredges, and 10 Brazilian diesel dredges. The last three types are part of the formalization program for local miners in partnership with Mineros. In 2024, due to high gold prices, three of the 10 diesel dredges left the formalization program, leaving seven dredges of this type in production for the year. For 2025, Mineros is working on expanding the formalization program to have 10 diesel dredges in production.

7.0 Geological Setting and Mineralization

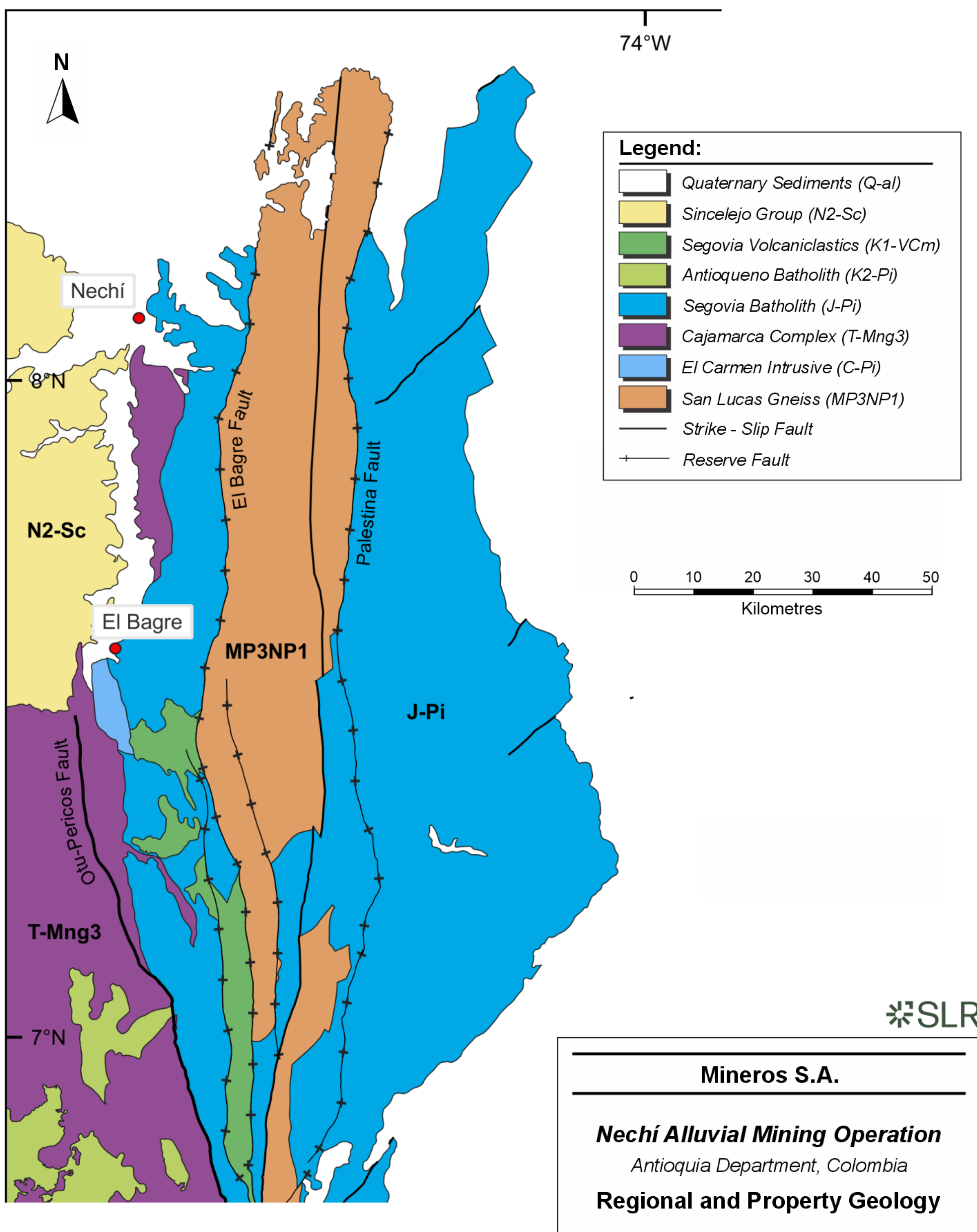
7.1 Regional Geology

The Nechí Alluvial Property lies within the Central Cordillera, one of the three physiographic subdivisions (Central, Western, and Eastern Cordillera) of the Andes Mountains in northern South America.

The area is known as the Bagre-Nechí Mining District, located north of the Segovia-Remedios-Zaragoza Mining District, a host to hydrothermal vein mineralization, which has seen small-scale hard rock mining. Large-scale alluvial gold mining has been carried out since the 1800s.

Cordilleran rocks in the area have had a complex geological and tectonic evolution, spanning from the Precambrian era to the Quaternary age. Figure 7-1 shows the regional geology of the Nechí Valley from Zaragoza south of El Bagre to north of the town of Nechí, as well as the general location of Mineros' alluvial and exploration project areas.

Figure 7-1: Regional and Property Geology



Source: Mineros S.A. October 2024.

7.1.1 El Carmen Intrusive (C-Pi)

The Carmen stock is composed of two igneous units:

- An intermediate with tonalite-granodiorite composition, containing quartz, plagioclase, potassium feldspar, amphiboles, and biotite.
- A mafic unit comprising gabbroic diorites and quartz diorites, composed of amphiboles, plagioclase, and quartz.

7.1.2 San Lucas Gneiss (MP3NP1)

East of the Nechí valley, Precambrian San Lucas quartz-feldspathic gneisses are exposed in an elongated body extending 50 km along the east side of the Otu-Pericos regional fault. The San Lucas gneisses incorporate lenses of amphibolite and marble. The rocks have been affected by granulite facies metamorphism and are correlated with the 1300±100 Ma to 752±70 Ma Sierra Nevada de Santa Marta granulites.

7.1.3 Cajamarca Complex (T-Mng3)

Metamorphic rocks of the Cajamarca Complex are bounded on the east by the Otu Fault and on the west by the San Jeronimo Fault. The complex is composed mainly of quartzose metasedimentary rocks, alumina-rich siliceous and basic schists, with some calcareous bodies that were formed during the Lower Paleozoic and have undergone several metamorphic events. Cajamarca Complex rocks are mapped on the east and the west of the Nechí River where they are represented by quartz-feldspathic gneisses that have variable fabrics from schistose, gneissic, and migmatitic.

7.1.4 Segovia Batholith (J-Pi)

Diorites composing the Segovia batholith lie east of the Nechí River, in fault contact (Bagre Fault) with the San Lucas gneisses to the east and in intrusive contact with the Cajamarca Complex to the west. The batholith is elongated north-south, coinciding with the regional tectonic framework, and extends for 270 km attaining a width on surface of 50 km in its central part. The latest U-Pb dating indicates an isotopic age of 154±1.6 Ma.

7.1.5 Antioqueño Batholith (K2-Pi)

The Antioqueño batholith is characterized by lithological homogeneity with minimal variation across different locations. The main facies exhibit a tonalite to granodiorite composition, with subordinate facies that include felsic facies and gabbroic facies. At least four temporally distinct magmatic pulses, ranging from approximately 96 Ma to 58 Ma, have been identified through U-Pb zircon dating.

7.1.6 Segovia Volcaniclastics (K1-VCm)

This unit consists of isolated rock assemblages within the Segovia batholith. The sedimentary sequence includes:

- Carbonaceous and calcareous shales, well-stratified, with black to greyish hues.
- Conglomeratic sandstones and conglomerates with a fine, dark grey matrix.

The associated volcanic rocks are composed of andesites to dacites, exhibiting a greenish grey to light-green color, with aphanitic textures and ranging from massive to laminated by shear deformation. This unit has been assigned an age from the Late Jurassic to Early Cretaceous, based on detailed relationships between the volcanic and sedimentary sequences, suggesting that the sedimentary layers overlie the volcanic units.

7.1.7 Sincelejo Group (N2-Sc)

The Sincelejo Group, dated as the Pliocene to Pleistocene, comprises interbedded sandy, clayey, silty, and minor muddy facies, with some slightly conglomeratic sandy deposits. The landscape is dominated by low, rounded hills, with surface coverage by a sandy-silt soil horizon, leaving minimal exposure of the underlying materials. The group is divided into two segments:

- The lower segment consists primarily of sandy layers.
- The upper segment contains clay-rich layers.

7.1.8 Quaternary Sediments (Q-al)

Quaternary alluvium borders the Nechí River from Zaragoza to the Cauca River. These deposits are slightly consolidated and are composed of gravel (60% to 70%) and sand (30% to 40%). The gravels contain coarse clasts/cobbles commonly composed of quartz diorite, amphibolite, sericite schist, vein quartz, andalusite, quartzite, quartz-feldspathic gneisses, and locally, conglomeratic beds characterized by white quartz fragments. Clay lenses within the alluvium are also common. Most of the alluvial dredging is carried out in this unit.

7.2 Local and Property Geology

The alluvial mining titles are predominantly underlain by Quaternary alluvial sediments bordered on the east by the Cajamarca Complex rocks and on the west by Sincelejo Group formations. The Quaternary sediments are the main material mined by dredging. The alluvium has been subdivided into four units in which seven types of gold-bearing gravels can be differentiated. The stratigraphy from oldest to youngest is represented by bedrock Cajamarca schists, succeeded in turn by Tertiary clay-rich sediments (false bedrock), alluvial gravel pediment, and terraces.

7.2.1 Pediment Gravels

Pediment gravels cover the Tertiary sedimentary rocks and, in some areas, the metamorphic rock terrain. This unit was developed by broad scale erosion and surface runoff and has smooth slopes that were later downcut by the river or tectonically elevated. The material mainly occurs as coarse sands and gold-bearing quartzite- and amphibolite-rich gravels.

7.2.2 Terraces

Composed of gold-bearing gravels, the terrace materials generally overlie rock and can be differentiated from those in the riverbed. They are formed from several types of material and their reddish colour is evidence of exposure and oxidation that is not evident in the flood plain alluvium. Elevations of this landform serve to distinguish three generations of terraces.

The highest terraces are the most extensive of the terraces in the area and have been the most exploited by artisanal miners. Their average height above the Nechí River is between 35 m and 40 m. These terraces are found on both margins of the alluvial valley, from El Bagre to Puerto Claver, and from Cuturu to the Caceri Stream, and further downstream to Bijagual, with their sizes diminishing downstream. The highest terraces can be described as a gold-bearing Quaternary gravel lying on Tertiary rocks. Gold is mined to the contact with the Tertiary basement.

Widely distributed on the west flood plain, a second set of terraces are between 18 m and 28 m above the Nechí River. These materials are deposited on Tertiary sedimentary rocks and are approximately 11 m to 12 m thick. The stratigraphic column from the top to the base is: fine sands with fine gravel lenses; a layer of mottled violet, yellow, and white clayey silt of variable thickness; and a layer of gold-bearing medium gravels with three centimetre to eight centimetre coarse clasts.

The lowest generation of terraces is a maximum of eight metres above the river and is interpreted to represent a once higher elevation of the alluvial plain. This unit has less gravel than the other terraces and appears to have lower gold content. These low terraces were dredged near the municipality of El Bagre. Some of these terraces may be buried below the current flood plain surface.

7.2.3 Flood Plain Deposits

Flood plain deposits are more extensive in the Nechí River valley than in the Cauca River valley. They constitute fine to coarse sediments deposited in river channels and surrounding areas as a response to varied hydraulic regimes. Three channel gravel units have been identified which correspond to different depositional times that postdate the terraces.

- Basal paleochannel gravels: These were the main beds of a high-gradient river approximately three kilometres wide. Their average thickness is eight metres and they are characterized by coarse gravels, grey- and white-coloured sands, and significant gold content. These gravels are the oldest and richest of the channel deposits.
- Young channel gravels: These formed in recent paleochannel of a moderate-gradient river 300 m wide. The single main channel was displaced horizontally and vertically through the last 10,000 years while its basin was totally filled. The remaining paleochannels are filled by medium and fine gravels, grey sand with some gold content.
- Modern channel gravels: These are the youngest gravels identified. They are composed of finer gravel with low gold content and were deposited in low-gradient channels.

7.2.4 Alluvial Gold Deposit Formation and Relevant Controls

After the Tertiary alluvial sediments were deposited on metamorphic rocks in the lower Nechí basin, a period of extreme morphogenetic activity occurred driven by Quaternary climate variations (such as glaciations) combined with tectonic uplift. Climate variations lowered sea levels and caused the river to down-cut the Tertiary valley alluvium, form new channels, and modify surrounding flood plain banks and slopes.

Material at higher elevations was left as terraces that contain older layers of eroded Tertiary material such as foothill gravels. In a number of instances during river evolution, gravel had been deposited along the high terraces as natural dikes, forming full terraces that acted as levees for the evolving post-Tertiary flood plain.

A braided stream fluvial environment developed as the river reached maximum down-cutting levels and its coalescing gravel bed attained a width of three kilometres. Due to high river gradients, a fairly uniform basal gravel layer with high gold content was deposited. At La Angostura, on the Cauca River approximately 115 km downstream of the Nechí Alluvial Property, a structural control acting as a natural dam affected the river's hydraulic regimen and was a key factor in the accumulation of the gravels by diminishing the flow rate and contributing to deposition of gold particles.

7.2.5 Source Material, Weathering, and Erosion

The Nechí alluvial deposit consists of polycyclic sediments sourced predominantly from the Segovia batholith, Antioquian batholith, and other intrusive bodies along the San Lucas Ridge, as well as some metamorphic rocks that surround the Nechí valley. Most of the gold deposited with the Nechí alluvium is derived from igneous and metamorphic rocks enriched with primary disseminated and vein gold mineralization. This source area is located to the east and south along the Nechí and Porce rivers as well as their tributaries. Generally, the intrusive rocks are very susceptible to weathering in addition to other genetic and tectonic processes that promote disintegration and the liberation of resistant minerals and gold.

7.2.6 Transport and Geomorphology

Fluvial gradient and energy level variations, in addition to irregularities in the river currents, lead to concentration of heavy minerals and the natural separation of the light minerals. The Nechí and the Cauca rivers and their tributaries have transported eroded materials through an elevation difference of approximately 600 m until reaching the wide, mature valley where gradient and flow energy was lost causing sedimentation and gold concentration.

7.2.7 Bedrock

Bedrock characteristics are considered a key factor in the deposition of heavy minerals and economic quantities of gold. Texturally smooth and uniform rocks or massive crystalline forms are poor traps for gold since they also allow for high current velocities and only minor turbulence. Foliated and jointed rock fabrics and other rocks with rough surfaces that impede river flow are the most favourable surfaces for placer gold concentration. Such is the case for the Porce and Nechí valleys, which are underlain by slates and schists of the Cajamarca Formation.

7.2.8 Alluvial Stratigraphy

The alluvium stratigraphic column is a gradational sequence consisting of basal coarse gravels followed by, or intercalated with, medium gravels and fine gravels, succeeded by sands and clays, and overburden. The sequence represents the gradual diminishing of sediment load in a fluvial environment. The alluvium was deposited over a hard, compacted clay (false bedrock), considered to be the top of the Tertiary basement, or older Cajamarca metamorphic rocks.

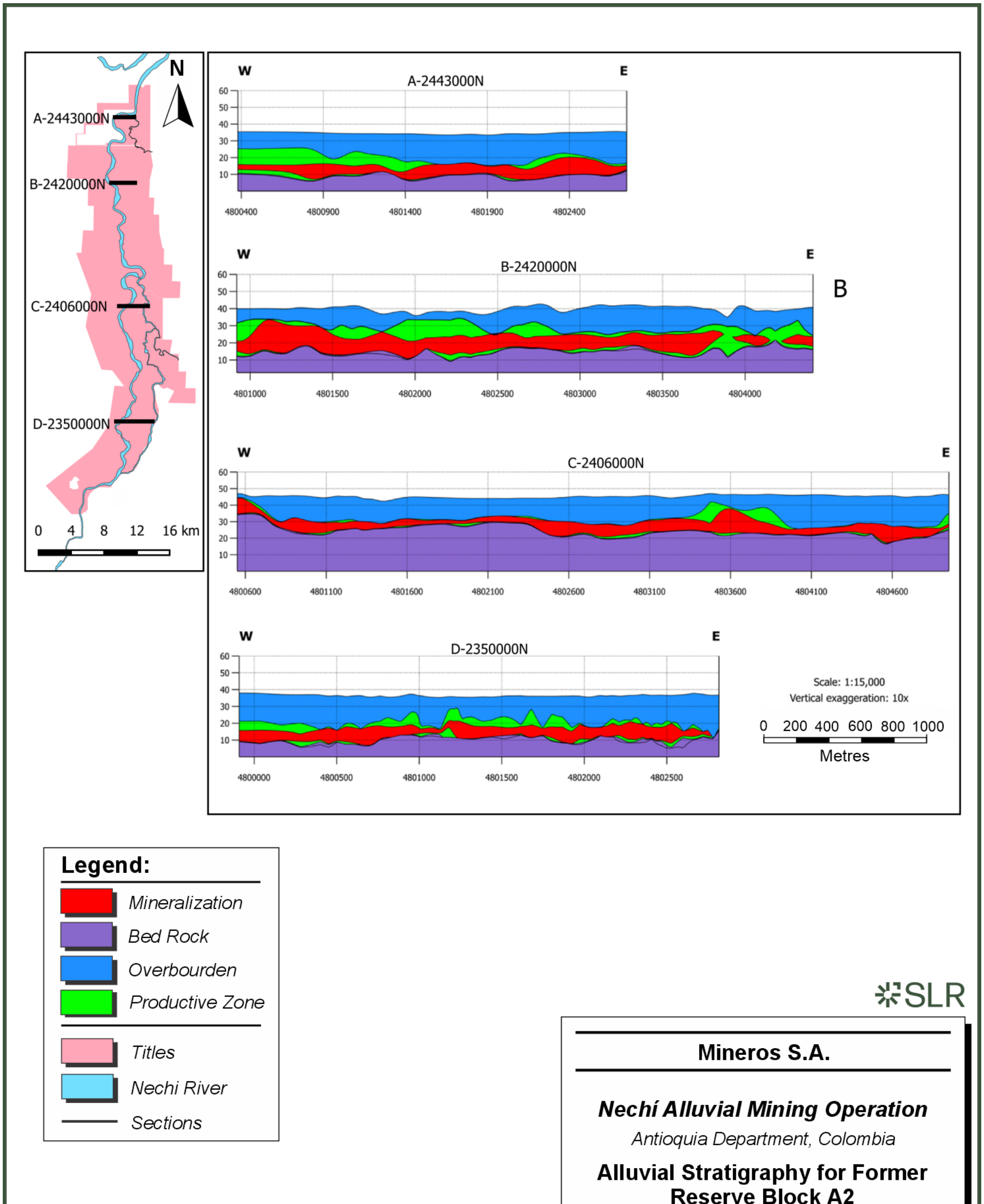
Overburden is composed of fine materials, principally mud and clays, characterized by smooth sticky texture and brown and grey colours. Overburden thickness varies from six metres to 16 m locally.

The Nechí gravels carry rounded to subrounded clasts of quartz diorite, amphibolite, sericite schist, quartz, quartzite, quartz-feldspar rich gneiss, and white quartz-bearing conglomerate in a sandy matrix. The degree of sphericity is generally medium to high, and clasts are moderately sorted. The coarse clasts vary in proportion within a greyish-white medium sand matrix. Locally, gravel is differentiated into fine, medium, and coarse layers as defined by screen fractions 1/8 in. to 3/8 in.; 3/8 in. to two inches, and greater than two inches. Gravel thickness ranges from two metres to approximately 12 m. Alluvial gold is principally associated with gravels having fragments over two inches (51 mm) in diameter.

Figure 7-2 illustrates the alluvial stratigraphy for former alluvial gold reserve block A2.

The reverse faults include the Quiebra Patas with strike and dip offsets of 60 m and 15 m, respectively, and a number of approximately 10 m displacement faults that are accompanied by drag folding.

Figure 7-2: Alluvial Stratigraphy for Former Reserve Block A2



Source: Mineros S.A. 2024.

7.3 Mineralization

Gold in the Nechí alluvial gold deposits consists of free grains, which are predominantly No. 4 or smaller, hosted by flood plain Tertiary fluvial gravels and sands. Eighty percent of the gold grains are 150 µm to 180 µm. No. 4 gold grains are very fine (flour or powder gold), with individual grains weighing approximately 0.02 mg (Table 7-1). No. 2 and No. 3 gold grains are also present. In terms of grain counting, No. 4 and smaller grains account for 96% of the grains logged in drill hole sampling, however, because of the large differential in grain weight, the weight contribution of No. 3 and No. 4 grains is 86%.

Table 7-1: Gold Grain Size Weight Versus Gold Grain Number

Gold Grain #	Raw Gold (mg Au)
1	3.00
2	1.30
3	0.33
4	0.02
<4	0.01

Fluvial flow regime is the primary geologic control on alluvial gold deposition. The dominance of fine gold grain sizes indicates a low-gradient system consistent with Mineros' interpretation of Tertiary paleochannels within flood plain gravels.

As determined from fire assays of bullion, the gold is historically 850 to 900 fine (85% to 90% gold), with approximately 9% silver, 1% iron, and traces of platinum. Mineros currently uses 890 fine for the alluvial gold.

Resistate heavy minerals separated from various process streams on the dredges have been studied for potential economic interest as industrial minerals (Lamus et al. 2006). Those present in Nechí River black sands have been identified as magnetite, ilmenite, titanomagnetite, zircon, monazite, minor hematite, chromite, and rutile. The monazite is sometimes intergrown with xenotime and thorite. Ilmenite averages 49% TiO_2 and has elevated Mn. Silicate gangue and other minerals are principally quartz plagioclase, chlorite, clinozoizite, hornblende, ferro-actinolite, and minor muscovite, biotite, and pyrite.

8.0 Deposit Types

The Nechí alluvial deposits may be classed as a Tertiary gravel plain gold placer with bordering bench or terrace deposits. The gravel plain style of placer is Mineros' primary exploration target for dredging. Gravel plain deposits are generally characterized by well rounded gravels, few boulders, and fine gold distributed vertically and laterally in the pay formations. Such placers are formed in low velocity shifting stream channels in low-gradient valleys. Gold grades in the Nechí River flood plain are elevated at the mouths of creeks draining the high ground (Segovia batholith) to the east and these areas likely represented the merging of creek or river placers with the main gravel plain. In the upper reaches of the Nechí River, the gold-bearing gravel plain placers likely grade into river placers.

The Nechí deposits appear to have formed at the same time as the gold-bearing gravels of Tertiary age mined in the Sierra Nevada Mountains of Nevada, California, and Oregon in the western USA, however, the US placers formed in higher energy environments, are higher grade and have been subjected to uplift and burial by late Tertiary volcanic rocks and sediments. The Nechí deposits are more akin to the dredging fields of Hammonton and Folsom, California.

9.0 Exploration

At the Nechí Alluvial Property, Mineros conducts alluvial gold exploration using lightweight, portable Ward drills and CRS-V CompactRotoSonic Crawler sonic drill rigs. These methods are employed on grids ranging from 120 m x 120 m down to 60 m x 60 m. Given that the targeted alluvial gravels are typically buried beneath up to 14 m of overburden within the Nechí River floodplain, Ward drilling and sonic drilling are the only practical methods for sampling placer gold deposits.

Historically, exploration began with "scout" drilling for reconnaissance sampling along lines spaced 800 m to one kilometre apart, with 480 m step-outs. This was followed by infill drilling at 120 m step-outs to delineate potential resources and than infilled to 60 m. Details of drilling activities and results are provided in Section 10.

In 2023, Mineros carried out its drilling campaign employing one sonic rig and six Ward rigs. During the fourth quarter of 2023, the company successfully commissioned a new sonic drilling equipment. In 2024, Mineros has conducted drilling with two sonic rigs and three ward rigs, additionally placing three ward rigs on standby.

9.1 2020 to 2023 Exploration

In 2020, Mineros drilled 45 holes totalling 1,173 m in the area. This was followed by a more extensive program in 2021, completing 5,329 m across 301 rotary drill holes, primarily targeting the alluvial plain and terraces in the southern part of the company's landholdings. These efforts aimed to define new Mineral Resources by 2022.

In 2022, Mineros significantly expanded its drilling program, completing approximately 11,327 m in 469 holes using six Ward drills and one sonic drill. This work focused on both expanding Mineral Resources and conducting infill drilling in production areas. Further exploration was also planned for areas north of the 2021 drilling.

By 2023, Mineros drilled an additional 9,567 m in 371 holes, again utilizing six Ward drills and one Sonic drill to continue expanding Mineral Resources and supporting infill drilling in production areas.

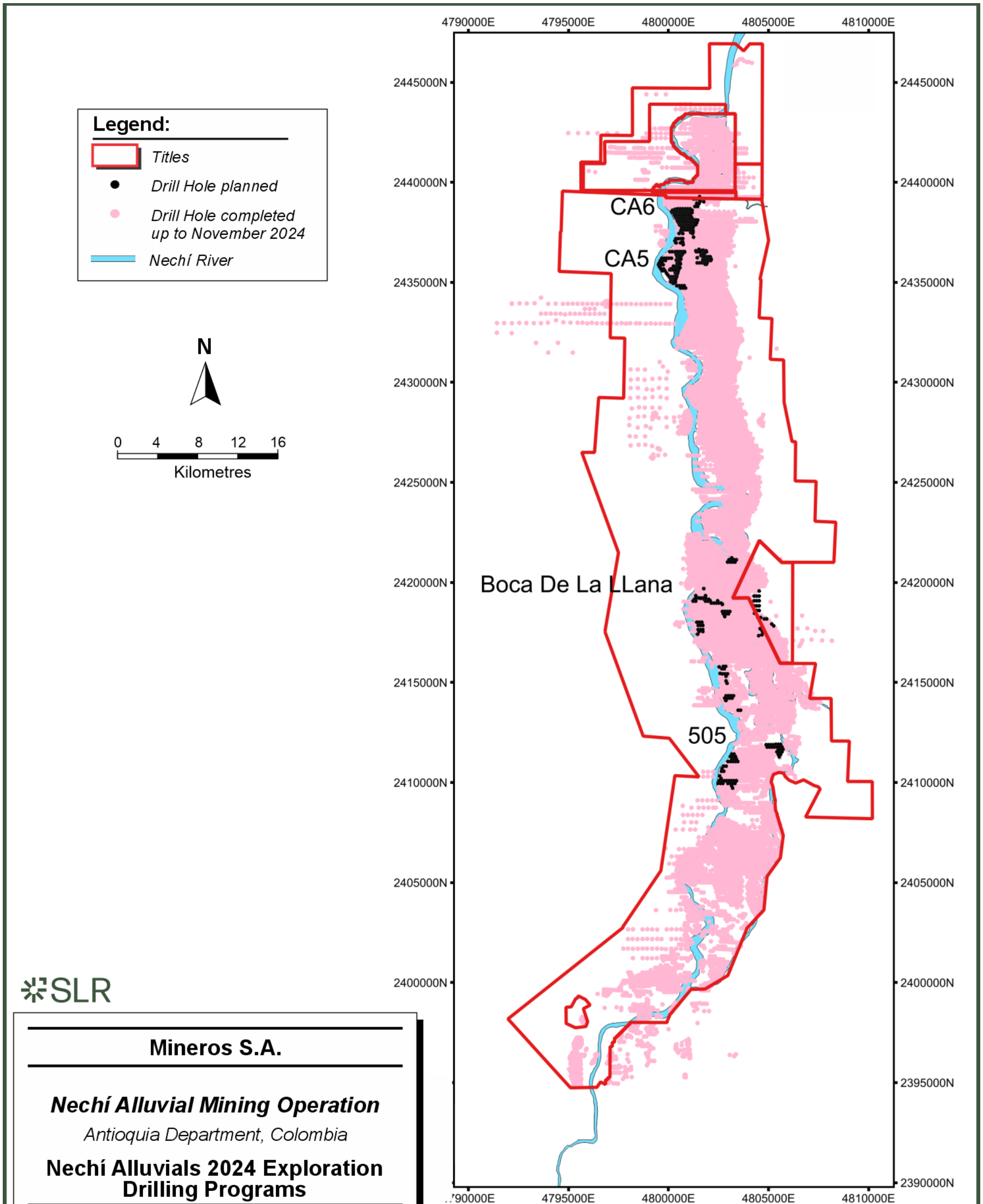
9.2 2024 and 2025 Exploration Plan

A 10,000 m drilling campaign was planned for 2024. A total of 14,910 m in 531 holes were completed approximately 50% over of the Company's original drilling plan. In 2024, Mineros increased infill drilling to improve Mineral Resource estimates and reduce geological uncertainty in the current payable zone.

In early 2024, Mineros carried out reconnaissance drilling at the Río Cauca target as part of its regional exploration strategy. Using sonic drilling, 681 m were completed across two concessions (503244 and 503248) to evaluate the potential of Quaternary sedimentary units, including Terraces and Alluvial Plains, for hosting economically viable gold deposits.

In 2025, Mineros plans to drill a total of 10,000 m, including approximately 4,750 m designed to expand the current Mineral Resources, 5,000 m of infill drilling in the production areas, and 250 m of continuing reconnaissance drilling at the Río Cauca Target. Of the total, 3,300 m of ward drilling and 6,700 m of sonic drilling are planned.

Figure 9-1: Nechí Alluvial 2024 Exploration Programs



Source: Mineros S.A. October 2024.

9.3 Exploration Potential

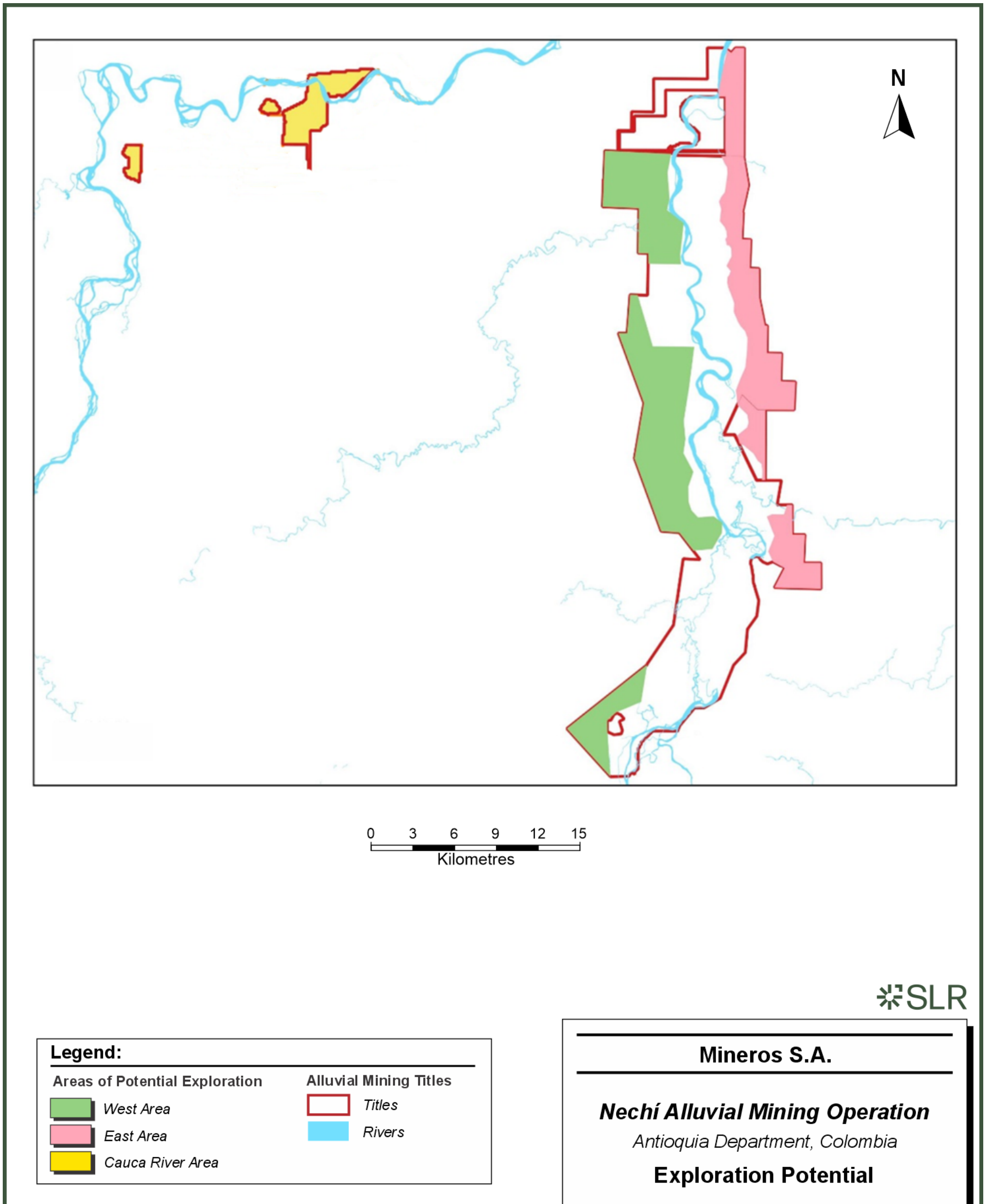
Mineros has approximately 10,000 ha of unexplored land located on the west bank of the Nechí River. Geological surveys have confirmed the presence of Quaternary alluvial terraces with potential gold mineralization. Additionally, these studies have ruled out the mineralization potential of Neogene-age units identified south of the mining concessions, which serve as the basement for the Quaternary deposits.

Mineros has drilled certain terrace landforms that represent smaller volumes compared to the alluvial river plains and determined that they are not optimal for bucket line dredging. Dredging with smaller, more mobile equipment such as the suction dredges or excavator mining methods, however, has been adopted by Mineros in recent years for mining the terraces and smaller alluvial plain areas that were inaccessible by the large bucket line production units. The terraces represent a good exploration target with good potential for expanding the resources in the future.

On the east bank of the Nechí River, Mineros holds approximately 6,000 ha of mining concessions that have not undergone detailed exploration. Preliminary investigations have revealed alluvial terraces with promising potential for hosting gold mineralization.

Mineros also holds three mining concessions covering 1,862 ha within an area internally referred to as the Cauca River Area target. This site is located approximately 30 km west of the current operations on the Nechí River and lies within a region of high potential for the occurrence of alluvial placer-type deposits (Figure 9-2).

Figure 9-2: Exploration Potential



Source: Mineros S.A. October 2024.

10.0 Drilling

Mineros explores and develops alluvial gold resources on the Nechí Alluvial Property by ward and sonic drilling vertical holes and sampling alluvium and terraces along the Nechí River, predominantly on the east flood plain that is closer to the likely source of gold, the Segovia batholith.

SLR reviewed the 2024 drill hole database provided by Mineros. The general drilling database, which reports drilling from 1936, contains 13,493 holes totalling approximately 321,940.8 m (Table 10-1 and Figure 10-1).

In 2022, the Mineros drilling database was migrated to Fusion software from Placer software, with the objective of compiling all digitized historical information from the various versions of Placer, ensuring the reliability and confidentiality of the data. In addition to Mineros drilling, the database includes Pato Consolidated holes, dating back to 1931, for which information is incomplete and some of this old data is recorded in imperial units.

The database contains 1,003 drill holes that were drilled over historical tailings areas exploited by bucket line dredges, which may still contain significant amounts of gold. Additionally, the database includes 17 drill holes drilled at the Río Cauca target.

Table 10-1: Drilling Summary by Year

Year	Holes	Metres (m)	Year	Holes	Metres (m)
1936	5	96.7	**1983**	79	1,804.4
1939	36	619.9	**1984**	116	2,615.7
1940	88	1,964.9	**1985**	133	2,933.7
1941	198	4,361.5	**1986**	134	2,479.2
1942	326	7,996.2	**1987**	1	28.5
1943	234	5,419.8	**1988**	3	71.4
1944	100	2,160.8	**1989**	4	81.0
1945	116	2,790.2	**1990**	35	688.9
1946	68	1,761.9	**1991**	23	507.6
1947	114	2,872.1	**1992**	29	578.1
1948	69	1,387.6	**1993**	29	665.5
1949	21	413.1	**1994**	46	1,182.3
1950	13	252.2	**1995**	84	1,749.5
1951	1	19.2	**1996**	160	3,377.5
1952	30	704.4	**1997**	204	4,704.7
1953	32	643.4	**1998**	242	5,603.5
1954	152	2,380.3	**1999**	35	787.8
1955	78	1,461.9	**2000**	202	4,821.9
1956	11	172.0	**2001**	255	6,583.1

Year	Holes	Metres (m)	Year	Holes	Metres (m)
1957	19	499.2	**2002**	289	7,673.5
1958	10	214.0	**2003**	375	9,197.6
1959	34	823.2	**2004**	446	10,707.6
1960	49	1,031.6	**2005**	408	10,220.4
1961	35	787.8	**2006**	346	8,642.0
1962	4	101.1	**2007**	278	6,743.4
1965	20	407.5	**2008**	418	9,516.4
1966	15	364.7	**2009**	437	9,980.5
1967	43	887.3	**2010**	546	12,797.8
1968	57	1,169.7	**2011**	469	11,709.3
1969	129	2,949.1	**2012**	436	10,477.5
1970	55	1306.0	**2013**	406	10,076.7
1971	20	538.2	**2014**	430	9,936.0
1972	20	416.8	**2015**	387	9,305.7
1973	47	1,150.1	**2016**	413	10,622.1
1974	60	1,508.4	**2017**	330	8,296.1
1975	41	986.4	**2018**	279	6,789.6
1976	18	443.7	**2019**	186	4,854.1
1977	27	674.7	**2020**	248	6,077.9
1978	19	429.9	**2021**	502	10,719.9
1979	9	210.9	**2022**	471	11,381.0
1980	29	689.7	**2023**	371	9,566.6
1981	110	2,598.2	**2024[1]**	520	14,708,0
1982	126	3,010.5			
Total				**13,493**	**321,940.8**

Note. [1] Values for 2024 include measurements and data up to November 25, 2024

Mineros annual exploration and resources and reserves definition drilling since 2019 is summarized in Table 10-2. The lower average hole depth for 2021 reflects the shallower exploration holes in terraces and old tailings. The 2024 drilling includes holes drilled until November 25, 2024.

Table 10-2: Drilling Summary from 2019 to 2024

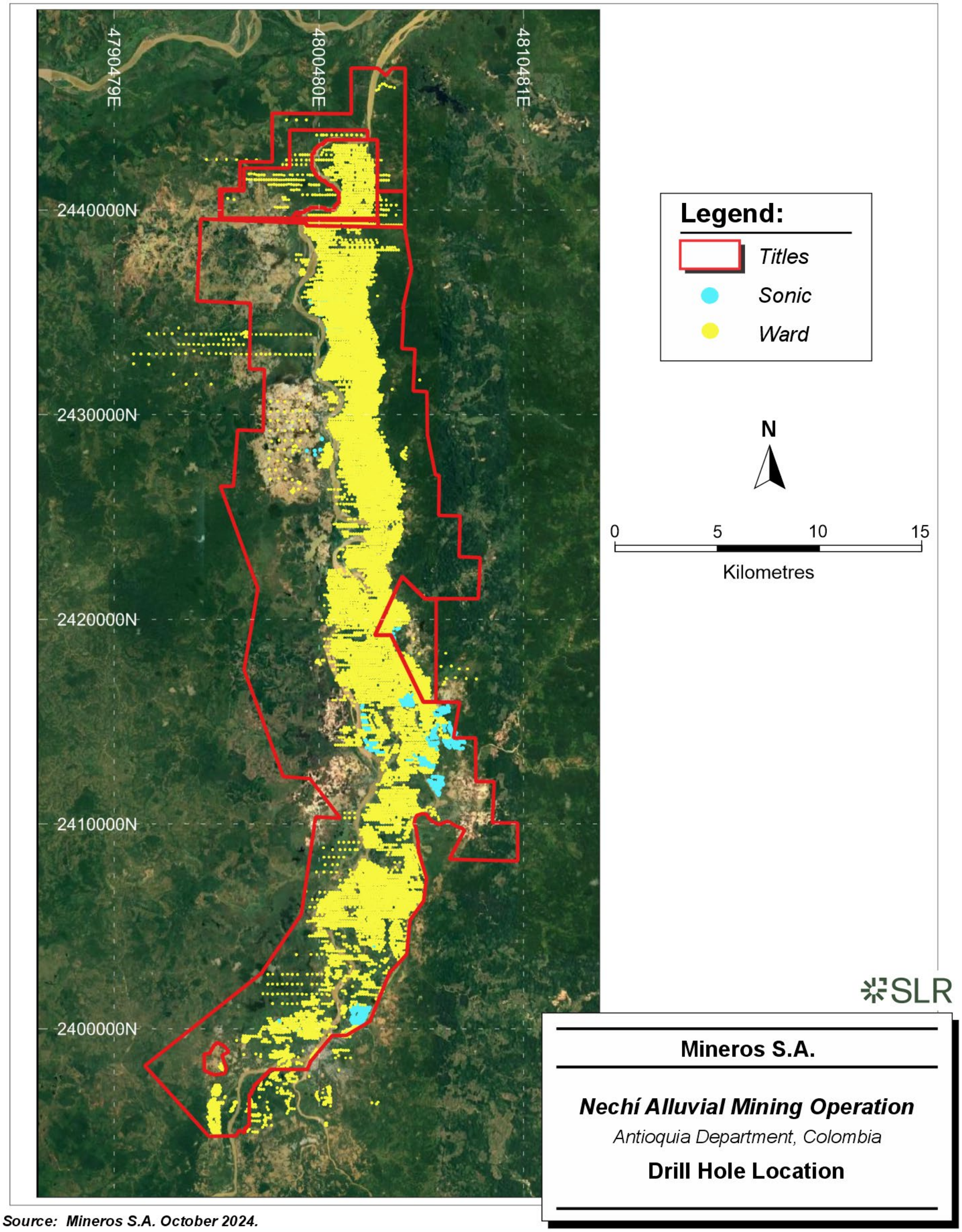
Year	Holes	Metres (m)	Average Depth (m)
2019	186	4,854.1	26.0
2020	248	6,077.9	24.5
2021	502	10,719.9	17.9
2022	471	11,381.0	24.2
2023	371	9,566.6	27.8
2024[1]	520	14,708.0	28.3

Note. [1] Values for 2024 include measurements and data up to November, 2024

Mineros owns one Fairbanks placer drill, 10 Ward placer drills, and two sonic drills. The Ward drills are set up for both platform and pontoon use. The Ward drill is a lightweight mechanized Ward drill designed for remote access mobility and is typically used in South America. The Fairbanks drill has been used mostly for piezometry work. Mineros has its Ward drills fabricated under contract in Colombia while piping is imported from the USA. Downhole tooling is standardized at 4 1/2" internal diameter (ID) drive casing and 5 5/8" outside diameter (OD) casing shoes. Piping is smaller than the 6" casings traditionally used in US Cordilleran alluvial placer exploration. The Ward drills are crewed by eight people including a supervisor, driller and helpers/loggers, a panner, security, surveyor(s), and a canoe/boat operator for pontoon operations. Holes are drilled to a dredging depth of 30 m or to bedrock/false bedrock. Drilling penetrates 0.3 m in hard clay false bedrock or bedrock to ensure bedrock has been reached and to sample any gold in crevices that may be recovered during dredging.

The CRS-V CompactRotoSonic dual tube sonic drill uses a one metre customized 41/2" ID sample barrel inside a 6 5/8" casing, which compares to the Ward drill tooling in terms of sampling diameter. Whereas the Ward drilling samples may be as short as 0.3 m, the sonic sampling is at 0.9 m. Crew size is similar for both sonic and Ward drilling since logging, sampling, and sample processing at the sonic rig is the same as for Ward drilling. Drill logging and sampling data are now recorded electronically on tablets at the drill rig with data exported to the main drill hole database in El Bagre at the end of the shift.

Figure 10-1: Drill Hole Locations



Source: Mineros S.A. October 2024.

Drilling is usually carried out on a 122 m x 122 m grid set up from maps and aerial photographs. Hole step-outs are staggered with respect to adjacent lines to form a triangular pattern. The spacing is a practical carryover from Pato Consolidated work on 400 ft x 400 ft grids. Infill drilling to a spacing of 60 m x 60 m is progressively carried out to support mine planning. Lines are located by theodolite with drill collars, then located by global positioning system (GPS) on the ground. Final collar location is determined by Total Station survey.

The amount of material recovered for each sample can vary, so a number of recovery factors are applied as discussed in Section 11.0 of this Technical Report.

Mineros' 122 m exploration drilling grid compared favourably to the one hole per four acres spacing used for placer exploration in the Folsom (California) alluvial gold district, where bucket line dredging of approximately one billion cubic yards (765 Mm^3) grading from 100 mg/m^3 to 200 mg/m^3 was carried out along 16 km of American River alluvials from 1898 to 1962 (Table 10-3). The Folsom district is one of the largest alluvial gold production areas of the USA (Clark 1970). The Mineros detailed infill grid drilling (60 m x 60 m) that supports areas with Measured Mineral Resources and Proven Mineral Reserves compares favourably to hole spacings for US placers sampling in general.

Table 10-3: Drill Hole Spacing Comparison

Location of Placer	Drill Hole Density (acres/hole)	Drill Hole Density (m^2/hole)	Grid (m)
Mineros (Colombia)	1.3	5,152	60
Mineros (Colombia)	3.7	14,884	122
US placers	1	4,047	64
US placers	2	8,094	90
US placers	3	12,141	110
Folsom, CA	4	16,188	127
US placers maximum	10	40,469	201
Source: US Dept. Interior, Tech. Bull. 4, 1970.			

Mineros has established its own mine grid system based on an arbitrary origin with coordinates 100,000 mE, 100,000 mN, and elevation 82.54 m located at the El Bagre town shoreline on the Tigüi River. For conversion to WGS 84, the approximate equivalent points for the Mineros grid origin are: Zone 18N UTM 520,532E, 840,188N. The Mineros grid origin is 918,810 mE, 1,332,300 mN with an elevation of 53.53 MASL on the official Colombian MAGNA-SIRGAS National grid established by the Agustín Codazzi Geographical Institute (Instituto Geográfico Agustín Codazzi, or IGAC) that has its origin in Bogota. Other than for small-scale maps, coordinates in this Technical Report appear in either the MAGNA-SIRGAS IGAC or WGS84 UTM system.

The area of current resource and reserve drilling extends over 47.5 km from 1,330,000N to 1,377,500N (IGAC- Magna). With respect to El Bagre, alluvial plain resources extend over 44 km from seven kilometres to the west-southwest to 40 km to the north, whereas alluvial plain reserves extend from 34 km to 45 km north. The alluvial plain resources generally flank or fill in previously exploited blocks.

11.0 Sample Preparation, Analyses, and Security

11.1 Sampling and Sample Preparation

The method of sampling for the Ward and Fairbanks drills is by conventional placer Ward drilling and sampling, which relies on a standardized advance or drive of a casing (drive pipe), break-up of the sample material in the casing by a downhole placer Ward bit, and collection of samples by means of vacuum pumping material out of the casing. The placer drilling method is effective at collecting a volume-representative sample that is necessary for estimating the raw gold grade in milligrams per bank cubic metre (BCM). Mineros' drilling and sampling methods adhere to classic procedures developed for placer Ward drills (Keystone, Hillman, Fairbanks, Ward, etc.) in the late 1800s and early 1900s in the USA and are employed worldwide.

The method of logging, sampling, on-site sample processing, QA/QC, and security for the sonic drill sampling is the same as for the Ward drilling as described below, except that sample intervals are in sequence of 0.9 m, 0.9 m, and 1.2 m, consistent with the core barrel length of three metres. The same grade correction factor for casing and shoes is used for ward and sonic drills that have the same drill bit and sample tube diameters, however, the sonic sample is relatively undisturbed.

Barren soil, mud, and clay overburden overlying the pay formations are penetrated at variable lengths up to six metres. The overburden is logged, the collected sediments are discarded, and the piping is washed. Pay formations sands and gravels are sampled at 0.3 m (sometimes 0.6 m) in Ward drill drives and 0.9 m and 1.2 m in sonic drill drives. Subsequently, they are pumped from the casing, emptied into the mud box for examination, and then washed into the volume box (12 in. x 6 in. x 6 in.) for volume measure carried out by a volume stick. The sample is then screened to –1/8 in. and the undersize panned by an 18 in. pan (batea) on the rig.

Gold grains recovered from black sand in the batea are examined by hand lens, picked, and counted according to size, i.e., gold grain numbers 1 to 4 (Table 11-1), and accumulated in a gold sample vial that is labelled for grid line and hole number. Drilling sample logs record grain numbers from 2 to <4.

Table 11-1: Gold Grain Numbers and Weights

Grain #	Gold (mg Au)
1	3.00
2	1.30
3	0.33
4	0.02
<4	0.01

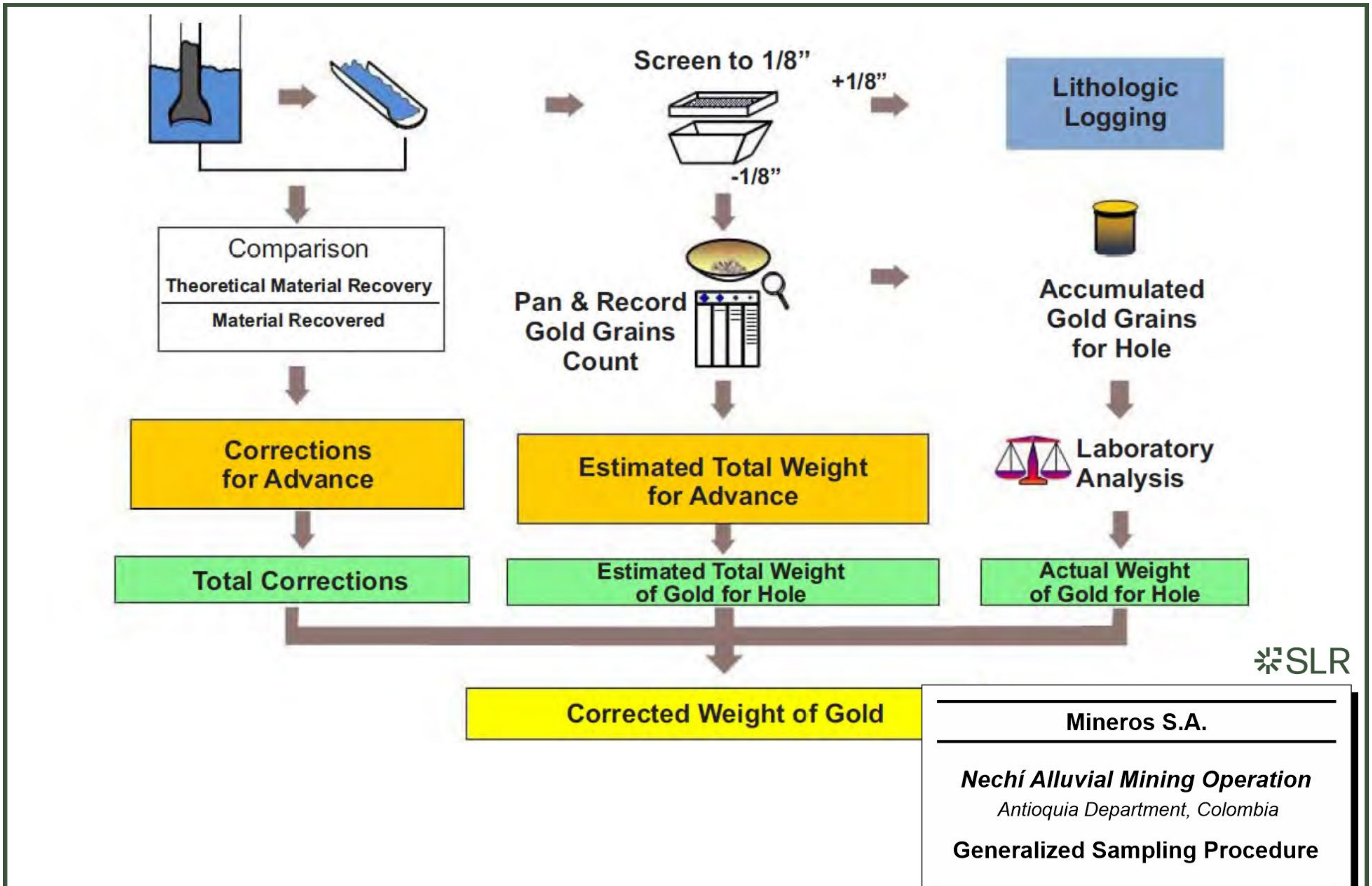
Samples are panned three times to ensure no gold is lost. Detergent is used for degreasing and eliminating water surface tension. Since gold is accumulated in a single vial from all samples, only a single grade based on actual weight for the entire clastic column is available for each hole. The drill supervisor/foreman is responsible for the gold grain count and recording.

Panned black sands are accumulated from each sample and retained. At the end of the hole, the black sands are run through a 150 cm x 30 cm sluice for final clean-up. Any gold recovered is recorded and added to the sample gold vial. The gold sample vial and black sand is returned to El Bagre. In the past, the very fine-grained gold was recovered by mercury amalgamation in a Gilkey bowl, however, such gold is generally smaller than 200 mesh and considered not dredge-recoverable, this practice has been discontinued and the black sands simply stored. Gold in the sample vial is nitric acid-washed, the gold grains are handpicked and weighed by micro-balance, and the actual weight is recorded to complete the logging and sampling. As previously noted, Mineros has eliminated the mercury amalgamation process at site, which has made the operations safer and environmentally easier to operate.

The alluvium is logged, aided by granulometry from screen fractions produced from a screen deck on the rig. Processed sediment (i.e., rejects) is temporarily stored in rice bags on the drill rig until the hole is completed and then is placed back in the hole when pulling the casing.

The sampling procedure is generalized in Figure 11-1.

Figure 11-1 Generalized Sampling Procedure

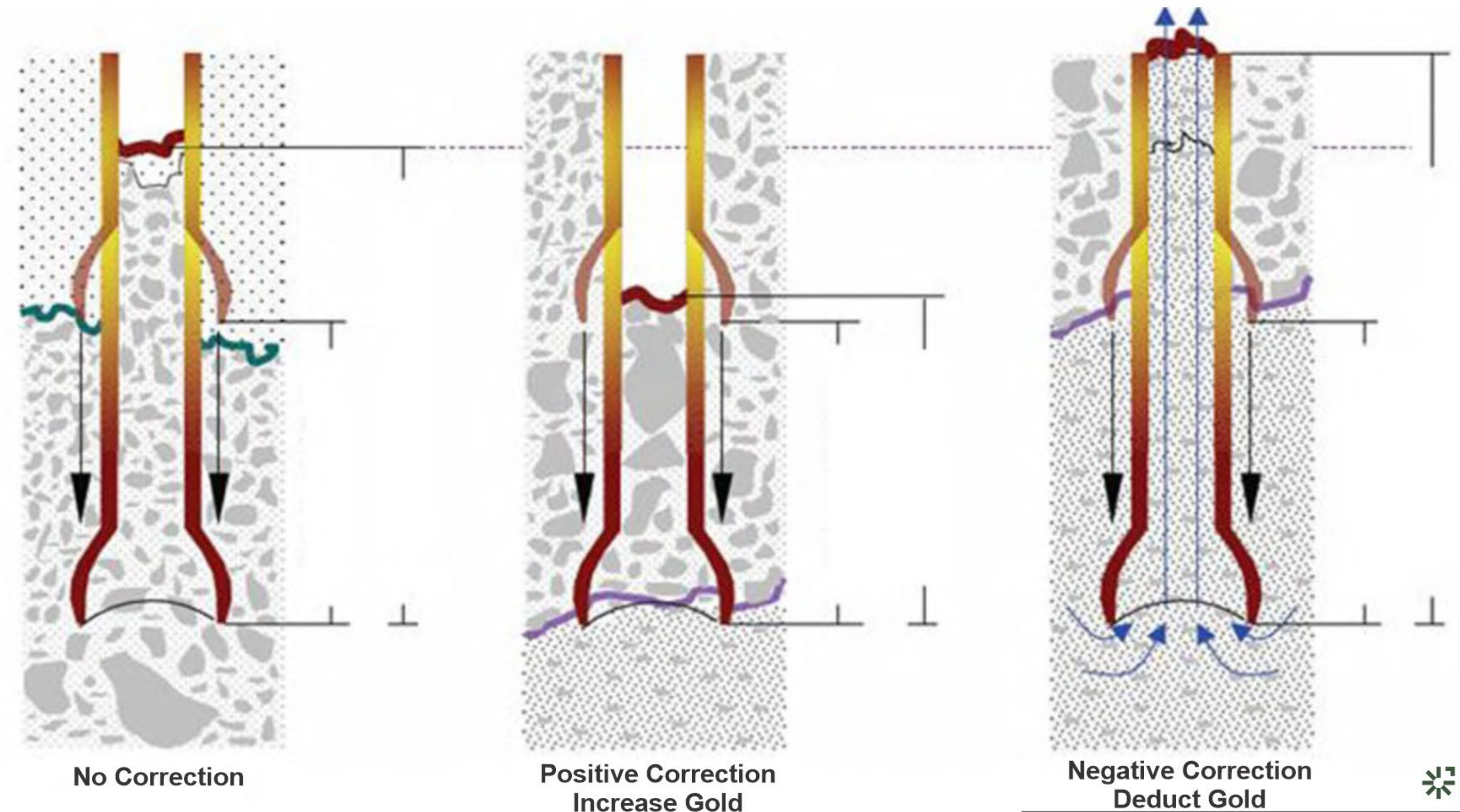


Source: Mineros S.A. 2008.

For every sample taken, a series of factors are employed to correct the estimated weight of gold from grain counting as well as the actual weight of gold in the sample vial determined in the El Bagre laboratory. Grade corrections for each advance are necessary to account for incomplete filling or excessive swell of material in the drill casing. Incomplete filling can be caused by hard material packing the casing, lost core forced out by the bit in loose ground, or by boulders or gravel clasts too large to be broken by the placer drill bit or partially blocking the casing during advance. Overfilling may be caused by running ground or differential water pressure that forces material into the casing. Factors are based on actual and theoretical core rise in the casing and theoretical volume versus recovered volume in the volume box.

If the core rise or volume is less than theoretical, the gold weight is adjusted up; when the core rise or volume is greater than theoretical, the gold grade is adjusted down (Figure 11-2). The factor is dependent on casing and casing drive shoe diameters and is standardized for a 30 cm advance per sample.

Figure 11-2 Placer Sampling Correction



Mineros S.A.

Nechí Alluvial Mining Operation

Antioquia Department, Colombia

Placer Sampling Correction

Source: Mineros S.A. 2008.

Sample or core factor (FC) is the ratio between the theoretical material rise in the casing and the advance casing and is determined from the external, or outside, diameter (ext or OD) and internal diameter (int or ID) of the casing and casing drive shoe. The relationship is based on the volume that enters the casing drive shoe and the casing.

By multiplying the core factor by the advance, the theoretical rise of material in the casing is obtained, i.e., rise in the casing = FC x the advance according to the formula below.

$$FC=\left(\frac{\text{Øext shoe}}{\text{Øint casing}}\right)^2$$

Where Φ is diameter

The tooling used by Mineros for Ward drilling is:

- Φ of the casing shoe: $5^7/_8$” or 5.875”
- Φ(internal) of the casing: 4½” or 4.5”

The core factor used by Mineros is equal to 1.704. The theoretical rise for a 30 cm advance is calculated as: 1.704 x 30 cm = 51.13 cm. In practice, results indicate that 52 cm as the theoretical rise is effective. For a 6” pipe, the rise is 44 cm.

Volume Factor (FV) is the theoretical volume corresponding to a rise of 30 cm of material in the casing. Using an advance of 0.3 m the theoretical volume for a 4.5” pipe is 0.00524 m^3 and for a 6” pipe is 0.0082 m^3. In practice, Mineros uses 0.0054 m^3 for its 4.5” casings.

$$FV = \frac{\Pi \phi \text{int casing}^2}{4} * Advance$$

Drive Shoe Factor (FZ) is the theoretical advance the casing must be driven to obtain one cubic metre of material, where FZ is 66 cm for a 4.5” pipe and 40 cm for a 6” pipe.

$$FV=\frac{4}{\Phi \text{int casing}^2 * FC}$$

In practice, as recorded in the drill logs, the corrections made for each advance in pay gravel depend on the length of casing advance, pumping volume measurement, sample volume, gold grains classification and number, and weight estimate of gold in the gold grains. Correction is made either by volume or by sample rise, taking the more conservative adjustment:

- Volume correction:
  - (Theoretical volume x Estimated gold) / (Measured volume – Estimated gold)
- Correction by sample rise:
  - (Theoretical rise x Estimated gold) / (Actual rise – Estimated gold)

The total correction for the drill hole recorded in the drill logs is applied to the actual weight of gold and accumulated corrections for the individual advances:

- Total Correction = (∑Corrections x Actual weight) / Estimated Weight
- Corrected Gold = Actual Weight ± Total Correction
- Calculated depth = Basement Depth + 0.30 m
- Final grade = (Corrected Gold x FZ) / Calculated Depth

The volume correction factors are similarly applied to samples obtained from Sonic drill holes, using a methodology proportional to the sampling lengths. It is important to note that the advance lengths made by the sonic drill (3.0 m = 0.9, 0.9, 1.2 m) are multiples of the advances made by Ward-type drills (0.3 m)

11.2 Sample Analysis and Security

For placer drilling and sampling, there is no further sample preparation after the sample recovery and panning/sluicing on the drill rig. Analysis consists of acid washing and weighing the gold grains accumulated for the hole, which is carried out by Mineros personnel on an electronic microbalance at the El Bagre laboratory at the El Bagre complex. The weighed gold and final corrected gold weight are recorded in the drill logs and the database, and then the sample is archived.

The gold sample vials from the drills are transported to El Bagre at the end of the daily shift, under control of the drill supervisor, by the service boats which have on-board security. The processing/smelter facility is within the secured gated compound at the El Bagre complex and has its own additional internal security.

In the QP's opinion, Mineros' drilling, sampling, sample preparation, gold analysis, and security are industry standard for large-scale alluvial gold deposits and adequate for the estimation of alluvial gold Mineral Resources and Mineral Reserves.

11.3 Quality Assurance and Quality Control

In 2024, Mineros commissioned a new laboratory located in the industrial zone near its offices in El Bagre. The laboratory's primary objective is to process samples from exploration drilling, to implement ore control and process samples from the dredges, as well as to determine the fine content of gold grades and to perform metallurgical tests.

The El Bagre laboratory initiated trials aiming to replicate the complete sample preparation and analysis procedures that have been carried out at the field-based drill platforms historically, including the characterization, quantification, and determination of the weight of gold particles.

The techniques employed in the new El Bagre laboratory allow for sample processing in a controlled environment, using standardized systematic procedures and specialized personnel. This ensures greater precision in the results and the confidentiality of the information.

The ongoing goal is to establish robust QA/QC standards to ensure the proper handling, preparation, and determination of gold content.

Until 2009, Mineros had not implemented a QA/QC program with respect to alluvial gold sampling on the Ward drills. Historical industry practice to assure effective sample recovery and thus the quality of sampling for Ward drilling was done by periodically dropping a known number of lead shots down the casing before sample pumping, and counting the shot recovered during sample panning.

On SLR's recommendation in 2008, Mineros began the practice of dropping metal shot (ball bearings) down the casing and recording the number of ball bearings recovered by sample pumping. Generally, all the shot has been recovered during the first of the three sample pumpings, and where not, all the shot has been recovered after the third pumping confirming, the quality of the placer sampling.

In the QP's opinion, the QA/QC program as designed and implemented by Mineros is adequate and the assay results within the database are suitable for use in a Mineral Resource estimate.

12.0 Data Verification

While on past site visits and during ongoing audits, the QP examined a number of Ward drill logs for verification of the completeness of entries and procedures and overall quality of the recording process. The drill hole data since 1991 were also stored in Placer 2000 database software, which is a customized version of "Stratigraph" by Geostat International Systems Inc. (Geostat), a subsidiary of SGS S. A., of Blainville, Québec, Canada. Since 2022, Mineros has implemented the transfer of data stored in Placer 2000 into a geological data management system provided by Datamine FusionX (Fusion). The Fusion platform allows Mineros to extract and manage the data more efficiently.

Operating Ward drills were visited by SLR personnel in the field in 2008, 2017, 2021, 2023, and 2024 to observe and review Mineros' alluvial sampling and logging practices. Both Ward and sonic drills were also visited in 2023, and gold was observed during the gold panning steps at all visits. The QP did not conduct any independent sampling to verify the results of any specific drilling and sampling because the presence of gold grains in the gold pans was confirmed visually.

Mineros conducted comparative testing of sonic drill sampling versus sampling in eight Ward drill holes in 2019 prior to purchasing the sonic drill rig in 2021. The sonic sampling tended to capture less gold and be lower grade in virgin terrace sampling but was closer to Ward drill results in grade and gold weight for dredge No. 10 tailings sampling.

In November 2023, SLR obtained the data in Leapfrog Geo Software (Leapfrog) format. The drill holes were viewed on screen and validated in Leapfrog. Leapfrog has rigorous error checking routines that find out-of-sequence errors, overlapping intervals, missing intervals, etc.

The database contained both 'in situ' and 'cargueros' (i.e., historical tailings) drilling. For the purposes of Mineral Resource estimation, SLR reviewed only the holes labeled 'in situ'. During the validation process, the elevation of 76 collars appeared to be erroneous when compared to the neighbouring drilling. Many of the errors were due to 'cargueros' holes mistakenly labelled as 'in situ'. Except for seven holes, all other elevation problems were corrected in the Fusion database prior to the Mineral Resource estimation. The seven holes that Mineros could not verify were ignored in the Leapfrog project.

There were 41 holes with duplicate collar locations, all of which were identified as twins of older holes. The older hole identification numbers were coded with "-1" added at the end of the identification number to distinguish them from the newer twins. Only the results for the more recent of the twinned hole pairs are used for Mineral Resource estimation.

SLR recommended that before transferring the data from Placer2000 to Fusion, all of the new holes go through a validation process. Other than the few errors described above, Mineros' drill hole database is of good quality and adequate for alluvial Mineral Resource and Mineral Reserve estimation.

The QP is of the opinion that the drill hole database is acceptable to support Mineral Resource and Mineral Reserve estimates.

13.0 Mineral Processing and Metallurgical Testing

The Nechí gold deposit has been in production since 1937, and since 1974 under Mineros management, and involves the recovery of alluvial gold by gravity recovery methods.

There are three main mining and concentration methods: bucket line dredges (5), Brazilian suction dredges (13), and the Llanuras production unit (1), which comprises a suction dredge and a floating processing plant. Terrace mining, which focused on mining tailings from early, less efficient dredging operations, was discontinued in 2024. All of the bucket line and production suction dredges, except dredge No. 21, have their own on-board processing plants that use gravity concentration methods to produce gold-containing concentrates. Dredge No. 21 includes the Llanuras Plant, a separate floating processing plant that follows the dredge and is fed via floating pipeline from the dredge. The concentrates from all of the processing plants are transferred to the central refinery at El Bagre for additional concentration followed by smelting to produce doré bars.

The majority of Mineros' gold production comes from the bucket line dredges and the Llanuras production unit. The other suction dredges (10 diesel-powered suction dredges not owned by Mineros, and three electric-powered, Mineros-owned, suction dredges) are operated by contractors. Mineros pays average royalties of 85% for gold in concentrate from the diesel-powered dredges and 50% for gold in concentrate from the electrically powered dredges to the contractors. These royalties are paid in exchange for providing electricity to the Mineros-owned dredges and processing the concentrates from both types of dredges at the El Bagre refinery, as well as for including them in areas with geological knowledge through the mine plan. Production units owned and operated by Mineros account for 88% of gold production, of which five production units (the bucket line dredges) account for 83% of production. The suction dredges owned and operated by independent miners under contract with Mineros account for 12% of gold production at the property.

13.1 Historical Production and Recovery Estimates

The final gold production by mining method to December 31, 2024 after refining in the refinery in El Bagre is summarized in Table 13-1.

Table 13-1: Gold Production

Mining Method	Gold Production (oz Au)			
	2021	2022	2023	2024
Bucket Line Dredges	60,132	77,991	82,856	70,033
Llanuras Dredge & Plant	2,222	2,541	1,940	3,336
Terrace Mining	653	771	382	477
Brazilian Suction Dredges	10,122	11,083	8,535	8,171
Total	**73,129**	**92,386**	**93,713**	**82,017**

Gold recovery was historically estimated by comparing production to the mine plan as there was no process monitoring through a system of regular sampling and analysis of process streams, or process flow measurement. The metallurgical recoveries used for the remaining reserves differ by dredge type and were provided by Mineros (Table 13-2). While the recovery estimates appear to be reasonable, there is no metallurgical back-up available for the recoveries.

In general, the alluvial gold mineralization does not vary significantly, and it is reasonable to apply recovery estimates based on past experience to the remaining reserves.

In the QP's opinion, there are no deleterious elements that could have a significant effect on potential economic extraction.

Table 13-2: Reserve Metallurgical Recoveries

Area Description by Mining Method	Metallurgical Recovery (%)
Bucket Line Dredges	83%
Brazilian Suction Dredges	61%[1]
Llanuras Plant	58%

Notes:
1 Average recovery for both diesel and electrically powered suction dredges.

Metallurgical Testing

Mineros reached a milestone in 2012 with the elimination of the mercury amalgamation process on the dredges, which made the operations safer and environmentally easier to operate.

As production moved down river, the gold was becoming finer, with resultant lower recovery from the jigs on the bucket line dredges. In 2014, Mineros initiated a test project with Gekko where an In-line Pressure Jig (IPJ)-based pilot plant was installed on one of the barge operations, which was tethered to, and received its feed from the No. 10 dredge. The pilot plant was commissioned in July 2014, establishing IPJ parameters in preparation for performance trials, which commenced on October 22, 2014. The trials produced very encouraging gold recovery results in the +90% range, with the highest being 96%, all on feed of very fine to fine gold with a nominal maximum size of approximately 200 µm.

Based on the test results from the pilot plant, Mineros decided to implement the Gekko pressurized jig technology on one of the two jig recovery circuits of dredge No. 10, replacing the gravimetric concentration equipment from the primary stage to the production of concentrates prior to the cleaning stage in the sluice boxes. The Gekko jigs did not perform well and were removed from the dredge and installed at the Llanuras Plant in 2022. After implementing feed improvements, including 4 mm classification and dewatering with hydrocyclones, the jigs operated as intended.

Gold recovery in the dredging and terrace mining operations was historically not regularly measured, as there was no system of regular sampling and analysis of process streams, or process flow measurement. However, in 2021 Mineros initiated a program of regular process surveys on the five bucket line dredges conducted by metallurgical staff. Currently, each of the five bucket line dredges is surveyed once per week. The data gathered is used to assist in identifying process inefficiencies and to help with process optimization and problem-solving. Additionally, automatic samplers have been installed on key streams on one of the bucket line dredges on a trial basis (dredge Nos. 5 and 10), with the samples sent to the El Bagre laboratory two to three times a week due to the current laboratory capacity. There is a plan to install automatic samplers on the other four bucket line dredges.

Mineros has initiated a recovery improvement project, which will investigate the use of centrifugal gravity concentrators on the bucket line dredges, as well as improving process control and optimization through regular plant surveys by metallurgical staff. In the QP's opinion, this is an important endeavour in order to both identify process inefficiencies where gold losses are occurring, and to be able to monitor performance and maximize gold recovery. As part of this project, Mineros is installing pilot concentration equipment in the new El Bagre laboratory that can be used to evaluate concentration options. Additionally, Mineros is investigating methods for the recovery of gold from the tailings stored at the El Bagre plant.

13.1.1 Concentrate Analysis

Concentrates are analyzed for gold in the El Bagre laboratory. Analysis is carried out by panning to concentrate the gold and reject gangue minerals, followed by screening of the pan concentrate into five size fractions. Gold grains in each size fraction are visually counted, and using a chart that lists average grain weights for each size fraction (referred to as colours, Table 13-3, where the colour is a grain size range), the overall gold content of the concentrate can be calculated.

Table 13-3: Colour Chart for Concentrate Gold Content Analysis

Colour	Size Range		Grain Mass Range	Grain Mass Average
	mesh	µm	mg	mg
1	20 to 40	425 to 850	2.0 to 5.00	3.00
2	40 to 70	212 to 425	0.5 to 1.99	1.30
3	70 to 100	150 to 212	0.3 to 0.49	0.33
4	100 to 140	105 to 150	0.01 to 0.29	0.02
<4	-140	-105	<0.01	0.01

Source: Mineros 2024

This method requires considerable time and skill on the part of the El Bagre laboratory operators that count gold grains in many samples daily. Mineros is investigating the use of computerized optical analysis for grain counting, which could speed up the process and improve standardization of the process. Similarly, the skill of the panners is critical to ensure that all of the gold in a sample is captured in pan concentrates for counting.

14.0 Mineral Resource Estimates

14.1 Summary

SLR has carried out a number of reviews, audits, and internal NI 43-101 compliant technical reports on Mineral Resources and Mineral Reserves at the Nechí Alluvial Property for Mineros since 2008. The most recent SLR technical report in respect of the Nechí Alluvial Property, entitled "Technical Report on the Nechí Alluvial Gold Mineral Resource and Mineral Reserve Estimates, Antioquia Department, Colombia", dated effective September 15, 2021, as amended on October 29, 2021 (the "2021 Nechí Technical Report"), filed by Mineros on SEDAR+, states mid-year Mineral Resources and Mineral Reserves as of June 30, 2021.

Previously, Mineros estimated its Mineral Resources using conventional alluvial estimation methods including grade capping and two dimensional (2D) polygonal grade interpolation. Mineros worked with SLR to develop and implement a new procedure for estimating Mineral Resources using a three-dimensional (3D) block model approach that would be more suited for public disclosure and to facilitate short-, mid-, and long-term mining planning and scheduling. Mineros estimated Mineral Resources for the Nechí deposit using drill hole results available to November 25, 2024. SLR found that the new 3D resource block model and the December 31, 2024 Mineral Resource estimate are reasonable and acceptable.

Mineral Resources at the Nechí Alluvial Property are not reported using a traditional cut-off grade. Instead, resources are defined as resource material within the mineralized blocks that demonstrate a positive net value, meaning they generate an operating margin within an ultimate reporting shell generated at a revenue factor (RF) of one. The Mineral Resource volume and grade reflect dilution from the overburden volume, which was assigned a gold grade of zero.

As of December 31, 2024, the alluvial Measured and Indicated Mineral Resources total 527 Mm^3 averaging 56 mg/m^3 and contain 1,005 koz Au. Additionally, the Inferred Mineral Resources total 223 Mm^3 averaging 62 mg/m^3 and contain 447 koz Au.

Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves dated May 10, 2014 (CIM (2014) definitions) were used for Mineral Resource classification. A summary of the Mineral Resources at the Nechí Alluvial Property is shown in Table 14-1.

Table 14-1: Summary of Mineral Resources – December 31, 2024

Category	Volume (Mm^3)	Gold Grade (mg/m^3 Au)	Contained Gold (koz Au)
Measured	79	55	140
Indicated	448	56	865
Total Measured and Indicated	**527**	**56**	**1,005**
Inferred	223	62	447

Notes:
1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are reported within an ultimate pit shell generated at Revenue Factor of 1.0 using an average, long-term gold price of US$1,900/oz Au and an exchange rate of COP4,000.00:US$1.00, and include low-grade blocks situated within the pit.
3. Gold grade is diluted to total volume which includes both mineralization and overburden.
4. The fineness of gold in the doré is 89%. The gold grade and the contained gold are adjusted for fineness.

5. Average thickness of the resource pay gravel is 30 m. Average thickness of overburden is 15 m.
6. Mineral Resources are depleted by mined out areas updated as of December 31, 2024.
7. Mineral Resources are exclusive of Mineral Reserves.
8. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
9. Numbers may not add due to rounding.

The QP is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

14.2 Resource Database

Mineros estimated Mineral Resources for the Nechí Alluvial Property using drill hole data available as of November 25, 2024. The Mineral Resources are hosted in placer Nechí River alluvial plains and terraces.

In recent years, Mineros implemented the transfer of data stored in the Placer 2000 database software into a geological data management system provided by Datamine FusionX. The Fusion platform allows Mineros to extract and manage the data more efficiently.

The general database contained information for 13,493 holes totaling 321,940.8 m. For the purpose of Mineral Resource estimation, Mineros utilized a subset of 12,490 vertical percussion drill holes, totaling 290,673.2 m. This selection excludes 1,003 drill holes (21,274.6 m) that were drilled over historical tailings. The resource database included 414,977 assay and lithology intervals.

The assay values recorded in the database represent grade as analyzed, without adjustments for the presence of other metals within the gold grains. These values are not the final gold values reported in the resource estimate, where a correction factor of 0.89 is applied to account for the impurities or fineness.

Initially, Mineros provided drilling data in a Leapfrog Software format with an access to ODBC link. SLR has updated the current database via ODBC link to November 25, 2024.

14.3 Geological Interpretation

The Mineros operation at Nechí corresponds to an alluvial sedimentary type of gold deposit located in the valley of the Nechí river. The deposit's geology is characterized by a basal layer of hard, compacted clays that form the foundation of the alluvial basin, overlain by a sequence of coarse, medium, and fine gravels interbedded with lenses of clay, silt, and sands.

The spatial deposition of the various alluvial sediments is related to paleochannels of the Nechí River. The overburden consists primarily of mud and clay layers. The distribution of gold nuggets within the deposit correlates with the granulometry of the alluvial sediments, with the highest concentrations found in coarse gravel layers.

Using a 2D polygonal estimation method, Mineros defined two key domains: the Payable Zone (PZ) and the Bedrock (BR). The PZ includes an overburden layer with an average thickness of 15 m, which lacks gold values above the established cut-off grade. The thickness of the PZ was determined through the average depth of drilling within defined estimation polygons.

In 2021, Mineros began a transition to a 3D block model estimation method, which involved separating the overburden from the payable zone and creating 3D wireframes for coarse, medium, and fine gravels, as well as sand, clay, and mud domains. This transition involved the use of Leapfrog's intrusion tool, which, although effective modelling tool, proved to be time consuming and labor intensive for a deposit of the Nechí scale, especially when processing minor modifications.

In 2023, Mineros employed Leapfrog (version 2023.2.3) to develop a comprehensive 3D production model encompassing the entire alluvial deposit, which extends over 50 km in a north-south direction and 15 km in an east-west direction. The geological model comprises an alluvial basin, a basal sedimentary package hosting the highest concentration of gold, and an upper zone that groups fine sedimentary units. Mineros modelled the three main production units by delineating the BR, PZ, and overburden (OV) based on lithology and weight of gold particles.

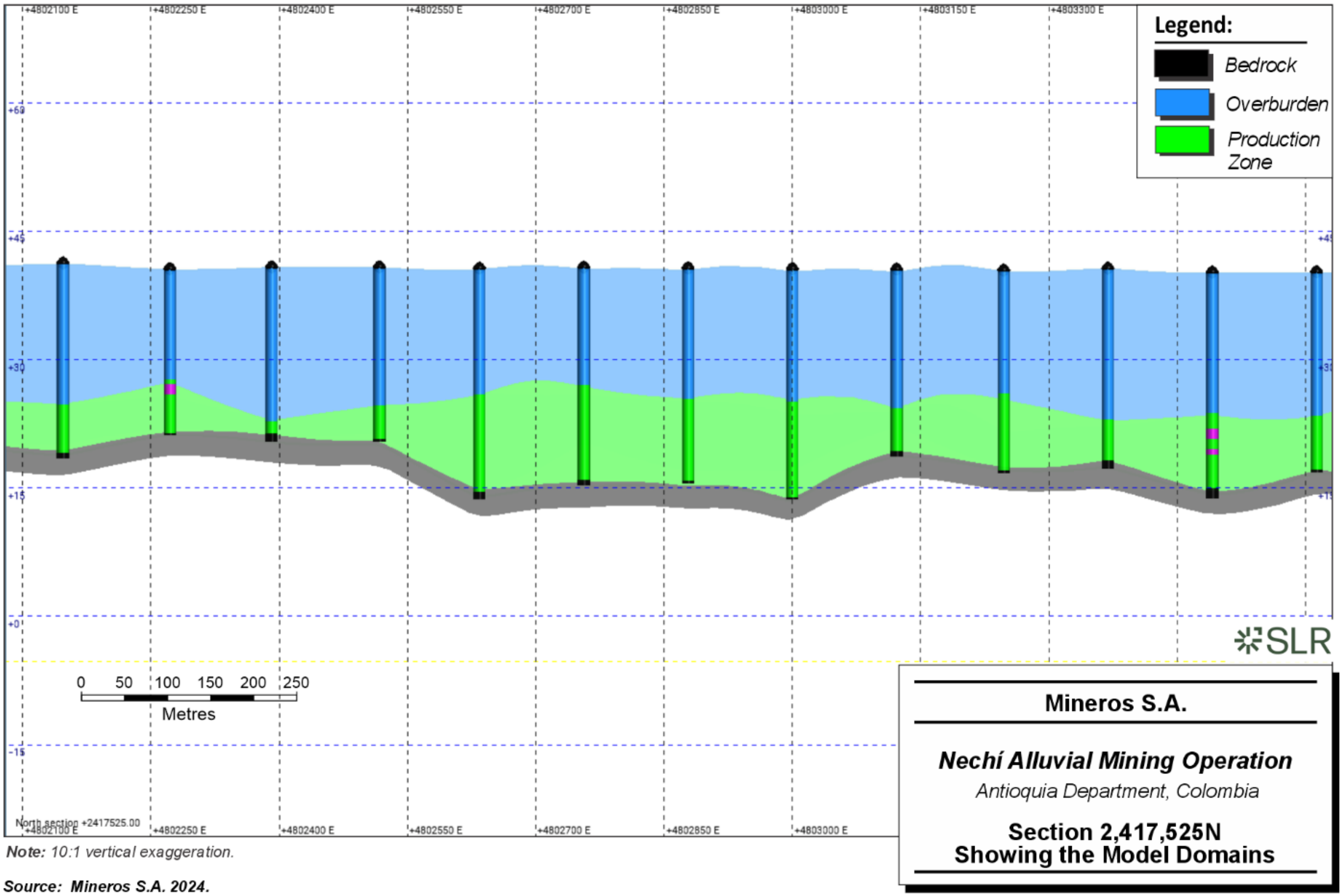
The lithology table provided to SLR contained the following “general classification” with respect to payable units:

- OV - overburden
- PZ - payable zone
- BR – bedrock
- FBR – “false” bedrock

The overburden surface, consisting of layers of clay and silt that can exceed 10 m thickness, was defined based on OV intervals in the general classification column. To accurately assign the barren top domain, Mineros refined this surface by incorporating clay and mud units initially coded as part of the PZ until the first occurrence of assay intervals where the final weight of gold particles was less than 0.1 mg.

The bedrock lithologies were identified as non-mineralized and not associated with gold content. Therefore, the PZ was defined by generating a surface using the PZ coding, effectively separating it from the underlying bedrock domain (Figure 14-1). The PZ domain also includes layers of clay and mud, coded in the database as false bedrock (FBR), which occur between the overburden and the true bedrock.

Figure 14-1: Section 2,417,525N Showing the Model Domains



Note: 10:1 vertical exaggeration.

Source: Mineros S.A. 2024.

The OV and PZ domain contains various sedimentary lithologies. The majority of the gold occurrence is concentrated within the gravel and sand units. The placer database includes the following number of records in nine sedimentary units listed below:

- Coarse Gravel (GC) – 114,888
- Medium Gravel (GM) - 59,548
- Fine Gravel (GF) - 66,248
- Sand (S) - 92330
- Clay (CL) - 60,482
- Mud (MUD) - 18,857
- Shale (SH) - 605
- Coal (COAL) - 682
- White Sand (WHS) - 1,309

In the 2D polygonal method, Mineros faced limitations in optimizing planning through production schedule in relation to the various sedimentary units. The transition to a 3D modelling approach has reflected the selectivity of mining operations, allowing for better planning gold-bearing units.

Mineros simplified the modelling of sedimentary units by applying an indicator approach to directly code them into the block model. A probability value, ranging from 0% to 100%, was estimated for each block for gravels, sand, clay, and mud. Other minor lithological units (SH, COAL, WHS, NAN, and empty intervals) were combined into a single probability estimate. Record intervals without a specific sedimentary designation, such as "NAN" and "Empty," were treated as minor lithologies but were capped separately before the estimation process.

Based on these probability estimates, the lithological units were coded into the block model according to a defined hierarchy, as shown in Figure 14-2. The estimated probabilities were normalized prior to using them in the final assignment of lithology in the block model. A unit was assigned to a block when its probability exceeded 50%. In cases where no single unit reached a probability above 50%, the sum of probabilities was used as a determining factor. For blocks where the combined probability of gravels and sand exceeded 50%, the unit with the maximum probability among the four (coarse, medium, and fine gravels and sand) was selected. Similarly, if the combined probability of clay, mud, and minor lithologies exceeded 50%, the unit with the highest probability among these three was used to code the block.

Figure 14-2: Hierarchy of Lithological Unit Assignment Based on Probability Estimation

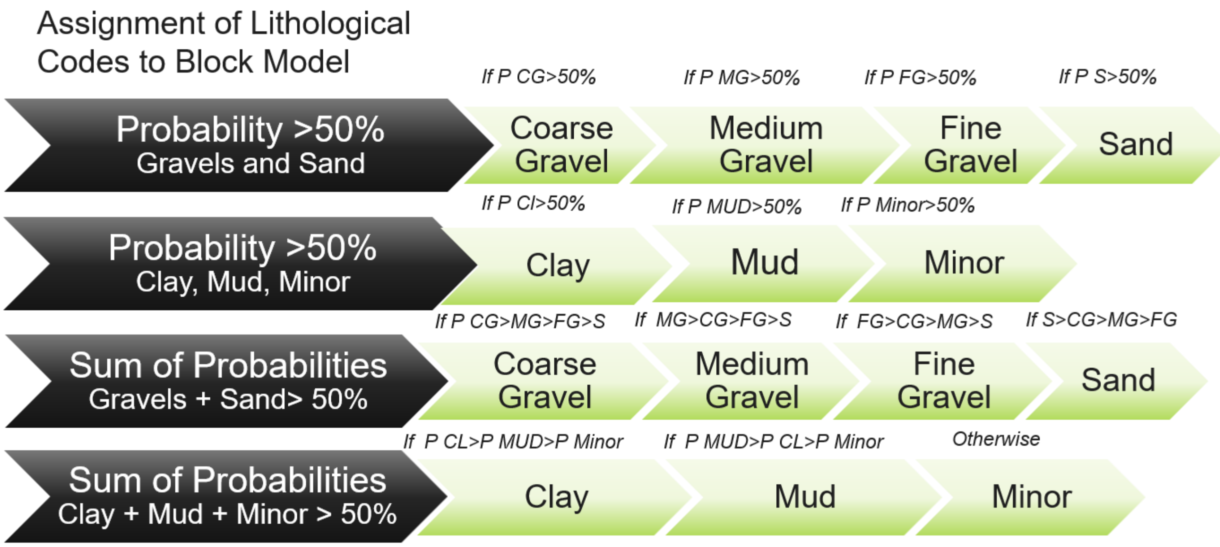
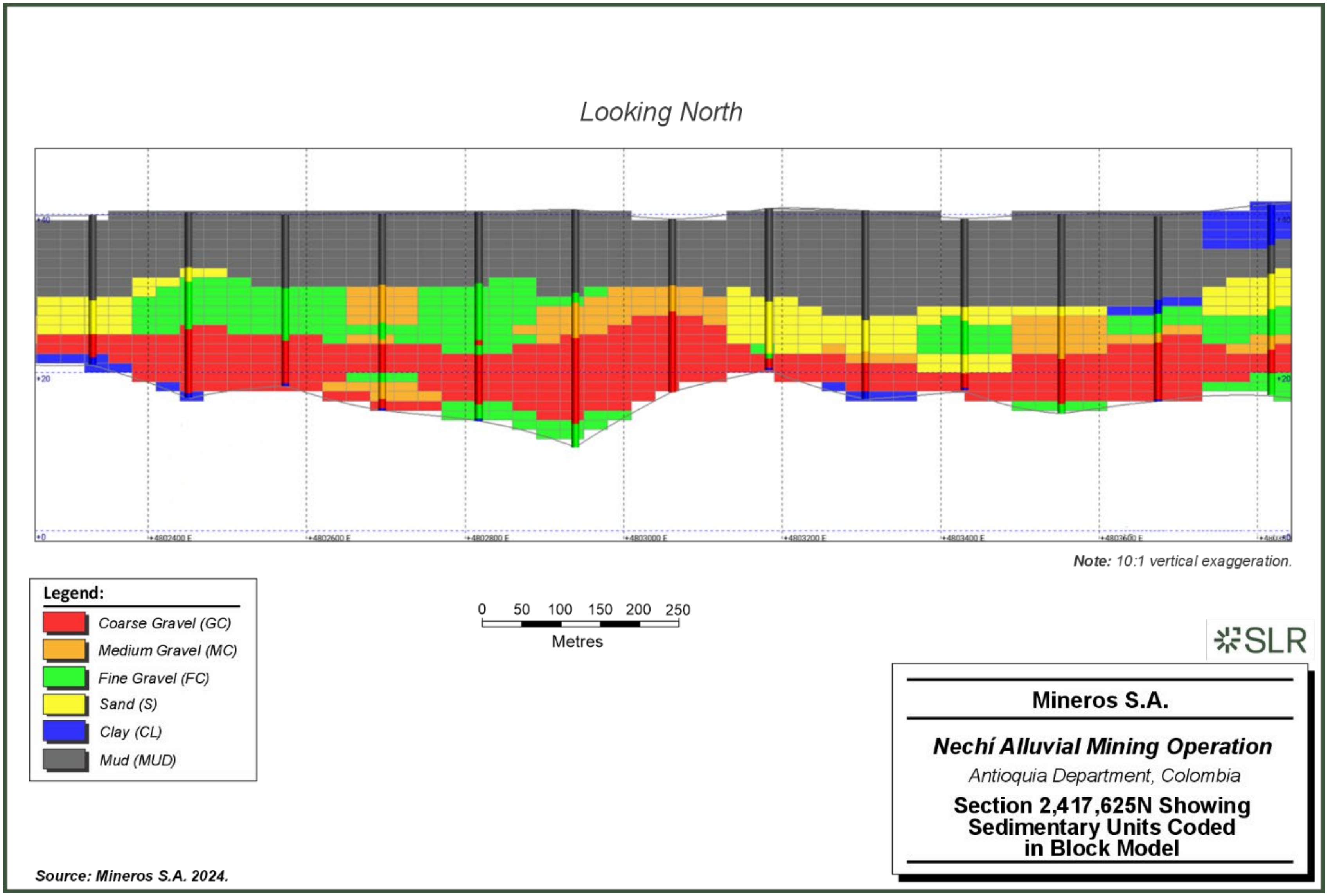


Figure 14-3 shows the coded blocks after lithological assignment, demonstrating that the applied method is appropriate for modelling alluvial type deposits.

Figure 14-3: Section 2,417,625N Showing the Sedimentary Units Coded in Block Model



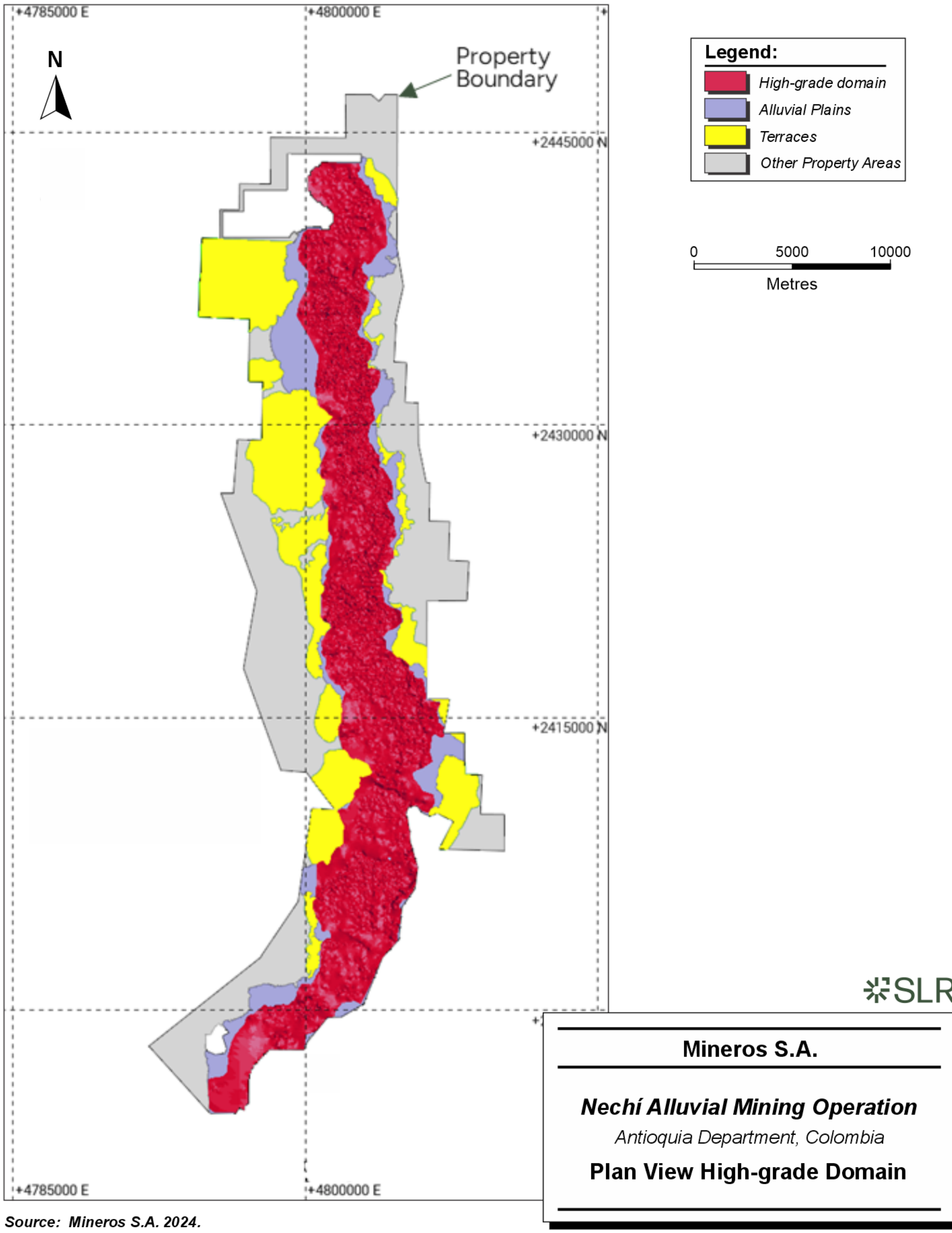
Source: Mineros S.A. 2024.

14.3.1 Grade Domains

To delineate areas of higher gold concentration within a payable zone, a grade-based envelope was generated using the Leapfrog vein tool. This grade domain is based on a 30 mg/m³ Au reference threshold used by Mineros to define payable zones within the dredging areas. The domain encompasses gold-bearing gravels and sands, and to a lesser extent, mineralized clay units. Certain internal barren areas were included to ensure continuity of the model. The mineralization envelope is constrained to the alluvial plains of the Nechí deposit (Figure 14-4).

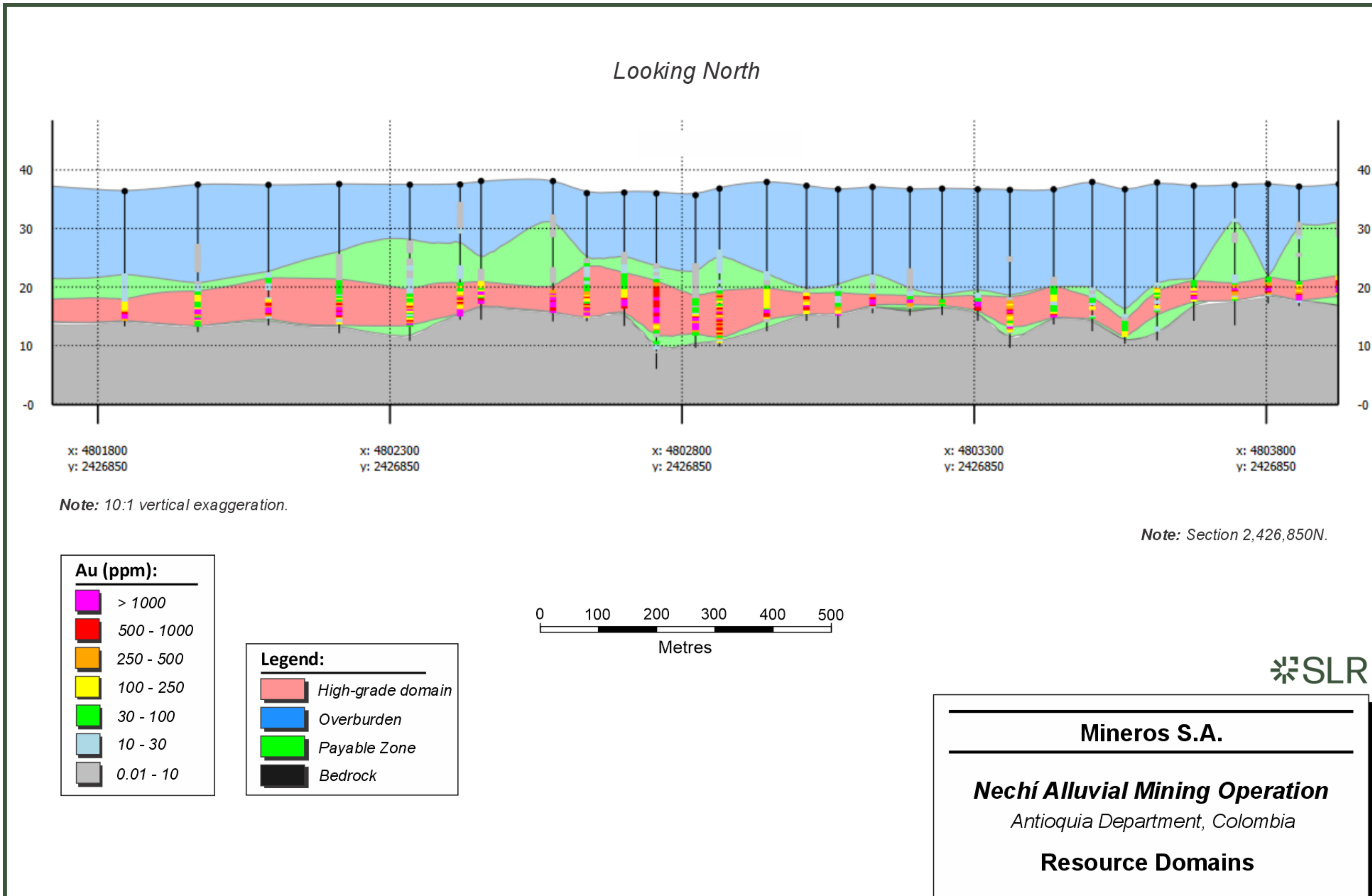
Creating a high-grade domain within the payable zone improved the assignment of appropriate capping and grade restriction values to each lithological unit (Figure 14-5).

Figure 14-4: Plan View High-grade Domain



Source: Mineros S.A. 2024.

Figure 14-5: Resource Domains



Source: Mineros S.A. 2024.

14.4 Resource Assays

The initial step in developing a block model estimate, following the completion of 3D solid models, involves assessing the assay data within these models and determining whether further domaining is required prior to compositing. Typically, raw assay data are extracted from each domain and analyzed using histograms and cumulative probability plots.

Assay values within the three production domains were tagged with domain identifiers and correlated with the sedimentary units within each domain.

The estimation and analysis were conducted on gold grades that were corrected for volume and rise, as described in Section 11.1, and expressed in mg/m^3 Au. A summary of the assay statistics by zone and sedimentary unit is provided in Table 14-2.

Table 14-2: Summary of Uncapped Gold Assay Statistics

Domain	Lithology	Count	Min (mg/m^3)	Max (mg/m^3)	Mean (mg/m^3)	St. Dev. (mg/m^3)	Variance	COV
Min	GC	100,865	0.00	42,458.31	504.02	1,074.36	1,154,245.72	2.13
	GM	48,597	0.00	66,846.96	275.26	694.09	481,759.76	2.52
	GF	35,841	0.00	178,969.30	175.76	1,277.83	1,632,844.01	7.27
	S	19,773	0.00	35,123.00	104.70	403.03	162,430.50	3.85
	CL	2,981	0.00	11,368.94	99.74	369.68	136,664.65	3.71
	MUD	905	0.00	1,906.09	22.00	91.33	8,341.52	4.15
	SH	18	0.00	3,484.91	286.96	684.18	468,097.35	2.38
	COAL	113	0.00	3,444.65	303.94	608.94	370,804.52	2.00
	WHS	91	0.00	7,345.60	260.41	796.62	634,605.58	3.06
	NAN	76	0.00	2,729.41	467.81	514.75	264,971.42	1.10
	EMPTY	61	0.00	9,296.29	424.96	1,211.42	1,467,526.33	2.85
PZ	GC	9,214	0.00	53,076.97	54.58	638.16	407,243.75	11.69
	GM	7,629	0.00	5,520.90	27.66	134.89	18,195.64	4.88
	GF	20,771	0.00	2,598.65	12.41	47.72	2,277.56	3.85
	S	34,313	0.00	6,732.09	7.15	41.76	1,743.59	5.84
	CL	6,210	0.00	1,515.85	1.42	19.87	394.98	13.99
	MUD	1,578	0.00	1,070.29	5.03	40.24	1,619.09	8.00
	SH	78	0.00	954.34	16.43	115.97	13,448.29	7.06
	COAL	82	0.00	352.13	9.21	48.19	2,322.41	5.23
	WHS	175	0.00	27.95	1.73	5.85	34.27	3.38
	NAN	8	0.00	25.34	3.90	6.33	40.13	1.62
	EMPTY	26	0.00	29.61	8.24	9.26	85.66	1.12
OV		84,711	0.00	6,767.84	0.46	15.51	240.58	33.89
BR		31,360	0.00	6,298.39	0.98	37.38	1,397.21	37.99
Note: COV – coefficient of variation								

14.5 Treatment of High-grade Assays

14.5.1 2D Approach

In the estimation of Mineral Resources using the 2D polygonal method, Mineros performed statistical analysis of drill hole grades for each area based on the defined resource polygons. The analysis included histograms, boxplots, normal probability plots, and data disintegration plots. The selection of capping thresholds varied by area and was influenced by the presence of subpopulations of higher grades observed in histograms and probability plots for certain subareas. Mineros selected a capping threshold of 290 mg/m³, which corresponds to the 94.5th percentile of the total grade data as shown in boxplots. This threshold aligned well with most sub-areas and was considered conservative relative to capping levels inferred from other graphical methods.

14.5.2 3D Approach

Extremely high-grade values, often referred to as outliers, can result in an overestimation of grade in the block model. The capping review involved a decile analysis of assay values, in combination with histograms, log probability plots, and disintegration analyses.

Capping thresholds were assigned to each sedimentary unit within the payable zones separately (Table 14-3). Minor sedimentary units were capped conservatively due to the likelihood that high gold values resulted from contamination during sampling. The BR and OV zones were analyzed as single domains due to their composition, primarily of clay and mud sediments, and no capping was applied to the OV zone.

In addition to capping thresholds, a secondary approach to reduce the influence of high-grade composites involved applying search ellipse dimension restrictions (high-yield restriction) during the estimation process. After reviewing the grade distribution in the block model, Mineros opted to limit the influence of higher-grade composites in both the OV and BR zones by implementing spatial restrictions. For the PZ, spatial restrictions were applied during estimation Pass 3. This approach aids in controlling grade smearing resulting in grade distribution that better reflects the lithological discontinuity of the deposit.

Mineros utilized the Leapfrog restrictive search tool, “clamp,” which reduces high-grade values to a threshold once the maximum influence distance is reached, rather than completely excluding the high-grade composite. The maximum influence distance was set to approximately one block size (30 m). For the predominantly barren OV zone, the threshold value was set to 35 mg/m³, while for the BR zone, it was set to 100 mg/m³. The restriction was applied in all three estimation passes. Threshold values in the PZ were determined separately for each sedimentary unit.

Table 14-3: Capping Levels per Sedimentary Unit and Payable Zones

Domain	Lithology	Capping Value (mg/m³)	Number Capped	Mean Uncapped (mg/m³)	Mean Capped (mg/m³)	Percent Metal Loss	Percentile
Min	GC	15,000	65	504.02	543.10	0.90	99.90
	GM	8,000	52	275.26	302.94	1.78	99.89
	GF	6,500	50	175.76	198.58	6.46	99.85
	S	3,500	56	104.70	125.78	5.73	99.72

Domain	Lithology	Capping Value (mg/m^3)	Number Capped	Mean Uncapped (mg/m^3)	Mean Capped (mg/m^3)	Percent Metal Loss	Percentile
	CL	1,800	30	99.74	125.52	11.54	99.00
	MUD	250	15	22.00	16.18	34.33	98.33
	SH	200	6	286.96	137.88	55.73	68.18
	COAL	350	24	303.94	146.21	51.02	79.00
	WHS	200	20	260.41	81.65	71.14	78.00
	NAN	500	32	467.81	327.98	40.68	62.23
	EMPTY	300	18	424.96	172.71	72.59	70.98
PZ	GC	2,000	36	54.58	41.26	22.43	99.77
	GM	850	45	27.66	24.22	17.92	99.37
	GF	800	21	12.41	12.03	5.49	99.88
	S	550	19	7.15	6.85	9.17	98.93
	CL	30	25	1.42	0.99	29.50	99.70
	MUD	30	20	5.03	2.79	39.76	99.04
	SH	30	3	16.43	1.68	88.95	96.34
	COAL	30	3	9.21	2.42	62.73	97.94
	WHS	21	8	1.73	1.53	10.63	95.59
	NAN	-	-	3.90	-	-	-
	EMPTY	-	-	8.24	-	-	-
OV		-	-	-	0.46	-	-
BR		500	500	24	0.98	0.71	29.05

14.6 Compositing

At the Nechí deposit, the majority of sampling is conducted using placer ward drilling, with samples collected at 0.3 m intervals, and occasionally at 0.6 m intervals. Sonic drilling, introduced in 2021, utilizes 0.9 m and 1.2 m sampling intervals. Prior to grade interpolation, assay data within each individual mineralized domain were composited into 1.2 m downhole intervals to maintain consistency with the selected block size of 30 m x 30 m x 1.2 m. Notably, more than 53% of the assays within the PZ have a sample length of 0.3 m, and approximately 70% of the resource assays are 0.3 m or less, as shown in Figure 14-6.

Compositing of assays within each sedimentary unit was performed using the downhole compositing method. This process begins at the first occurrence of the specified lithological unit and resets at each new lithological boundary. Composites less than 0.3 m in length were appended to the previous interval to maintain data continuity. Summaries of the capped composites are provided in Table 14-4 and Table 14-5.

Figure 14-6: Histogram of Resource Assay Lengths (m) in Payable Zone

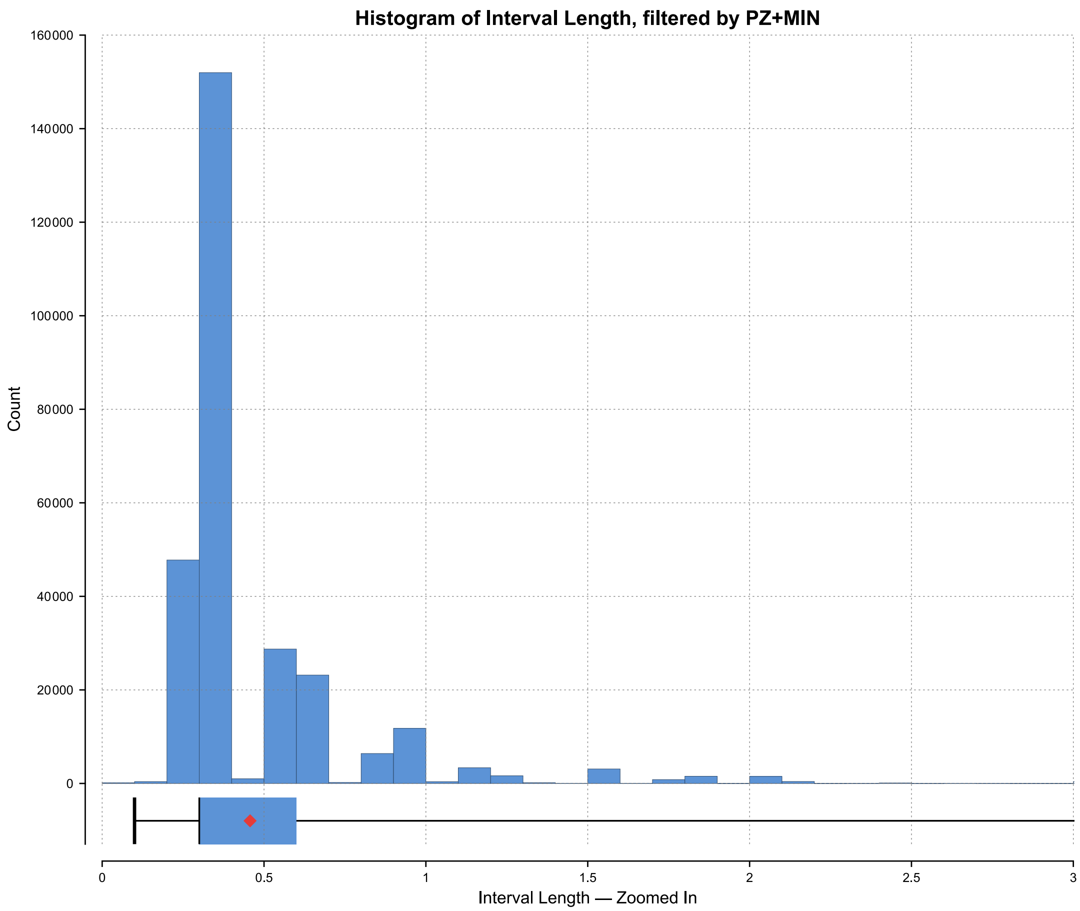


Table 14-4: Summary of Capped Composites Statistics

Domain	Lithology	Count	Min (mg/m³)	Max (mg/m³)	Mean (mg/m³)	St. Dev. (mg/m³)	Variance	COV
Min	GC	34,098	0.00	15,000.00	500.57	798.68	637,882.79	1.60
	GM	20,127	0.00	8,000.00	272.07	487.77	237,916.35	1.79
	GF	16,900	0.00	6,500.00	162.70	372.70	138,905.50	2.29
	S	10,366	0.00	3,500.00	96.27	239.55	57,383.73	2.49
	CL	1,304	0.00	1,800.00	49.46	156.58	24,516.00	3.17
	MUD	572	0.00	250.00	17.02	38.00	1,444.08	2.23
	SH	8	11.47	200.00	87.68	90.57	8,202.56	1.03
	COAL	72	0.00	300.00	122.82	112.60	12,679.50	0.92
	WHS	22	0.00	200.00	61.94	63.54	4,037.92	1.03
	NAN	28	51.41	500.00	292.72	148.89	22,167.22	0.51

Domain	Lithology	Count	Min (mg/m³)	Max (mg/m³)	Mean (mg/m³)	St. Dev. (mg/m³)	Variance	COV
	EMPTY	25	0.00	300.00	115.71	100.21	10,042.88	0.87
PZ	GC	4,765	0.00	2,000.00	55.70	151.26	22,880.29	2.72
	GM	4,567	0.00	850.00	31.52	71.08	5,052.70	2.26
	GF	13,100	0.00	800.00	17.21	41.00	1,680.93	2.38
	S	23,780	0.00	550.00	9.19	21.89	478.99	2.38
	CL	4,013	0.00	30.00	1.18	4.23	17.87	3.59
	MUD	1,370	0.00	30.00	2.88	6.40	41.01	2.23
	SH	35	0.00	30.00	1.95	4.91	24.15	2.52
	COAL	42	0.00	30.00	2.61	6.51	42.42	2.49
	WHS	53	0.00	21.00	3.02	5.43	29.52	1.80
	NAN	9	0.00	25.34	4.03	5.81	33.81	1.44
	EMPTY	12	0.00	252.95	32.52	64.32	4,136.48	1.98
OV		124,075	127,475	0.00	5,102.36	0.48	15.10	227.90
BR		14,595	15,024	0.00	500.00	4.72	23.30	542.71
Note: COV – coefficient of variation								

Table 14-5: Summary of Capped Composites Statistics in Final Estimation Domains

Domain	Lithology	Count	Min (mg/m³)	Max (mg/m³)	Mean (mg/m³)	St. Dev. (mg/m³)	Variance	COV
Min	GC	34,098	0.00	15,000.00	500.57	798.68	637,882.79	1.60
	GM	20,127	0.00	8,000.00	272.07	487.77	237,916.35	1.79
	GF	16,900	0.00	6,500.00	162.70	372.70	138,905.50	2.29
	S	10,366	0.00	3,500.00	96.27	239.55	57,383.73	2.49
	Other	2,031	0.00	1,800.00	53.69	140.23	19,664.10	2.61
PZ	GC	4,765	0.00	2,000.00	55.70	151.26	22,880.29	2.72
	GM	4,567	0.00	850.00	31.52	71.08	5,052.70	2.26
	GF	13,100	0.00	800.00	17.21	41.00	1,680.93	2.38
	S	23,780	0.00	550.00	9.19	21.89	478.99	2.38
	Other	5,534	0.00	252.95	1.70	5.81	33.74	3.41
OV		127,475	0.00	5,102.36	0.48	15.10	227.90	31.43
BR		15,024	0.00	500.00	4.72	23.30	542.71	4.94
Note: COV – coefficient of variation								

14.7 Search Strategy and Grade Estimation

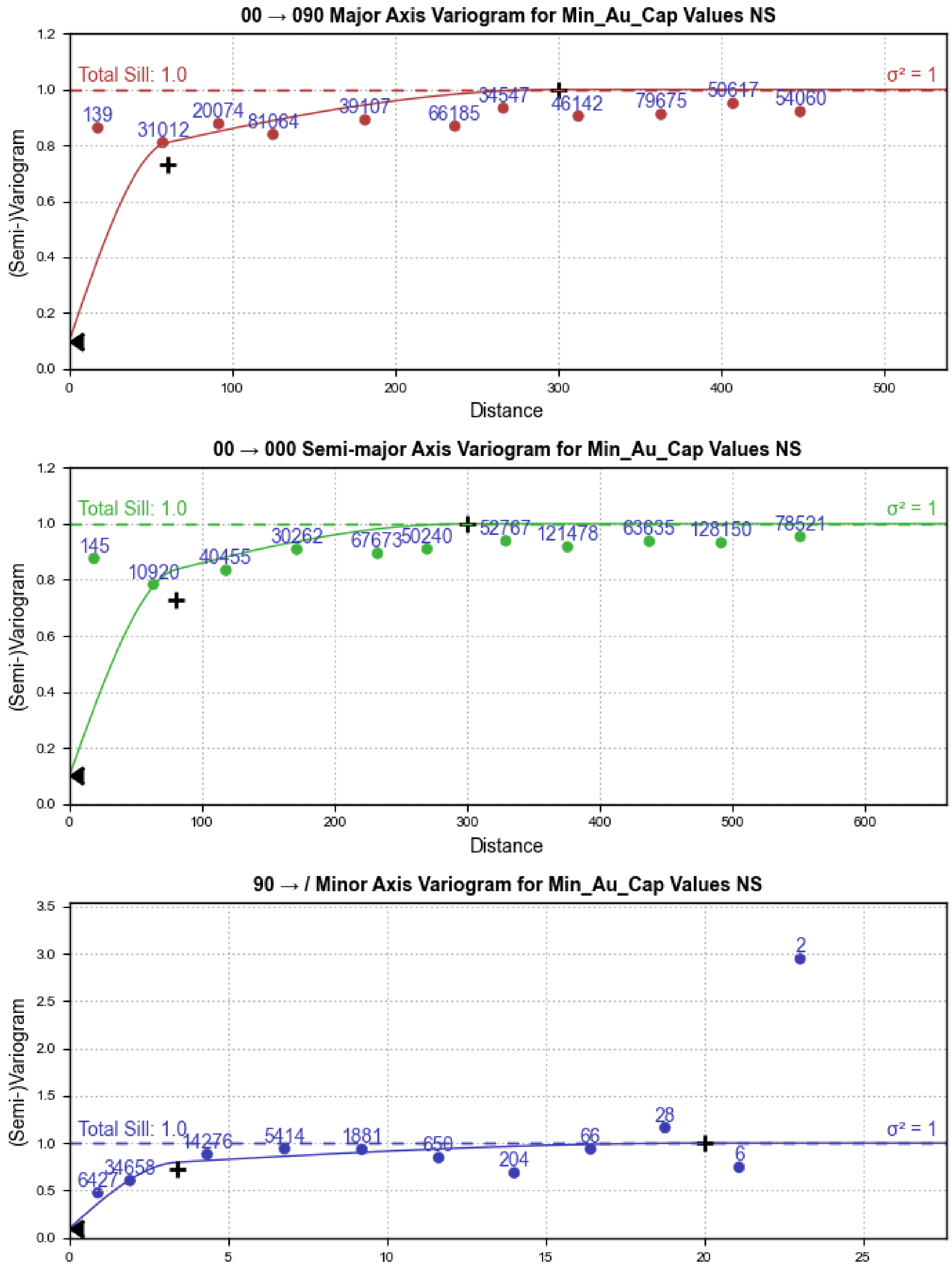
Leapfrog Edge (2023.2.3) module was employed to generate variograms for the gravels and sand composites within OV, PZ, and BR separately. Figure 14-7 illustrates the variogram model for coarse gravel composites located within the high-grade domain. The downhole variogram was well developed and indicates a nugget effect of 10%.

Mineros used a three-pass approach to estimate block grades, with no drill hole intercepts outside of the defined resource domains used for grade interpolation. Grades were interpolated using inverse distance cubed (ID3), ordinary kriging (OK), and nearest neighbor (NN) estimation methods for comparison. Following a thorough review of block grades on both sectional and level plans, Mineros selected the ID3 interpolation method for reporting of Mineral Resources, while OK interpolation, based on variogram models, as well as NN interpolation were used for comparison purposes.

The first and second pass searches were conducted using a minimum of two and a maximum of 10 composites per block estimate, with a limit of two composites per drill hole. The third pass search allowed a minimum of one and a maximum of 10 composites, without limitations on the number of composites per drill hole. The first pass search range corresponded to 90% of the variogram sill range, the second pass to the full variogram range, and the third pass populated blocks in sparsely drilled areas.

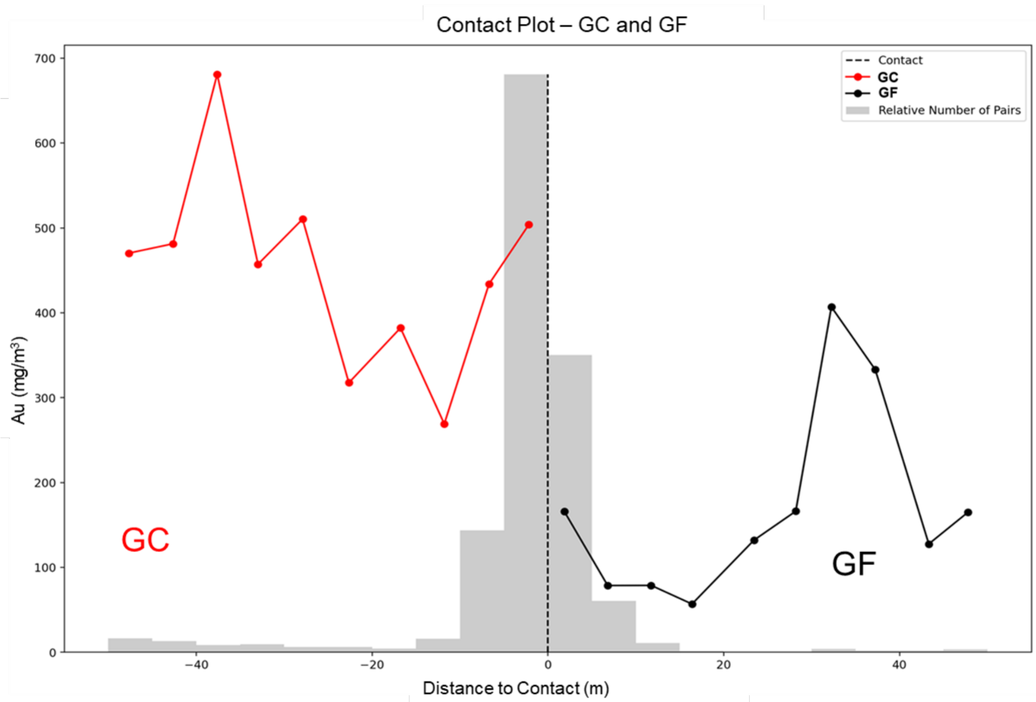
Mineros applied a Variable Orientation tool in Leapfrog, which allows the search ellipsoid orientation to be locally adjusted to the mineralization trends, improving local grade estimates. The hanging wall and footwall of each domain were used to guide the search direction.

Figure 14-7: Variogram Models for Coarse Gravel in High-grade Domain



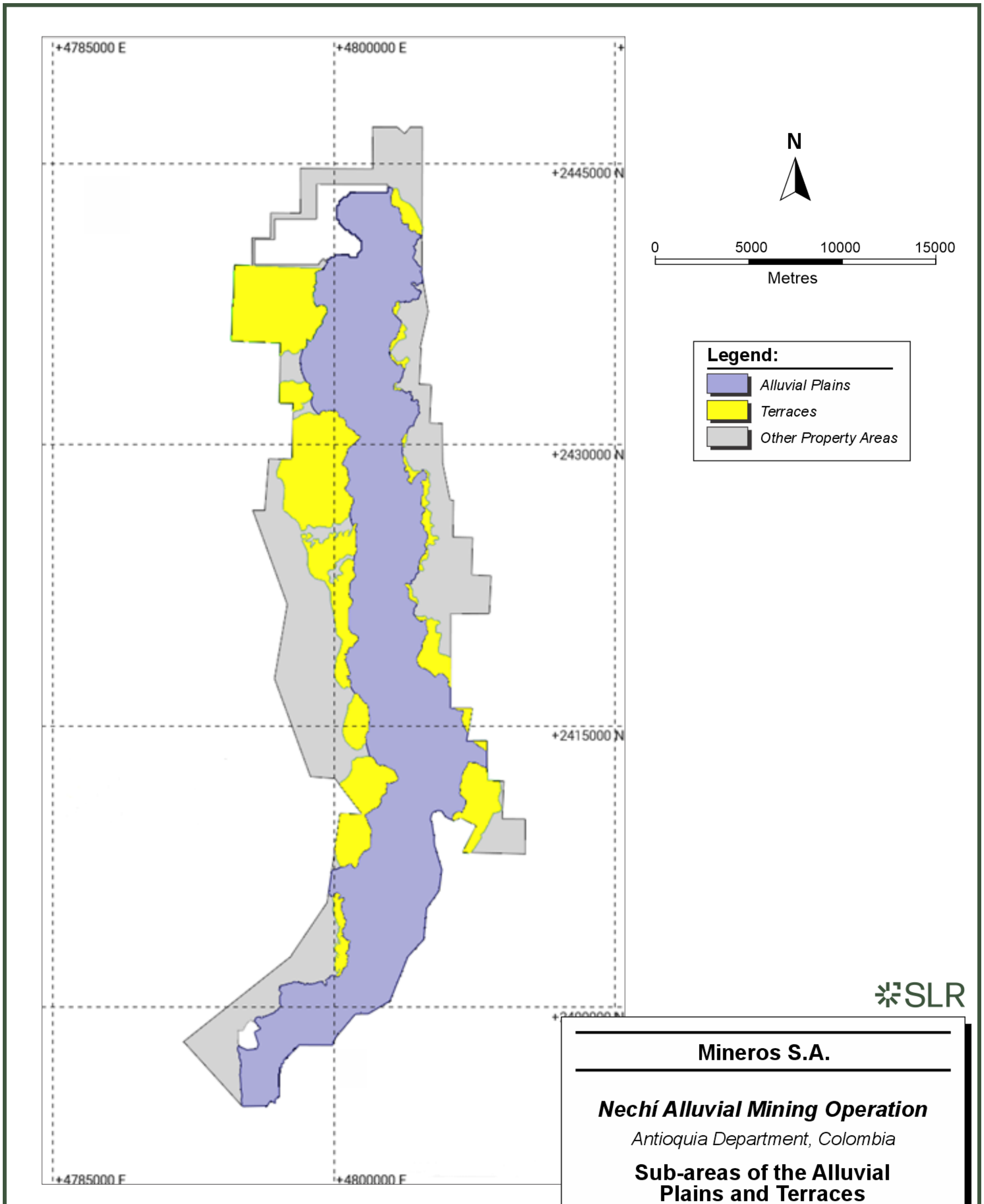
Gold grades were interpolated for the gold-bearing gravels and sand, while other sedimentary units were grouped into a single estimation unit. The interpolation process was constrained by payable zone wireframes, which were treated as hard boundaries. The QP conducted boundary analysis using contact plots between coarse gravel (GC), medium gravel (GM), fine gravel (GF), and sand (S) within each payable zone (Figure 14-8). Based on these plots, the QP elected to use hard boundaries between all of the sedimentary units.

Figure 14-8: Contact Plot between Coarse and Fine Gravels in High-grade Zone



Given the varying mining methods depending on the dredging equipment used in alluvial plains and terraces, the OV and PZ were subdivided into three areas: alluvial plains, terraces, and areas outside both plains and terraces (Figure 14-9). Interpolation parameters are listed in Table 14-6.

Figure 14-9: Sub-areas of the Alluvial Plains and Terraces



Source: Mineros S.A. 2024.

Table 14-6: Interpolation Parameters

Zone	Parameter	Pass 1	Pass 2	Pass 3
MIN	Search Range (m) – X/Y/Z	150/150/5	300/300/5	450/450/10
	Min Number Composites	2	2	1
	Max Number Composites	10	10	10
	Max per Hole	2	2	-
	Orientation of the search	Variable	Variable	Variable
	High-grade Restriction (m)	-	-	-
PZ	Search Range (m) – X/Y/Z	150/150/5	300/300/5	450/450/10
	Min Number Composites	2	2	1
	Max Number Composites	10	10	10
	Max per Hole	2	2	-
	Orientation of the search	Variable	Variable	Variable
	High-grade Restriction (m) -X/Y/Z	-	-	180/180/4
	High-grade Threshold (mg/m^3)			
	GC	-	-	550
	GM	-	-	300
	GF	-	-	200
	S	-	-	150
OV	Search Range (m) – X/Y/Z	150/150/5	300/300/5	450/450/10
	Min Number Composites	2	2	1
	Max Number Composites	10	10	10
	Max per Hole	2	-	-
	Orientation of the search	0/0/0	0/0/0	0/0/0
	High-grade Restriction (m)	37/37/1	30/30/1	31/31/1
	High-grade Threshold (mg/m^3)	35	35	35
BR	Search Range (m) – X/Y/Z	100/100/5	150/150/5	150/150/5
	Min Number Composites	2	2	1
	Max Number Composites	10	10	10
	Max per Hole	2	-	-
	Orientation of the search	Variable	Variable	Variable
	High-grade Restriction (m)	37/37/1	30/30/1	31/31/1
	High-grade Threshold (mg/m^3)	35	35	35

The final grades in the block model are weighted using the normalized probability of each sedimentary unit within the block and the corresponding grade of that unit. Each block contains probabilities assigned to gravels, sand, and other lithologies. The grade for a given block is calculated by multiplying the probability of each lithology by the grade associated with that lithology, and then summing the contributions from all lithologies present in the block.

$$\text{Final Grade} = (\sum \text{Prob}_i * \text{Au}_{i)}/(\sum \text{Prob}_i)$$

14.8 Bulk Density

Due to the mining method employed and the nature of the mineralization, the alluvial Mineral Resources and Mineral Reserves at the Nechí deposit are reported in cubic meters (m^3) for the volume of mineralized and overlying barren material, milligrams per cubic meter (mg/m^3) for gold grade, and troy ounces for contained gold. To convert cubic metres to metric tonnes, a density factor of 2.0 t/m^3 is used for the Nechí Alluvial Property.

14.9 Block Models

A single sub-block model was constructed using Leapfrog Edge to estimate the Mineral Resources of the Nechí deposit. Sub-cells were triggered in the Z direction based on topography, overburden, mineralization, and bedrock domains. The parent cell size was 30 m x 30 m x 1.2 m, with a minimum cell size of 0.3 m in the Z direction. The block model is not rotated and fully encloses the modelled wireframes. The extents and dimensions of the block model are detailed in Table 14-7.

Table 14-7: Block Model Definition

Description	Easting	Northing	Elevation
Origin[1] (m)	4,791,850	2,394,050	-10
Parent Block Size (m)	30	30	1.2
Minimum Sub-Block Size (m)	30	30	0.3
Number of Parent Blocks	620	1,772	50
Boundary Size (m)	18,600	53,160	60

Note:
1. UTM Zone 18N

14.10 Cut-off Grade and Optimization Parameters

The metal prices assumptions for Mineral Reserves are based on a consensus study completed in July 2024, which incorporated long-term forecasts from banks, financial institutions, and other reputable sources. For the Mineral Resources, slightly higher metal price assumptions were applied compared to those used for reserves.

Mineral Resources were evaluated based on their positive net economic value within mineralized blocks, rather than a specific cut-off grade, ensuring their ability to cover mining, processing, and general costs. The evaluation was carried out using the resource block model including material from all three categories: Measured, Indicated, and Inferred. The pit optimization was limited to blocks located within the boundaries of the alluvial plains and the mining concession area. It excluded a 100 m buffer zone surrounding the Nechí river as well as areas with environmental restrictions.

Block values were calculated using Deswik software incorporating modifying factors such as mining, processing, selling costs, metallurgical recoveries, and gold prices assumptions. These inputs were applied to generate the optimized pit shells at various revenue factors.

Mined-out blocks were assigned zero recovery to ensure their exclusion from revenue calculations. Table 14-8 summarizes the optimization parameters used, considering the operating costs of bucket line dredge and the Llanuras dredging units. The Mineral Resources assumed a gold selling price of $1,900 per ounce and a selling cost of $99.24 per ounce.

Table 14-8: Alluvial Mining Optimization Parameters

Parameter	Units	Bucket Line & Llanuras
Gold Price	US$/oz Au	1,900
Exchange Rate	COP/US$	4,000:1
Treatment Cost	US$/oz	16.10
Selling Cost	US$/oz	99.24
Process Recovery	%	81
Waste Mining Cost	US$/m^3	0.65
Ore Mining Cost	US$/m^3	1.37
G&A Cost	US$/m^3	0.68

The alluvial mining optimization established depth limits of 15 m for Brazilian suction dredges and 30 m for bucket line dredges and the Llanuras production unit, without accounting for dilution or ore losses. The Pseudoflow algorithm was used to define optimal extraction boundaries by evaluating net block value, initially assuming a 90° slope angle.

A preliminary extraction shell with a revenue factor (RF) of 1.0 and was further refined to exclude non-productive areas smaller than 350,000 m^3. In the final step, areas classified as Mineral Reserves were excluded to generate the ultimate Mineral Resource extraction model.

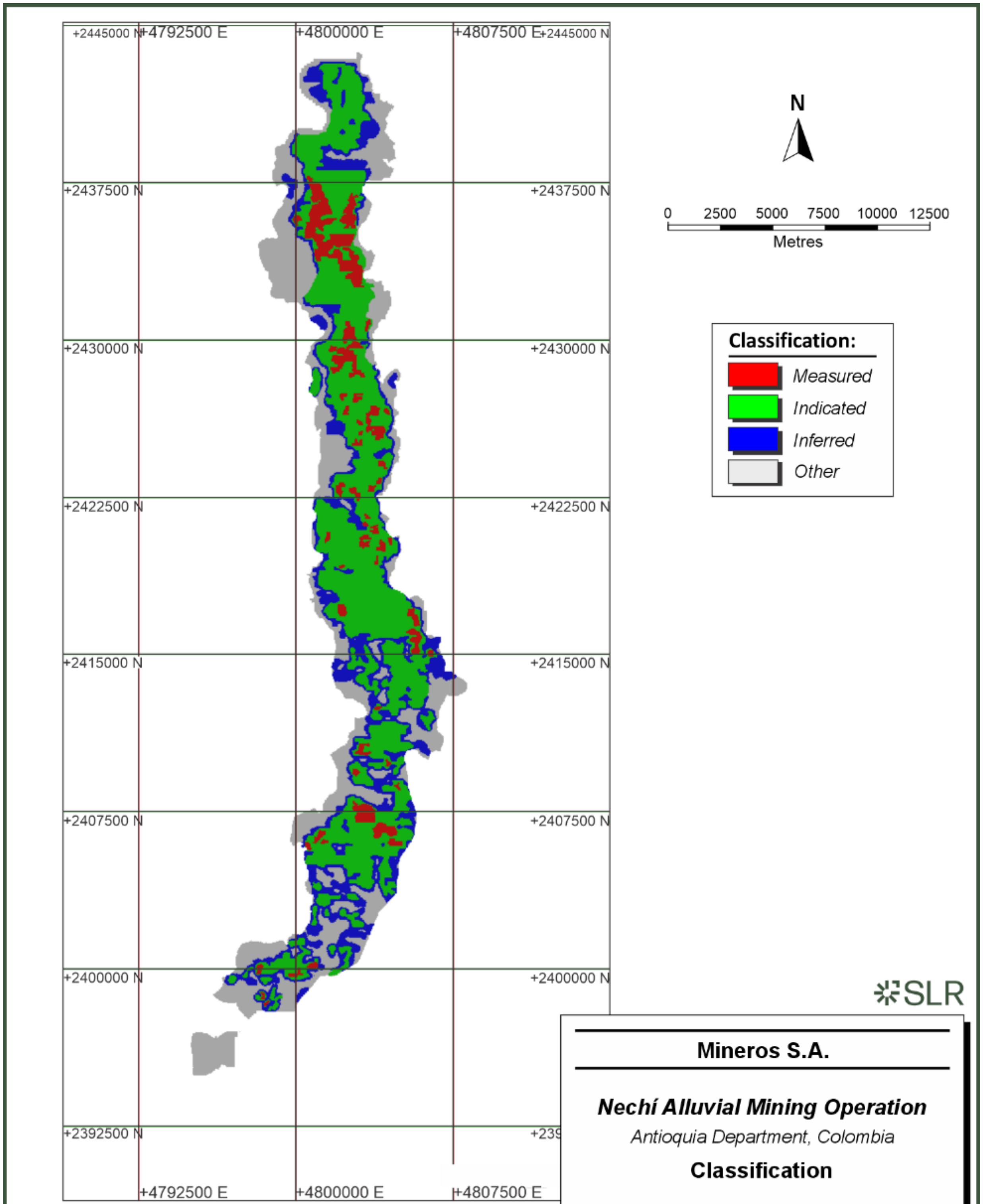
14.11 Classification

Definitions for resource categories used in this Technical Report are consistent with those defined by CIM (2014) and adopted by NI 43-101. In the CIM classification, a Mineral Resource is defined as "a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction". Mineral Resources are classified into Measured, Indicated, and Inferred categories. A Mineral Reserve is defined as the "economically mineable part of a Measured and/or Indicated Mineral Resource" demonstrated by studies at Pre-Feasibility or Feasibility level as appropriate. Mineral Reserves are classified into Proven and Probable categories.

Previously, the classification of the Mineral Resources was carried out based on polygonal outlines created for discrete areas of drill holes with grades exceeding the breakeven cut-off grade and for the type of mining under consideration (alluvial plain, terrace, dredge type, old tailings) and drilling spacing of approximately 122 m. In 2021, all the resource polygons were classified as Measured.

Current classification of the Mineral Resources at the Nechí deposit follows a two-step process. Initially, classification is based on drill hole spacing, data confidence, and the observed continuity of mineralization. The resource classification is constrained to the extents of the alluvial plains. Mineral Resources within these constraints and with approximately 60 m drill hole spacing were classified as Measured. Areas with drill hole spacing of up to 120 m were classified as Indicated, while blocks with drill spacing of less than 240 m were classified as Inferred Mineral Resources. In the second step, the classification is vertically extended to include overburden to account for dilution in the reported resources. Upon the review of the initial classification, a smoothing operation was performed on the classified blocks to address instances where Measured or Indicated blocks were surrounded by lower confidence Inferred blocks (Figure 14-10).

Figure 14-10: Classification



Source: Mineros S.A. 2024.

The purpose of the smoothing was to ensure that the resource classification better reflects the geological continuity and the supporting drill hole data in accordance with CIM (2014) guidelines.

14.12 Block Model Validation

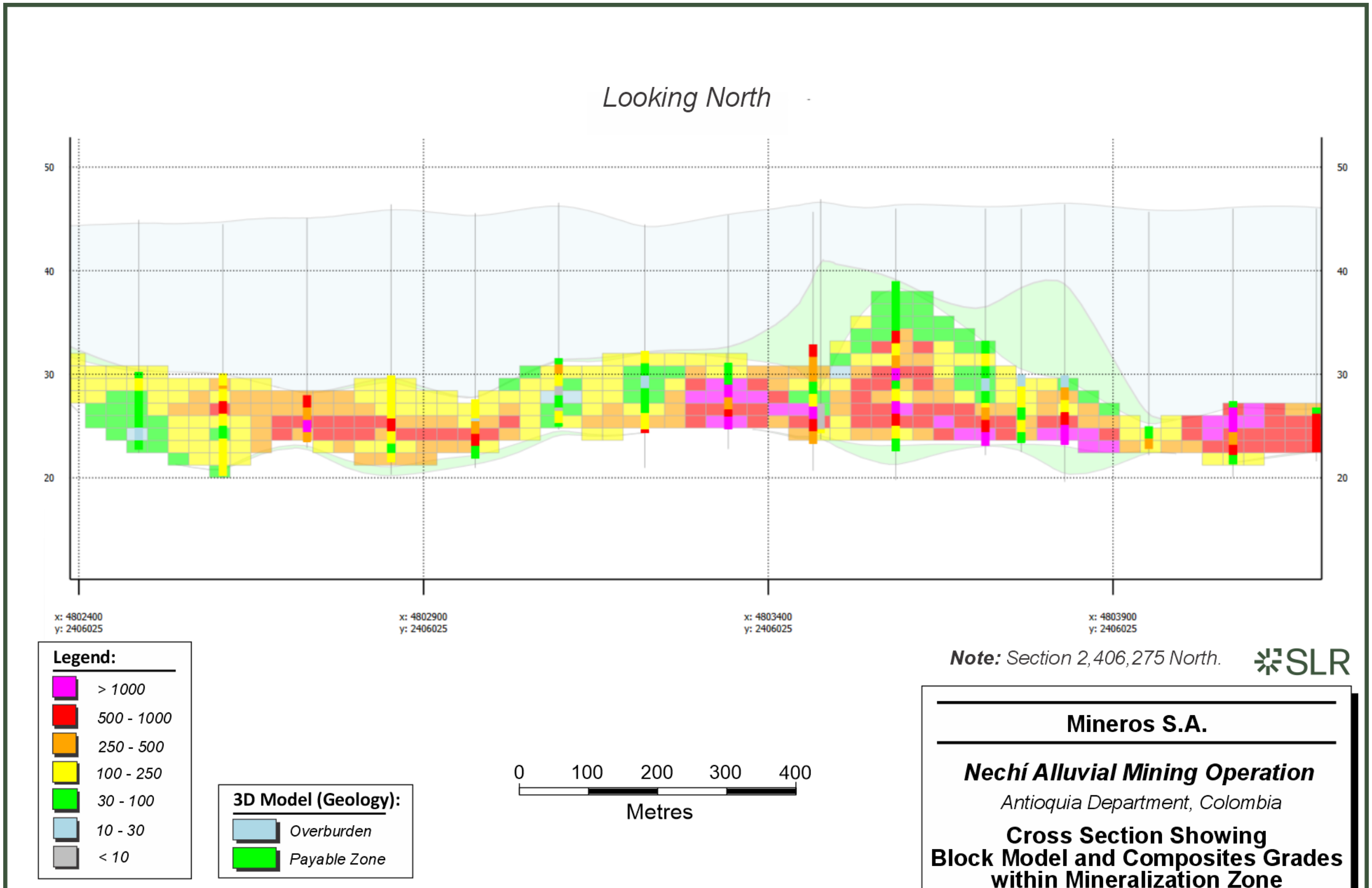
Validation of the block grade estimates was conducted using the following processes:

- Visual comparison of block grades versus the informing 1.2 m composites on sections and level plans.
- Global and local mean grade comparison between the primary ID3 grade estimates, NN, and the informing 1.2 m composite grades.
- Swath plots analysis along the three axes comparing grades estimated using ID3 method and NN method.
- Reconciliation comparison between the 2D and 3D approaches.
- Reconciliation comparison between the 3D approach and production.

Visual validation was performed by comparing the estimated block grades against composite grades from drill holes on a section-by-section and level plan basis. Cross-sections and level plans were reviewed to assess the spatial distribution of block grades in relation to the informing drill hole composites (Figure 14-11). This comparison confirmed that block grades were consistent with the composite data, particularly in areas of dense drilling, where grades showed continuity with the underlying geology.

A thorough visual section-by-section comparison was completed between informing data and block estimates.

Figure 14-11: Cross Section Showing Block Model and Composites Grades within Mineralization Zone



Source: Mineros S.A. 2024.

A global comparison of the mean grades between the block model and the composite data was undertaken (Table 14-9).

The overall mean grades for the ID3 method were slightly lower than those obtained by NN, which is consistent with the expected effect of the inverse distance method and use of the restrictive search during the interpolation. Both estimation methods show means of grades lower than composites due to the weighting described above.

Table 14-9: Comparison of Composite Mean Grade Versus Final Probability Weighted Block Grades

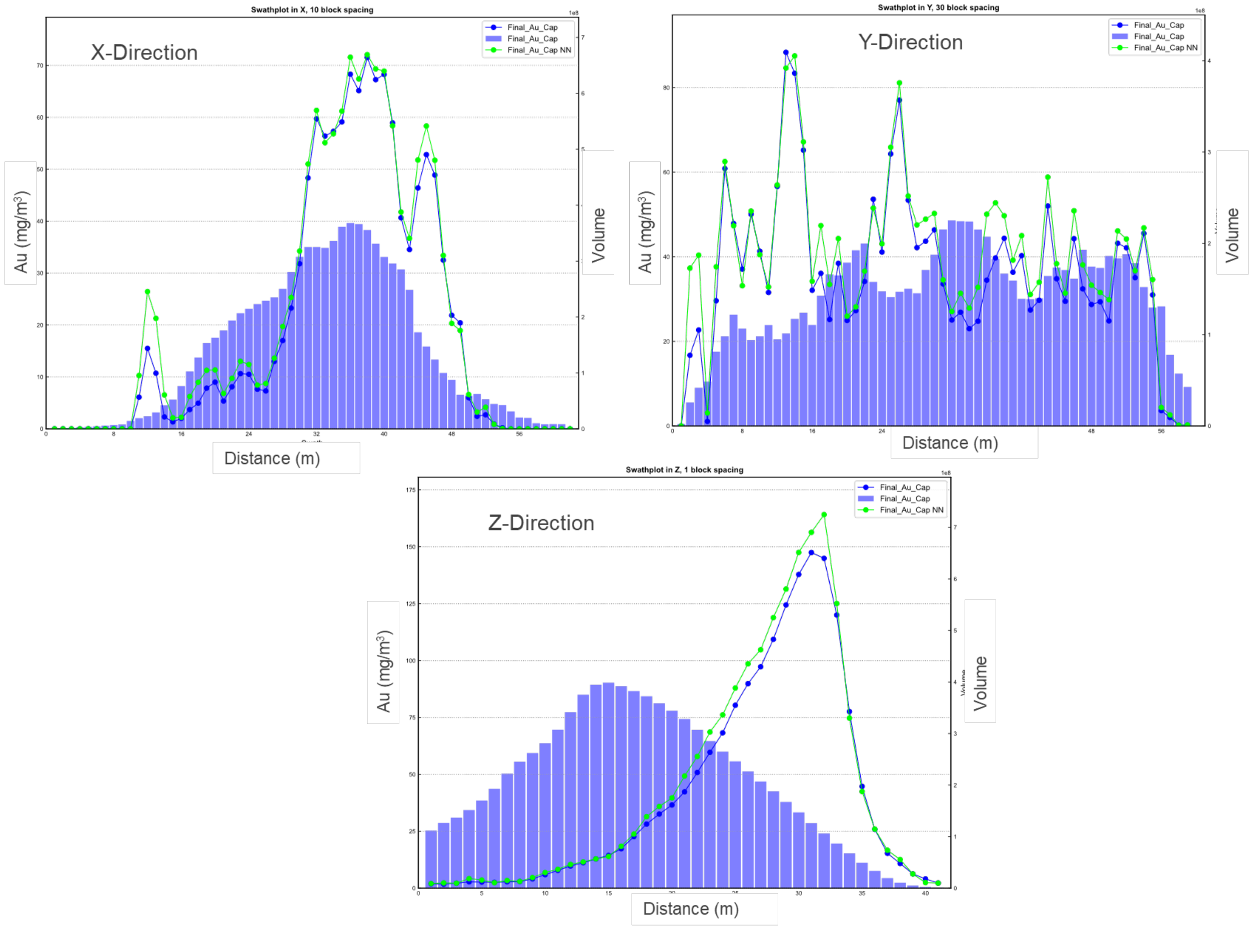
Domain	Composite Mean (mg/m³)	ID3 Mean (mg/m³)	NN Mean (mg/m³)
Mineralization	326.12	258.54	273.88
PZ	16.44	11.11	20.52
BR[1]	4.72	0.98	1.34
OV[1]	0.48	0.13	0.13

Notes:
1. Interpolation using distance restriction to one block (30 m x 30 m)

Swath plots were generated along the three principal axes (northing, easting, and elevation) to evaluate the grade distribution of the block model versus the composite data (Figure 14-12). The swath plots showed that the ID3 estimates were in close agreement with the NN method, particularly in areas with dense drilling. The comparison indicated no significant bias in the grade estimates and that the block model reasonably reflects the distribution of the informing composites.

The validation process confirmed that the block model accurately reflects the grade distribution. A comprehensive validation, including visual inspection, statistical analysis, and swath plot comparisons, demonstrated the robustness of the model.

Figure 14-12: Swath Plots in X, Y, Z Directions



The reconciliation process compared estimates derived using the 2D polygonal method against the 3D block model estimates within reserve polygons, as well as production data based on produced gold ounces. The results confirm the reliability and robustness of the 3D block model in accurately predicting production ounces.

The comparison shows that total ounces estimated using the 2D polygonal method align closely with the 3D block model, with a variance of less than 2%. This close alignment highlights the consistency and precision of the probabilistic approach used in the 3D block model.

Contained ounces from production data were reconciled against the 3D estimates, showing strong agreement with a total variance of approximately +1%. Production quarters from 2018 to 2023 exhibit consistent alignment with the 3D model ounces, with most quarters reporting differences within ±5%. Occasional discrepancies were observed, primarily due to production blocks incorporating output from multiple areas.

The 3D block model provides a reliable and accurate framework for both resource estimation and operational reconciliation. The observed differences are well within acceptable industry standards, further validating the methodology applied for Mineral Resource estimation and production planning.

14.13 Mineral Resource Reporting

The Mineral Resource estimate, effective December 31, 2024, is summarized in Table 14-10. Mineros' alluvial Measured and Indicated Mineral Resources total 527 Mm^3 averaging 56 mg/m^3 and contain 1,005 koz Au. Additionally, the Inferred Mineral Resources total 223 Mm^3 averaging 62 mg/m^3 and contain 447 koz Au.

Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves dated May 10, 2014 (CIM (2014) definitions) were used for Mineral Resource classification.

Table 14-10: Summary of Mineral Resources – December 31, 2024

Category	Volume (Mm^3)	Gold Grade (mg/m^3 Au)	Contained Gold (koz Au)
Measured	79	55	140
Indicated	448	56	865
Total Measured and Indicated	**527**	**56**	**1,005**
Inferred	223	62	447

Notes:
1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are reported within an ultimate pit shell generated at Revenue Factor of 1.0 using an average, long-term gold price of US$1,900/oz Au and an exchange rate of COP4,000.00:US$1.00, and include low-grade blocks situated within the pit.
3. Gold grade is diluted to total volume which includes both mineralization and overburden.
4. The fineness of gold in the doré is 89%. The gold grade and the contained gold are adjusted for fineness.
5. Average thickness of the resource pay gravel is 30 m. Average thickness of overburden is 15 m.
6. Mineral Resources are depleted by mined out areas updated as of December 31, 2024.
7. Mineral Resources are exclusive of Mineral Reserves.
8. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
9. Numbers may not add due to rounding.

The QP is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

14.14 Comparison with Previous Mineral Resource

The current Mineral Resource estimate supersedes the Mineral Resource estimate effective June 30, 2021. The current Mineral Resource estimate incorporates additional drilling completed since 2021 to November 25, 2024, and represents the transition from the 2D polygonal methodology to a 3D block model as well as a change in classification criteria. Previously, most of the resources were reported as Measured as they were contained in a Measured polygon defined and estimated using a 122 m drill spacing.

The June 30, 2021 Mineral Resources were estimated at a gold cut-off grade of 39 mg/m^3 for suction dredges, 43 mg/m^3 for Brazilian dredge alluvials, and 85 mg/m^3 gold for terrace alluvials based on a gold price of US$1,700/oz Au and an exchange rate of COP3,500.00:US$1.00.

The updated resource model is reported within an ultimate optimized pit shell generated at a Revenue Factor of 1.0 using an average, long-term gold price of US$1,900/oz and an exchange rate of COP4,000.00:US$1.00, and include low-grade blocks situated within the pit.

Table 14-11 shows a comparison between the previous and current Mineral Resource estimates. The main reasons for the decrease in Mineral Resources from 2021 to 2024 are:

1. Conversion of some resources to reserves.
2. Update to resource classification criteria.
3. Addition of Inferred Mineral Resources in 2024.
4. Production depletion.
5. Change in resource estimation methodology from a 2D polygonal approach to a 3D block model approach.

Table 14-11: Comparison between Previous and Current Mineral Resource Estimate

Category	Volume (Mm^3)	Fine Gold Grade (mg/m^3)	Contained Fine Gold (koz Au)
2021 Model[1]			
Measured + Indicated	528	71	1,211
2024 Model prepared by SLR			
Measured + Indicated	527	56	1,005
Inferred	223	56	447
Difference			
Measured + Indicated	-0.2%	-21.1%	-17.0%

Note:

1. See “Technical Report on the Nechí Alluvial Gold Mineral Resource and Mineral Reserve Estimates, Antioquia Department, Colombia”, dated effective September 15, 2021, as amended on October 29, 2021, filed by Mineros on SEDAR+..

15.0 Mineral Reserve Estimates

15.1 Summary

The Mineral Reserve estimate presented in this Technical Report is based on the Measured and Indicated Resources presented in Section 14. Inferred Resources are excluded from the Mineral Reserve estimate. The reserves assume alluvial mining methods covered in Section 16.

Proven and Probable Mineral Reserves were estimated by identifying the economically mineable portion of the Measured and Indicated Resources. Instead of applying a specific cut-off grade, Mineral Reserves were defined as resource material within the mineralized zone that demonstrates a positive net value after deducting associated mining costs. Material qualifies as Mineral Reserves only if its estimated value is sufficient to cover all associated mining costs.

The effective date for the Mineral Reserve estimate at the Nechí Alluvial Property is December 31, 2024. These reserves were estimated within the designed pits described in Section 16, extending below the topographic surface as of December 31, 2024.

Given the mining methods and the nature of the deposit, the alluvial Mineral Reserves at Nechí are reported in the following units:

- Cubic metres (m^3): For the volume of mineralized and overlying barren material.
- Milligrams per cubic metre (mg/m^3): For gold grade.
- Troy ounces: For contained gold.
- For reserve estimation purposes, alluvial gold at Nechí is considered to be 89% fine.

The Mineral Reserve estimate is detailed in Table 15-1 and is based on the updated 2024 resource block model, as described in Section 14.

Table 15-1: Summary of Mineral Reserves – December 31, 2024

Category	Volume (Mm^3)	Gold Grade (mg/m^3)	Contained Gold (koz Au)
Proven			
Bucket Line Dredges	74	72	171
Llanuras Production Unit	9	51	15
Brazilian Dredges	3	81	8
Total Proven	**86**	**71**	**195**
Probable			
Bucket Line Dredges	335	84	901
Llanuras Production Unit	30	55	53
Brazilian Dredges	73	87	206
Total Probable	**438**	**82**	**1,159**
Total Proven and Probable	**524**	**81**	**1,355**

Notes:

1. CIM (2014) definitions were followed for Mineral Reserves.

2. Mineral Reserves are estimated using an average long-term gold price of US$1,750 per ounce.
3. An exchange rate of COP4,000.00 = US$1.00 was used.
4. The total volume includes both the diluted mineralized material and overburden material.
5. Gold grade is diluted to total volume which includes both mineralization and overburden.
6. The fineness of gold in the doré is 89%. The gold grade and the contained gold are adjusted for fineness.
7. Average metallurgical process recovery varies by equipment type, from 83% for the bucket line dredge, currently 58% for the Llanuras (suction dredge), and an average of 61% for the different Brazilian dredges.
8. Recovery rates are based on the reconciliation factor or the percent of gold recovered versus the estimated amount of gold.
9. Mining dilution of 10% at zero grade is applied to the in-situ volume, affecting both the mineralization and the overburden.
10. Mining extraction is 100%.
11. Mined out blocks were assigned a zero recovery to eliminate their potential for revenue generation. Mined out areas were updated as of December 31, 2024.
12. Mineral Reserves are estimated to the maximum alluvial mining depth of 12 m for suction dredge and 30 m for bucket line dredge.
13. A minimum mining width of 90 m was used.
14. Overall pit slopes are 37°.
15. Mineral Reserves are reported on a 100% ownership basis.
16. Numbers may not add due to rounding.

Discounted cash flow has been generated using the life of mine (LOM) plan to confirm the economic viability of the stated Mineral Reserves. Development of the LOM plan includes pit optimization, pit design, mine scheduling, and the application of modifying factors to the Measured and Indicated Mineral Resources.

The QP is not aware of any mining, metallurgical, infrastructure, permitting, or other relevant factors that could materially affect the Mineral Reserve estimate.

15.2 Dilution

The mine plan for the Nechí Alluvial Property accounts for dilution by considering the total volume to be dredged during mining operations. This includes the effects of tailings mixing, slope collapses, and other factors inherent to the dredging process in water-saturated conditions. These conditions are unique to alluvial mining, where the material being excavated is predominantly unconsolidated and submerged in water, which can lead to additional volume displacement and mixing.

To address dilution, both in-situ mineralization and overburden material volumes reported within the ultimate pit design are increased by 10%. This adjustment is based on reconciliation data from past operations, comparing planned (in-situ) volumes to actual (diluted) dredged volumes. The increase reflects the additional material unintentionally introduced during the mining process, such as:

- Material from the sloughing of pit walls.
- Tailings or previously processed material mixed back into the dredging system.
- Overburden layers included during excavation due to operational challenges in submerged conditions.

For the purposes of Mineral Reserve estimation, the dilution factor is applied at zero grade. This means that the additional volume resulting from dilution is assumed to have no economic gold content. Simultaneously, the in situ gold grades are adjusted to reflect the expected impact of mining dilution, ensuring that reserve estimates align with actual recovered grades.

This approach acknowledges the complexities of mining in a water-saturated, unconsolidated alluvial deposit, where fine sediment transport, water flow dynamics, and equipment limitations contribute to unavoidable mixing and dilution. The 10% dilution factor provides a reasonable approximation based on historical reconciliation and operational experience at the Nechí Property.

15.3 Extraction

A 100% mine extraction factor was applied to convert the Measured and Indicated Mineral Resource blocks within the ultimate pit design into Proven and Probable Mineral Reserves, respectively. This factor assumes that all mineralized material within the defined pit boundaries will be extracted during mining operations.

While direct losses of mineralization during the mining process are not explicitly accounted for in the extraction factor, such losses are reflected in the overall gold recovery percentage used in the production plan. This ensures that the reserve estimates realistically align with expected operational performance.

A mine call factor (MCF) of 0.90 has been applied specifically to the Phase 2 pit, within the current mining area classified as Probable Mineral Reserves, reflecting recent infill drilling results and reconciliation data from production in the second and third quarters of 2024. This MCF accounts for discrepancies between predicted grades in the block model and actual recovered grades during mining, primarily caused by:

- Geological variability in grade distribution.
- Challenges associated with mining in a water-saturated, unconsolidated alluvial environment.
- Losses or inefficiencies during the dredging process.

The MCF for Phase 2 has been incorporated into the LOM production plan, covering the years 2024 to 2028. This adjustment provides a realistic assessment of gold recovery and reserve utilization, ensuring that the reserve estimates remain robust and reflective of actual operating conditions.

15.4 Cut-off Grade

Mineral Reserves at the Nechí Alluvial Property are not reported using a traditional cut-off grade. Instead, reserves are defined as resource material within the mineralized blocks that demonstrate a positive net value after deducting associated mining costs. However, the mining approach requires including uneconomic blocks as part of the process due to operational and equipment constraints, making a strict cut-off grade methodology inapplicable.

15.4.1 Depth-Based Economic Logic

The economic framework reflects the operational realities of alluvial mining, where material is excavated as a column from surface to the target depth, and blocks at different depths have varying characteristics and economic outcomes:

- Blocks are classified as Overburden (OV), Pay Zone (PZ), Mineral (Min), or Bedrock (BR), based on lithology and gold grade.
- Material near the surface (e.g., overburden) and some low-grade blocks must be mined to access deeper zones with higher gold grades.

15.4.2 Equipment Constraints and Integrated Recovery

Two primary equipment configurations influence the mining logic:

1. Combination of Suction Dredge and Bucket Dredge/Llanuras Production Unit:
    - Suction dredges are used to remove overburden at shallow depths (up to 12 m) efficiently, reducing costs for uneconomic blocks. However, the availability of suction dredges is limited, and they cannot reach deeper blocks.
    - For depths beyond 12 m, production units take over, integrating mining and recovery processes in a single operation. Even though some blocks may be uneconomic, the bucket dredges and Llanuras production unit must mine through them to access deeper, profitable material.
2. Brazilian-Style Dredge/Third-party:
    - Brazilian-style suction dredges are used to excavate entire columns of material from surface to target depths. These dredges have consistent costs but lack the cost efficiency of the combination method, as they cannot leverage lower-cost equipment for overburden removal.

Because production units (bucket dredges, Llanuras, and Brazilian) integrate mining and recovery into the same operation, uneconomic blocks still generate some revenue, even if their costs exceed the value of recovered gold. This limitation reinforces the inapplicability of a traditional cut-off grade.

15.4.3 Margin Accumulation

The optimization process considers cumulative margins (accumulated revenue minus accumulated costs) for the entire column:

- Shallow Depths (0 to 12 m): Suction dredges are ideal for mining uneconomic blocks at these depths due to their lower costs, but their availability is limited. When suction dredges are unavailable, bucket or Brazilian-style dredges must be used, increasing costs.
- Intermediate Depths (12 m to 18 m): These blocks are mined regardless of their economic viability to access deeper zones.
- Deeper Depths (18 m to 26 m): High-grade blocks with significant gold content generate positive cumulative margins, offsetting earlier losses and ensuring overall economic viability.

15.4.4 Conclusion

Given the necessity of mining uneconomic blocks to access profitable material and the integrated recovery nature of the bucket and Brazilian dredges, a strict block-by-block cut-off grade cannot be applied. Instead:

- Blocks are evaluated within the context of their depth, operational constraints, and cumulative economic contribution.
- The focus is on ensuring the economic viability of the entire column rather than individual blocks.

This approach ensures that reserves are technically and economically viable within the constraints of the LOM plan, reflecting the unique challenges and opportunities of alluvial mining at the Nechí Alluvial Property.

16.0 Mining Methods

16.1 Mining Operations

The alluvial mining operations at the Nechí Alluvial Property involve the removal of overburden and the excavation of gold-bearing gravels using large floating dredges. The deposit spans more than 50 km along the Nechí River, with widths of up to 3.5 km. The current alluvial operations extend approximately 12.5 km along the east side of the Nechí River, toward the northern part of the Property.

The current mining process comprises the following four phases:

- Overburden Removal – Using suction dredges or Brazilian dredges to strip and deposit overburden material.
- Gravel Excavation – Removal of gold-bearing gravels with dredges.
- Gold Extraction – On-board size classification and gravimetric gold recovery.
- Final Processing – Metallurgical processing of doré gold at the metallurgical plant and laboratory located at Mineros' El Bagre complex.

Operational Details

- Continuous Operations:
    - Dredging operations are conducted 24 hours per day, 365 days per year, with approximately 80% availability due to maintenance and clean-up activities. This results in effective dredging operations occurring on 285 days annually.
- Dredging Equipment:

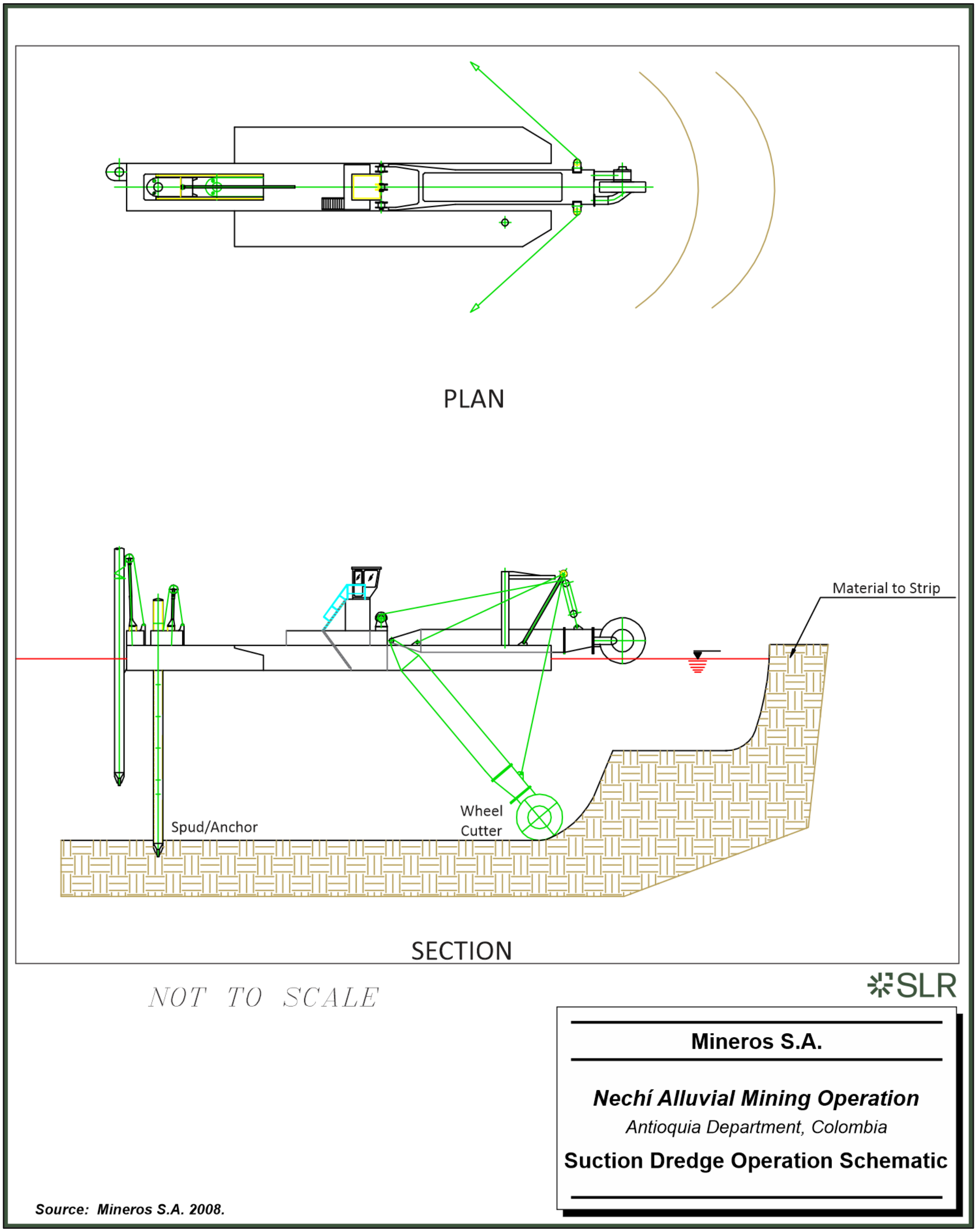
  Three primary types of dredging equipment are employed for mining gold-bearing material:
    - Bucket Line Dredges:
        - The predominant method involves five bucket line dredges (Nos. 3, 5, 10, 14, and 16).
        - These units, owned and operated by Mineros, are designed for large-scale mass extraction of gold-bearing gravels.
    - Llanuras Production Unit:
        - This method utilizes dredge No. 21, equipped with a wheel cutter and a floating processing plant (the "Llanuras Plant").
        - It is used for selective extraction of gold-bearing gravels and is owned and operated by Mineros.
    - Brazilian Suction Dredges:
        - Thirteen rotating cutter-head suction dredges, operated by third parties under contract (as part of Mineros' formalization program, include onboard sluice processing plants.
        - Ten diesel-powered units (e.g., La Estatal, Antioqueñita, and others) operated under formalized contracts paying a 85% royalty to contractors.

        - Three electric-powered units (Danta, Mulata, and Embera), owned by Mineros but operated by contractors, paying a 50% royalty to contractors. Electricity for these units is supplied by Mineros.
    - Overburden Removal Units
        - Nine suction dredges (Nos. 11, 12, 13, D15, 17, 18, 19, 20, and 25), owned by Mineros, are used exclusively to strip overburden in advance of the bucket line dredges. Dredge No. 25 started operating in late 2024.
    - Equipment Specifications
        - Bucket line dredge mining employs onboard processing plants, with three of the five units equipped with attached barges that feature floating scavenger plants.
        - Maximum digging depths for bucket line dredges range from 26 m to 30 m, and their nominal production capacity is 500 m^3/h.
        - Suction dredges, including wheel cutter suction dredge No. 21, used for overburden removal and pay gravel mining, have nominal capacities ranging from 300 m^3/h to 500 m^3/h.
        - Brazilian suction dredges utilize rotating cutter heads and onboard sluice plants for processing. These dredges have varying capacities, with fleet averages typically around 80 m^3/h under normal operating conditions.
- Current Production Contributions
    - Mineros-Owned Units:
        - Account for 88% of alluvial gold production, with the five bucket line dredges contributing 83% of the total production.
    - Brazilian Suction Dredges (Third-Party Operated Units):
        - Contribute the remaining 12% of gold production.
- A typical production unit consists of:
    - A wheel cutter suction dredge or bucket line dredge.
    - Support equipment, including a bulldozer, amphibious backhoe, track-mounted crane, boats, and minor auxiliary equipment.
- Excavation and Preparation
    - Mining begins with the removal of vegetation and obstacles to enable dredging operations. Suction dredges must be anchored, and discharge pipes installed prior to stripping operations. An amphibious backhoe assists with these preparations, ensuring efficient deployment of equipment and minimizing operational delays.
    - Following a previous incident where one of the dredges overturned, the mining method was modified to improve safety and operational efficiency. The modified approach involves isolating the production area by constructing earthen dikes, leveraging the natural topography of the region. These dikes serve multiple purposes:
- Protection: The dikes shield the mining area from potential river level fluctuations or rises, ensuring operational stability and safety.

- Water Level Management: Pumps are used to remove water from the area enclosed by the dikes, allowing the water level to be lowered by an average of 3 meters below the regular river level.
- This controlled dewatering provides significant operational advantages:
    - Improved Efficiency for Suction Dredges: By lowering the water level, suction dredges can access deeper overburden layers, improving overburden removal efficiency and reducing reliance on bucket dredges for this task.
    - Cost Reduction: The optimized water level minimizes the volume of overburden that bucket dredges need to handle, reducing overall mining costs.
    - Reduced Dilution: Lower water levels improve the accuracy and precision of bucket dredge operations, limiting the introduction of barren material into the processing stream.
- The isolated production areas are extensive enough to accommodate operations by both Mineros' bucket dredges and contracted third-party suction dredges. This collaborative approach maximizes productivity within the isolated zones while maintaining operational flexibility.

Figure 16-1 shows a suction dredge schematic.

Figure 16-1: Suspension Dredge Operation Schematic



Source: Mineros S.A. 2008.

Once the mining area is prepared within the confines of the dike, the working zones and operational routes for each dredge are carefully planned and defined to ensure efficient and safe operations.

The suction dredge begins by removing the first four meters of surficial material. Excavation progresses downward in systematic cuts measuring 2 m by 4 m, with a variable operational width ranging from 60 m to 300 m, depending on the area and dredge capacity. The overburden removal is conducted in front of the dredge, creating a cleared pathway for subsequent operations. After completing the initial cut, the dredge returns to its starting point to excavate an additional 4 m depth. This process continues in successive cycles until the target dredge depth is reached.

The average operational depth for the suction dredges is 12 m, with dredge No. 19 capable of reaching a maximum depth of 18 m. The removed clay and overburden material are transported through floating discharge pipes located behind the bucket line dredge and deposited between two designated backfill dumps. This controlled discharge ensures that the overburden material remains confined, aiding in environmental management and facilitating future revegetation activities.

By defining dedicated working zones and optimizing dredge routes within the isolated production area, Mineros maximizes operational efficiency while maintaining strict control over material handling. The systematic excavation process and backfill management contribute to effective resource recovery and support the rehabilitation of mined-out areas. A suction dredge and floating discharge pipe are pictured in Figure 16-2.

Figure 16-2: Suction Dredge

Source: SLR 2021

The bucket line dredge is specifically engineered to extract low-grade, deep alluvial deposits on a large scale. This highly integrated system performs multiple operations under a single platform, including the extraction of alluvial material, onboard processing and recovery of valuable gold, and the controlled discharge of tailings.

The removal of gold-bearing gravel involves several interconnected operations:

- Dredging: Excavation of gold-bearing gravels and surrounding material using a continuous bucket line system.
- Advancement: Gradual forward movement of the dredge to maintain steady excavation progress.
- Lateral Displacement: Controlled lateral shifts to optimize coverage of the target mining area.
- Tailings Disposal: Discharge of processed material (tailings) into designated areas, ensuring proper containment and management.
- Water Supply Management: Recirculation of water to support dredging operations and minimize environmental impact.

The operation progresses slowly and uniformly, leaving behind a ground surface slightly elevated above the original wetland level. This reclamation-friendly approach reduces the risk of flooding, facilitates revegetation, and helps stabilize ground edges to protect against erosion.

Photos of a bucket line dredge are shown in Figure 16-3 and Figure 16-4, while the dredging method employed by Mineros is depicted in Figure 16-5.

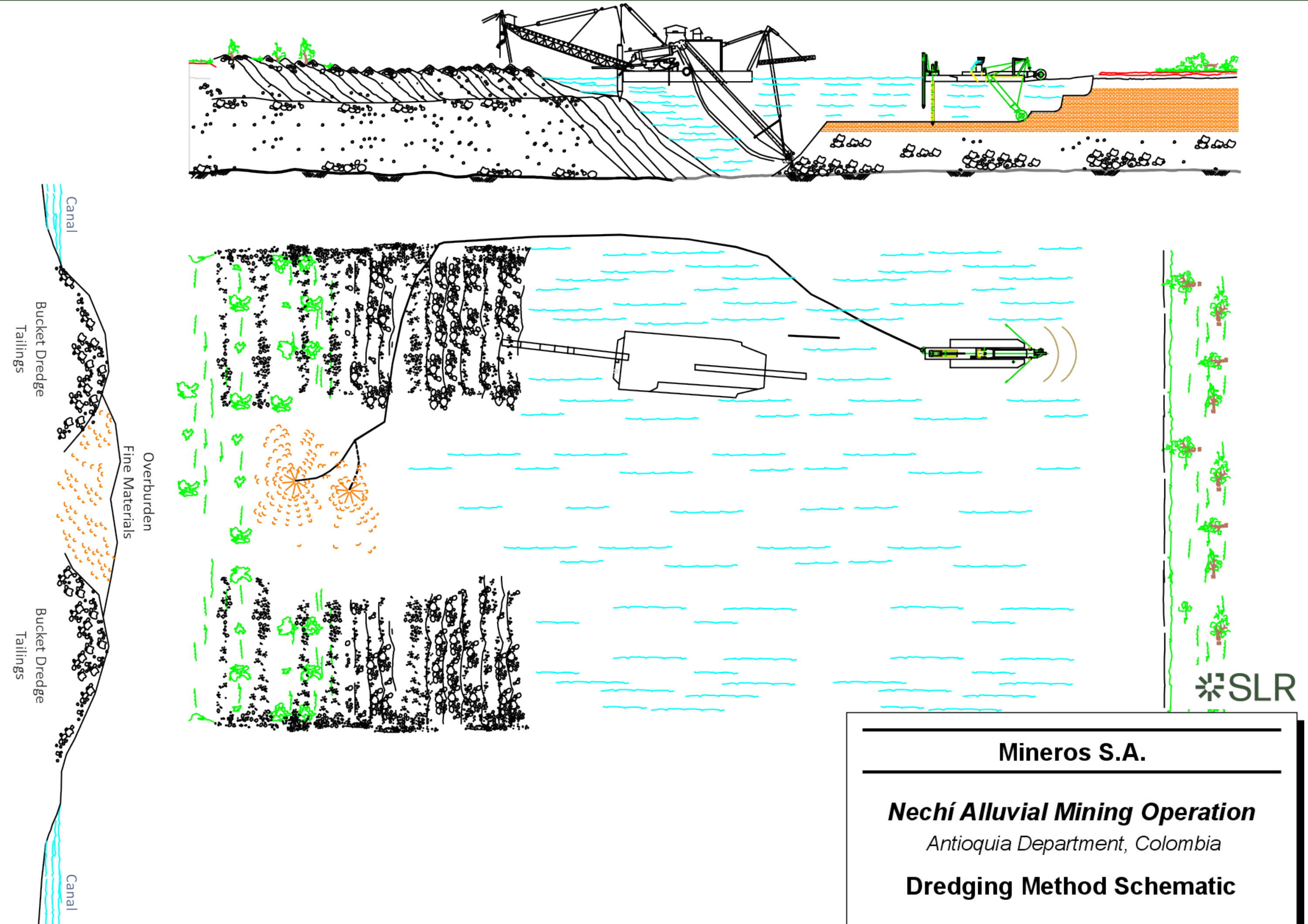
Figure 16-3: Bucket Line Dredge

Source: Mineros 2024

Figure 16-4: Bucket Line Dredge from Above

Source: SLR 2021

Figure 16-5: Dredging Method Schematic



Source: Mineros S.A. 2008.

The length of the face to be mined is determined by the geometry of the reserve block and typically ranges from 60 m to 300 m. Each face is further subdivided into sectors ("cuts"), with widths generally varying between 40 m and 50 m. Once the dredge is securely anchored, with the bucket arm raised and both bow and stern cables properly positioned, dredging operations can commence.

16.1.1 Dredging Operations

In general, dredging involves a combination of horizontal sweeping and vertical sweeping movements:

- Horizontal Sweeping:
    - The dredge performs a side-to-side swinging motion across the width of the cut, following a circular arc centered at the anchor point.
    - The radius of the arc is determined by the distance between the anchor and the end of the bucket arm.
    - As part of short-term mine planning, the Engineering Department provides the dredge captain with the coordinates of the anchor point and the azimuth angles for the ends of the face, ensuring precise guidance during operations.
- Vertical Sweeping:
    - The bucket arm moves vertically from the surface to the target depth.
    - This movement is achieved by lowering the bucket arm incrementally, typically by 0.2 m to 0.5 m, after completing each horizontal pass.
    - The resulting arc is defined by the bucket arm's length and the swing centered at the upper drum.
    - Once the desired depth is reached, the dredge advances forward or laterally to begin a new cut.
- Forward Advance:
    - The dredge progresses forward by 1 m to 3 m, depending on the material type and the planned cut depth.
- Lateral Displacement:
    - Lateral movement is required to shift the dredge from one cut to the next. This involves raising the anchor and using the bow and stern cables to reposition the dredge.
    - The lateral movement typically proceeds at a speed of approximately 1 kilometer per hour.
    - Two to three such displacements are usually needed to complete a cut before moving to the next one.
- Tailings Management and Anchorage
    - Proper anchorage is critical to ensure the dredge remains stable during excavation, preventing backward movement while digging. To enhance anchorage stability, a portion of coarse tailings (+⅜ in., or +9.5 mm) is diverted from the main conveyor and deposited near the anchor to consolidate the base. The remaining coarse

tailings are deposited behind the dredge, forming small, evenly spaced mounds (2 m to 3 m apart), corresponding to the dredge's movements.

- Fine tailings (-9.5 mm) are discharged several meters behind the stern through port and starboard discharge channels. This operation facilitates the construction of two parallel tailings structures, with clay from the suction dredge deposited between them, creating a stable base for revegetation and reclamation efforts.

16.1.2 Reserve Block Preparation

Before mining a reserve block, the area is typically isolated and prepared within earthen dikes. These dikes are constructed in advance to protect the mining zone from potential river level fluctuations and facilitate controlled water management, creating a contained environment for operations. While this design is optimized to improve the efficiency of bucket line dredges by enabling large-scale, continuous operations within the protected zone, other equipment such as Brazilian and Llanuras dredges can also operate selectively outside these ponds when necessary. The flexibility of this setup ensures that all equipment can work within the designated area, maximizing resource recovery while adhering to the operational requirements of each dredge type.

All control points for mining operations are defined in coordinates, which are provided to dredge operators and followed using onboard GPS instrumentation. These coordinates guide the precise excavation of pay gravel and ensure adherence to the short-term mining plan.

The bucket line dredges are equipped with advanced navigation and monitoring systems to support the captain in accurate gravel extraction. Each dredge operator logs movements and key operational data, including anchor coordinates, depth, and azimuths, into a specialized form. This information is transmitted to the Engineering Department, where it is used to calculate dredged volumes and update material removal records daily.

Recently, Mineros implemented a bathymetric survey system to enhance operational accuracy and volume control. This system utilizes a specialized boat equipped with sonar technology to map the floor of the mined area after gravel removal. The bathymetry creates a detailed 3D topography of the floor, allowing:

- Improved measurement of material volumes mined.
- Enhanced reconciliation of actual dredged volumes against planned figures.
- Better control and optimization of excavation processes.

This technological advancement is a significant step toward improving precision in material tracking and overall operational efficiency.

16.2 Geotechnical Studies

16.2.1 Introduction

In 2020, Suelos & Rocas Ingenieria S.A.S. (Suelos & Rocas) was retained by Mineros to conduct geotechnical work for the Nechí alluvial operations with findings and recommendations summarized in the report “Geometric design and stability analysis of slopes in alluvial mining areas for dredging” (Ref. No. IT-MINEROS-1122-04-01-Rev0) dated March 23, 2021.

The geotechnical work was conducted to achieve the three primary tasks:

1 Conduct geotechnical zoning and slope designs for Stage 1 Sampumoso Block and Stage 2 CA5 Block in the municipalities of El Bagre and Zaragoza, based on the geological exploration information provided by Mineros.

2 Develop a geometric design based on the typical materials of the deposit and the dredging depths, ensuring the design can be used as a reference for the slopes of any operational block within the alluvial deposit.

3 Propose a methodology for monitoring of slope stability, field material qualification method, and dredging angles to minimize landslides while operating.

The work also included a review of geological, geomorphological, and hazard studies relevant to the area, as well as base information related to the characteristics of the Property. The key reference documents include:

- "2020-10 - Spec. Techniques - Geotechnics Pits" by Mineros – October 2020.
- "IT-MINEROS-1102-04-01 Consulting for the construction of dams in the alluvial operation area of Mineros" by S&R Engineering – June 2020.
- "IT-MINEROS-1117-04-01 Consulting for the detailed design and construction of dikes in the Sampumoso block and the marginal blocks of the project mining plains" by S&R Engineering – January 2021.

16.2.2 Geological and Geomorphological Characterization

The property geology is characterized by unconsolidated alluvial deposits, primarily associated with the fluvial dynamics of the Cauca and Nechí rivers and their tributaries.

The subsequent outlines the geological units that constitute the study area, arranged from the oldest to the most recent in terms of stratigraphy.

- **Neís de Nechí (Pnn)** - Refers to a body of quartz-feldspathic and amphibolic gneisses that outcrop on the eastern bank of the Nechí River, forming an elongated body approximately 37 km long in a north-south direction, with an outcrop width of about 5 km. These gneisses appear as isolated hills with a relief that stands out against the overlying Quaternary deposits, which rest discordantly. This unit is composed of medium-grained, phaneritic rock with 10 to 30% quartz, 65 to 75% plagioclase, and 5 to 15% mafic minerals such as hornblende and biotite, with the composition varying from quartz diorite to tonalite. Generally, this unit is intersected by veins of milky quartz and pegmatites of quartz and plagioclase with gold and sulfide mineralization, such as chalcopyrite, pyrite, galena, and sphalerite, appearing as nests and filling fractures within the veins.
- **Segovia Diorite (Jdse)** - This unit outcrops to the east of the study area, as an elongated strip in a north-south direction, continuously exposed over 25 km with a maximum width of 15 km, located between the Otú Este and Nus faults. The Segovia Diorite is an intrusive body primarily composed of diorites, quartz diorites, and tonalites, locally varying into quartz monzonites, granodiorites, and gabbro. It serves as the host rock for the gold veins exploited in the municipalities of Remedios, Segovia, and El Bagre (González and Londoño 2002), showing no textural variations, appearing massive, laminated, with diffuse bands of felsic and mafic minerals, and gneissic due to dynamic metamorphism.

  It occasionally exhibits rapakivi texture, with potassium feldspar surrounded by a plagioclase rim. The predominant rock type is medium-grained, equigranular phaneritic rock, grayish-green mottled with black due to the presence of ferromagnesian minerals.

The main minerals are quartz, plagioclase, and to a lesser extent potassium feldspar, hornblende, biotite, and accessory minerals such as sphene, allanite, apatite, magnetite, pyrite, and zircon (González and Londoño 2002).

- **Sincelejo Group (NQs) -** The geomorphological expression of the Sincelejo Group consists of low, rounded hills that rise 5 m to 15 m above the ground. It outcrops especially in the western part of the study area and is composed of intercalations of mottled clays in thick layers, silts with coarse laminations, and thick to very thick parallel layers of reddish-brown and ochre sands. Towards the top, there are very thick layers of poorly sorted, unconsolidated polymictic gravel of pebble and cobble size. The sandstones are composed of 80% to 85% milky quartz in subangular grains, 10% to 15% lithics (mainly chert), 2% to 3% white mica, and <1% plagioclase with traces of a very clean translucent mineral, possibly zircon; moderately compacted.

  Based on the exposed lithology of sandy, muddy, and clayey facies with cross and planar sedimentary structures, a genesis for the Sincelejo Group is inferred to be from a continental environment with low to medium energy, such as braided rivers, where the muddy parts correspond to environments of alluvial plains, marshes, and swamps. This unit exhibits weak diagenetic processes; the limited compaction is due to minimal burial, and the amount of matrix and poor sorting reflect the immaturity of the sequence.

- **Alluvial terrace (Qt)** - Caballero et al. (1988) distinguished five levels of terraces that have currently been removed due to alluvial mining, complicating the mapping, description, and surveying of this unit. Generally, the terraces are composed of thick to very thick layers of poorly compacted reddish-brown gravels, sands, and silts, with lenses of magnetite. The gravel layers, reaching up to 4 m in thickness, consist of granule- to cobble-sized materials ranging from 1 cm to 15 cm in diameter, primarily made up of quartz and lithics, mainly chert, which are subangular to subrounded, with lesser proportions of gneisses and volcanic rocks. The matrix consists of approximately 60% sandy silt, poorly sorted.

- **Terrace Alluvial deposits (Qal-t)** - These deposits are the result of the accumulation of alluvial material and the subsequent deepening of the streams that transport it, remaining as remnants. Sometimes, they are elevated compared to recent accumulations and are located away from the active river channel.

  Alluvial deposits are associated with the Nechí River, forming a band of variable width, less than 100 m in the southern area, composed of alluvial terraces of varying heights. These terraces range from flat tops to gently sloping towards bodies of water, with mounds not exceeding 50 m above sea level, displaying very low relief contrast and can exceed 5 km in width in a direction perpendicular to the main channel.

  The alluvial deposits consist of layers of polymictic gravels and sands, interspersed with layers of silts and clays, which can reach thicknesses of up to 10 m near the Nechí River channel. The particles that make up these accumulations vary in size from blocks larger than 1 m in diameter near the foothills to very fine sands and silts, with granule-cobble sizes predominating, containing a medium to coarse sand matrix in the gravels and medium to coarse sands in the sandy layers. The fragments are subrounded to rounded. In the distal areas of the recharge zone, the size decreases, and the grain size becomes more homogeneous.

- **Recent Alluvial deposits (Qal-r)** - These deposits correspond to detrital material that is transported and deposited by the water currents in the area. These accumulations are confined to the channels and active riverbeds and include point bars, longitudinal and transverse bars, natural levees, islands, and islets.

This unit is characterized by the presence of accumulations of gravels ranging from granule to block size, in a medium to coarse sand matrix. The clasts are primarily composed of metamorphic and intrusive and extrusive igneous rocks; among the metamorphic rocks, gneisses and schists predominate. The composition of the intrusive rocks is very varied and reflects the different lithologies of the intrusive bodies; the extrusive rocks include clasts of lava, tuffs, and porphyritic hypabyssal rocks. Other significant constituents include fragments of quartz and chert. Several of the fluvial deposits present in the area are exploited by informal miners, who extract this unit to take advantage of the gold accumulated within it.

16.2.3 Geotechnical Characterization

To establish the depth parameters related to materials obtained through bucket dredging, data was collected from the Mineros's exploration. Natural moisture content tests, Atterberg limits tests, and granulometric classifications were conducted. In addition, tests were performed on reconstituted samples to measure the material's point resistance using consolidation and direct shear methods. A total of 45 humidity tests, 11 Atterberg limits, and 45 particle size tests were performed on the altered samples. Six consolidation tests and five direct shear tests were performed on the reshaped samples. The results of the laboratory test include:

- **Natural moisture** - In general, the humidity ranges from low to high, being lower for sandy materials, and as the fine fraction content increases, the humidity increases. For predominantly gravelly materials, the average humidity content is 10%. For predominantly sandy materials, the average humidity content is 20%. For predominantly silty materials, the humidity content varies between 60% and 90%.
- **Plasticity** - The fine fraction consists of both high and low compressibility silts found across the different wells from which the samples were collected.
- **Granulometric classification** - Material characteristics of the various observed strata were identified using the Unified Soil Classification System (U.S.C.S.). Granulometry test was used to determine the percentages of fine granular soil and coarse granular soil within each layer. Atterberg limit test was used to classify materials based on the fines percent in the samples.
- **Consolidation Tests** - Six consolidation tests were performed on remolded samples to determine the deformations the soil undergoes over time when subjected to loads. The tests were conducted on the undisturbed samples retrieved from wells. It is observed that for the six tests, the soil exhibits light to low compressibility, making it unlikely for significant deformations to occur over time.
- **Direct Shear Strength Tests** - Five shear tests were conducted on reconstituted samples retrieved from five wells, which exhibit predominantly frictional behavior.

16.2.4 Mechanical Parameters Based on Standards Penetration Tests (SPT)

To define the design parameters, the results obtained from the in-situ testing were utilized, incorporating the corrected strike counts from Mineros' exploration for each meter of drilling advancement. The soil strength parameters are obtained through the results from the Standard Penetration Test (SPT test) and include the unit weight (saturated and dry), effective confinement, the shear stress and the normal stress, undrained cohesion, rigidity properties, elasticity module, and the effective friction angle for each soil profile identified.

16.2.5 Geotechnical Model

Based on the geological descriptions of the altered samples recovered from the evaluated exploratory boreholes and the variation in strike counts at depth obtained from the field test with corrected values, a geological profile was determined, distinguishing strata based on their physical, mechanical, and consistency properties.

16.2.6 Design Strength Parameters

Table 16-1 presents the design parameters, which are the synthesis of the comprehensive analysis of the geological and geotechnical processes carried out during the study.

Table 16-1: Design Parameters

Layer	Material	Unit Weight (kN/m^3)	Cohesion (kPa)	Friction Angle (deg)
Suction Dredging	Clayey soil	17	20	20
	Sludge/Silt	17	15	2
	Sand	17	2	30
	Silt	17	18	20
Bucket Dredging	Clay	18	20	20
	Sand	18	4	30
	Fine Sand	18	2	25
	Fine Gravel	18	5	35
	Medium Gravel	18	5	36
	Coarse Gravel	18	5	38
	Bedrock	19	35	32

16.2.7 Geotechnical Stability Analysis

The construction sequence is considered for the analyses, as it determines the minimum required safety factors. The stability analyses were conducted considering the following cases:

- Temporary slope cut in the internal area of each mining zone.
- Final slope cut at the boundaries between mining areas.
- Final slope cut towards the limits of the environmental license.

Stability of the Slopes

The stability of the slope cuts for the mining areas is evaluated based on the predominant materials of the stratigraphy defined in each area.

The stability evaluation of the slopes was conducted using numerical analysis based on the factor of safety, utilizing the Slide V6.0 program, which allows for modelling different soil strata through various analysis methods to determine ranges of safety factors, highlighting the failure surface with the lowest factor and additionally performing pseudo-static analyses to account for seismic activity.

In this case, the GLE/Morgenstern-Price method was employed, which proposes a limit equilibrium of forces and moments acting on individual blocks. For the analyses, a non-circular failure type was considered.

Safety Factors

The risk of slope failure is measured in terms of the factor of safety (FoS), which is the ratio of the total resisting (or stabilizing forces) to the destabilizing forces.

The FoS equal to 1.0 marks the threshold at which the slope ceases to be stable. The need to use values greater than 1.0 varies depending on the consequences resulting from the failure and the level of confidence in the data used.

To ensure stability in the short, medium, and long term according to the construction phases of the projected slopes, the factors of safety were validated based on the criteria for acceptable limit values for safety factors suggested by the USACE 2003. Table 16-2 presents the safety factors used for the slope stability analysis.

Table 16-2: Safety Factors Used for the Slope Stability Analysis

Classification	FoS Static	FoS Pseudo Static
Unacceptable	<0.75	<0.50
Very Low	0.75 - 1.00	0.50 – 0.75
Low	1.00 – 1.25	0.75 – 1.00
Acceptable	1.25 – 1.50	1.00 – 1.25
Ideal	>1.50	>1.25

For the analyses, the final cut slope for the mining area is considered stable if the factor of safety is equal to or greater than 1.25. For the temporary or operational advance cut slope, a factor of safety greater than 1.0 is deemed sufficient during the exploitation phase.

Cut Slope Sizing

For the sizing of the cut slopes, a series of stability analyses were performed for each type of material, varying the height and slope angle. For suction dredging, a slope height of up to 12 m was considered, while for bucket dredging, a slope height of up to 20 meters was considered.

Table 16-3 shows the maximum slope measurements (depth and slope angle) achievable during suction dredging, according to type of material. Low safety conditions are defined with a safety factor of 1.0, while acceptable conditions are defined with a FoS of 1.25.

Table 16-3: Maximum Slope Dimensions for Suction Dredging Material

Suction Dredging Material		Factor of Safety = 1.00	Factor or Safety = 1.25
Sludge/Silt	Maximum Height (m)	12	10
	Maximum Angle (deg)	35	30
Sand	Maximum Height (m)	12	12
	Maximum Angle (deg)	40	31

Suction Dredging Material		Factor of Safety = 1.00	Factor or Safety = 1.25
Silt	Maximum Height (m)	12	12
	Maximum Angle (deg)	65	64
Clay	Maximum Height (m)	12	12
	Maximum Angle (deg)	65	65

Table 16-4 shows the maximum slope measurements (depth and slope angle) achievable during bucket dredging, based on type of material. Low safety conditions are defined with a safety factor of 1.0, while acceptable conditions are defined with a safety factor of 1.25.

Table 16-4: Maximum Slope Dimensions for Bucket Dredging Material

Bucket Dredging Material		Factor of Safety = 1.00	Factor or Safety = 1.25
Fine Sand	Maximum Height (m)	20	20
	Maximum Angle (deg)	35	25
Sand	Maximum Height (m)	20	20
	Maximum Angle (deg)	20	30
Medium Gravel	Maximum Height (m)	20	12
	Maximum Angle (deg)	50	40
Coarse gravel	Maximum Height (m)	20	20
	Maximum Angle (deg)	55	45
Clay	Maximum Height (m)	20	12
	Maximum Angle (deg)	60	50

<u>Sizing the Minimum Distance between Suction Dredging and Bucket Dredging</u>

For the sizing of the minimum distance between suction dredging and bucket dredging, the following aspects are considered:

- For sizing the slopes in bucket dredging, the material with the least favorable similar characteristics is used. Therefore, only fine sand, medium gravel, and clay are considered in the slope stability analyses.
- When sizing the slopes in suction dredging, the least favorable material with similar characteristics is selected. Consequently, only silt, sand, and clay are considered in the slope stability analyses.
- The cut slope design for both suction dredging and bucket dredging relies on the material that achieved a safety factor greater than 1.0 for the maximum height and angle.
- For mining advancement within the mining areas, a safety factor greater than 1.0 is deemed sufficient for stability analyses.
- For the final phase at the boundaries of the mining areas and between extraction zones, a safety factor greater than 2.5 is considered sufficient for stability analyses.

- For sizing when there is an overload caused by suction dredging, the minimum sizing outcome is utilized between suction dredging and bucket dredging, targeting a safety factor of 1.25 under conditions of the suction dredging depth of 12 m and bucket dredging depth of 20 m.

The minimum distance between suction dredging (DS) and bucket dredging (DB) in medium gravel material is shown in Table 16-5, in fine sand material in Table 16-6, and in clay material in Table 16-7.

Table 16-5: Sizing the Minimum Distance Between Suction Dredging (DS) and Bucket Dredging (DB) for Medium Gravel Material

Cut Height In Medium Gravel, DB (m)	Cut Height, DS (m)	Factor Of Safety FS=1.00			Factor Of Safety FS=1.25		
		Silt DS	Sand DS	Clay DS	Silt DS	Sand DS	Clay DS
10	18	30	11	1	51	29	9
	15	16	8	0	32	21	6
	12	5	4	0	20	12	2
	6	0	0	0	2	4	0
15	18	32	17	4	55	31	15
	15	18	11	2	34	23	11
	12	8	7	0	22	17	8
	6	0	2	0	9	10	5
20	18	34	20	8	58	35	22
	15	22	17	6	38	29	19
	12	13	15	5	31	24	16
	6	5	8	5	20	22	16
	18	30	11	1	51	29	9

Table 16-6: Sizing the Minimum Distance Between Suction Dredging (DS) and Bucket Dredging (DB) for Fine Sand Material

Cut Height In Fine Sand (m)	Cut Height, DS (m)	Factor Of Safety FS=1.00			Factor Of Safety FS=1.25		
10	18	36	24	9	56	48	21
	15	25	19	5	43	35	15
	12	15	13	3	29	26	11
	6	4	8	2	12	15	7
15	18	42	27	14	59	50	29
	15	28	22	11	45	43	24

Cut Height In Fine Sand (m)	Cut Height, DS (m)	Factor Of Safety FS=1.00			Factor Of Safety FS=1.25		
	12	20	20	9	37	35	20
	6	4	16	9	25	27	20
20	18	58	40	22	65	54	39
	15	40	34	19	55	47	34
	12	33	30	19	49	42	27
	6	25	29	19	38	41	27
	18	36	24	9	56	48	21

Table 16-7: Sizing the Minimum Distance Between Suction Dredging (DS) and Bucket Dredging (DB) for Clay Material

Cut Height In Clay, DB (m)	Cut Height, DS (m)	Factor Of Safety FS=1.00			Factor Of Safety FS=1.25		
		Silt DS	Sand DS	Clay DS	Silt DS	Sand DS	Clay DS
10	11	5	0	24	15	9	11
	5	2	0	15	10	5	5
	0	0	0	7	6	0	0
	0	0	0	0	0	0	0
15	15	10	5	32	23	16	15
	8	6	2	23	18	12	8
	3	3	0	15	13	8	3
	0	0	0	4	5	2	0
20	21	17	11	37	34	27	21
	16	13	8	33	29	23	16
	10	10	5	27	24	19	10
	1	2	0	18	21	15	1
	11	5	0	24	15	9	11

Sizing the Distance between Dredging Operations with Overload

Table 16-8 shows the minimum sizing that must exist between the toe of the overload slope and the upper cut of the bucket dredging for a final mining area condition.

Table 16-8: Sizing the Minimum Distance Between Overload and Bucket Dredging (DB) Based on the Type of Material

Bucket Dredging Material	Suction Dredging Material	Minimum Distance (m)
Fine Sand, DB	Silt DS	-
	Clay DS	42
	Sand DS	48
Medium Gravel, DB	Silt DS	-
	Clay DS	22
	Sand DS	27
Clay, DB	Silt DS	-
	Clay DS	36
	Sand DS	38

Proposed Sizing

Based on the results obtained from the global sizing, a proposed sizing has been developed to standardize the cuts in both temporary and final slopes within the mining area based on typical materials, cut heights, and operational conditions.

Table 16-9 presents the minimum distance, considering a 10-meter safety berm between suction dredging and bucket dredging for the exploitation phase in the temporary slope area.

Table 16-9: Proposed Sizing of the Distance Between Suction Dredging (DS) and Bucket Dredging (DB) for Temporary Slopes

Bucket Dredging Db		Suction Dredging Ds		
Material	**Height (m)**	**Material**	**H < 12 m**	**12 m > H < 18 m**
Gravel DB	H < 15 m	Silt	20	45
		Sand	20	30
		Silt / Clay	10	15
	15 m > H,20 m	Silt	25	45
		Sand	25	30
		Silt / Clay	15	20
Sand DB	H < 15 m	Silt	30	55
		Sand	30	40
		Silt / Clay	20	25
	15 m > H,20 m	Silt	45	70
		Sand	40	50
		Silt / Clay	30	35

Bucket Dredging Db		Suction Dredging Ds		
Material	**Height (m)**	**Material**	**H < 12 m**	**12 m > H < 18 m**
Silt and/or Clay	H < 15 m	Silt	15	25
		Sand	15	20
		Silt / Clay	10	15
	15 m > H,20 m	Silt	20	35
		Sand	20	30
		Silt / Clay	**15**	**25**

Table 16-10 presents the minimum distance between suction dredging and bucket dredging for the exploitation phase in the final mining area slope. As a result, it was determined that:

- In the case of gravel (DB), the minimum distance between DB and DS should not be less than 25 m.
- For sand (DB), a safety berm of five meters should always be added.
- For sand (DB) with thicknesses greater than 20 m, the distance between DB and DS will be 45 m, provided that the thickness of DS does not exceed 12 m.
- Analyses for silt and clay (DB) are shown, but it is unlikely that these will occur during the exploitation phase.

Table 16-10: Proposed Sizing of the Distance Between Suction Dredging (DS) and Bucket Dredging (DB) for the Final Slopes

Bucket Dredging (DB)		Suction Dredging (DS)		
Material	**Height (m)**	**Material**	**H < 12 m**	**12 m > H < 18 m**
Gravel DB	H < 15m	Silt	25	55
		Sand	25	35
		Silt / Clay	25	25
	15m > H	Silt	35	60
		Sand	25	35
		Silt / Clay	25	25
Sand DB	H < 15m	Silt	45	65
		Sand	40	55
		Silt / Clay	30	40
	15m > H,20m	Silt	55	70
		Sand	50	60
		Silt / Clay	35	45
	H > 20m	Silt / Clay	45	-

Bucket Dredging (DB)		Suction Dredging (DS)		
Material	**Height (m)**	**Material**	**H < 12 m**	**12 m > H < 18 m**
Silt and/or Clay	H < 15m	Silt	25	35
		Sand	25	25
		Silt / Clay	25	25
	15m > H,20m	Silt	30	40
		Sand	25	35
		Silt / Clay	25	30

Table 16-11 presents the minimum distance that must exist between the toe of the overload slope and the upper cut of the bucket dredging for a final mining area slope. The table shows the sizing plus 10 m of safety berm only in cases where sands are present in the bucket dredged (DB) material.

Table 16-11: Sizing the Minimum Distance Between Overload and Bucket Dredge (DB) Based on the Type of Material

Bucket Dredging Material	Suction Dredging Material	Minimum Distance (m)
Fine Sand, DB	Silt DS	50
	Clay DS	60
Medium Gravel, DB	Silt DS	30
	Clay DS	30
Clay, DB	Silt DS	40
	Clay DS	40

16.2.8 Final Slope Stability Analysis

Using the results from sizing the minimum distance between suction dredging and bucket dredging for the final slope (Table 16-10), a series of analyses is performed to determine the final configuration of the mining areas within the boundaries of the environmental license and between the mining areas for block CA5 and block Sampumoso.

These results indicate that the materials most susceptible to failure are those with sand-sized particles, which consequently require a greater distance between suction dredging and bucket dredging.

16.2.9 Geometric Zoning

Based on the geotechnical zoning and the results of the stability analyses, a geometric zoning is defined, considering the final condition of the mining area and the minimum distance between the suction dredging cut and the bucket dredging cut. This approach ensures the long-term overall stability of the mining area while ensuring the failure surface does not extend to the environmental boundaries of the mining area.

16.2.10 Conclusions and Recommendations

Conclusions and recommendations from Suelos & Rocas are summarized as follows:

- A series of analyses were conducted for the suction dredging materials, varying the height and angle. This allowed for the determination of a minimum distance of 20 m between the cutting surface and the dyke.
- Since it is impractical to create a cut slope to minimize collapses in the slopes, a series of abacuses are utilized to determine overall angles. This approach ensures that the material collapsing from suction dredging does not fall into the bucket dredging process, and that the collapse material from bucket dredging reaches the angle of repose of the material without generating instability in the bucket dredging slope.
- A series of analyses were conducted for the bucket dredging materials, varying the height and angle. This enabled the determination of a minimum distance between the suction cutting surface and the dredging process, ensuring a safety factor of 1.0 and 1.25.
- A series of global analyses were performed that encompassed both suction dredging and bucket dredging, varying materials and heights. This helped to establish minimum distances between both processes for safety factors of 1.0 and 1.25.
- For the temporary slopes, a safety factor greater than 1.0 is considered sufficient; however, it was determined that there should be 10 meters more distance between the suction and bucket dredging. This ensures that the failure surface is surpassed and prevents the material from suction dredging from falling into the bucket dredging process.
- For the final slopes, a safety factor greater than 1.25 is considered acceptable. However, in the sizing process, it was noted that the bucket dredging materials with sandy characteristics require an additional 5 meters of distance between suction dredging and bucket dredging.
- Based on the results for the final slopes, the minimum distances were defined where stability is achieved when accumulating overweight material resulting from suction dredging. These analyses indicated that the implementation of overweight on silt-type material is not advisable.
- When sandy and gravelly materials are intercalated during bucket dredging, the sizing should be treated as if it were solely sandy material.
- When sandy material is present at the bottom during bucket dredging, with gravelly material on top, the sizing should be treated as if it were a sandy material.
- When gravelly material is present at the bottom during bucket dredging, with sandy material on top, the sizing should be treated as gravelly material, provided that at least 60% of the height consists of gravelly material; otherwise, it should be considered sandy.
- It is recommended that Mineros carry out a pilot plan to verify the designs proposed here in the field to corroborate and/or calibrate the minimum design dimensioning between suction dredging and bucket dredging.

16.3 Economic Extraction Model Development

The development of the economic pit shell for the LOM plan encompasses alluvial mining optimization, extraction design, mine scheduling, and the application of modifying factors to the Measured and Indicated Mineral Resources. The following subsections outline the procedures used to estimate the Mineral Reserves.

16.3.1 Alluvial Mining Optimization

The optimization process was carried out to define the most economically viable 3D extraction shape for the alluvial mining operation. This process was performed using the Pseudoflow algorithm within Deswik software. The algorithm operates on a block model of the mineralized material, iteratively assessing and selecting blocks for mining based on their economic value while excluding uneconomic blocks.

Key considerations in the optimization process included:

- Geological constraints of the alluvial deposit
- Economic parameters such as gold price, recovery rates, and operating costs
- Mining and processing capacities of dredging equipment
- Hydrological and environmental factors affecting extraction feasibility

The algorithm generated extraction boundaries that maximize total economic value while meeting the required geotechnical and physical criteria. The resulting extraction shells serve as the foundation for subsequent mine planning and scheduling.

16.3.2 Alluvial Mining Planning Block Model

The alluvial pit optimization for the Nechí Alluvial Property was based on the interim 2024 Mineral Resource Model, using available data up to May 25, 2024 and mined out areas as of June 30, 2024. The model uses block dimensions of 30 m in the X (east) direction, 30 m in the Y (north) direction, and 1.2 m in the Z (vertical) direction. These dimensions were selected to represent a selective mining unit (SMU) that aligns with the capabilities of the selected loading and excavation equipment.

The resource block model incorporates key attributes, including:

- In-Situ Data: Density, gold grade (mg/m^3), and lithology.
- Mining-Specific Codes: Mineral concession, alluvial mining zone, depletion, and mineralization codes.
- Resource Classification: Measured and Indicated Resources are prioritized for economic assessment.

It should be noted that the Mining Block Model does not include allowances for dilution or mining recovery; these factors are applied in subsequent stages of mine planning and reserve estimation.

16.3.3 Alluvial Mining Optimization Parameters

Optimization considered only Measured and Indicated Mineral Resources as revenue-generating material. All Inferred Resources were treated as waste. The parameters used in the calculation of block net value ($/m^3) in Deswik software included:

- Mining Costs: Unit costs associated with overburden removal and gravel excavation.
- Processing Costs: Costs related to gold extraction and recovery.
- Selling Costs: Fixed and variable costs incurred in the sale of gold.
- Metallurgical Recoveries: The expected percentage of gold recoverable from mined material.
- Gold Price: Revenue projections based on a gold price of C$1,750/oz, with a selling cost of $99.24/oz.
- Sustaining Capital and Progressive Closure Cost

Optimal extraction shells were generated across a range of revenue factors (RF), allowing for sensitivity analyses and the identification of the most economically robust shell.

Additional considerations included:

- Boundary Restrictions: Optimization was limited to blocks within the alluvial plain and the mining concession area.
- Depletion Adjustment: Blocks already mined were assigned a zero-recovery value to eliminate any contribution to revenue.

Table 16-12 summarizes the parameters used in the optimization process. All monetary amounts are in U.S. dollars unless otherwise specified.

Table 16-12: Alluvial Mine Optimization Parameters

Parameter	Units	Bucket Line & Suction Dredges (Cucharas & Llanuras)	Brazilian Suction Dredge (Owned and Contract)
Gold Price	US$/oz Au	1,750	1,750
Exchange Rate	COP/US$	4,000	4,000
Treatment Cost	US$/oz	16.10	16.10
Selling Cost	US$/oz	99.24	99.24
Process Recovery	%	81	61
Waste Mining Cost	US$/m^3	0.65	N/A
Ore Mining Cost	US$/m^3	1.37	2.14
G&A Cost	US$/m^3	0.68	0.68
Sustaining Capital Costs	US$/m^3	0.82	N/A
Closure Cost	US$/m^3	0.15	0.15

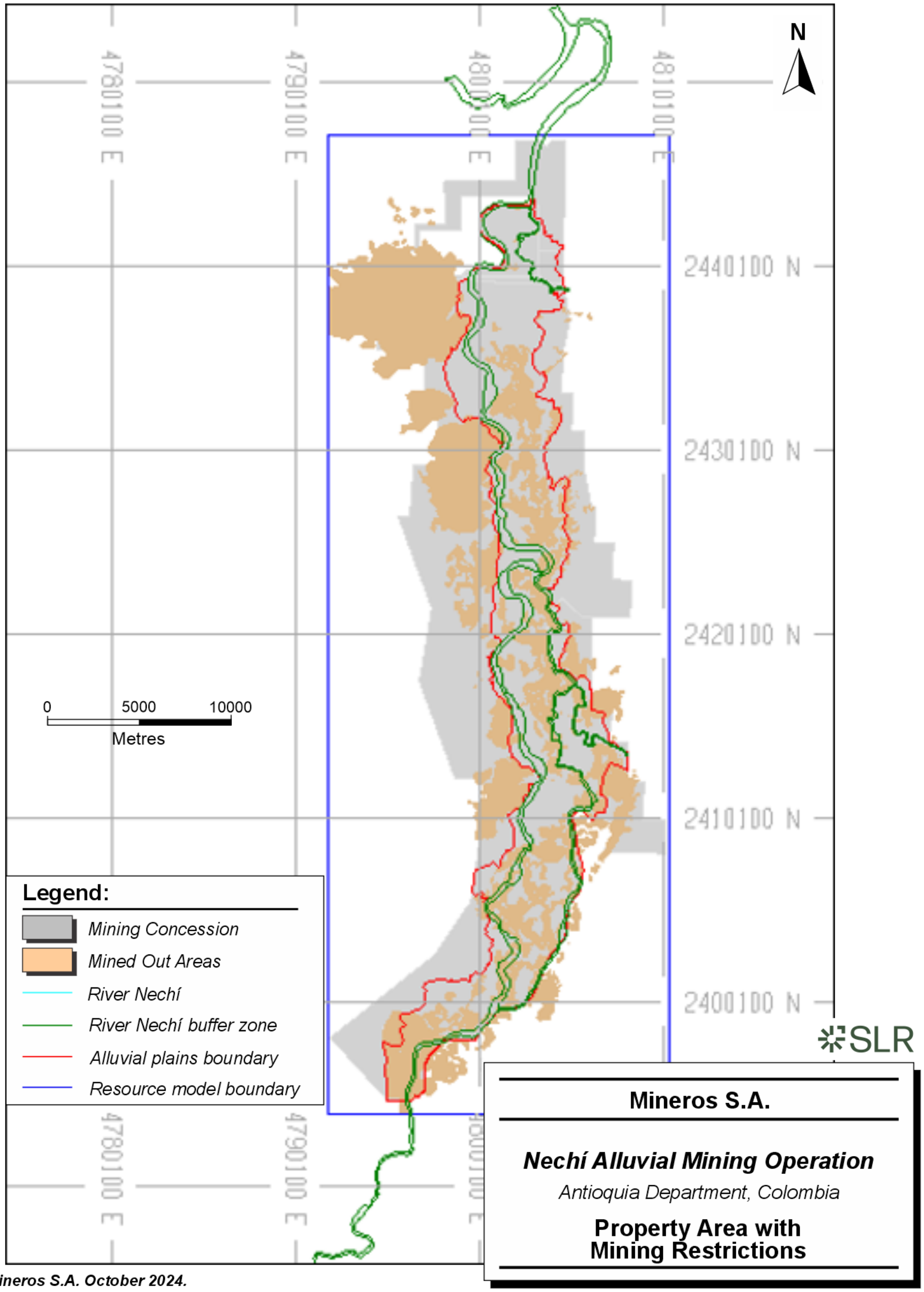
Figure 16-6 illustrates the areas excluded from the alluvial mine optimization process. These exclusions were implemented to ensure compliance with environmental, legal, and operational constraints. The excluded areas include:

- The Nechí River and its tributaries, Quebrada San Pedro and Amacerí, along with a 100 m buffer zone to protect riparian ecosystems and watercourses.
- Mined-out areas, as updated to reflect operational data as of June 30, 2024.

- Areas outside the mining concession, ensuring that all mine designs remain within legally permitted boundaries.
- Regions beyond the boundary of the alluvial plain, as these fall outside the economically viable extent of the deposit.
- Environmentally restricted areas, where mining activities are prohibited to preserve ecological or cultural heritage.

These exclusions were carefully integrated into the alluvial mine optimization process to ensure compliance with regulatory frameworks while maintaining the integrity of the optimization analysis.

Figure 16-6: Property Area with Mining Restrictions



Source: Mineros S.A. October 2024.

A zero-recovery value was assigned to the following resource blocks to exclude them from contributing to the economic evaluation:

- Lithologies categorized as overburden and bedrock, which do not contain economically recoverable gold.
- Mined out blocks, reflecting areas where material has already been extracted.
- Blocks classified as "Inferred" and "Other", as these do not meet the criteria for inclusion in Mineral Reserve estimates.

16.3.3.1 Mining Depth Limits and Costs

Suction Dredges: The mining depth limit for suction dredges was set at 12 m, reflecting their operational capacity.

Bucket Line Dredges: These are configured to mine to depths of up to 30 m below the surface.

The optimization process included ore mining costs, which account for onboard processing expenses. The mine operating costs applied were derived from the 2024 Nechí budget, ensuring alignment with current economic conditions and operational practices.

16.3.3.2 Optimization Methodology

The Pseudoflow algorithm was employed to define the economic extraction limits. This method evaluates the net block value—calculated as block revenue minus total operating costs—to identify the most economically viable blocks for extraction. For the purpose of defining a reference extraction model during optimization, a slope angle of 90° was used, consistent with the vertical excavation approach typical in alluvial mining operations.

However, in the subsequent extraction design phase, a final slope angle of 37° was applied, reflecting the practical mining approach used for operational and geotechnical stability.

It is noted that the optimization did not factor in mining dilution or ore losses, as these are addressed in subsequent stages of mine planning and reserve estimation.

16.3.4 Alluvial Mining Optimization Results

Resource material within the mineralized blocks that has a positive net value is classified as potential dredge feed, while other resource material is classified as waste. A series of optimized extraction shells were created for the Nechí deposit based on varying revenue factors.

The results of the alluvial mining optimization for bucket line dredges and the D21 suction dredge (Llanuras), which are all owned and operated by Mineros, are summarized in Table 16-13 and Figure 16-7.

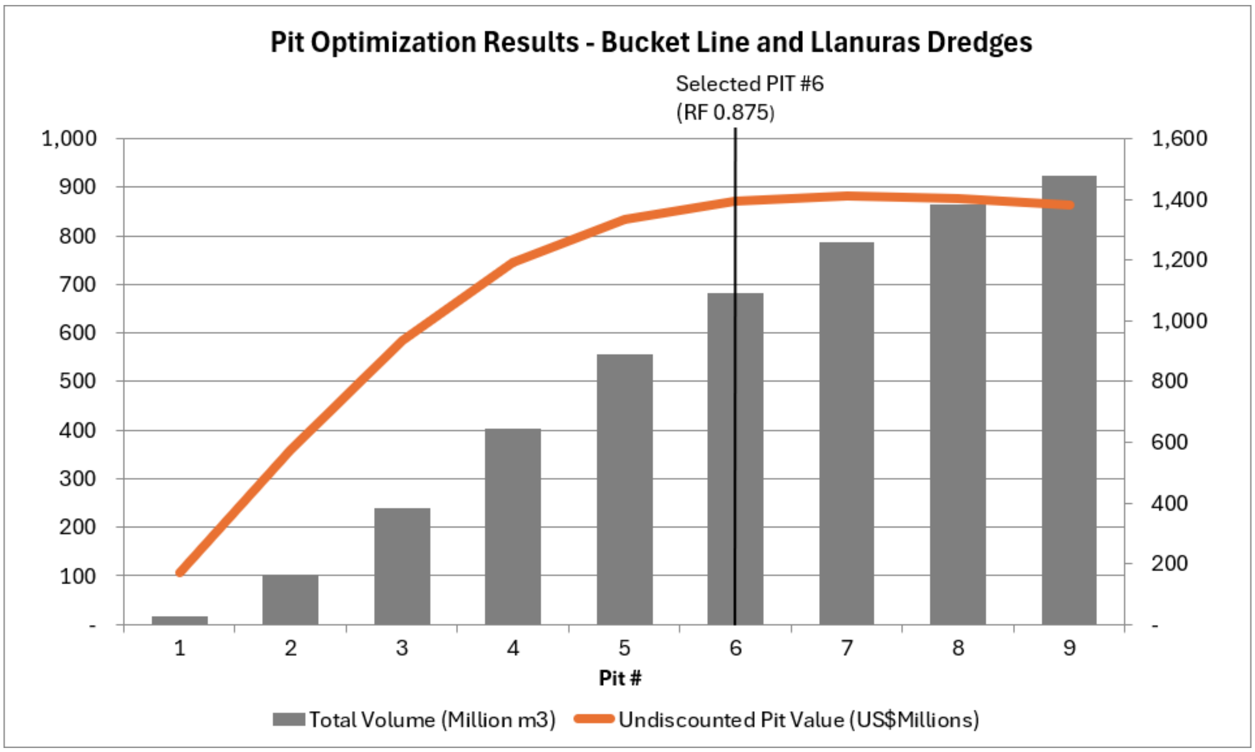
Table 16-13: Alluvial Mining Optimization Results, Bucket Line Dredges and Llanuras Operations

RF	Volume[1] (m^3)	Waste (m^3)	Mineralization (m^3)	Metal Grade [2] (mg/m^3)	Gold Grade[2,3] (mg/m^3)	Metal Content (oz)	Gold Content [3] (oz)	Undiscounted Pit Value [4] (US$)
0.250	17,928,000	10,849,680	7,078,320	294.27	261.90	169,619	150,961	171,095,911
0.375	102,557,880	62,789,040	39,768,840	191.74	170.65	632,229	562,684	572,131,967
0.500	239,831,280	146,959,920	92,871,360	148.24	131.93	1,143,022	1,017,290	933,090,143

RF	Volume[1] (m^3)	Waste (m^3)	Mineralization (m^3)	Metal Grade [2] (mg/m^3)	Gold Grade[2,3] (mg/m^3)	Metal Content (oz)	Gold Content [3] (oz)	Undiscounted Pit Value [4] (US$)
0.625	401,743,800	243,687,960	158,055,840	124.50	110.81	1,608,120	1,431,226	1,190,855,367
0.750	556,450,560	335,570,040	220,880,520	110.11	98.00	1,969,981	1,753,283	1,335,005,978
0.875	681,905,520	408,205,440	273,700,080	101	90.00	2,219,355	1,975,226	1,395,214,963
1.000	785,634,120	466,873,200	318,760,920	94.90	84.46	2,397,143	2,133,457	1,410,149,767
1.125	864,482,760	511,202,880	353,279,880	90.57	80.61	2,517,224	2,240,329	1,401,373,120
1.250	924,295,320	544,254,120	380,041,200	87.47	77.85	2,599,266	2,313,347	1,382,169,775

Notes:
1. In-situ total volume.
2. Metal grade and gold grade is diluted to total volume which includes both mineralization and overburden.
3. The fineness of gold in the doré is 89%. The gold grade and the contained gold are adjusted for fineness.
4. Pit optimized with mined out shapes as of June 30, 2024.

Figure 16-7: Alluvial Mine Optimization Results, Bucket Line and Llanuras Operations



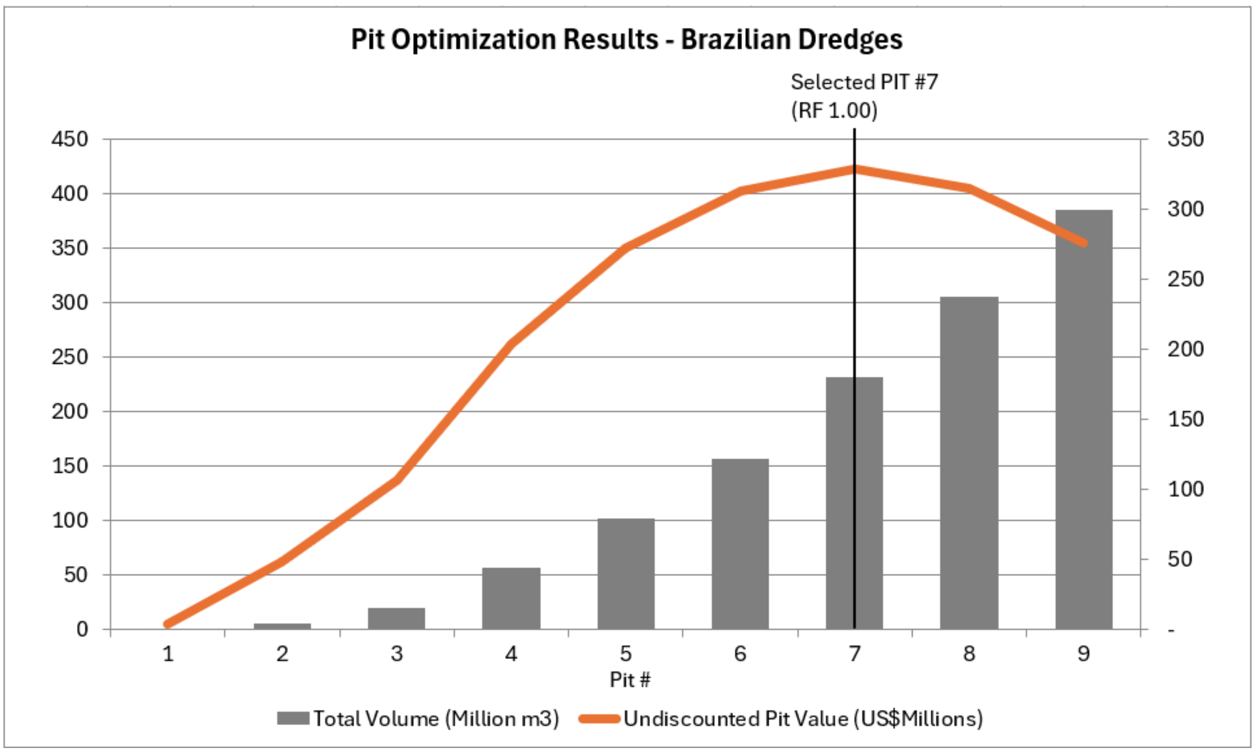
The results of the alluvial mine optimization for suction dredges operated by third parties (Brazilian suction dredges) under contract with Mineros, are summarized in Table 16-14 and Figure 16-8.

Table 16-14: Alluvial Mine Optimization Results, Brazilian Suction Dredges

RF	Volume[1] (m^3)	Metal Grade[2] (mg/m^3)	Gold Grade[2,3] (mg/m^3)	Metal Content (oz)	Gold Content [3] (oz)	Undiscounted Shell Value [4] (US$)
0.250	245,160	574.9	511.6	4,531	4,033	3,670,613
0.375	5,691,600	387.7	345.0	70,940	63,136	47,935,029
0.500	19,322,280	290.6	258.6	180,504	160,649	107,039,790
0.625	56,156,760	226.4	201.5	408,819	363,849	203,644,280
0.750	102,238,200	193.9	172.5	637,254	567,156	272,255,844
0.875	156,933,720	171.2	152.3	863,693	768,686	313,397,751
1.000	231,078,960	151.6	134.9	1,125,959	1,002,103	329,196,210
1.125	305,420,760	138.1	122.9	1,356,012	1,206,851	315,155,387
1.250	385,123,680	127.3	113.3	1,576,198	1,402,816	276,366,844

Notes:
1. In-situ total volume
2. Metal grade and gold grade is diluted to total volume which includes both mineralization and overburden.
3. The fineness of gold in the doré is 89%. The gold grade and the contained gold are adjusted for fineness.
4. Pit optimized with mined out shapes as of June 30, 2024.

Figure 16-8: Alluvial Mine Optimization Results, Brazilian Suction Dredges



For each extraction shell, an undiscounted extraction value was calculated based on the shell content and the economic parameters outlined in Table 16-12. These undiscounted extraction values were compared to identify the point at which further expansions of the extraction boundaries do not significantly enhance the overall value.

Extraction shell No. 6, with an RF=0.875, was generated for bucket line and Llanuras dredging units, while extraction shell No. 7, with an RF=1.00, was created for Brazilian dredging units. The shells were selected as the optimal economic shapes to guide the alluvial mine design process.

16.3.5 Extraction Optimization Modifying Factors

The size of extraction shell No. 6 (RF=0.875) was further refined to exclude small, non-productive pushbacks based on the following criteria:

- Pushbacks smaller than 2,500,000 m^3 were excluded from bucket line operations, which are the most productive dredging units intended for mass extraction.
- Pushbacks ranging from 1,500,000 m^3 to 2,500,000 m^3 were designated for Llanuras dredging operations.

Similarly, the size of extraction shell No. 7 (RF=1.00), designated for Brazilian suction dredging units, was refined by including pushbacks ranging from 350,000 m^3 to 1,500,000 m^3, while pushbacks smaller than 350,000 m^3 were excluded.

To ensure efficient resource allocation, an additional step was undertaken to remove overlap between the pit optimizations for bucket line and Llanuras dredging operations (extraction shell No. 6) and Brazilian suction dredging units (extraction shell No. 7). In this step, material was prioritized for bucket dredging operations, reflecting their higher productivity and suitability for mass extraction.

Table 16-15 shows the content of the selected Pit No. 6 (RF=0.875) after applying filters to eliminate small, non-productive pushbacks for the bucket line and Llanuras dredging operations.

Table 16-15: Content of Extraction Shell No. 6 (RF=0.875) Following the Exclusion of Small Pushbacks

Volume[1] (m^3)	Waste (m^3)	Mineralization (m^3)	Gold Grade (mg/m^3)	Gold Content (oz)
479,409,840	291,616,200	187,793,640	94.04	1,449,546

Notes:

1. In-situ total volume
2. Gold grade is diluted to total volume which includes both mineralization and overburden.
3. The fineness of gold in the doré is 89%. The gold grade and the contained gold are adjusted for fineness.
4. Pit optimized with mined out shapes as of June 30, 2024.

Table 16-16 shows the content of the selected shell No. 7 (RF=1.00) after applying filters to remove small, non-productive pushbacks for the Brazilian suctio[1]n dredging units.

Table 16-16: Content of Extraction Shell No. 7 (RF=0.875) Following the Exclusion of Small Pushbacks

Volume[1] (m^3)	Gold Grade (mg/m^3)	Gold Content (oz)
52,314,120	115.83	194,813

Notes:

1. In-situ total volume
2. Gold grade is diluted to total volume which includes both mineralization and overburden.
3. The fineness of gold in the Doré is 89%. The gold grade and the contained gold are adjusted for fineness.
4. Pit optimized with mined out shapes as of June 30, 2024.

16.4 Mining Design

16.4.1 Modifying Factors for Alluvial Mining Designs

To minimize the impact of slope collapse from suction dredging into the bucket dredging pit and to ensure that any collapsed material from bucket dredging settles at its natural angle of repose without affecting slope stability, a final slope angle of 37° was chosen. This adjustment to the Deswik mining model, which was initially designed with a 90° slope angle, accounts for an estimated pit wall dilution of 8.5%.

To maintain the long-term stability of the mining area, a minimum distance of three cuts, each measuring 30 m in width, was established between the suction dredging cut and the bucket dredging cut. This 90 m corridor also ensures that the failure surface does not extend to the environmental boundaries of the mining area.

Table 16-17 and Table 16-18 present the material estimates for the bucket line and Llanuras dredging operations as well as for the Brazilian dredging operations, following the adjustment of the slope angle.

Table 16-17: Material Estimates for Bucket Line and Llanuras Following Slope Angle Adjustment

Volume[1] (m^3)	Waste (m^3)	Mineralization (m^3)	Diluted Gold Grade [1] (mg/m^3)	Gold Content (oz)
424,104,322	223,130,491	200,973,831	90.76	1,237,522

Notes:
1. In-situ total volume.
2. Metal grade and gold grade is diluted to total volume which includes both mineralization and overburden.
3. The fineness of gold in the Doré is 89%. The gold grade and the contained gold are adjusted for fineness.
4. Pit wall dilution 8.5%.
5. Pit optimized with mined out shapes as of June 30, 2024.

Table 16-18: Pit Content for Brazilian Following Slope Angle Adjustment

Volume[1] (m^3)	Diluted Gold Grade[1] (mg/m^3)	Gold Content[2,3] (oz)
72,159,746	98.00	227,360

Notes:
1. In-situ total volume.
2. Gold grade is diluted to total volume which includes both mineralization and overburden.
3. The fineness of gold in the Doré is 89%. The gold grade and the contained gold are adjusted for fineness.
4. Pit wall dilution 8.5%.
5. Pit optimized with mined out shapes as of June 30, 2024.
6. The increase in gold content compared with prior estimates reflects the reassignment of some bucket dredge material to Brazilian dredging operations due to selective mining unit (SMU) considerations.

16.4.2 Pit Mining Quantities

Table 16-19 presents the mineable pit quantities derived from the pit design solids.

Table 16-19: In Situ Pit Mining Quantities

Equipment	Volume[1] (m^3)	Waste (m^3)	Mineralization (m^3)	Diluted Gold Grade[2,3] (mg/m^3)	Gold Content[3] (oz)
Bucket Line Dredges	388,582,247	204,441,556	184,140,691	93.49	1,168,048
Llanuras Dredge	35,522,075	18,688,935	16,833,140	60.83	69,475
Brazilian Dredges	72,159,746	N/A	N/A	98.00	227,360
Total	**496,264,068**	**223,130,491**	**200,973,831**	**91.81**	**1,464,882**

Notes:

1. In-situ total volume.
2. Gold grade is diluted to total volume which includes both mineralization and overburden.
3. The fineness of gold in the Doré is 89%. The gold grade and the contained gold are adjusted for fineness.
4. Pit wall dilution 8.5%.
5. Pit optimized with mined out shapes as of June 30, 2024.
6. The gold grade for the bucket line and Llanuras dredges is estimated within the mineralized volume only, while for Brazilian dredges is estimated within the total volume.

The total volume mined by the Brazilian dredges includes both mineralized and waste material combined, whereas with Mineros' equipment, the waste and mineralized volumes are reported separately.

16.5 Production Schedule

16.5.1 Mining Dilution and Losses

During mining, some dilution in the plant feed is anticipated as waste material from areas surrounding the mineralized zones, as well as material from slope collapses, mixes with the mineralized material, leading to dilution. To account for this, volumes of both in situ mineralization and overburden material within the ultimate pit design are increased by 10%. In addition, adjustments have been made to the in-situ metal grade to reflect the impact of this dilution.

Although the loss of mineralization during mining is not specifically included in the calculations, the loss of metal is accounted for in the gold recovery percentage. An MCF of 0.90 was applied specifically to the Phase 2 pit within the current mining area, classified as Probable, aligning with recent infill drilling results and production reconciliation data from the second and third quarters of 2024. This MCF is applied to the LOM production plan for the Phase 2 pit, covering the years 2024 to 2028.

16.5.2 Mining Sequence for Alluvial Extraction

The alluvial pit sequencing was based on the updated 2024 Mineral Resource Model, as detailed in Section 14, with mined out shapes as of December 31, 2024.

Pit sequencing aims to create a phased plan for extracting ore and waste materials over time. The goal is to maximize ore recovery, economic returns, and operational efficiency while ensuring compliance with environmental and regulatory standards.

To facilitate production scheduling, the large mining area is subdivided into 12 phases, including Phase 1 and 2 which are currently in progress. The objective of the pit sequencing is to create a logical mining order by visually mapping access routes to resources and equipment units and improving control over the sequencing process.

The following assumptions guide the mining sequencing:

- Overburden mining target is 12 m from the surface. The mining of overburden is conducted in two benches, each six metres high, allowing for better scheduling of the suction equipment capacity.
- Vertical mining advancement corresponds to the height of the resource block, which is 1.2 m.
- The direction of mining advancement is proposed to be from south to north.
- The sequencing of equipment considers the lost time during transitions between phases, such as movement through docks (entries and exits), floating (upstream movement), and the establishment of ponds (except for Phase 4, which is the largest mining phase).
- For large mining blocks designated for bucket line dredgers, the design focuses on maintaining continuous dredging routes to prevent upstream movement and ponding.
- Dredging routes are established with a minimum dredging width of 90 m, corresponding to three cuts, each 30 m wide.
- Dredging routes are grouped based on spatial location and proximity to establish feasible stages, allowing areas to be divided so that dredgers can complete dredging simultaneously.
- If a mining block is unsuitable for bucket line dredges due to volume, minimum width, shape, or access, it is reassigned to Llanuras or Brazilian suction dredges.
- Equipment effective productivities (m^3/h):
  - 5 x Bucket line dredge: 410
  - 9 x Suction dredge: 305
  - 1 x Llanuras dredge: 190
  - 13 x Brazilian suction dredge: 95

The pit mining sequence and annual dredging volume by phase is outlined in Table 16-20. It should be noted that the estimated annual mining volumes are subject to obtaining the necessary environmental permits.

Table 16-20: Pit Mining Sequence and Annual Dredging Volume by Phase

Pit	Annual Dredging Volume (Mm3)												
	Total	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**
Phase 1	9	3.0	0.8	0.5	0.7	0.7	0.7	0.8	1.3	0.6	-	-	-
Phase 2	82	42.1	34.6	3.8	1.0	-	-	-	-	-	-	-	-
Phase 2 Extension	19	-	8.9	10.3	-	-	-	-	-	-	-	-	-
Phase 9	16	-	4.5	6.7	1.5	0.7	0.7	0.7	0.7	-	-	-	-
Phase 4	107	-	-	29.8	41.4	28.9	7.3	-	-	-	-	-	-
Phase 3	26	-	-	2.6	6.6	6.6	5.2	2.8	0.3	0.9	0.7	-	-
Phase 10	10	-	-	-	0.9	1.8	3.1	3.6	0.3	-	-	-	-
Phase 5	81	-	-	-	-	2.1	30.9	27.7	15.5	3.6	1.1	0.4	-
Phase 6	70	-	-	-	-	11.0	1.7	1.7	3.9	19.1	16.6	9.1	6.9
Phase 7	67	-	-	-	-	-	-	1.3	28.8	20.6	10.7	4.7	1.2
Phase 8	16	-	-	-	-	-	-	9.0	1.1	0.0	3.8	1.7	0.3
Phase 11	21	-	-	-	-	-	-	-	-	-	6.7	9.4	4.7
Total Volume	524	45.1	48.8	53.7	52.2	51.7	49.7	47.6	52.0	44.8	39.5	25.3	13.2

16.5.3 Life of Mine Production Schedule

At the Nechí Alluvial Property, three types of dredging equipment are utilized specifically for mining mineral-rich material:

1 The predominant method is alluvial plain mining using five bucket line dredges. These dredges, owned and operated by Mineros, are designed for large-scale mass extraction of gold-bearing gravel material.

2 The second method involves the Llanuras production unit, which utilizes a wheel cutter suction dredge and floating processing plant. This method is aimed at selective extraction of gold-bearing gravel and is also owned and operated by Mineros.

3 The third method is suction plain mining using thirteen “Brazilian” suction dredges, 10 diesel powered, owned by third parties, and three electric powered, owned by Mineros. These dredges, operated by third parties under contract with Mineros, include onboard processing plants.

In addition, nine suction dredges, owned and operated by Mineros, remove the overburden in advance of the bucket line dredge units and Llanuras production unit.

The life of mine production schedule outlines the annual in situ and diluted volume, along with the corresponding gold grades and content mined by each of production units mentioned above.

Measured and Indicated Mineral Resources within the Nechí Mineral Reserve pits were converted to Proven and Probable Mineral Reserves, respectively, and incorporated in the LOM plan for production scheduling. Inferred Resources have not been included in the LOM plan.

Onboard processing recoveries were assigned based on the designated equipment, specifically:

- Bucket Line Dredge: 83%
- Llanuras Dredge: 58% and 80% (in 2026)
- Brazilian Electric: 59%
- Brazilian Diesel: 62%

The overall LOM plan for the three main production units is summarized in Table 16-21 and illustrated in Figure 16-9.

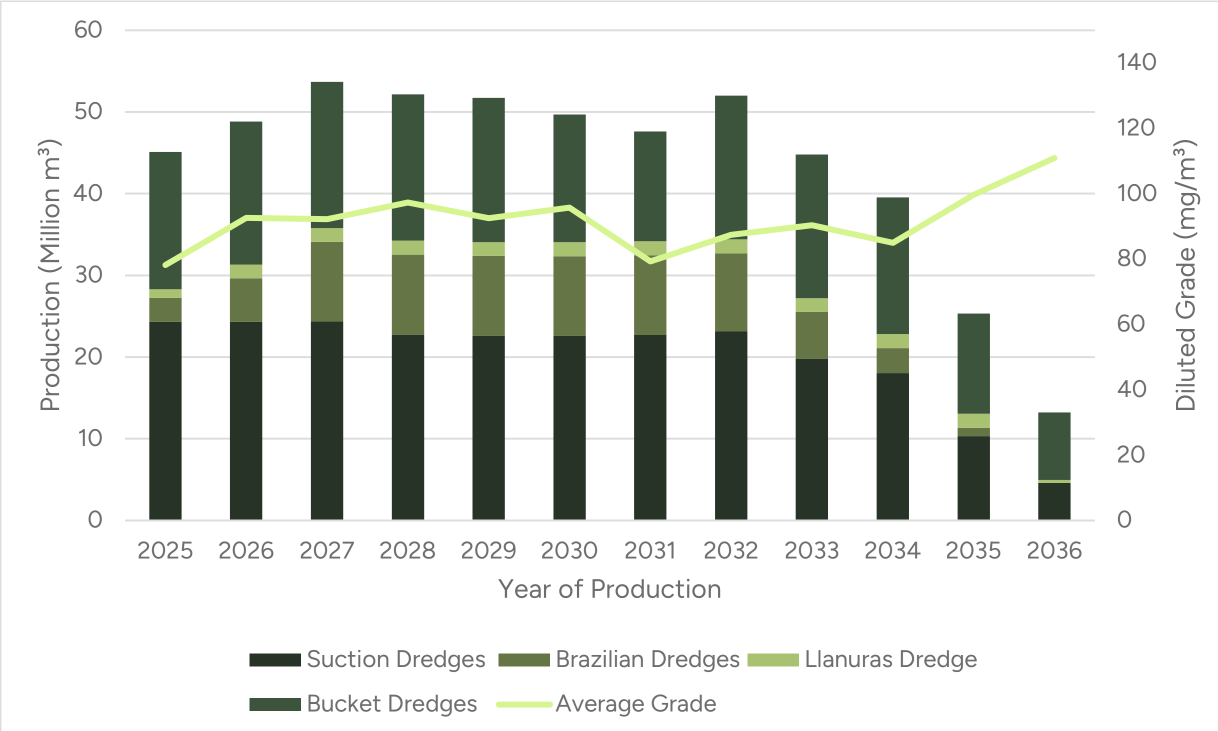
Table 16-21: Life of Mine Production Schedule

Pit	Total	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Volume by Equipment (Mm^3)													
Suction (Overburden Removal)	239.5	24.3	24.3	24.3	22.8	22.6	22.6	22.7	23.1	19.8	18.0	10.3	4.6
Bucket Line	189.3	16.8	17.5	17.9	17.9	17.7	15.6	13.4	17.6	17.6	16.7	12.2	8.3
Llanuras	18.4	1.0	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	0.3
Brazilian	76.6	3.0	5.3	9.8	9.8	9.8	9.8	9.8	9.6	5.7	3.1	1.0	0.0
Total Volume	523.7	45.1	48.8	53.7	52.2	51.7	49.7	47.6	52.0	44.8	39.5	25.3	13.2
Volume by production unit - Including Suction (Overburden Removal) (Mm^3)													
Bucket Line	408.1	39.0	39.7	40.1	38.7	38.3	36.3	34.2	38.7	35.6	33.2	21.7	12.5
Llanuras	39.0	3.1	3.8	3.8	3.7	3.6	3.6	3.7	3.7	3.4	3.3	2.6	0.7
Brazilian	76.6	3.0	5.3	9.8	9.8	9.8	9.8	9.8	9.6	5.7	3.1	1.0	-
Total Volume	523.7	45.1	48.8	53.7	52.2	51.7	49.7	47.6	52.0	44.8	39.5	25.3	13.2
Metal Grade by production unit - Including Suction (Overburden Removal) (mg/m^3)													
Bucket Line	91.8	80.5	94.6	90.9	102.8	93.9	94.9	73.5	88.1	95.1	88.5	102.2	114.6
Llanuras	61.1	33.6	50.8	55.5	56.2	71.2	70.6	65.0	70.4	64.2	56.1	84.9	47.5
Brazilian	97.7	94.6	107.9	111.7	91.0	94.8	108.3	105.2	91.1	76.3	77.7	83.6	-
Average Grade	90.4	78.2	92.6	92.2	97.3	92.5	95.8	79.3	87.4	90.3	85.0	99.6	110.9
Metal Content by production unit (koz)													
Bucket Line	1,205	101	121	117	128	116	111	81	110	109	94	71	46
Llanuras	77	3	6	7	7	8	8	8	8	7	6	7	1
Brazilian	241	9	19	35	29	30	34	33	28	14	8	3	-

Pit	Total	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Total Metal	1,522	113	145	159	163	154	153	121	146	130	108	81	47
Gold Content by production unit – Adjusted for Fineness (koz)													
Bucket Line	1,072	90	107	104	114	103	99	72	98	97	84	63	41
Llanuras	68	3	6	6	6	7	7	7	7	6	5	6	1
Brazilian	214	8	16	31	25	26	30	29	25	12	7	2	-
Total Gold	1,355	101	129	142	145	137	136	108	130	116	96	72	42
Recovery by production unit (%)													
Bucket Line	83	83	83	83	83	83	83	83	83	83	83	83	83
Llanuras	79	58	80	80	80	80	80	80	80	80	80	80	80
Brazilian	61	60	61	61	61	61	61	61	61	61	60	59	0
Average	78	79	79	77	77	77	76	75	78	80	81	82	83
Mine Call Factor (MCF)													
Bucket Line	0.99	0.96	0.93	0.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Llanuras	0.99	0.94	0.99	0.98	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Brazilian	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Recovered Gold by production unit (koz)													
Bucket Line	875	71	82	82	95	86	82	60	81	81	70	53	34
Llanuras	54	2	4	5	5	6	6	5	6	5	4	5	1
Brazilian	131	5	10	19	16	16	19	18	15	8	4	1	-
Total Gold	1,059	77	97	106	115	108	106	83	102	93	78	59	35

Notes:
1. Mined out areas were updated as of December 31, 2024.
2. Metal and gold grade is diluted to total volume which includes both mineralization and overburden.
3. Recovery rates are based on the reconciliation factor or the % of gold recovered versus the estimated amount of gold.
4. Totals may not sum precisely due to rounding.

Figure 16-9: LOM Production Schedule by Material and Equipment Units



The main features of the LOM production schedule include:

- LOM production schedule is developed on an annual basis and presents the continuation of the current operations. The production schedule starts on January 1, 2025, and concludes in November 2036, giving the project a total lifespan of almost 12 years.
- Mineros production represent 85% of the total LOM production. The remainder is mined and processed by third parties under contract with Mineros.
- Mineros production is divided into overburden and mineralized material, while the material mined by contractors using Brazilian dredges represents the total combined volumes of both overburden and mineralization.
- Total dredging production averages 43.6 Mm^3 from 2025 to 2032 with the peak mining rate of 53.7 Mm^3 in 2027. Diluted gold grade peaks in 2036 at 111 mg/m^3.
- Over the life of mine, bucket line dredging accounts for approximately 78% of total Nechí production (overburden and mineralization).

16.6 Mode of Operations

The alluvial mining operation is scheduled to operate 365 days per year, 24 hours per day, employing the Mineros workforce and machinery along with third party contractors using their own equipment and workforce.

The work schedule uses four crews working 8-hour shifts for union workers and three crews working two 12 hours shifts for non-union personnel.

There are no scheduled breaks during equipment operating shifts, however, during dredge relocations between stages, extensive onboard preventive maintenance is performed.

Equipment effective utilization (mechanical availability x use of availability) is presented in Table 16-22.

Table 16-22: Equipment Effective Utilization

Equipment	Utilization (%)
Bucket Line Dredge	83
Llanuras Dredge	80
Brazilian Dredge	65
Suction Dredge (Overburden)	79

16.7 Mining Equipment

16.7.1 River Dredges

Mineros currently has five bucket line dredges in operation: D03, D05, D10, D14, and D16 as shown in Table 16-23. Each production unit works with at least one of the nine suction dredges shown in Table 16-24.

Table 16-23: Bucket Line Dredge Production Units

Item	Bucket Line Dredges				
Dredge No.	3	5	10	14	16
Name	Jobo	Boyaca	Dobaibe	Santa Paula	Santa María
Model	Yuba	Yuba	Yuba	Natomas	Yuba
Year of Construction	1936	1938	1938	1936	1939
Year of Rebuild	2010	2014	1980	2004	2008
Year Purchased	1937	1938	1975	1979	2007
Total Length (m)	105.3	109.48	143	123	114
Length of Hull (m)	47.98	50.38	76.4	52.05	52.4
Width of Hull (m)	30.28	22.56	24.38	21.39	25.3
Depth of Hull (m)	3.05	3.35	3.35	3.35	3.05
Length of Arm (m)	47.56	47.55	58.52	52.21	48
Number of Buckets	103	103	125	110	103
Dredge Capacity (m^3/min)	30	30	30	30	30
Single Bucket Volume (m^3)	0.39	0.39	0.39	0.39	0.39
Bucket Line Velocity (rpm)	8.25	8	7.39	9.55	8.25
Rotary Screen Size (m)	2.44 x 14.63	2.44 x 14.63	2.74 x 16.25	2.97 x 16.25	2.44 x 14.63
Dredge Depth Range (m)	26	28.5	30	28	26.5

Table 16-24: Suction Dredge Production Units

Item	Suction Dredges								
Dredge No.	11	12	13	15	17	18	19	20	25
Name	Yamesí	Bijugüal	Mayaba	San Lucas	Los Ángeles	San Martín	San Pedro	Bijao	Aponea
Model	IHC	IHC	IHC	IHC	IHC	IHC	IHC	IHC	IHC
Year of Construction	1992	1994	1998	2004	2004	2012	2012	2020	2020
Year of Rebuild	2010	N/A	N/A	N/A	2017	N/A	N/A	N/A	2024
Year Purchased	1992	1994	1998	2004	2008	2013	2013	2020	2024
Total Length (m)	25.15	29.50	29.50	25.15	26.50	43.00	43.00	26.00	41.50
Width of Hull (m)	7.98	8.39	8.39	7.00	9.20	9.49	9.49	8.22	7.91
Depth of Hull (m)	1.46	1.80	1.80	1.46	1.46	2.48	2.48	1.5	2.44
Suction Head Diameter (mm)	350	450	450	350	609.6	550	550	450	450
Discharge Head Diameter (mm)	450	500	500	450	558.6	550	550	450	450
Dredge Depth Range (m)	12	12	12	12	14	18	18	15	16

In addition to the bucket line and suction dredges used to mine the deeper portion of the alluvials, Mineros commissioned two new wheel cutter suction dredges to its fleet in 2020 (No. 20 and No. 21) to mine the shallower plain alluvials. Dredge No. 20 is used to remove the overburden down to a depth of 15 m. Dredge No. 21 mines the pay gravel down to a depth of 28 m and feeds the Llanuras Plant. Another suction dredge, No. 25, for overburden removal, was fully commissioned in December 2024.The general specifications of these suction dredges are shown in Table 16-26.

Table 16-25: Wheel Cutter Suction Dredge Production Units

Item	Suction Dredges		
Dredge No.	20	21	25
Name	Bijao	Marianito	Aponea
Model	IHC	Rohr IDRECO	IHC
Year of Construction	2020	2020	2020
Year of Rebuild	N/A	N/A	2024
Year Purchased	2020	2020	2024
Total Length (m)	26.0	44.5	41.50
Width of Hull (m)	7.0	8.6	7.91
Depth of Hull (m)	1.5	2.0	2.44
Suction Head Diameter (mm)	450	432	450
Discharge Head Diameter (mm)	450	432	450
Dredge Depth Range (m)	15	28	16

Dredge No. 20 “Bijao” is a suction dredge from the same manufacturer as the overburden stripping suction dredges, Royal IHC. The dredge is 34.8 m long (26.0 m long pontoons), 7.0 m wide, and has a hull depth of 1.5 m. The dredge uses an IHC HRCS2 submerged dredge pump with installed power of 400 KW and a suction and discharge diameter of 450 mm with a capacity of 0.2 m^3/s to 1.1 m^3/s. The dredge utilizes a 2.4 m IHC BW2410 bucket cutter wheel diameter that rotates in the range of 0.0 rpm to 18.6 rpm and is powered by a Hägglunds CB400-360 hydraulic motor. It has a dredging arm that can reach a depth of 15 m that is raised by a 72 kN IHC Hytop HWH72 winch.

Dredge No. 20 removes overburden (gold-free material such as rocks, sands, clay, silts) that is at a depth of between 4 m and 15 m, by using cutting and suction. The overburden material is transported through an on-board metal pipeline and a floating pipe of high-density polyethylene, bringing the dredged material to its final disposal in a tailings area. The location of the tailings area is approximately 200 m to 800 m from the dredge. The dredge has two cylindrical anchors 560 mm in diameter and approximately 19 m in length. A movable anchor, called a dredging anchor, is responsible for carrying out the forward and reverse movements of the dredge. This dredge is not self-propelled, so for its movement between work areas it must be towed with boats.

During the dredging operation this dredge has three degrees of freedom in the position of the dredge wheel:

- Forward and reverse movement produced by the dredging anchor.

- Deepening and lifting movement produced by lifting and deepening of the dredging ladder using the ladder winch.
- Lateral movement using a parabolic type of short travel using the winches that are positioned at the bow at the starboard and port side of the dredge.

The No. 20 and 21 dredges are shown in Figure 16-10.

Figure 16-10: Dredge No. 20 and No. 21

No. 20

No. 21 and Plant

Source: SLR 2021

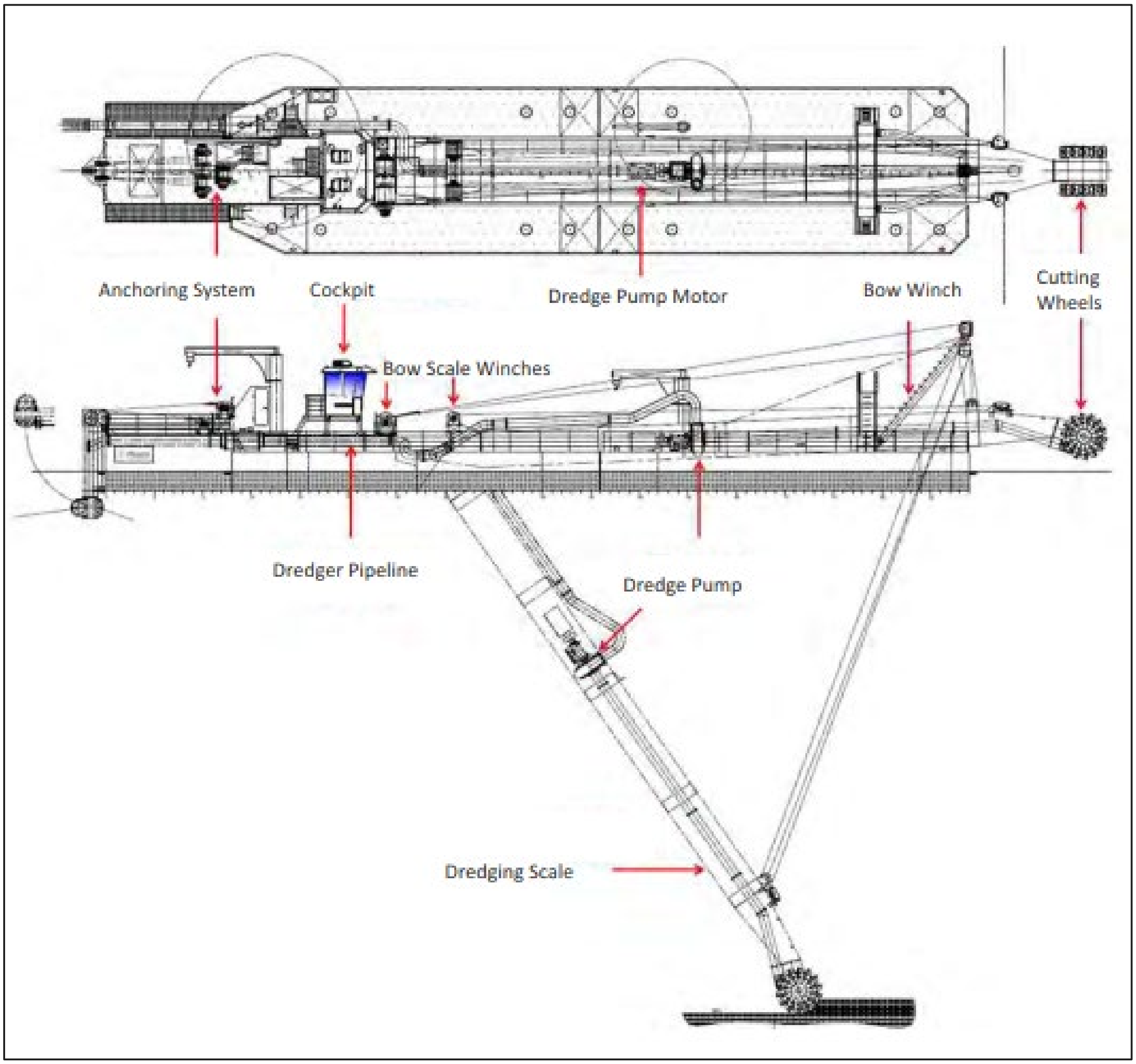
Dredge No. 21 “Marianito” is a suction dredge manufactured by ROHR IDRECO that uses an IDRECO IDP450 submersible dredge pump. The dredge is 52.8 m long (44.5 m long pontoons), 8.6 m wide, and has a hull depth of 2.9 m. Material is suctioned through a 432 mm diameter pipe and discharged through a 381 mm pipe using a 750 kW electric motor with an average dredging capacity of 2,700 m^3/h for gravel and 2,500 m^3/h for sand (approximately

540 tonnes per hour (tph) of solid material). The dredge is equipped with two cutter wheels that contain fourteen 2.5 m diameter buckets that are powered by a 180 kW Hägglunds hydraulic motor. The dredge has a dredging arm that can reach a depth of 28 m that is raised by a 147 kN winch.

Dredge No. 21 removes pay gravel (gold-bearing material) that is at a depth of between 15 m and 28 m, by using cutting and suction. Material is transported through an on-board metal pipeline and through a high-density polyethylene floating pipe bringing dredged material to the "Llanuras Plant", floating mill for the first stage of mineral extraction by means of pressurized Gekko jigs.

The configuration of the No. 21 dredge is shown in Figure 16-11.

Figure 16-11: Configuration of Dredge No. 21



Source: SLR 2021.

Mineros plans to use 13 Brazilian dredges in the mining of the current Mineral Reserves (Figure 16-12). Of these, three are electric dredges owned by Mineros and 10 are diesel dredges owned by third parties; both types operate under contract using contracted (formalized) crews. General specifications of the Brazilian dredges are shown in Table 16-26.

Table 16-26: Brazilian Suction Dredge Units

Item	Brazilian Dredges General Specifications
Model	Damen CSD250
Year of purchase	2020
Total length (m)	24
Width of hull (m)	13
Depth of hull (m)	1.8
Suction head diameter (mm)	460
Discharge head diameter (mm)	500
Dredge depth range (m)	24
Dredge arm width range (m)	20
Cutter head diameter (mm)	915
Cutter head area (m^2)	0.66
Advance/rotation (m)	0.15
Advance/min. (m)	4.50
Production rate (m^3/h)	160

After removal of the vegetation and topsoil using a bulldozer and overburden waste clays and sands by wheel cutter suction dredge, mining of the underlying gravels is carried out by the Brazilian dredge using a suction rotary cutter head. The dredge uses the extended cutting arm against the face of the gravels while maintaining the wall at approximately 60° for stability. Pay gravel is loosened and extracted by a dome-shaped cutter head constructed of five toothed conical sheets rotating at 30 rpm. Material and water enter the suction pipe nozzle in the centre of the cutter head and are pumped by the on-board solids pump through the suction pipe to be discharged to a grizzly at the head of the on-board recovery plant. The 600 hp solids pump is 18 in. x 20 in. with an installed capacity of 160 m^3/h and an operating efficiency of 80%. Recovery plant tailings are placed behind the dredge and used as a backstop for support.

The rotary cutter head permits the Brazilian dredge to strip and mine from surface down and the on-board recovery plant gives it the compactness and flexibility to work small areas and mine old tailings and terraces as well as the alluvial plains. Areas that are too small and up-river of current large blocks of mineral reserves, ideally mined by bucket dredge, are uneconomic if the company were to remobilize and mine by bucket dredge, but are recoverable with Brazilian dredges.

Figure 16-12: Brazilian Dredges

Source: SLR 2021.

16.7.2 Heavy Equipment

The operations support equipment includes track excavators, amphibious backhoes, track bulldozers, wheel backhoes, and mobile cranes (Table 16-27). Figure 16-13 shows a dredge and some of the support equipment.

Table 16-27: Alluvial Mining Heavy Equipment

Equipment	Type	Model	Make	Units
Excavator	Track	320	Caterpillar	6
Excavator	Amphibious	320	Caterpillar	6
Bulldozer	Track	D6T	Caterpillar	3
Telehandler	Track	TL1055	Caterpillar	1
Multi-purpose	Amphibious	SCO-HID-CE-300	SCO	2

Figure 16-13: Heavy Equipment

Source: SLR 2021.

16.7.3 Stationary Cranes

There are flexible arms (guy cables) and rigid arm (steel truss) stationary cranes at the industrial port facility (Table 16-28).

Table 16-28: El Bagre Stationary Cranes

Type of Crane	Location	Model	Capacity (t)	Engine (hp)
Static	Port	Mast 4 ton	4	25
Static	Operation Field	DKS 30/40	30	25
Mobile	Port	STERN ST 190	4	25
Static	Workshop	Pelligrini DKS 30/40	30	25
Mobile	Industrial Area	Grove RT 530E, 2003	15	25

16.7.4 River Transportation

The river equipment includes boats, canoes, and barges (Table 16-29). Boats and canoes are used for personnel and light load transportation. Barges are towed by boats and are used to transport heavy loads. Boats have a seven tonne capacity and canoes a two tonne capacity.

Table 16-29: River Transport Equipment

Type	Engine (hp)	Model	Length (m)	Width (m)	Units
Boat	200	MFB YAMAHA	7.54	1.9	19
Boat	115	MFB YAMAHA	7.54	1.9	1
Boat	150	MFB YAMAHA	7.54	1.9	2
Canoe	150	MFB YAMAHA	15	1.5	11
Canoe	115	MFB YAMAHA	15	1.5	1
Motor Launch	150	Diesel GM 671	16.67	2.82	7
Tug	150	Diesel GM 671	16.67	2.82	1

16.7.5 Ground Transportation

Vehicles are used for transportation inside the El Bagre compound. Transportation outside El Bagre is contracted out to third parties. A list of vehicles is provided in Table 16-30.

Table 16-30: El Bagre Ground Transportation

Vehicles	Duty	Units
Pick-Up Truck	People and loads	8
Bus	People	1
Van	People	1
Flatbed Truck	Loads	3
Truck	People and loads	3
SUV	People	3
Dump Truck	Materials	6

Vehicles	Duty	Units
Ambulance	As required	1

16.7.6 Aerial Transportation

Mineros employs secure aerial transportation for transferring gold-bearing concentrate from the dredges to its final recovery facility in El Bagre. Refined bullion is periodically transported to an international airport for sale and refining.

16.7.7 Survey and Mapping Technologies

Mineros is implementing advanced survey and mapping technologies to improve the efficiency of its mining operations at the Nechí Alluvial Property. These tools provide important operational data for mine planning, operational monitoring, and reconciliation, improving the overall effectiveness of dredging and material tracking processes.

Drone-Based Mapping

Unmanned Aerial Vehicles (UAVs), commonly referred to as drones, equipped with LiDAR sensors are used to generate high-resolution topographic maps of the mining area. These maps allow for:

- Accurate surface representation of the mined areas and stockpiles.
- Identification of changes in terrain, aiding short- and long-term mine planning.
- Monitoring of ongoing operations to ensure compliance with design and environmental standards.

Bathymetric Surveying

The implementation of bathymetric continuous survey equipment is improving the ability to map underwater surfaces, providing detailed 3D representations of the dredging floor. Key benefits include:

- Precise measurement of underwater surfaces after gravel removal.
- Improved control and reconciliation of mined volumes, enabling more accurate reporting and adherence to planned extraction targets.
- Enhanced data for refining dredging routes and identifying operational inefficiencies.

The bathymetric surveys are deployed via a specialized survey boat, which systematically covers the dredging areas, collecting sonar data to produce accurate and detailed bathymetric models.

The integration of these new technologies strengthens the accuracy of operational data, improves decision-making, and supports the efficient utilization of mining equipment. Together, drone and bathymetric surveys provide insights into both surface and underwater conditions, ensuring that mining activities are optimized and aligned with planned objectives.

16.8 Personnel

Table 16-31 summarizes the employee counts for Mineros and contractors, by department.

Table 16-31: Personnel Counts

Department	Mineros	Contractor
Supply Chain (Projects, Maintenance, Energy, Construction, Transport/Logistics, IT)	321	394
Operation (Massive Extraction, Selective extraction, Preparation, Processing Plant, Lab, Logistics, Technical Services, Exploration)	535	415
Support (Administrative, Human Resources, Communication, Risk management)	43	32
Sustainability (Health, Social, Environmental)	63	497
Total	**962**	**1,338**

17.0 Recovery Methods

Mineral beneficiation in the alluvial operation starts by a gravity concentration and/or sluice box/blanket treatment on board the dredges, followed by a concentration and smelting process in the El Bagre metallurgical plant at the El Bagre complex. The use of mercury amalgamation was eliminated in part of the operation in 2012 and completely phased out by 2014, replaced by use of extra jigs, sluice boxes, and blankets. Doré quality produced in the El Bagre refinery is reported to be consistently 890 fineness, or 89% gold in the final doré bars.

There are three main mining and concentration methods: bucket line dredges (5), Brazilian suction dredges (13), and the Llanuras production unit (1). Terrace mining, which focused on mining tailings from early, less efficient dredging operations, was discontinued by the end of 2024. All of the production dredges (bucket line dredges and Brazilian suction dredges) , except dredge No. 21, have their own on-board processing plants that use gravity concentration methods to produce gold-containing concentrates. Dredge No. 21 is connected to the Llanuras Plant, a separate floating processing plant that follows the dredge and is fed via floating pipeline from the dredge; the two are collectively referred to as the Llanuras production unit. The concentrates from all of the processing plants are transferred to the central refinery at El Bagre for additional concentration followed by smelting.

17.1 Bucket Line Dredges

Beneficiation on board the bucket line dredges consists of screening to remove coarse material followed by gravity concentration from the gravel and sand passing through the screen. Two concentrates, a high-grade and a low-grade concentrate, are produced, which are transferred to the refinery in El Bagre for further treatment.

17.1.1 Screening

The bucket line arm excavates gravel at a rate of approximately 0.31 m^3/bucket (500 m^3/h) and delivers it to a main hopper feeding a rotating trommel screen with 9.5 mm (⅜ in.) apertures. The oversize material is discharged by a conveyor belt behind the bucket line dredge to form backfill (tailings), with a portion dumped near the anchor to strengthen the anchor base. The screening stage reduces the material flow to a rate of approximately 320 m^3/h.

17.1.2 Gravity Concentration

The undersize material obtained from the trommel screen is conveyed to a distribution tank that feeds the first of three gravity concentration stages consisting of:

- Primary concentration in jigs processing material smaller than 9.5 mm to produce two fractions (concentrate and tails) at a concentration ratio of 10:1. Concentrates proceed to the next stage and the overflow, or tails, is sent to a scavenger sluice box and those tails are discharged behind the dredge. At this concentration stage, the flow of gravel is reduced to approximately 20 m^3/h.
- Secondary concentration in jigs processing concentrate generated in the first stage jigs, with a concentration ratio of 6:1. Concentrate passes on to the next stage and tails are returned to the primary concentration stage. After this stage, material flow is approximately 3.5 m^3/h.
- Tertiary concentration in jigs processing concentrate generated in the second stage, with a concentration ratio of 6:1. At this point, the process stream rate is approximately 0.6

m^3/h. Concentrate proceeds to the final recovery stage, while the tails are returned to the secondary stage.

17.1.3 Dredge Final Gold Recovery

By 2014, the use of mercury amalgamation had been discontinued and replaced by the use of sluice boxes/carpet tables and spirals for gold recovery from the jig circuit.

The concentrate from the third stage of jigs is sent to a series of mat sluice boxes for gold recovery. The tails from the sluice boxes flow into a set of spirals, producing two outputs: a concentrate and a residue. The concentrates are merged with the high-grade production. Meanwhile, the spiral tails are pumped into a sluice box known as the residue sluice, which yields a low-grade product. The tails from the residue sluice are then discharged into the final scavenger. Three of the bucket line dredges (dredge Nos. 5, 10, and 14) are equipped with satellite final scavenger felt-lined sluices mounted on barges attached to the sides of the hull at the rear of the dredges. The other two dredges (dredge Nos. 6 and 16) have their final scavenger felt-lined sluices installed onboard. These take the tails that were previously sent to the primary scavenger sluice box and discharge them to the pond.

The mat sluice boxes are cleaned daily to produce a high-grade concentrate. This concentrate and the low-grade spiral concentrate are transferred to the El Bagre metallurgical plant for final treatment and smelting. Access to the gold room on board the dredges where gold concentration takes place is limited to a few dredge personnel and a high level of security is in place for the gold recovery process. Mineros maintains sophisticated security monitoring devices along the full concentration process and armed security is maintained on board the dredges as well as in nearby support facilities.

A simplified flowsheet of the beneficiation process on board the bucket line dredges is shown in Figure 17-1.

17.2 Llanuras Plant

The Llanuras Plant, the processing plant used in conjunction with dredge No. 21 is a floating plant fed by material from a dredge, which works in conjunction with an overburden suction dredge (dredge No. 20).

The process consists of a trommel screen that screens out coarse material before the trommel screen undersize is passed through mat sluice boxes to capture the gold similar to the process used on the Brazilian suction dredges. Final gold recovery utilizes a small sluice box and carpet table to produce a high-grade concentrate that is transported to the El Bagre metallurgical plant.

A gold recovery plant previously used from 2018 to 2022 to process material from dredge No. 21 capsized during high winds in 2022 necessitating the use of the current simpler, less efficient gold recovery plant. Mineros is in the process of designing a new gold recovery plant for use in the Llanuras production unit. Mineros' plans for this plant to be operational in 2026 as part of the LOM, and is expected to achieve an 80% recovery rate.

17.3 Brazilian Suction Dredges

The on-board processing plants used on the suction dredges employs a static grizzly and mat sluices to concentrate gold-bearing gravel and sand. The concentrates are transported to the El Bagre metallurgical plant for final processing (Figure 17-2). The suction dredge gold recovery process can process approximately 160 m^3/h of suctioned material that discharges over a one-inch grizzly to separate the -25 mm gold-bearing fraction from large waste. The undersize and suctioned pulp water reports then passes over 12 one-metre wide sluices lined with mats for gold recovery. The grizzly oversize and sluice tailings are discarded to the pond behind the dredge. Final recovery of gold from the sluice mats is done several times daily using smaller mat sluices and the concentrates are transported to the El Bagre metallurgical plant.

17.4 El Bagre Metallurgical Plant

Gold concentrate from the dredges is transported to the metallurgical plant at Mineros' El Bagre complex for final gold recovery and smelting. Processing of dredge concentrates is done in batches of concentrate produced by each dredge and thus gold production from each dredge can be accounted for.

Figure 17-3 shows the process flowsheet for the final gold recovery plant. The plant consists of two parallel processing lines, with each line consisting of a feed screen, gravity gold recovery units, and magnetic separators described in more detail below.

The concentrate is deposited on a vibrating feed screen which splits the feed using a +/- 20 mesh (840 µm). The +20 mesh material is sent to a sluice box for gold recovery and the resulting tails are discharged to the small on-site lined tailings storage pond. The -20 mesh material is sent to two stages of spiral gold wheel concentrators (rotating tables) in series, with the recovered gold concentrate going to a drying and magnetic separation step, from which the final gold concentrate is sent for smelting. The magnetic separators remove any magnetic material from the concentrate prior to smelting.

The tails from the spiral gold wheel concentrators are sent to a four-stage gold recovery circuit. Each of the stages consists of a centrifugal gold concentrator, with the primary and secondary circuit having spirals, and the fourth, a sluice box following the centrifugal concentrator. The spirals and sluice box are used to scavenge gold from the centrifugal concentrator tails, with the spiral concentrates returning to the feed of the first and second stage of centrifugal concentrators, and the sluice box tails reporting to a final recovery step using flotation. Tails from the spirals report to the subsequent stage of centrifugal concentrators. The concentrate from the gravity concentrators, spirals, and sluice boxes is returned to the primary spiral gold wheel concentrators. The tails from the final circuit are sent to the flotation step for final gold scavenging and flotation tails are discharged to the tailings pond.

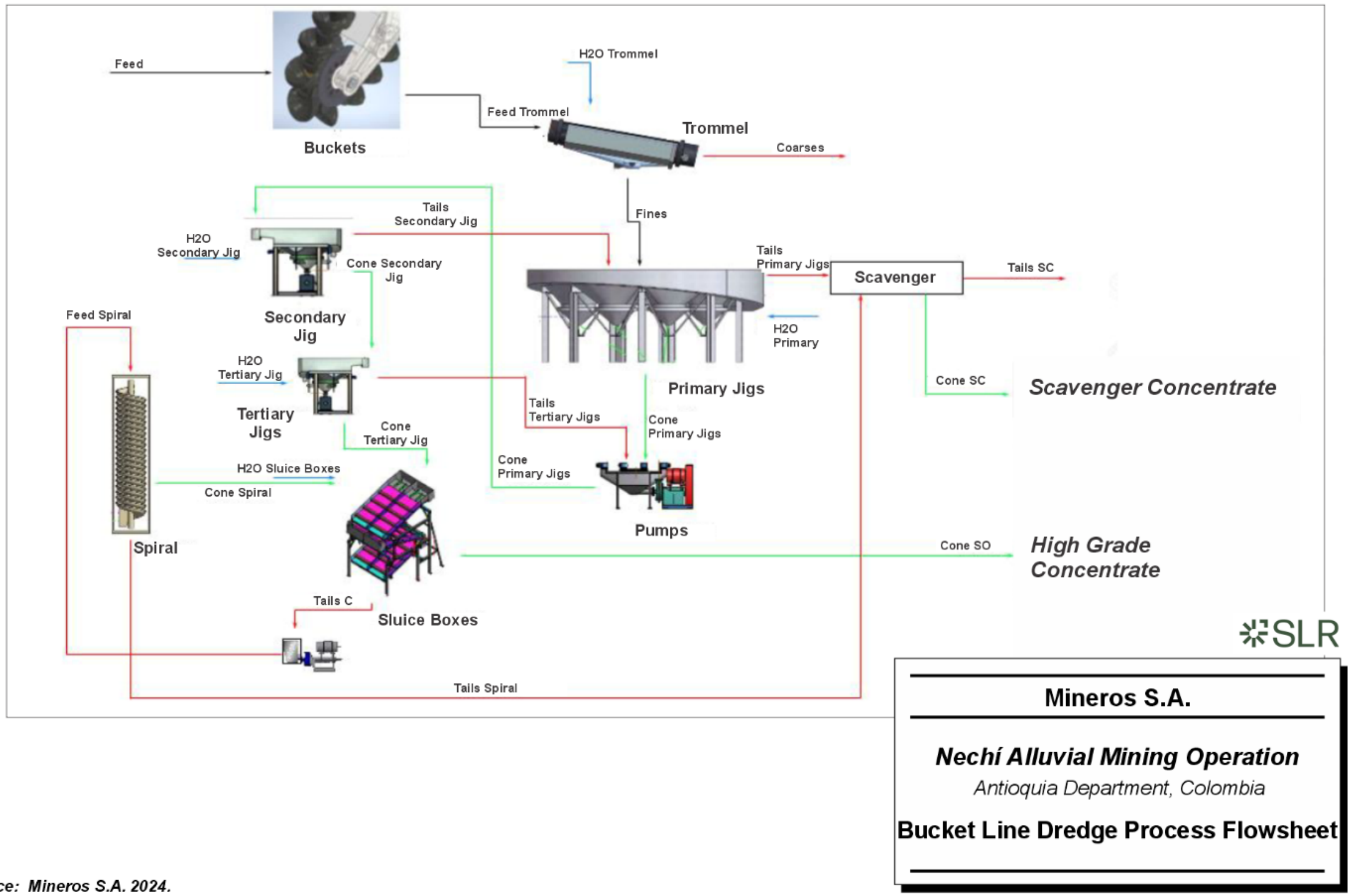
The final concentrates produced by the spiral gold wheel concentrators and magnetic separation circuits are mixed with borax and sodium nitrate which is then melted in a preheated furnace at 1,000°C. Melted gold from the furnace is poured into moulds, and once cooled, the bars are hammered and cleaned by steel brush to remove slag adhering to the surface. Once bars are cleaned and dry, small samples are drilled and analyzed by conventional fire assay at the neighbouring Soma Gold El Bagre complex to determine the gold and silver content (fineness) of the bars. Bars are weighed, and stamped with the company name, number of the bar, and weight in grams and ounces. Finally, the bars are packed and transported to Río Negro and then shipped overseas. The weight of the bars is approximately 19 kg, and the composition is 90% Au, 9% Ag, 1% Fe, with traces of platinum.

17.5 Power

Mineros operates a hydroelectric generation plant that provides power for the El Bagre operations camps, metallurgical plant and dredging operations. The dredging support facilities and the large bucket line dredges are electrically powered via transmission lines to a substation near the mining area and then via lower voltage (7.2 kV) transmission lines to the dredges themselves, where on-board transformers step down the voltage to that required for equipment on board.

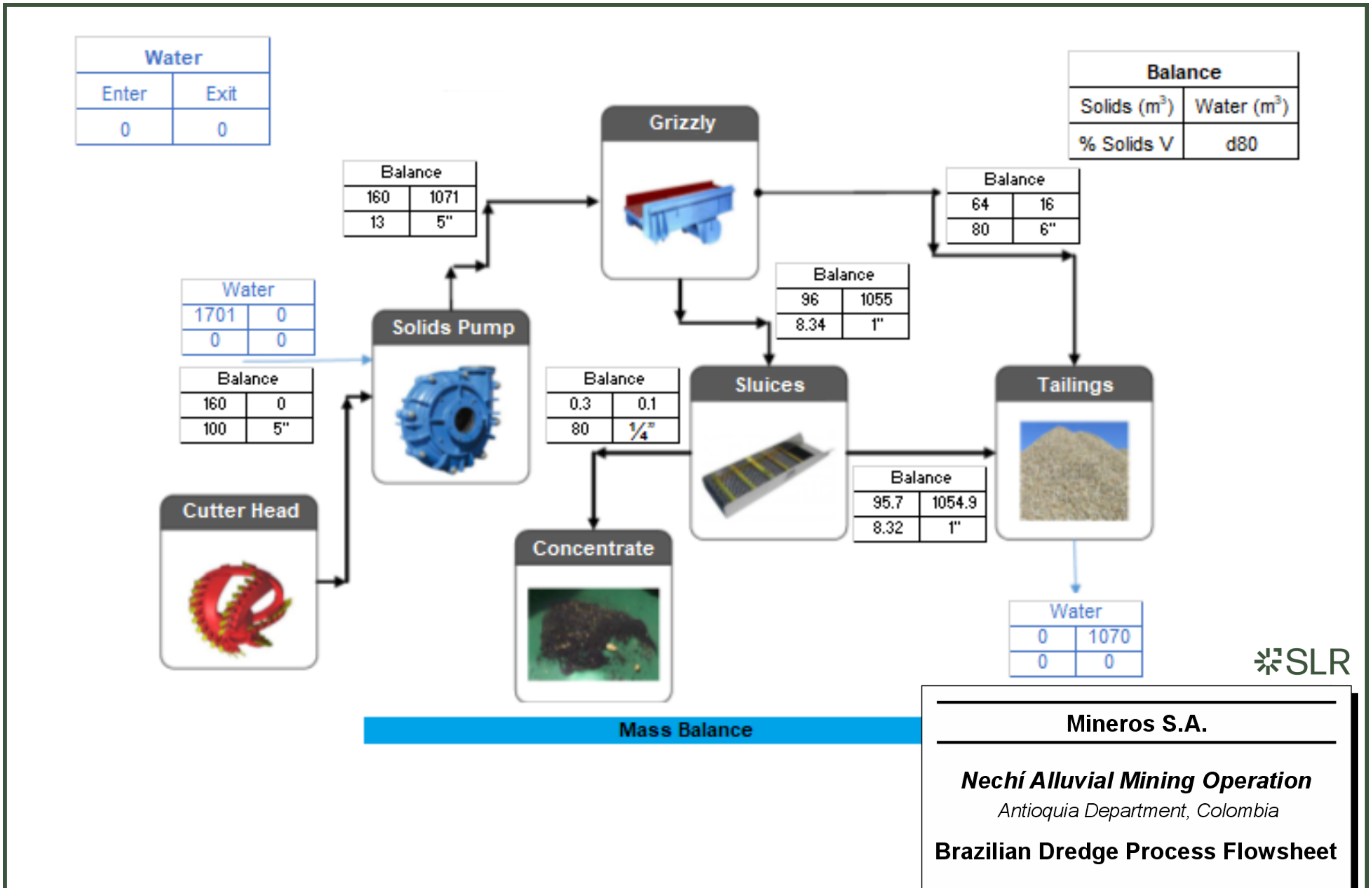
Apart from the Llanuras production unit and the three electrically powered suction dredges, the other ten Brazilian suction dredges are diesel powered, with the dredges using on-board generators to provide electricity for electrical equipment. Additionally, all suction dredges used for overburden removal are electrically powered.

Figure 17-1: Bucket Line Dredge Process Flowsheet



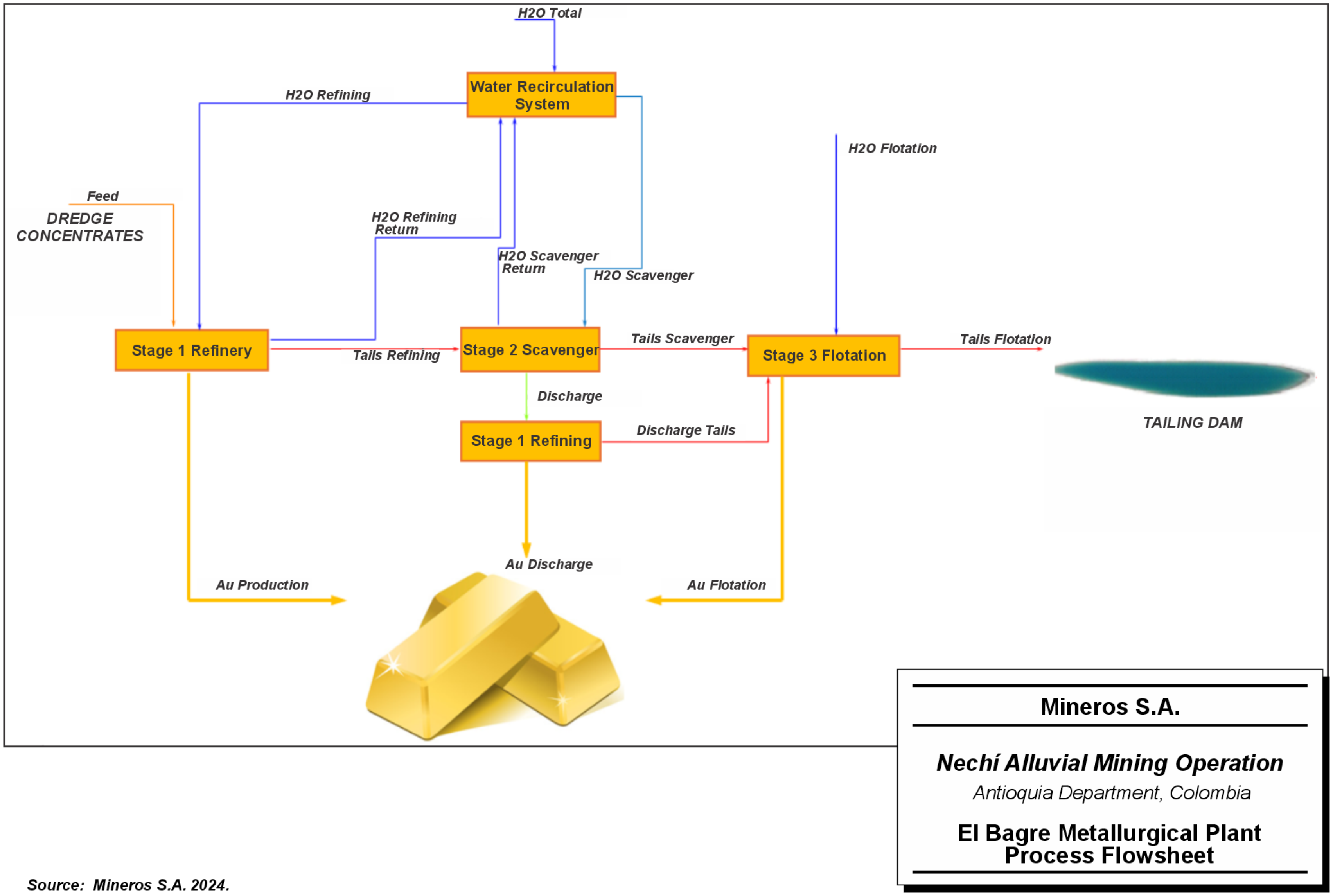
Source: Mineros S.A. 2024.

Figure 17-2: Brazilian Dredge Process Flowsheet



Source: Mineros S.A. 2021.

Figure 17-3: El Bagre Metallurgical Plant Process Flowsheet



Source: Mineros S.A. 2024.

18.0 Project Infrastructure

Mineros' base of operations for the Nechí Alluvial Property is a 6.4 ha complex adjacent to the municipality of El Bagre. El Bagre is located on the southeast riverbank of the Nechí River at its confluence with the Tigüi River. The El Bagre complex includes a secure working compound consisting of offices for administration, engineering, exploration, and health and safety, as well as a concentrate processing and gold smelting facility and assay laboratory, maintenance/fabrication shops and warehouses, port facilities, helicopter hangar and pad, fuel stations, a diesel power generation plant, a water supply and treatment system, and an unsecured area of restaurant/recreational complexes, a hospital, and employee and guest housing. The working compound is secured by gates and security personnel. The general layout is shown in Figure 18-1.

The Central Administration and Engineering Office houses the Operation Manager's office and several departments, including engineering, maintenance, research and development, administration, energy, and human relations. Adjacent buildings provide accommodation for Mineros personnel. The gold smelting/laboratory building (referred to as the Metallurgical Building in Figure 18-1) and the helicopter pad are nearby.

The maintenance shops are organized into three departments:

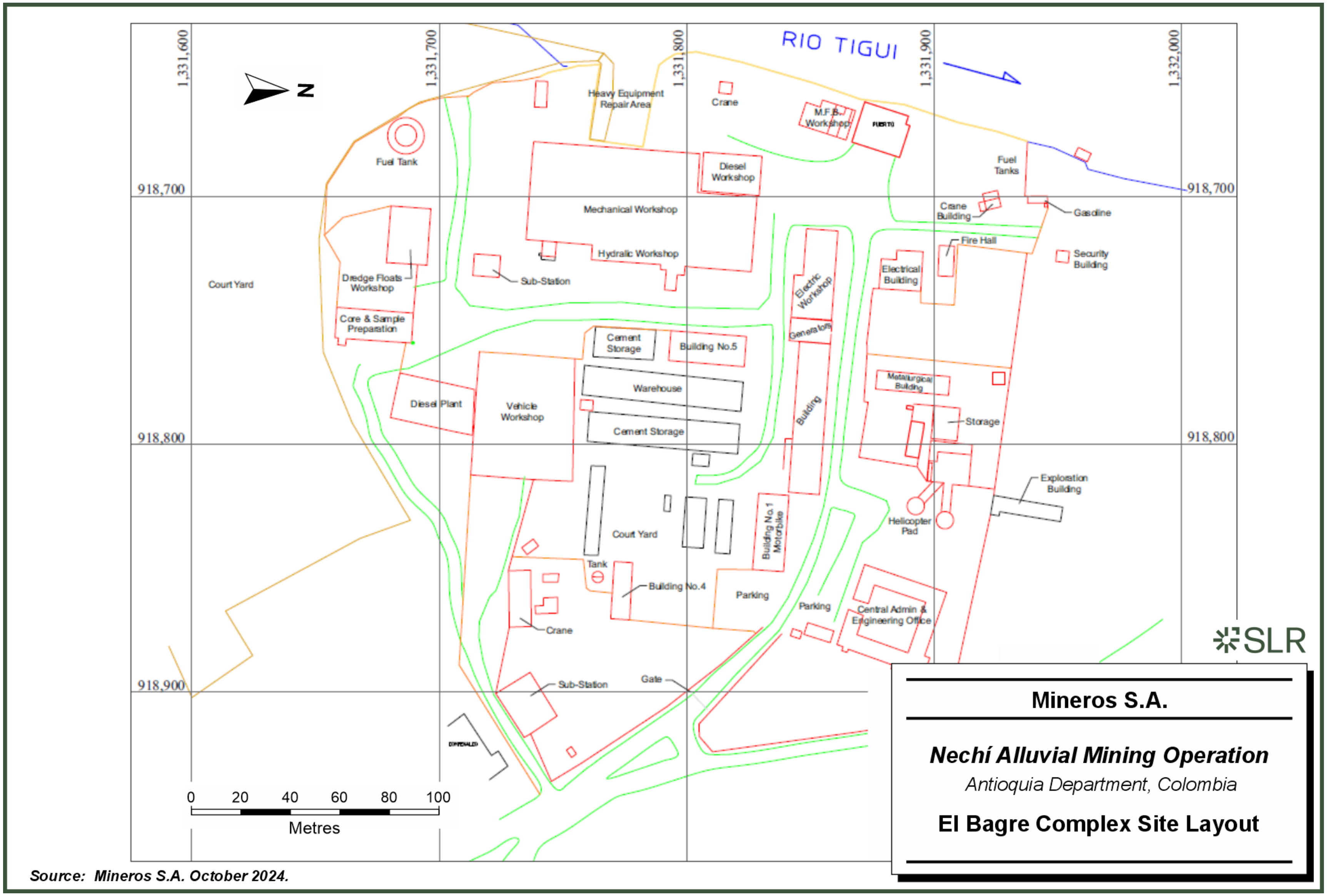
- Mechanical and Hydraulic
- Electrical
- Transport

The mechanical department provides maintenance and repair services to the dredge operating units, fabricating approximately 50% of the parts needed for the Nechí Alluvial Property. This department is responsible for the repair of buckets for the bucket line dredges.

The electrical department repairs electrical motors and is responsible for electrical installations; it also has an instrumentation unit. A warehouse dedicated to electric motor storage is located at the electrical shop.

The transportation unit has a motor warehouse and yard, a diesel shop, a vehicle shop (run by third parties), and an outboard engine shop.

Figure 18-1: El Bagre Complex Site Layout



Source: Mineros S.A. October 2024.

Although most of the facilities were built in the 1950s by Pato Consolidated, SLR observed that all facilities were operational and that safety measures and control procedures were in place.

The warehouse department is responsible for spare parts and consumables for the Nechí Alluvial Property. There are four warehouses: warehouses 1, 4, and 5, and a General Storage Deposit) as well as three yards and four additional storage areas for parts and supplies.

Of the general inventory, 67% consist of dredge parts and 14% is hardware. Materials in the warehouse are categorized into three groups:

- Strategic Materials: Essential items required for continuous operations, including critical spare parts, high-use consumables, and key dredging and processing components. There materials are kept in stock to ensure availability.
- Warning-Level Strategic Materials: Strategic materials that require close monitoring due to low stock levels, long procurement lead times, or supply chain risks. These may include hard-to-source spare parts, safety-critical items, and specialized consumables.
- Replacement Materials: Standard spare parts and supplies that are readily available and replenished as needed.

A second group of materials includes items that are ordered only upon request, as well as materials required occasionally for new projects.

For procurement, 2% of materials of materials for operations are purchased in El Bagre, 90% are sourced from other parts of Colombia, and 8% are imported.

The residential area of the El Bagre complex covers 224.9 ha and has a park-like setting. Housing includes family living quarters, singles accommodations, and guest houses. Club Bellavista, a social club, includes a restaurant, bar, tennis courts, swimming pool, gym, and pool hall. There are several sports facilities located in the residential area.

Franklin Hospital has an area of 1,878.1 m^2, with 20 beds, an operating room, maternity room, and pharmacy. In 1996, the operation of the hospital was handed over to the *Dirección Seccional de Salud de Antioquia*, a state health institution.

El Tomin airport is west-adjacent to the Mineros residential area and occupies 27 ha. The 700 m blacktop runway runs N5ºE and is 12 m wide, offering access for light and short take off and landing (STOL) aircraft only. The airport facilities were originally owned by Mineros, however, the facilities were turned over to the municipality of El Bagre.

The port is adequate for the needs of Mineros and is well equipped with moveable docks, cranes, and a fuel supply. The port is very active, with barges and high-speed boat traffic, which can be intense at peak hours, as alluvial mining operations are serviced mainly by water.

In 2022, Mineros completed the construction of a secondary camp strategically located 40 km north of the main camp, in the village of Astilleros. This project is part of a strategy to strengthen logistical support for operations, specifically those focused on the northern part of the company's mining titles.

The camp features new facilities, including a dining hall capable of serving all staff, hotel-style accommodations with comfortable and secure spaces, maintenance shop for auxiliary equipment, and temporary storage warehouses to support operational needs. Recreational areas are also available to enhance workers' quality of life. These facilities significantly reduce travel times between operational sites and the camp, optimizing shift changes and improving team safety by minimizing long commutes in remote areas.

18.1 Potable Water Supply System

The El Bagre complex is serviced by a potable water supply system, which consists of an intake, an aqueduct, and a treatment plant. The intake is located at Villa Creek, a tributary flowing into the Nechí River. The facility has two 40 hp pumps that raise water 42 m and deliver it at 13 L/s via a 10 in. diameter pipe to the treatment plant, a distance of 1.7 km.

The water treatment plant is located 800 m east of the camp and contains a sedimentation tank and filtering and storage units. Water is pumped from the storage unit into a 75.6 m^3 elevated tank from where it is distributed to users via a pipe network. Users located in higher zones are fed by 5 in. and 3 in. pipes and users located in lower zones are fed by a 10 in. pipe. The system is designed for a capacity of 400 L/person/day, sufficient for 5,000 persons.

Water quality controls are stringent; pH and residual chlorine are measured every hour. Filtering capacity is 37.8 L/s.

18.2 Industrial Water Supply

Industrial water is pumped from the Tigüi River into a 34,000 L elevated tank by a floating pump at a rate of 1,500 L/min. The industrial network feeds the fire protection system at 30 L/min, the sand processing at the El Bagre laboratory at 16.6 L/min, and the bucket cooling at the shop at 250 L/min. The industrial water consumption is 2.9 M L/month.

18.3 Sewage

Sewage facilities are available for the entire camp. The facilities have grease traps, septic tanks, and filtration nets. In higher areas where houses are spread out, septic tanks are located so that one tank serves several houses. Isolated houses, such as the manager’s house, have their own septic tank. In lower areas, with a higher house density, there are several larger septic tanks. All tanks are periodically emptied and cleaned, and sludge is used as fertilizer in green areas.

18.4 Solid Waste Management

Waste management activities occur in a complex with controlled access. This area has separate facilities for hazardous waste storage prior to removal and disposal at licensed facilities, storage of materials that will be recycled, organic materials storage, and lined landfill disposal cells for domestic waste. The landfill wastes are compacted weekly and covered with an interim cover every two weeks.

18.5 Electrical System

The El Bagre complex electrical infrastructure consists of the Providencia hydroelectric plant, a main substation (2.4 kV/44.0 kV) located at the plant, a 44 kV transmission network from the power plant to the distributing substations, several voltage reducing substations (44.0 kV/7.2 kV), distribution networks at 7.2 kV for the different users, and 7200/440/220/110 distribution substations in the dredge production units. The system is backed up by two diesel emergency systems, one at Bijagual (three diesel generators), and the other in the El Bagre Industrial Zone (five diesel generators, only two operable).

The Providencia power system has two plants:

- Providencia I - 5 m^3/s water intake, length of 3.8 km, head of 208 m. The powerhouse is on surface, with five generators powered by Pelton turbines, four with a 2.5 MVA capacity and a fifth at 1.5 MVA. Combined capacity is 15 MVA with a basic generation of 9.4 MW at 2,300 V.

- Providencia III - 14 m^3/s water intake, length of 4.0 km, head of 87 m. The powerhouse has two Francis generators, each with a capacity of 7 MVA, capable of generating 10 MW at 4,160 V.

Power is transformed in the substation to 44 kV. Power is transmitted from the plant to the users by a transmission network consisting of two parallel lines supported by steel lattice towers of variable height from six metres to 20 m. The length of the transmission line from the plant to the most remote substation is approximately 87 km. Figure 18-2 shows the El Bagre electrical distribution system.

The high voltage network feeds three substations (S/T): Río Viejo S/T, the Industrial area S/T, and Bijagual S/T. At the substations, the voltage is reduced from 44.0 kV to 7.2 kV by means of 1,600 kVA transformers. From the substations, 7.2 kV lines, ranging from 0.5 km to 4.5 km in length, feed each of the consumption points: dredge production units, camp, shops, aqueduct, etc.

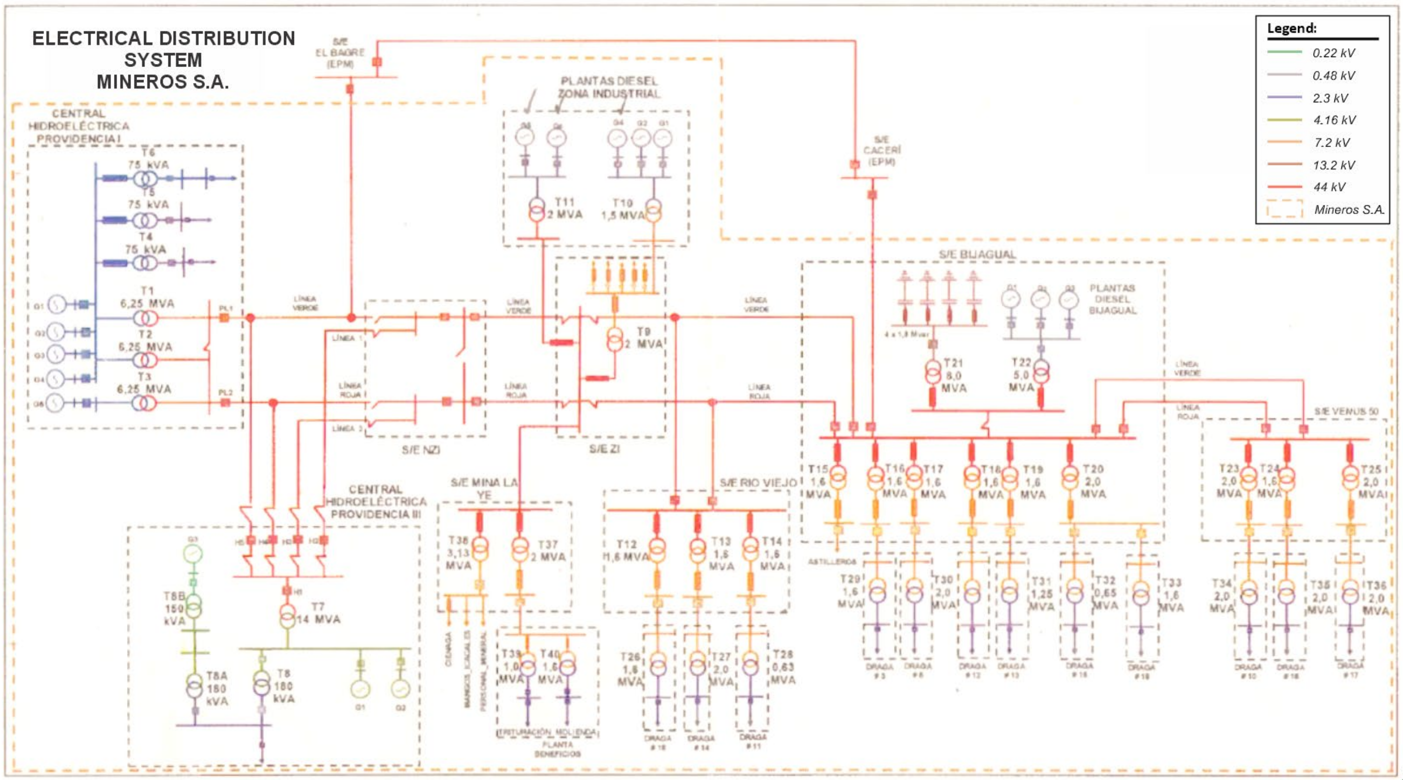
Dredge production units are fed from the Río Viejo S/T. From this substation, temporary transmission lines approximately 4.5 km in length are built to a last still post, and from this point an approximate 600 m long, 15 kV insulated (submarine type) cable is laid to bring power to the dredges. The dredges are equipped with transformers to further reduce the voltage to industrial levels of 480 V, 220 V, and 110 V.

The Industrial Zone S/T power is reduced from 44 kV to 7.2 kV and is fed to branches leading to shops, offices, aqueducts, hospital, etc. Altogether there are seven substations in this area. From this substation, a one kilometre branch runs to the El Bagre S/T, an Empresas Públicas de Medellín power facility that serves to sell surplus energy.

The Bijagual S/T is under construction and will serve alluvial mining north of the current operations including Production Unit 5, currently being reassembled on site at the alluvial operations. It will be an interconnection substation to the Empresas Públicas de Medellín system in order to permit Mineros to buy power from the national system.

The backup power system is located in the El Bagre complex. It consists of six diesel generating units, with an installed capacity of 3,400 kW. This system is used during contingencies or when maintenance operations are carried out. The backup system is sufficient to operate two bucket line dredges and the El Bagre complex.

Figure 18-2: El Bagre Electrical Distribution System



Mineros S.A.

Nechí Alluvial Mining Operation

Antioquia Department, Colombia

El Bagre Electrical Distribution System

Source: HMV Ingenieros 2016.

19.0 Market Studies and Contracts

19.1 Markets

The principal commodity at the Nechí Alluvial Property is gold, which is freely traded at prices that are widely known, so that prospects for the sale of Mineros gold production are virtually assured. All gold production over the LOM will be sold at spot market prices.

The assumption for this Technical Report is that all gold production over the LOM will be sold at Mineral Reserve prices of US$1,750 per ounce of gold.

19.2 Contracts

Mineros has contracts in place with Argor Heraeus Switzerland and Asahi US for doré refining. The production split for doré refining is 60% for Argor Heraeus and 40% for Asahi. SLR has reviewed the contract terms and is of the opinion that they are within industry norms. Off-site doré charges, including transportation and shipping, logistics and custom duties, insurance, security, and refining total US$5.00/oz Au.

For their mining production Mineros expanded its operations under mining operation contracts. The mining operation contractors work on commission within the formalization program, under two types of contracts: third party units operated by formalized miners and Mineros-owned production units operated by formalized miners. The formalized miners' contracts represent 12% of the Property gold production. In the QP's opinion, all these third party mining operations contracts that Mineros has entered into are based on normal commercial arrangements.

In addition to doré sales and formalized miners contracts, Mineros has numerous contracts with suppliers for consumables, reagents, maintenance, general and administrative requirements, and other services to support mine operation. The QP has not reviewed the various support service contract details at Nechí, however, Mineros has used these contractors in the past and continues to do so.

20.0 Environmental Studies, Permitting, and Social or Community Impact

20.1 Environmental Studies

Mining activity in Colombia is regulated by the Constitution and Law 99 (1993), according to which the responsibilities related to environmental management are shared between the Ministry of Environment, Housing and Territorial Development (MAVDT), today Ministry of Environment and Sustainable Development (MADS) at the national level and the Autonomous Regional Corporations (CARs) at the regional level. MADS sets the national standards for mineral activities, while CARs are responsible for administering the natural resources and controlling environmental deterioration associated with extraction activities, such as mining, in their territorial jurisdictions and issues project specific rules and requirements consistent with national regulations as suited to their jurisdictions.

In the case of the Nechí Alluvial Property, mining and mining related activities occur in the municipalities of Zaragoza, El Bagre, Caucasia, and Nechí, for which the regional environmental authority is CORANTIOQUIA. CORANTIOQUIA is headquartered in the city of Medellín and has a regional office in the municipality of Caucasia.

20.2 Regulatory Framework

The Constitution adopted in 1991 under the influence of international environmental law, provided a major step towards the modernization of the legal environmental management framework in Colombia. It recognized the rights and obligations to its citizens, and power was allocated to different state entities to enforce the tasks of planning, prevention, and protection of the environment. In 1993, Law 99 of 1993 created the Ministry of Environment as the highest government authority with responsibility for environmental matters. In 2003, Decree 216 expanded its role to also include the MAVDT. In 2011, MAVDT was reorganized and renamed MADS by Law 1444 of 2011.

20.2.1 Ministry of Environment and Sustainable Development (MADS)

MADS is the lead agency for the management of environment and natural renewable resources, and as such, defines policies and regulations for the recovery, conservation, management, handling, use of renewable natural resources and environment over all Colombian territory. MADS' responsibilities related to mining activities are, among others, the following:

- Jointly with the Ministry of Energy and Mines (MEM), issue rules, policies, and technical standards for the control of pollution, prevention of environmental damage, establishment of standards and limits for the levels of atmospheric and aquatic emissions, etc.
- Through Decree 3573 in 2011, ANLA was created to ensure that the projects, works or activities subject to licensing, environmental permits, or procedures comply with environmental regulations.
- In December 2016, through Resolution 2206, MADS issued the new terms of reference for the preparation of environmental impact studies required for the processing of environmental licences for mining projects.

In 2015, in order to compile and rationalize environmental regulations within a single legal instrument, Decree 1076 was issued, the only regulatory decree of the Environment and Sustainable Development sector. According to article 2.2.2.3.2.2 of Decree 1076 (2015), ANLA can grant licences to mining projects of metals and gemstones when the exploitation of material is projected to be greater than or equal to 2 Mtpa. ANLA also has a role in monitoring and control of the obligations established in the EMP.

The most recent regulatory updates for the mining sector included:

- Decree 1158 (2019) – requiring community censuses for mining projects with certification of residence issued by the mayor's office, to avoid voluntary migration to mining projects.
- Law 1955 (2019)
- Art 12: Special authorization for mercury-free gold beneficiation plants,
- Art 22: Requirement of early environmental licence for mining formalization,
- Art 23: Assignment of mining titles.
- Resolution 077 (2019) – regulating dates for the presentation of Environmental Compliance Reports (ICA).
- Resolution 0114 (2019) – establishing terms of reference for preparation and presentation of environmental studies.

Regulatory updates specific to Mineros operations included:

- Resolution 1612 – updates to Resolution 125 (2015) requiring compensation for impacts on natural resources and biodiversity loss of approximately 1,800 ha
- Resolution 40925 (2019) – establishing terms for presentation of Basic Mining Forms
- Resolution 604 (2019) - establishing terms of reference for preparation and presentation of annual report of mining activities for RPP
- Resolution 100 (2020) – establishing the terms for presentation of reserves and resources report before the mining authority
- Law 1121 (2021) – modification of Law 599 (2000) regarding environmental crimes
- Law 2327 (2023), regarding the definition of environmental liability
- Decree 44 (2024), regarding temporary reserves for the protection of renewable natural resources
- Law 2387 (2024) – modification of Law 1333 of 2009, regarding the environmental sanctioning proceeding.
- Decree 1275 (2024) regarding the functioning of Indigenous territories in environmental matters
- Decree 1384 (2024) regarding the renewable natural resources and the environment in collectively assigned territories traditionally occupied by Black, Afro-Colombian communities

20.2.2 Autonomous Regional Corporations and Urban Environmental Units (CARS)

CARS are regional public bodies. Colombia has 33 CARs organized in accordance with areas that constitute a same ecosystem or that comprise a geopolitical, biographic, or hydro-geographic unit. Each unit is autonomous, with independent financial and administrative functions. Regarding mining, CARs have the following responsibilities:

- To monitor and inspect the rules and national policies issued by MADS, as well as impose sanctions on violators of the rules. CARs have jurisdiction to issue more stringent rules, policies, and standards than the national standards promulgated by MADS, if it is technically justified.
- To issue permits, authorizations, and environmental licences for works or projects to be developed within their respective territorial jurisdictions. According to article 2.2.2.3.2.3 of Decree 1076 (2015), CARs grant environmental licences to mining projects of metals and gemstones when the exploitation of material is projected to be less than 2 Mtpa.

20.3 Status of Mineros Environmental Permits and Licences

The following subsections have been developed based on general public information reviews, meetings, and presentations with Mineros staff, and reviews of documents provided by Mineros. These comments give a general overview of Mineros' compliance with the environmental regulations with respect to the Nechí Alluvial Property. The documents reviewed include government information web sites, the resolutions and administrative acts issued by MAVDT and ANLA for Mineros operations and associated information provided by Mineros, as well as detailed environmental performance information contained in Mineros' environmental management system (EMS) and integrated management system files. The resolutions issued by CORANTIOQUIA, with respect to use of natural resources (water concessions, forest use, river bed occupation, wastewater, and emissions), information and actions undertaken by Mineros in response to these resolutions, and the findings of the third party independent compliance auditor acting on behalf of the regulators were also reviewed.

20.3.1 Historical Operations

Prior to its acquisition by Mineros in 1974, the Nechí Alluvial Property was operated by Mineros de Antioquia S.A. and its predecessors with limited resources applied to environmental and social management. Mineros has developed and implemented environmental and social management plans designed to mitigate negative environmental and social impacts, and remediate, where possible, environmental liabilities from historical operations.

20.3.2 Past Operations

Review of information provided confirms that Mineros has substantially improved its EMP and environmental management practices since its formation as Mineros S.A. and is in material compliance at this time. This improvement has been driven through corporate planning and management practices as articulated in the environmental management system and supported by the Mineros' integrated management system.

Due to the large-scale nature of the alluvial mining exploitation activities, operations at the Nechí Alluvial Property fall within the jurisdiction of ANLA. Similarly, as activities were initiated in 1974, i.e., before Law 99 of 1993 came in force, the legal mechanism of monitoring and environmental control was the EMP (paragraph 1, article 2.2.2.3.9.1, Decree 1076 of 2015).

The EMP was adopted by Resolution 0810 of 2001, which has been amended several times at the request of Mineros due to the expansion and entry into operation of expanded mining areas and obtaining environmental permits. Resolution 659 of 2021, as amended by Resolution 01098 of 2021, established obligations for proper management of physical, biotic, and socio-economic impacts of the Mineros operations. In the matrix provided by the company and entitled "Control and Monitoring of the Environmental Legal Performance of Mineros S.A.", these obligations are reported to have been fulfilled and the company to be in material compliance with its obligations.

Article 5 of Resolution 0810 of 2001 states that during the time of execution of the project, Mineros must conduct ongoing environmental monitoring by an independent party in order to supervise the activities and verify compliance with the obligations established in the EMP. From review of the information provided, it is seen that the company is in material compliance and that efforts are underway to address a limited number of deficiencies identified in the past environmental EMP audit (establish additional forest lands to offset damage caused by mining operations).

The review of an internal report prepared for the shareholders of the company indicates that there are no complaints from outside parties, such as the municipality or public comptrollers. In general, the documents reviewed show that the company is progressive and willing to comply with the EMP and the related requirements of the environmental authority and that the company is taking proactive measures in that regard.

20.3.3 Present Operations, Approvals, & Permits

Since SLR's first NI 43-101 Technical Review of Mineros operations in 2008, the following significant positive changes have been made with respect to environmental aspects of the Nechí alluvial mining operations:

- Modifications to the EMP.
- Certification of the Providencia I and Providencia III hydroelectric power plants under the United Nations Framework Convention on Climate Change (UNFCC) Clean Development Mechanism (CDM).
- Elimination of the use of mercury.
- Ongoing development of social framework and related contributions.
- CORANTIOQUIA's approval of the compensation plan filed by Mineros.

In 2015, Mineros' 2001 Environmental Licence (EMP) was amended under Resolution 0125 with the key changes as follows:

ARTICLE ONE: Modifies the EMP of Resolution 0810 of 2001, to authorize the following works or activities:

- Exploitation of the CA5 and RMCA5 blocks.
- Expansion of the BJ3 and BL1 blocks.
- Exploitation of the M27, M29, M30, M31, M505, MPA5, PVI, MA2 marginal blocks - Llanuras Project.
- Elimination of mercury in the process stage.
- Inclusion of the Providencia III hydroelectric power station and its distribution line.

ARTICLE TWO: Updates the EMP to conform to the new approach and programs. Modifications to the environmental management system have been ongoing as the company strives for continuous improvement of its management and reporting practices. Some restructuring and reorganization of roles and responsibilities have occurred to support more effective environmental management and to be in conformance with the Environmental Licence amended under Resolution 0125. At present, Mineros uses a Total Productive Management (TPM) approach in its environmental management philosophy. Administratively environmental management and monitoring include the following general modules:

- Environmental impact management
- Chemical controls
- Contractor management
- Solid waste management
- Waste recovery
- Environmental education
- Emergency preparedness and response
- Carbon footprint reduction

The EMP was amended by Resolution 1612 of August 2019 to authorize the use of the closed pool mining method in the CA5 block, as well as the selective dredging of the BJ3, BJ4, BJ5, CA1, CA2, CA3, and CA4 blocks and the closed pool method on the PV1, M27, M29, $m^3$0, $m^3$1, MA2, MPA5, and M505 marginal blocks. This change includes modifying some of the related management plans. In 2020, Mineros submitted the environmental permit application and associated supporting environmental impact assessments (EIA) to ANLA for mining of these blocks. During the application review period, the following regulatory changes occurred:

- Resolution 0773 of April 7, 2021, which defines the actions to be developed of the Global Harmonized System.
- Decree 690 of June 24, 2021, which defines the sustainable management of wild flora and non-timber forest products.
- Resolution 699 of July 6, 2021, the parameters and the maximum permissible values of discharges to the soil are defined.

Through Resolution No. 659 of April 9, 2021, ANLA provided Mineros with approval for the occupation of riverbed, forest uses, and water concessions for a portion of the blocks and requested additional information (hydraulic modelling, fauna monitoring) for several proposed mining blocks - MPA5 Lentic, M505 Lentic, and Sampumoso Lentic (part of the Stage 1 application). As Resolution No. 659 of April 9, 2021, did not grant all of the permits that had been applied for, Mineros filed an appeal for replacement which was resolved through Resolution 01098 of June 23, 2021, that approved 51 ha for mass exploitation and 101 ha for selective exploitation (Stage 1).

To address ANLA's request for additional information on the blocks containing lentic systems (MPA5, M505, and the Sampumoso Lentic) in the original application, Mineros undertook in 2020 and 2021 additional baseline information collection and additional environmental assessments of existing baseline conditions and potential impacts of working in the lentic systems under various operational scenarios. The work (referred to as Stage 1.5) was carried out in accordance with terms of reference as agreed to with ANLA staff to ensure that the environmental assessment would meet ANLA's information requirements with respect to lentic systems. The environmental impact study for Stage 1.5 was based on the information filed for Stage 1 (as its area was entirely contained in Stage 1), along with the additional information that ANLA had considered lacking to grant the full suite of permits for all blocks. The environmental impact study for Stage 1.5 entitled "Modification Environmental Management Plan Application for Environmental Permits for the Sampumoso Sector, August 2021" was filed on August 12, 2021. Approval of the Stage 1.5 Exploitation Application was received from ANLA through Resolution No 01858 of October 19, 2021 and ANLA Notification CAR No. 11568.

During 2021, Mineros also initiated the application process for the Stage 2 permitting of mining operations in the area north of the Sampumoso wetland and subsequently received ANLA Stage 2 permit approval through Resolution 0812 dated April 25, 2022.

Table 20-1 summarizes the staged permitting history since 2018 for the approved current mining activities.

Table 20-1: Environmental Permitting Stages 0 through 2 - Existing Approvals

Stage	Application Date	Approval Date	Requested Area (ha)	Approved Area (ha)	LOM Operations
0	2018	2019	88	29	2019, 2020
0.5	2019	2020		17	2020
0.75	2020	2020		37	2020, 2021
1	April 2020	July 2020	149	51	2021
1.5	April 2021	Nov 2021		98	2021, 2022
2	Oct 2021	April 2022	983	983	2022,2023,2024, 2025, 2026

In summary, Mineros has environmental permits on hand and in good standing to support current mining operations in accordance with its EIA approvals and commitments from 2024 to 2026, and the permitting process for additional mining areas for 2025 through to 2034 is discussed in Section 20.3.4.

Existing resolutions and permits for the Nechí Alluvial Property are listed below in Table 20-2.

Table 20-2: List of Resolutions and Permits

File	Procedure	Site/Location	Act of Approval
LAM0806	PMA/ Environmental License	El Bagre, Zaragoza, Caucasia and Nechí	Resolution 0810, September 3, 2001 with its respective amendments Resolution 0805 July 2003 Resolution 1885 December 2005 Resolution 0126 January 2008 Resolution 0833 August 2013 Resolution 0125 February 2015 (Modified WFP) Resolution 0728 July 2015 Resolution 857 June 2018 Resolution 1612 August 2019 (Includes closed pool, approves contingency plan, approves other permits) Resolution 0489 March 2020 Resolution 1726 October 2020 (Guamo´s channel occupation and other permits) Resolution 00659 April 2021 (Surface Water Concession, Use of Natural Forest, and other permits) Resolution 01098 June 2021(Modified Resolution 659, 2021) Resolution 812 April 2022 Surface Water Concession, Use of Natural Forest, and other permits)
PZ8-2002-1	Channel Occupation	Port Access Channel to - Industrial Zone	Resolution 130PZ-367 of July 26, 2002
PZ5-2004-11	Use of Natural Forest	Santa Rosa, Puerto Claver (Blocks PJ1, PJ2 and RV2, BJ2)	Resolution 130PZ-983 of January 17, 2005
PZ5-2005-9	Use of Natural Forest	Veredas Rio Viejo and Río San Carlos, Puerto Claver (RV3 Blocks, MI)	Resolution 130PZ-1128 of September 14, 2005
PZ5-2005-8	Use of Natural Forest	Veredas Rio Viejo and Río San Carlos, Puerto Claver (RV3 Blocks, MI)	Resolution 130PZ-1129 of September 14, 2005
PZ5-2004-10	Use of Natural Forest	Río Viejo and Sabalito Sinaí, Puerto Claver (Blocks PJ1, PJ2 and RV2, BJ2)	Resolution 130PZ-984 of January 17, 2005
PZ1-2021-681	Surface Water Concession	Quebrada Villa, domestic use Camp Miners	Resolution 160PZ-RES2202-976 of February 23, 2022
PZ7-2021-494	Discharge	Mining Camp and Industrial Zone	Resolution 160PZ-RES2112-9000 of December 22, 2021

File	Procedure	Site/Location	Act of Approval
PZ5-2011-2	Single Forestry Use	Puerto Claver, Sabalito Sinai, Rio Viejo and San Carlos trails	Resolution 130PZ-1204-2089 of April 25, 2012
TH1-2022-354	Surface Water Concession	House Machines Providencia III, Broken Unnamed name (Code: 13379) Use: domestic	Resolution 160PZ-RES2211-6921 of November 22, 2022
TH7-2022-631	Discharge	Providencia III, domestic wastewater	Resolution 040-RES2212-7415 of December 13, 2022
PZ5-2011-32	Use of Natural Forest	Providence III	Resolution 130PZ-1206-2119 of 7, 2012 June
PZ5-2011-43	Use of Natural Forest	Sabalito Sinai, Rio Viejo and Boca del Guamo	Resolution 130PZ-1306-2525 of 27, 2013 June
PZ5-2011-45	Use of Natural Forest	Providence III	Resolution 130PZ-1307-2533 of 31, 2013July
PZ3-2014-3	Environmental License	Gold Mining Alluvial Terraces, Cargo Block 1 Blocks 2 and 3	Resolution 160PZ-1509-3387 of September 15, 2015 Resolution 040-RES2411-5298 of November 29, 2024
PZ7-2014-18	Discharge	Providencia I, La Planta sector domestic wastewater	Resolution 160PZ-1607-3759 of July
PZ7-2014-19	Discharge	Providencia I, water intake sector of Aljibes domestic wastewater	Resolution 160PZ-1607-3760 of July
PZ1-2016-1	Surface Water Concession	Providence I	Resolution 160PZ-RES1902-1029 of February 26, 2019
PZ3-2016-4	Environmental License	Amacerí Gold Mine- El Bagre, Santa Rosa village	Resolution 160PZ-RES1712-6998 of December 12, 2017
PZ7-2016-27	Discharge	Shipyard Camp domestic wastewater	Resolution 160PZ-RES1707-3466 of July 7, 2017
PZ6-2017-16	Fixed Sources	Metallurgical laboratory	Resolution 160PZ-RES1712-7170 of December 20, 2017
PZ7-2018-270	Discharge, Non-Domestic Wastewater	Shipyard Camp	Resolution 160PZ-RES1901-458 of January 31, 2019
PZ1-2018-286	Surface Water Concession	Nechí River – Shipyard camp	Resolution 160PZ-RES2003-1211 from March 13, 2020
PZ1-2020-434	Surface Water Concession	Providencia Anorí River	Resolution 160PZ-RES2008-4578 of August 12, 2020.
PZ5-2011-43	Use of Natural Forest	Sabalito-Sinaí, Rio Viejo y Boca del Guamo, in	Resolution 160PZ-RES2014-2056 of April 15, 2021

File	Procedure	Site/Location	Act of Approval
		the municipality of El Bagre	
ATV 920	Epiphyte Harvesting	Alluvial Project	Resolution ATV 949 of 2019
120-COE1804-11368	Cativo Harvesting	Alluvial Project	Resolution 040-RES1902-834, February 2019
120-COE1907-22380	Cativo Harvesting	Alluvial Project	Resolution 040-RES1908-4121, August 2019

20.3.4 Integrated Mine and Permit Plan for Next Environmental Permitting Stages (3,4,5,6)

The nature of the regulatory framework governing Mineros activities requires that the company carry out comprehensive environmental assessments for all new mining areas/blocks not included in the existing approved EMP as per Resolution 0810 of 2001 as amended to date. This requires undertaking environmental studies and developing environmental management plans for inclusion in an EIA that must be presented and approved for each new mining area.

With respect to exploitation of additional future mining areas/blocks within its concession, starting in 2020, Mineros developed an integrated mine planning and environmental management approach in which new LOM areas were grouped within Environmental Permitting Stages. This approach ensures that environmental studies and assessments for each Environmental Permitting Stage are identified early, scheduled, and undertaken as needed to support timely submission of environmental applications and reviews in advance of mining activities.

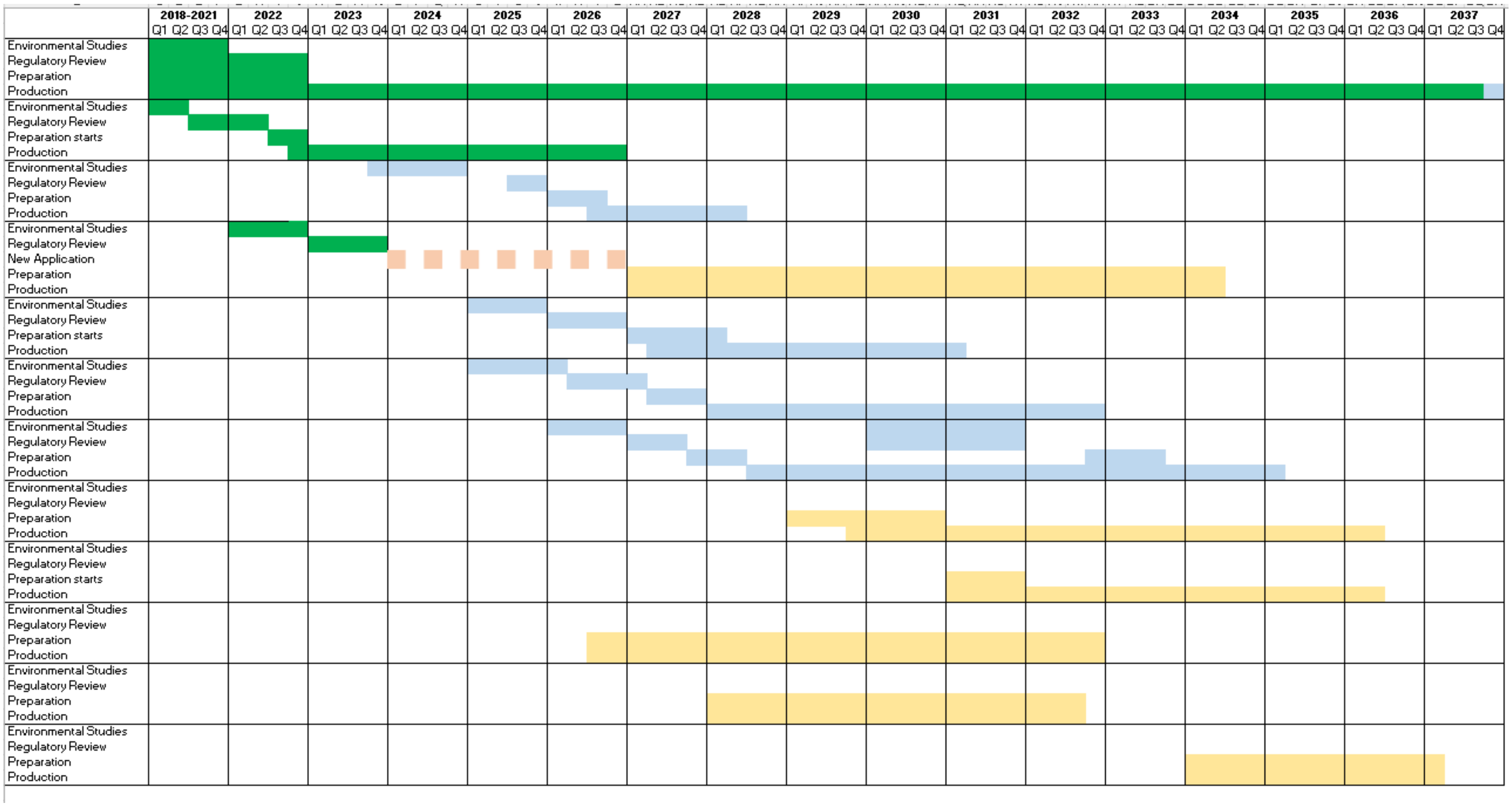
Having carried out mining operations at the Nechí Alluvial Property since the 1970s, Mineros has a depth of relevant technical and management experience and is aware of the complexity and sensitivity of the environmental aspects of its operations. Mineros has demonstrated commitment to effective environmental stewardship that minimizes the impacts of its operations and is consistent with sustainable development principles. This awareness and commitment endeavours to ensure that the company's environmental efforts are carried out as needed in a timely, comprehensive, and effective manner to support environmental applications for future mining stages well ahead proposed start of mining operations in any new areas of the Mineros concession.

As discussed in Section 20.3.3, Mineros is carrying out mining activities in areas across its concession in accordance with approvals and permits received to 2022 for Environmental Permitting Stage 2.

Mineros Integrated Mine Environment and Mine Development Plan is well developed for additional mining of new areas/blocks related to Phase 2 Extension, and Phases 3, 4, 5 and 6. Figure 20-1 presents the 2024 overall integrated schedule of studies, permits, mine development/operations by Environmental Permitting Stage, and Figure 20-2 shows the current status of environmental studies for the future mine areas.

Figure 20-1: Integrated Environmental Life of Mine Management Plan

[Permitted, Current Permitting Strategy, Future Permitting Applications, Submission if Positive Re-Evaluation]



Source: Mineros 2024. Figure 20-2: Overview Environmental Activities by Tasks and Stages

Figure 20-2: Overview Environmental Activities by Tasks and Stages

Item	Activity	Stage 1	Stage 2	Stage 2 Ext'r	Stage 3*	Stage 4	Stage 5	Stage 6	Stage 7	Stage 8	Stage 9	Stage 10	Stage 11
1	Environmental Impact Study	√	√	In progress	√	In progress	In progress	In progress	-	-	-	-	-
1.1	Mining Planning, Works and Required Permits	√	√	√	√	Under review	Under review	Under review	-	-	-	-	-
1.2	Formulation/Contracting environmental Service	√	√	√	√	-	-	-	-	-	-	-	-
1.2	Field work (flora and fauna characterization)	√	√	√	√	-	-	-	-	-	-	-	-
1.3	EIA preparation	√	√	In progress	√	-	-	-	-	-	-	-	-
2	Filing with Authority	√	√	Q1/Q2 2025	√	-	-	-	-	-	-	-	-
3	Evaluation by Authority	√	√	-	√	-	-	-	-	-	-	-	-
4	Responses Requirement	√	√	-	√	-	-	-	-	-	-	-	-
5	Resolution	√	√	-		-	-	-	-	-	-	-	-
6	Resources and Reposition (if necessary)	-	-	-	√	-	-	-	-	-	-	-	-
7	Admission Preparation	√	√	Jan-26	Jan-27	Jan-27	Oct-27	Oct-29	Oct-29	Jan-31	Jul-26	Jul-27	Jan-32
8	Internal Re-Evaluation	-	-	-	**In progress**	-	-	-	-	-	-	-	-
9	New Application with Revisions	-	-	-	-	-	-	-	-	-	-	-	-
	Progress	100%	100%	50%	*	5%	5%	5%	0%	0%	0%	0%	0%
	Notes		* Application for Stage 3 submitted January 2023, denied August 2024, Appealed, denied November 2024,										
			Mineros currently reviewing technical considerations, tentative resubmission date as shown										

Source: Mineros 2024.

As can be seen from above, Mineros carried out environmental studies in 2022 to support the application for expanding the Stage 3 Permit area to 320 ha. In January 2023, ANLA initiated its review of Mineros' request to modify the approved EMP (as established through Resolution 810 of September 2001) to allow for expansion of previously approved mining block MA2 (Environmental Permitting Stage 3) and permit the additional works required for its exploitation. ANLA visited the site and held meetings with Mineros in February 2023, resulting in additional information requests. In March 2023, ANLA recognized additional third parties to the review process. ANLA technical carried out its Technical Review of the application and on August 17, 2023, via Resolution 1809 ANLA notified Mineros that its application was denied. As allowed, Mineros appealed this decision, both on technical and administrative grounds. Mineros received strong local and regional support as local individuals and companies joined in the appeal. Notwithstanding the technical and administrative submissions as well of those of the local Intervenors, ANLA via Resolution 2582 of November 2023 upheld its opinion that the application as submitted could not be approved with the information provided. As a result, the 2023 LOM plan was revised to reschedule potential mining of the Environmental Permitting Stage 3 area to 2027.

20.3.5 Mitigation and Reclamation of Environmental Impacts

20.3.5.1 Use and Elimination of Mercury from Mineros Operations

A major environmental concern associated with all gold mines that use mercury as part of the recovery process is the potential for release/loss of mercury during operations. To address this concern, Mineros pursued a multi-faceted approach that included operational management controls, state-of-the-art equipment, practices, and monitoring.

To minimize potential losses, Mineros used close loop systems at both the dredge operations and the gold recovery furnace. To confirm that the processes were effective, Mineros measured its use of mercury through the mining and recovery process to ensure that operations adhered to the regulatory limits for mercury loss. The measurements included mass balances from mining and retort operations, as well as air monitoring of the retort furnace operation.

As a further step prior to elimination of mercury use, Mineros introduced climate controls in the areas where mercury was used to reduce potential volatilization of mercury. In addition, Mineros supported metallurgical research aimed at completely eliminating the need for mercury in the recovery process. Initial process steps and process modifications occurred in 2012. The goal to eliminate mercury use in Mineros' operations was achieved in 2014, at which time recovery processes and equipment were modified to remove the need for mercury use at all of the dredge operations and from the El Bagre recovery plant. This was a significant positive environmental and socio-political achievement.

The present system uses gravity and magnetic separation,, and no chemicals are added in the recovery process. In addition to the environmental benefits of this new processing approach, the process also results in enhanced gold recovery.

20.3.5.2 New Approach to Mining and Restoration of Alluvial Blocks

The primary environmental disruptive activities associated with alluvial mining operations on the Nechí River relate to the dredge mining of the flood plain areas. In carrying out the alluvial mining, the first step is the use of a cutter suction dredge to remove the upper layer of soils and sediments to an approximate depth of 12 m. This step is followed by bucket excavation of the deeper soils and gravels to the bedrock surface at a depth of approximately 28 m. The typical bucket line dredge excavation rate is 500 m^3/h. Materials mined during this step are screened and processed for the recovery of free gold.

To mitigate potential impacts from the alluvial mining activities in the Nechí River flood plains, Mineros develops and implements an annual mine plan that includes planning for dredge exploitation, drainage and sediment control, habitat and fauna management, and reclamation (see below). The plan considers the existing vegetation cover on areas to be mined, development of operating practices for drainage analysis, and design of sediment control features, as well as spill prevention and emergency response.

In 2014, Mineros submitted modifications to the original 2001 EMP that included a new approach to alluvial mining. This approach is based on minimizing the "hydrological footprint" of operational activities during mining, and at cessation of mining, to re-establish ecosystems that mirror baseline conditions in the formerly mined block to the degree practically possible. This approach received approval in 2015 under Regulation 0125 as noted above.

To execute this mining approach, Mineros provides detailed mapping of proposed exploitation areas, access zones, dredged material deposit areas, and plans that illustrate how the area will be left at the end of exploitation. Prior to mining, Mineros carries out detailed baseline environmental studies of the existing watershed conditions (terrestrial and aquatic, flora/fauna, fish and birds, etc.), so that potential impacts can be identified, and mitigation measures planned. The studies include detailed topography, bathymetric, and drainage surveys of each block prior to operation. Site specific (instead of generic) ecological restoration designs are developed for each block considering local geomorphology and ecological conditions, vegetation, food supply, and breeding sites, among others, in order to estimate the capacity for new species in these ecosystems.

In carrying out mining activities, Mineros is undertaking measures to maintain the hydraulic conditions of the immediate environment, including isolating natural flows from active working areas, and minimizing interruption of natural watershed oscillations during the operation. A key action in this respect is the re-establishment of cutoff banks that isolate the working areas and create closed pools that are not connected to the main river flows. Through the establishment of these isolation banks, water inflows and outflows from the closed pool mine blocks are minimized and sediment loads released to the environment are greatly reduced. This approach has been refined in recent years through the installation of pumps and pipelines that allow Mineros to draw down (up to 5 m) and control the water levels within working pools by pumping water from one closed pool to another as needed based on mining needs and hydraulic conditions without releasing water to the surrounding environment. In 2024, plans are underway to develop active and passive water treatment systems that would provide Mineros the option to discharge water from closed pools if needed after treatment.

The sequencing and direction of the dredging is planned in such a manner as to allow progressive reclamation to occur within the mine blocks. Using this approach, coupled with a reclamation design based on re-establishing features in a manner consistent with pre-mining watershed conditions ensures that regeneration of the mined areas occurs quickly and in such a manner as to enhance natural biodiversity of the region. Based on field observations and time stamped photographic images reviewed, it is evident that restoration arising from this new approach is highly successful.

20.3.5.3 Environmental Insurance

As part of its risk management, Mineros has global Insurance Policy that in addition to property, plant, and equipment, and transportation of materials and precious metals, terrorism, and cyber threats among others, also includes an environmental civil liability that covers up to $15,000,000 for any sudden and unforeseen event that causes harm to the environment.

20.3.5.4 Program for Mining Smaller Marginal Blocks

Mining activities are planned for smaller blocks which were previously considered marginal using bucket line dredges. The approach to mining these areas will be to use smaller cutter suction barges to excavate the areas and provide the process feed of the gold-bearing materials to smaller floating gravity mills. The mills will use gravity separation technology similar to that of the larger barges but on a smaller scale. Throughput will be in the order of 350 m^3/h versus the larger bucket line dredges that operate at approximately 550 m^3/h. Using the new approach to mining (as discussed in the previous subsection) and the smaller mining and process recovery equipment, environmental disturbances will be minimized when carrying out mining in these areas and reclamation to local targeted end points should be readily achievable.

20.3.6 Legalization of Informal Miners

Mineros supports the legalization of informal miners with the objective of reducing environmental and health and safety risks that are associated with illegal mining activities. Mineros is currently working with a small number of informal miners in the area and has entered into operating contracts with them. The formalized units are located in permitted areas of the company and are monitored in ESG-related matters to ensure compliance with the obligations established by the authorities. Since 2013 Mineros has engaged in broad communications and educational outreach programs with the small-scale and artisanal mining community including the Empresa de Mineros de Jobo Medio (EMIJOM) and Empresa Minera Nuevo Culturu S.A.S. (EMINCUT) organizations, to gain their understanding and support for such an approach that has resulted in formalization contracts with informal miners.

Formalized miners working with Mineros at the end of 2024 operate a total of 10 dredges. Of these dredges, three are electric dredges owned and powered by Mineros and operated by formalized miners. Seven are diesel powered dredges owned and operated by formalized miners.

In 2024, Mineros' collaborative model created approximately 1,600 jobs (400 direct, 1,200 indirect), considering around 30 direct employees per unit and 100 indirect employments generated.

20.3.7 Energy Reduction, Offsets, and Clean Energy Production

As part of its carbon footprint reduction program, Mineros is developing several strategies focused on the transformation towards carbon neutrality, that include, among others, the following:

- Installation of 48 solar panels installed that generate 14.88 KWp.
- Emission reductions resulting from the new approach in alluvial mining of large blocks.
- The use of biodiesel in diesel generators (3 MW in total).
- Carbon credits for reforestation of mine impacted areas.
- Development of rubber tree plantations (as of the effective date of this Technical Report, Mineros had 1,200 ha in plantation).

- Production of 200,000 trees by nine rural associations from four municipalities, which will be used in the recovery and compensation processes.
- Creation of the Anorí eco reserve, 338 ha destined for the Eco reserve and 31.5 ha in reforestation.
- Construction of a shipyard camp that reduces distance to operations thus reduction in fuel.
- Sustainable Mobility. Application of the TryMyRide mobility strategy where more than 90 employees are benefiting users.

Mineros is producing hydroelectricity at Providencia I and Providencia III (a total of 14 MW installed capacity) under its UN certification for the hydroelectric power plants. The clean energy source produces more power than needed by Mineros operations and excess power is sold into the country grid.

As part of its search for clean energy opportunities, Mineros is considering a proposal to create a solar park through a Power Purchase Agreement (PPA) where solar panels are installed on company property. The solar park project is designed to be suitable for the operational facilities of El Bagre, although to date, it has not been decided whether it would be built within the existing El Bagre complex or in a new area. At present the proposed maximum generation from the solar park is 5 MW from an area of 2.5 ha, although these values are not yet final. Mineros is also in the early stages of assessing several potential projects including the use of liquefied petroleum gas (LPG) for boats transporting personnel and cargo in the operating pits and potential for construction of an oxygen plant.

20.3.8 Water and Waste Management

20.3.8.1 Water Use

Mineros designed a corporate water management strategy based on its water footprint, estimated under a LCA (life cycle analysis) approach. This allows a better understanding of the most significant impacts of its operations and supply chain on water scarcity and quality in the region. Based on the results, Mineros is designing and implementing a roadmap that include governance mechanisms, projects and devices that increase operational efficiency and will enable a wider set of targets in water use and consumption.

In addition, Mineros counts on the following measures:

- Water Savings and Efficient Use Program - the PUEAA “Program for Savings and Efficient Use of Water” provides a framework and approaches to achieve water saving and reductions for various activities.
- Water Management Module – an educational module that seeks to strengthen the competencies of water resources staff and users.
- Control and Monitoring of Water Collected – monitoring using certified and calibrated equipment that allows for the recording and control of the water collected vs. flow granted.
- Preventive and corrective maintenance program – preventative maintenance program to keep equipment in optimal conditions and fix leaks in a timely and effective manner.
- Water Recirculation. In the El Bagre facility, a water recirculation process in the Beneficiation Plant achieves 81% water reuse.

20.3.8.2 Waste Management, Recycle, Reuse

Mineros has a comprehensive approach to waste management, reduction, reuse, and recycle consistent with its sustainability objective. Within this context, the 2024 review noted that Mineros has implemented the following activities:

- Waste Management Module. An educational module that seeks to change the culture of employees and contractors regarding waste generation.
- Zero Waste Certification – Gold Category. Mineros Center of Circular Economy was certified by the Colombian Institute of Technical Standards and Certification (ICONTEC) and Zero Waste Colombia in zero waste, gold category, based on Circular Economy and Industrial Ecology models that allow organizations to implement strategies of reduction, reuse, use, and waste recovery. Within the framework of these strategies, the SBC Certification emerges as a tool for Life Cycle analysis and risk reduction through standards aimed at strengthening the internal management of organizations in terms of waste, focused on continuous improvement through of the implementation of the Plan, Do, Check and Act methodology.
- Use of 100% of the industrial oil generated.
- Use of domestic used oil (ACU).
- Reuse of sludge for the production of compost.
- Use of waste for energy generation.
- Recovery of recyclable waste to avoid disposal.

20.4 Significant Environmental Events and Changes

20.4.1 Upset Conditions, Emergency Response, Early warning System

The Nechí Alluvial Property was negatively impacted by a catastrophic offsite event not related to Mineros operations. In April and May 2018, a catastrophic failure occurred at the construction site of Empresas Públicas de Medellín's Hydroelectric Ituango Project on the Cauca River north of Medellín. The failure was the result of tunnel collapses and plugging, that in turn resulted in the unplanned rise of the reservoir and subsequently uncontrolled releases of vast amounts of water from reservoir. The releases caused massive damage in the watershed downstream of the hydroelectric project. The elevated water level of the Cauca River also created a damming effect at the confluence of the Cauca and Nechí Rivers, which in turn resulted in very high Nechí River water levels. These extreme water levels were an unforeseeable change in hydraulic conditions that resulted overtopping of the exploitation isolation berms, and the associated release of sediment laden waters from the mining areas.

As a result of this event, ANLA required Mineros, among others, to monitor the surface water sources affected, and to implement actions to mitigate impacts on communities affected by the emergency in such a way as to guarantee the basic support of food and water resources, until the recovery to normal conditions of the fishing areas affected. Additionally, the authority required Mineros to update its contingency plan in accordance with the guidelines established in Decree 2157 of 2017, specifically in relation to the Disaster Risk Management Plan of Public and Private Entities.

Mineros has responded to these requirements and submitted a modified EMP and Disaster Risk Management Plan in November 2018 for ANLA review and evaluation. By way of Article 8 of Resolution 01612 of August 15, 2019, ANLA approved the EMP modification and Risk Management Plan for the Nechí Alluvial Property.

In addition, Mineros has developed a sophisticated Early Warning System (EWS) for the Nechí River that collects and presents data on hydraulic variables at 21 sites of interest, from three level stations, including level, flow, and arrival time data. This system classifies river levels into low, medium, and high alert categories, thus offering a complete and timely assessment of hydrological risk. The system utilizes information from previous hydraulic studies and water level cross sections at each of the three level stations and the level associated with floods with return periods of 2.33, 5, 25, 50, and 100 years. Real time data collected and measured will provide automated (email/web) flood warnings to downstream locations if system thresholds are exceeded. The system is in the early stages of use and recommendations for ongoing improvements have been tabled.

20.4.2 Mineros Requested Changes to Permitting Regime

In 2018, to harmonize environmental management, Mineros requested that ANLA, in addition to its approval of the EMP, consider taking over responsibility for all permits previously granted by CORANTIOQUIA related with the mining and hydroelectric operation for current and future mining operations and activities. The ANLA permitting process was underway in 2019 and mining activities were thus constrained during that period until all permits were re-established under ANLA. Mineros did not foresee any material issues with respect to the ANLA permitting process and, as expected, all necessary permits were in place by the end of 2019 or early 2020.

By Resolution 01612 of August 15, 2019, in Articles 13 and 15, ANLA included the following permits outlined in Table 20-3 that are part of the jurisdiction of CORANTIOQUIA once the existing term of the CORANTIOQUIA permit expires. As of 2019, ANLA has granted the permits required for the operation.

Table 20-3: CORANTIOQUIA Permits Re-established under ANLA

Permission	Resolution
Concession of surface waters Providencia I and Aljibes	Resolution 160PZ-RES1902-1029 of February 26, 2019.File: PZ1-2016-01
Port industrial zone port occupancy permit	130PZ-1107-1953 of 14 July 2014.File: PZ8-02-01

20.4.3 Project of National and Strategic Interest Designation

In early 2020, the Nechí Alluvial Property was designated a Project of National and Strategic Interest (PINE) in Colombia by the MEM. This designation confirms Mineros' sustainable contribution to the country, region, and society and ensures that Mineros will receive priority considerations during procedures with any level of government.

Projects must satisfy the following criteria in order to qualify for designation as a PINE:

- Significantly increase the productivity and competitiveness of the national or regional economy.
- Generate significant impact on direct job creation or through linkages and/or investment of capital.
- Generate a positive return on investment and be operationally sustainable.

- Increase the export capacity of the national economy.
- Generate significant income for the Nation and the regions.
- Contributes to the fulfillment of the goals established in the National Development Plan (PND).

The advantages of a PINE designation primarily arise from an enhanced relationship with government and regulatory authorities, including:

- PINE projects will receive priority during procedures with government entities of any level.
- Other implications/attributes associated with PINE designation:
    - Greater visibility of the operation.
    - Investment and growth commitments.
    - Greater quality and opportunity in requests.

20.4.4 Offsite Compensation

In 2019, Mineros prepared a Regional Integrated Management District (DRMI) Environmental Compensation Plan as required under its EMP as updated by Resolution 1612 in August 2019. Mineros structured the compensation plan so that it could be implemented in the regional integrated management district created by CORANTIOQUIA.

The DRMI addresses the rationale for selection of potential compensation areas (El Sapo and Hoyo Grande), the framework for moving forward on compensation actions to assist in regional restoration of impacts of mining and improve biodiversity in the region. The plan is a comprehensive document based on the grouping methodology developed by Mineros in 2018, and approved by Resolution 1612. The plan provides the strategic framework and methodology for a two-year program to select, prepare for, and implement a conservation program with landowners in the El Sapo and Hoyo Grande regions. The conservation program includes, to various degrees, conservation and restoration of connectivity corridors and habitat restoration and enrichment in the lower Cauca Antioqueno. The plan also provides for local and regional participatory management and strengthening of the social and cultural values of the territory.

As part of the advancement of the DRMI, the owners of selected properties will be approached to assess their participation. Once the status of the selected properties and their availability have been confirmed, the local and regional compensation strategy will be defined, which includes the following alternatives:

- Restoration: Reforestation and conservation of existing forests.
- Sustainable: Production Projects: Include mass production fish farming projects within the DRMI.
- Projects in existing agricultural areas.

In September 2020, Mineros filed Compensation Plan with the environmental authorities. On April 15, 2021, CORANTIOQUIA approved the Compensation Plan by means of Resolution 160PZ-RES2104-2056. Most recently, to preserve, restore, and develop other sustainable uses for 1,453.9 ha was approved by CORANTIOQUIA through Resolution 160PZ-RES2312-7118 of December 2023.

20.4.5 Annual Environmental Reports to ANLA

Mineros is required to provide annual reports on the prevention, monitoring and control, and continuous improvement of environmental management activities from the preceding year. The objectives of these reports, are to:

- Verify the compliance status of the programs that make up the Environmental Management Plan EMP Verify compliance with the permits, concessions, or environmental authorizations for the use and/or exploitation of natural resources.
- Verify the compliance status with the requirements of the administrative acts.
- Analyze the trends in the quality of the environment in which the project is developed.
- Analyze the effectiveness of the programs that make up the EMP, those required in the administrative acts and proposals for updating.

To date, these reports have been provided to ANLA as requested.

20.5 Socio-Economic Obligations

The socio-economic setting in which Mineros activities are carried out is particularly sensitive as the area is one of the poorest regions in the Antioquia Department, with poverty indices of more than 50%. Given this context, Mineros is the most important company in the region and undoubtedly one of the primary engines of the provincial economy.

In recognition of the above, and in compliance with its obligations under the EMP licence granted by MADS, Mineros has developed a corporate social responsibility (CSR) policy framework. It should be noted that Resolution 0125 of 2015 approved a social management plan (SMP) established in the EMP. The SMP includes, among others, the following requirements:

- Prioritize local labour hiring, use of suppliers and contractors, and the acquisition of goods and services in the region where the company conducts its operations.
- Develop and implement at least three initiatives for “productive alternatives” per year for each of the five municipalities that are within Mineros’ area of influence. “Productive alternatives” are activities that Mineros carries out with the communities that contribute to local consumption and income generation of these communities.
- In association with community representatives, carry out evaluations of the social management programs every two years, assessing among other aspects the effectiveness of the programs, program results, and program quality with respect to objectives. Using these evaluations, consider whether changes should be made for the continuity of the programs or whether the new programs should be considered for implementation.
- Provide support for the formalization of informal mining.

According to the principles guiding Colombian environmental legislation, the process of developing a new policy of community relations must be public, transparent, participatory, and disseminated widely among the affected communities. From site observations and discussions, and from the review of company and third-party information, it appears that all of these criteria are being met by Mineros.

In carrying out the social obligations under its social program, Mineros has worked with regional and municipal governments to assist them in various initiatives, including assisting

ANT through the provision of cartographic support in property legalization through mapping, environmental education, restoration of lands impacted by past illegal mining; providing support to regional municipalities on housing development and cultural program initiatives; and working on various awareness and education programs including work coordinated efforts with the State Education Agency (SENA) to develop and support various skill development and job training programs.

20.6 Corporate Social Responsibility

As part of its corporate sustainability strategy Mineros has also implemented a community management plan, aimed at developing capacity in local and regional communities/peoples that foster their development beyond mining operations.

The objectives of Mineros' social management approach are to facilitate and support opportunities for people in the region. Mineros develop community development programs around the following elements:

- The generation of local economic alternatives,
- Improvement of urban and rural social infrastructure,
- The provision of quality education, the promotion of art, culture, sports and recreation,
- Community strengthening,
- Access to health services.

Mineros works together with local and regional governments and community organizations, NGOs, and strategic alliances to support improvements in community well-being.

Examples of program achievements in the area of education include construction of schools in remote regions, school cafeterias, transportation support to access schools, and development of academic learning modules.

Examples of program elements in health care include inter-institutional management through agreements with the hospital, accompaniment and management of health brigades, sponsorship of nursing care, support for provision of specialist medical fly-in service, and support to family planning programs. Improvements in basic hygiene are supported through the provision of toilets and potable water in various communities.

Development of programs to generate local economic alternatives include providing advice and direct support to micro projects, and generating productive alternatives in poultry farming, fish farming, beekeeping, pig farming, and agriculture.

Support is also provided to development of social projects and community infrastructure improvements such as community kitchens, sports centres, housing improvements, sanitary units, roads and paving, and construction and improvement of educational institutions.

A summary of social contribution spending for 2024 is provided in Table 20-4.

Table 20-4: Corporate Social Contributions in 2024

Distribution of Contributions	US$	COP
Donations[1]	319,321	1,379,584,419
Social Sustainability & Social Management	471,549	1,944,559,058
Compliance with EMS	371,707	1,542,030,702
High and Mid Impact Projects	123,156	496.642.572
Total	1,285,733	5,362,816,751
Foundation Donation	376,095	1,545,730,000
Total	1,661,828	6,908,546,751

Note:

1. These include the projects funded through the Cocrea mechanism, which directly promote social investment in the culture of the Bajo Cauca region in Antioquia.

20.7 Environmental, Health, and Safety and Social Management

Mineros has developed and implemented an integrated management program (IMP) that is used to guide and monitor overall performance of all facets of the operations. The IMP guides and links all aspects and activities associated with the mining efforts throughout all stages of their life cycle. The IMP is used to establish and monitor internal objectives for all operations of the mine, as well as to interface with and follow the external requirements and commitments of Mineros, especially in regard to its environmental and social commitments and obligations.

Within the context of this overall integrated management system, Mineros has developed an underlying framework program for the management of environmental, health and safety, and social aspects associated with company operations.

Mineros' environmental management system for the Nechí Alluvial Property is ISO1400 certified. This program provides the management framework for oversight and guidance to all departments and activities with respect to environmental matters. The aim of the environmental management system is to ensure that Mineros' operations are fully aware of and compliant with both the regulatory obligations and the objectives and commitments made with respect to ongoing improvements in operations. In addition, the aim of the environmental management system is to ensure that reclamation steps are met in a timely and appropriate manner.

Mineros' health and safety management program (HSMP) for the Nechí Alluvial Property is also ISO45001 certified. The HSMP provides guidance framework for planning, tracking, and implementing safe working practices throughout the organization.

In summary, Mineros has established a comprehensive management system for guiding its operation with respect to the environment, health and safety, and social responsibility. The system provides a proactive planning framework, allows for continuous updates of regulatory and permitting requirements and the distribution of these obligations among various operating units within the company as appropriate, and provides a dynamic framework for regular and exceptional performance monitoring. The system is supported by state-of-the-art management information system (MIS) application software hosted on server-based computer systems that link various operational and corporate departments of Mineros.

20.8 Mine Closure Requirements

20.8.1 Progressive and Final Closure

Resolution 125 of 2015 establishes that the closure plan must be updated periodically, at least every five (5) years, to incorporate the progress and changes that occur in the project. Accordingly, Mineros submitted an updated closure plan dated September 2023 for the five-year period 2023–2028 that included the closure status and responds to requirement 70 of Act 837 of 2022 and to the requirements established in Resolution 812 regarding the recovery of the swamps, whose intervention was authorized in said modification of the EMP. Closure planning included engagement with individuals and local and regional communities to ensure that community input and specific needs at different locations were considered throughout the planning process. Review of the closure plan found it to include extensive and appropriate information (data, figures, schedules) for all aspects of the closure plan.

Historical mining in the Nechí River basin including artisanal, informal, and illegal mining that still occurs to date, continues to impact the regional environment. Within this context, Mineros operations offer an example of what can be achieved in terms of impact mitigation and successful restoration. Mineros' alluvial closure practices are progressive and effective. Land and water restoration is achieved quickly on final closure of a mined block. Based on information reviewed and site visit observations, closure works have returned the lands and waters to either pre-mining conditions or better, consistent with Mineros' plans as approved by the regulatory authorities.

As in other surface mining methods, alluvial mining is disruptive to the existing environment in the footprint of the area being mined. However, unlike many other surface mining methods, at the completion of Mineros alluvial mining activities in a mining block, the mined areas are returned to similar, or sometimes better, land uses than pre-mining conditions. This is accomplished through a progressive reclamation method that is integral to the mining process and prepares the excavated land for return to one of three land uses: forest lands, farmlands, or wetlands as per the EMP requirements.

Mineros has developed and is implementing comprehensive and sophisticated closure plans. These plans guide both short-term and long-term designs for the closure works. From a technical perspective geomorphological and hydraulic models are used to develop designs for reconfiguration of disturbed areas in keeping with the local and regional objectives for re-establishment of water ways, wetlands, and landforms that support sustainable and productive post closure environmental and social use in the areas.

When carrying out the activities, suction dredge soils are stored for reuse on top of the bucket line dredge spoils. On completion of an area within a mining block, the bucket line dredge spoils are contoured and graded, then covered with cutter suction sediments/soils. As noted earlier, the new approach used for mining as approved by Resolution 0125, provides for even more enhancement to the reclamation program design, and for even better reclamation results than previously generated.

Given the climate of the area, natural revegetation is extremely productive. Mineros has established a nursery that is also used to revegetate selected areas with desired tree, grass, and plant species. Examples were observed of former mining areas that had been reclaimed to productive use in two to four years. The preparation of farmlands provides resettlement opportunities for approved families. The preparation of wetlands along the river basin adds to the biodiversity of the region.

Mineros closure objectives for the Nechí Alluvial Property include: the development of three productive parcels (farms) per year; the planting of more than 100,000 plants per year; and revegetation to grasslands and forest lands of more the 30 ha and 100 ha per year, respectively. In addition to these efforts, Mineros is also committed to developing wetlands on an agreed portion of the mined areas. Wetland development initiatives include drainage and flow design, shoreline improvements, fish and animal stocking, as well as physical measures to protect the wetland from human intrusion.

Mineros success with its closure program has contributed positively to the local and regional social and economic climate. Based on SLR's review, Mineros has a sound understanding of its closure liabilities and requirements and manages its obligations effectively. SLR's review did not identify any pre-existing liabilities associated with legacy operations and past use of mercury in the recovery process at its operations.

20.8.2 Closure Costs

The obligations related to closure of the alluvial mining operations as of the third quarter of 2024 include restoration of 771 ha mined areas and forestry compensation of 4,303 ha.

Progressive reclamation, restoration, and reuse of impacted lands is the fundamental closure approach successfully employed by Mineros. Costs associated with these efforts, including the operation of supporting activities and infrastructure (e.g., nurseries, etc.), are carried as part of the annual operating costs of the alluvial mining operations.

In addition to the progressive reclamation efforts for directly impacted Mineros mine lands, off-site restoration activities are also planned for as part of the planned environmental compensation conservation strategy in the DRMI of the El Sapo and Hoyo Grande wetlands as required under its EMP, and as updated by Resolution 1612 in August 2019. While the plan has not been finalized and is subject to approval, Mineros carries a provision for the obligations of the plan on its annual balance sheets.

For reclamation of lands and waterways impacted by past and current mining, Mineros carries a current closure liability of US$3.8 million, with annual forecast reclamation expenditures ranging from US$0.79 million to US$5.5 million, depending on the extent of areas impacted by prior mining in various reclamation parcels. These costs appear reasonable in respect to mine reclamation and compensation for past and existing closure requirements.

SLR notes however, that Mineros carries no liability allowance for closure of future mining areas included in the 2025 LOM plan, or for decommissioning of facilities and equipment and closure of the industrial zone infrastructure at El Bagre or other support areas. SLR recommends that Mineros consider generating cost estimates and allowances for these potential liabilities for inclusion in its cash flow model.

These costs appear reasonable in respect to mine reclamation and compensation. SLR's review notes, however, that Mineros carries no cost allowance for closure of the industrial zone infrastructure at El Bagre or its support areas.

20.9 Illegal Mining

20.9.1 Overview of Illegal Mining in Colombia

Illegal alluvial mining in Colombia has seen a dramatic increase, driven by organized crime and resulting in significant environmental and social consequences. Recent reports from the United Nations Office on Drugs and Crime (UNODC) highlight a staggering 73% rise in illegal gold mining activities as of 2022, with a notable expansion in southern regions such as Putumayo and Caquetá. This surge is largely attributed to the high international prices for gold, which incentivizes illegal operations and strengthens the territorial control of armed groups in these areas.

The environmental repercussions of illegal alluvial mining are severe. The extraction process often involves the use of toxic substances like mercury, leading to water contamination and deforestation. In regions like Chocó, illegal miners reportedly dump 36 kg of mercury into rivers annually, contributing to widespread pollution that affects local communities and wildlife. Studies have shown alarming levels of mercury contamination in the blood of residents living near illegal mining sites.

Illegal mining is closely linked to organized crime, with criminal groups engaging in various illicit activities such as money laundering and human trafficking. The UNODC report indicates that 44% of areas with gold mining also contain coca crops, underscoring the connection between illegal mining and the drug trade. Moreover, over half of Colombia's illegal alluvial gold mining occurs in protected areas or regions where mining is prohibited, including indigenous territories.

The Colombian government has attempted to combat illegal mining through legal measures and increased penalties for offenders. However, these efforts have often fallen short due to the complexity of the criminal networks involved and the socio-economic conditions that drive individuals to engage in illegal mining. Many small-scale miners face significant barriers to formalization, which would allow them to operate legally and receive fair prices for their gold. The formalization process is often seen as burdensome and costly, leading many to continue operating outside the law.

The situation surrounding illegal alluvial mining in Colombia presents a multifaceted challenge involving environmental degradation, organized crime, and socio-economic issues. Addressing this crisis requires not only stricter enforcement against illegal activities but also support for legal mining initiatives that can provide sustainable livelihoods for local communities while protecting Colombia's rich biodiversity.

20.9.2 Overview of Illegal Mining in Nechí River Basin

As elsewhere in Colombia, illegal mining on the Nechí River in Colombia has escalated significantly, driven by the high demand for gold and by organized crime. This situation has serious implications for both the environment and local communities.

Based on publicly available information the current status of illegal mining on the Nechí River is as follows.

Extent of Illegal Activities: The Nechí River, located in the northeastern part of Colombia, is heavily impacted by illegal gold mining. Criminal groups exploit the river's resources using methods that often violate environmental regulations and threaten local ecosystems. Reports indicate that illegal mining activities have expanded rapidly, with significant areas being mined without proper permits or oversight using large dredging machines, colloquially known as "dragons". These machines have been associated with significant environmental degradation, including riverbed destruction and contamination from toxic substances like mercury.

Environmental Impact: The use of mercury in gold extraction is a major concern, as it contaminates water sources and poses health risks to local populations. The mining process not only pollutes the river but also leads to severe deforestation and habitat destruction, affecting biodiversity in the region. The Colombian government has identified illegal mining as one of the primary causes of environmental degradation in areas like the Nechí River basin.

Social Consequences: Local communities, including indigenous groups, suffer from the repercussions of illegal mining. The contamination of water sources affects their health and livelihoods, particularly for those who rely on fishing as a primary food source. Additionally, the presence of armed groups involved in illegal mining creates a climate of fear and violence, further destabilizing these communities.

Government Response: In response to the growing crisis, the Colombian government has intensified military operations against illegal mining operations along the Nechí River. These efforts aim to dismantle criminal networks and restore order in affected regions. However, challenges remain due to the entrenched nature of these operations and the socio-economic factors that drive individuals toward illegal mining.

Community Actions: Local communities have begun to organize and advocate for their rights, seeking legal recognition and protection against illegal mining activities. They emphasize their constitutional rights to a clean environment and sustainable livelihoods, pushing for government action to address the environmental and social impacts of illegal mining.

20.9.3 Impacts of Illegal Mining on Mineros

The dramatic increase in illegal mining in Colombia, including along the Nechí River has been a significant challenge for Mineros. With the rise in gold prices, the number of illegal miners has increased considerably and the scale of dredges operating within the Nechí River as well as carrying out mining in areas previously mined and reclaimed by Mineros is of concern. In addition, illegal miners are now so bold as to carry out mining activities within Mineros approved and active “closed pond” mining areas. In the absence of police enforcement, illegal miners openly enter and work Mineros operating areas, making no pretense to hide their activities and in some instances, work directly in front of Mineros large bucket excavators endangering themselves. The environmental and social impacts of these activities are cause for concern from a human health and safety perspective both in the Company’s mining areas as well as more broadly along the Nechí River and its communities. Based on recent 2024 aerial surveys of activities, Mineros identified over 50 large illegal dredges working within the Mineros mining concessions and exploiting Mineros Mineral Reserves in the concessions.

In addition to mining locations along the river and active ponds and wetlands, incursions by illegal miners into reclaimed and re-established land areas have been increasing. This illegal activity has disturbed approximately 7% of the areas that had been reclaimed by Mineros for productive use by others. As a result of these incursions, the legal landowners of the plots became uncertain as to their status on the land, which in turn contributed to the desertion of the lands by some, and to the reduction of the commercialization of the products from these lands. Initial measures taken to mitigate these activities included:

- The mining authorities were informed of the situation.
- A baseline survey of social and agro-environmental issues was completed.
- The affected locations were visited to assess the impacts and meetings were held with the plot owners to identify their respective views and concerns.
- Alternatives were assessed to see what, if anything, can be implemented economically.
- Mineros continues to implement active and passive actions on the reclaimed areas include:

- Assigning productive projects to community associations to guarantee the governance and sovereignty of the reclaimed lands, in addition to the economic subsistence of the communities.
- Permanent monitoring of the reclaimed areas to identify in a timely manner the presence of third parties.
- Filing administrative complaints to the police, the military, the mining and environmental authority in areas where the presence of undetermined third parties is identified.

Since the time of the previous 2021 Technical Report, the issues above have been amplified due to the significant rise in gold prices that has increased the number of illegal dredges and miners dramatically and the failure to date of the government to effectively deal with these illegal activities. These activities pose a range of human health, environment, and socio-economic risks to Mineros operations as well as local and regional individuals and communities. Dealing with these risks requires actions by various levels of governments.

21.0 Capital and Operating Costs

The capital and operating costs presented in this section include only the costs required for mining and processing Mineral Reserves from the Nechí Alluvial Property, with a reference point of January 1, 2025. The capital and operating cost estimates have been prepared based on recent operating performance and the operating budget for 2024. These costs were supplied to SLR by Mineros' corporate finance and technical teams. The QP considers these cost estimates to be reasonable, as long as the production targets are realized.

All costs in this section are expressed in US dollars as of the first quarter of 2024 and are based on an exchange rate of COP4,000 per US$1.00.

21.1 Capital Costs

SLR was provided with a breakdown of development and sustaining capital expenditures for the Nechí Alluvial Property. These costs are based on historical performance and the latest operating budget for year 2024. Total LOM sustaining capital costs (Development & Operations) are estimated to be US$235.3 million.

Mine closure and concurrent reclamation costs for the LOM scenario presented in this Technical Report are based on Mineros' environmental reclamation estimate for the Nechí Alluvial Property of US$43.8 million, which is based on a concurrent reclamation and closure plan extending until year 2040. For further details about Nechí Alluvial closure plan refer to subsection 20.8 Mine Closure Requirements.

A summary breakdown of these sustaining capital cost estimates is presented in Table 21-1.

Table 21-1: Summary of Capital Costs

Description	Cost (US$ 000)
Sustaining Capital - Development	64,024
Sustaining Capital - Operations	171,264
Reclamation/Closure Capital	43,811
Total LOM Capital Cost	**279,099**

21.2 Operating Costs

Mineros' operating cost estimates were prepared based on recent historical operating performance and the latest operating budget for 2024. Mineros' estimate of total operating costs required to mine and process 284 Mm^3 of mineralized alluvial material is estimated to be US$815.4 million over the LOM and the total LOM unit operating costs are estimated to be US$2.87/$m^3$ processed.

Since 2024, Mineros has been reviewing the different cost centers allocated to the operating costs items, as a way to improve the estimation methodology. Based on this new allocation the operating costs have been broken down in the following cost items:

- Mining Costs:
  - Bucket Line Dredges
  - Suction Dredges and Llanuras Plant

    - Formalized Dredges - Mineros Owned
    - Formalized Dredges - Third party contractor owned
    - Waste Stripping - Suction Dredges
- Processing Costs
    - Concentrate Treatment
- Site G&A costs - Support Areas

A summary of Nechí Alluvial Property operating costs by area is shown in Table 21-2.

Table 21-2: LOM Operating Costs by Area

Description	Total LOM (US$ 000)	Unit Rate (US$/m^3 Processed)	Unit Rate ($/oz Au payable)
Mining Cost - Bucket Line Dredges	259,931	0.91	246
Mining Cost - Suction Dredges & Llanuras Plant	25,232	0.09	24
Mining Costs - Formalized Dredges - Mineros Owned	48,732	0.17	46
Mining Costs - Formalized Dredges - Third party	114,745	0.40	108
Mining Costs - Waste Stripping - Suction Dredges	155,474	0.55	147
Processing Costs - Concentrate Treatment	17,035	0.06	16
Site G&A - Support Areas costs	194,226	0.68	184
Total Site Operating Costs	**815,376**	**2.87**	**770**

21.2.1 Bucket Line Dredges Mining Costs

The LOM operating costs required to mine and process an estimated 189.3 Mm^3 of mineralized alluvial material mined by bucket line dredges, are estimated to total approximately US$259.9 million, or US$1.37/m^3. The bucket line dredges LOM operating cost estimate is presented in Table 21-3.

Table 21-3: LOM Bucket Line Dredges Operating Costs

Item/Cost	Units	LOM
LOM Operating Costs	US$ million	259.9
Volume mined by bucket line dredges	Mm^3 mined	189.3
Unit cost by m^3 mined by bucket line dredges	US$/m^3 mined	1.37
Total LOM volume processed of mineralized material	Mm^3 processed	284.2
Unit cost by m^3 processed	US$/m^3 processed	0.91

21.2.2 Suction Dredges and Llanuras Plant Mining Costs

The LOM operating costs required to mine and process an estimated 18.4 Mm^3 of mineralized alluvial material mined and processed by suction dredges and the Llanuras Plant, are estimated to total approximately US$25.2 million, or US$1.37/m^3. The suction dredges and Llanuras Plant LOM operating cost estimate is presented in Table 21-4.

Table 21-4: LOM Suction Dredges & Llanuras Plant Operating Costs

Item/Cost	Units	LOM
LOM Operating Costs	US$ million	25.2
Volume mined by suction dredges and Llanuras	Mm^3 mined	18.37
Unit cost by m^3 mined by suction dredges and Llanuras Plant	US$/$m^3$ mined	1.37
Total LOM volume processed of mineralized material	Mm^3 processed	284.2
Unit cost by m^3 processed	US$/$m^3$ processed	0.09

21.2.3 Formalized Brazilian Dredges - Mineros Owned Mining Costs

The LOM operating costs required to mine and process an estimated 24.6 Mm^3 of mineralized alluvial material mined and processed by Mineros owned formalized dredges are estimated to total approximately US$48.7 million, or US$1.98/m^3. The Formalized dredges – Mineros' owned LOM operating cost estimate is presented in Table 21-5.

Table 21-5: LOM Formalized Brazilian Dredges - Mineros Owned Operating Costs

Item/Cost	Units	LOM
LOM Operating Costs	US$ million	48.7
Volume mined by Mineros owned Brazilian dredges	Mm^3 mined	24.6
Unit cost by m^3 mined by Mineros owned Brazilian dredges	US$/$m^3$ mined	1.98
Total LOM volume processed of mineralized material	Mm^3 processed	284.2
Unit cost by m^3 processed	US$/$m^3$ processed	0.17

21.2.4 Formalized Dredges - Third Party Contractor Owned Mining Costs

The LOM operating costs required to mine and process an estimated 52.0 Mm^3 of mineralized alluvial material mined and processed by third party contractor owned formalized dredges are estimated to total approximately US$114.7 million, or US$2.21/m^3. The third-party contractor owned formalized Brazilian dredges LOM operating cost estimate is presented in Table 21-6.

Table 21-6: LOM Formalized Brazilian Dredges - Third Party Contractor Operating Costs

Item/Cost	Units	LOM
LOM Operating Costs	US$ million	114.7
Volume mined by formalized Brazilian dredges - Third party contractors	Mm^3 mined	52.0
Unit cost by m^3 mined by formalized Brazilian dredges - Third party contractors	US$/$m^3$ mined	2.21
Total LOM volume processed of mineralized material	Mm^3 processed	284.2
Unit cost by m^3 processed	US$/$m^3$ processed	0.40

21.2.5 Waste Stripping - Suction Dredge Mining Costs

The LOM operating costs required to mine estimated 239.5 Mm^3 of overburden material mined by suction dredges are estimated to total approximately US$155.5 million, or US$0.65/m^3. The waste stripping by suction dredges LOM operating cost estimate is presented in Table 21-7.

Table 21-7: LOM Waste Stripping - Suction Dredges Operating Costs

Item/Cost	Units	LOM
LOM Operating Costs	US$ million	155.5
Overburden volume mined by Suction Dredges	Mm^3 mined	239.5
Unit cost by m^3 overburden mined by Suction Dredges	US$/$m^3$ mined	0.65
Total LOM volume processed of mineralized material	Mm^3 processed	284.2
Unit cost by m^3 processed	US$/$m^3$ processed	0.55

21.2.6 Processing Costs - Concentrate Treatment

The LOM operating costs required for gold concentrate treatment at El Bagre Plant are estimated to total approximately US$17 million, or US$0.06/m^3 for a total of 284.2 Mm^3 processed mineralized alluvial material. The LOM gold concentrate treatment processing costs average US$16.1/oz Au payable. The estimate is presented in Table 21-8.

Table 21-8: LOM Concentrate Treatment Operating Costs

Item/Cost	Units	LOM
LOM Operating Costs	US$ million	17.0
Processing Costs of Concentrate	US$ per oz Au Payable	16.1

21.2.7 Site G&A and Support Areas Costs

Site G&A and support operations costs comprise the different administrative support areas for the mine and processing operations, such as administration and finance, logistics, communications, legal, maintenance, and environmental. The site G&A and support areas LOM operating costs are estimated to total approximately US$194.2 million, or US$0.68/m³ for a total of 284.2 Mm³ processed mineralized alluvial material. The site G&A and support areas LOM operating costs average US$184/oz Au payable.

22.0 Economic Analysis

This section is not required, as Mineros is a producing issuer under NI 43-101 guidelines. The Nechí Alluvial Property is currently in production, with no planned material expansion of current production at this time.

The QP has reviewed the LOM cash flow model for the Nechí Alluvial Property and confirms that the Mineral Reserves are economically viable under current operating conditions. The analysis demonstrates the operation's ability to sustain production and meet financial expectations over the planned LOM.

23.0 Adjacent Properties

This section is not applicable.

24.0 Other Relevant Data and Information

No additional information or explanation is necessary to make this Technical Report understandable and not misleading.

25.0 Interpretation and Conclusions

25.1 Geology and Mineral Resources

- The Nechí deposit is a classic alluvial gold deposit located within the Nechí River valley. It is characterized by a stratified sedimentary sequence comprising a basal layer of compacted clays, which forms the foundation of the alluvial basin. This is overlain by sequences of coarse, medium, and fine gravels interbedded with lenses of silt, sand, and clay. The overburden primarily comprises mud and clay layers, with an average thickness of approximately 15 m.
- Gold mineralization is hosted within the gravels, with distribution strongly correlated to granulometry. Coarse gravel units typically exhibit the highest gold concentrations, often associated with ancient paleochannel systems of the Nechí River. The PZ comprises the gold-rich layers, which are frequently separated by layers of false bedrock (compacted clay layers) and underlain by true bedrock, neither of which contain significant gold values.
- The deposit's stratigraphy and sedimentology have been well-defined through systematic drilling and geological modelling. The transition to a 3D block model has significantly improved the delineation of geological units and enhanced the spatial resolution of the mineralized zones. This advancement has facilitated more accurate resource estimation and mine planning.
- The unique geological setting and predictable mineralization styles of the Nechí deposit support its potential for long-term alluvial gold production.
- Mineros' drilling program conducted between 2021 and November 25, 2024 has been critical in refining the understanding of the Nechí Alluvial Property's mineral resources. Over this period, a total of 1,864 drill holes were completed, representing 43,375.5 m of drilling. These efforts include significant campaigns in 2021 (502 holes, 10,719.9 m), 2022 (471 holes, 11,381 m), 2023 (371 holes, 9,566.6 m), and 2024 (520 holes, 14,708.0 m).
- Mineros’ drilling, sampling, sample preparation, gold analysis, and security protocols adhere to industry standards for large-scale alluvial gold deposits, providing an adequate framework for the estimation of alluvial gold Mineral Resources and Mineral Reserves.
- As of December 31, 2024, the Measured and Indicated Mineral Resources total 527 Mm^3 grading 56 mg/m^3 Au, containing approximately 1,005 koz of gold, and Inferred Mineral Resources total 223 Mm^3 grading 62 mg/m^3 Au, containing 447 koz of gold. The Mineral Resources are exclusive of Mineral Reserves.

25.2 Mining and Mineral Reserves

- The Nechí Alluvial Property is a well-established and mature alluvial mining operation. Gold production at the property has been ongoing since 1974, with Mineros and its predecessors actively expending operations. Additional concession contracts have been continuously acquired since 1974, supporting ongoing exploration and delineation of Mineral Resources and Mineral Reserves.

- Alluvial Mineral Reserves were estimated within the designed pits, as detailed in Section 16 of this report. These estimates extend below the topographic surface and are depleted by the mined-out shapes updated as of December 31, 2024.
- Mineros has prepared a LOM plan based on Proven and Probable Mineral Reserves, extending over approximately 12 years from January 2025 to November 2036. The LOM plan includes pit optimization, pit design, mine scheduling, and the application of modifying factors to the Measured and Indicated Mineral Resources.
- As of December 31, 2024, the Mineral Reserve estimate comprises:
  - Proven Mineral Reserves: 86 Mm^3 averaging 71 mg/m^3 Au, containing 196 koz of gold.
  - Probable Mineral Reserves: 438 Mm^3 averaging 82 mg/m^3 Au, containing approximately 1,159 koz of gold.
  - Total Mineral Reserves: 524 Mm^3 averaging 81 mg/m^3 Au, containing approximately 1,357 koz of gold.
- The QP has reviewed the Mineral Reserve estimates prepared by Mineros and has determined them to be reasonable and sufficient for alluvial mine planning purposes.
- The QP is not aware of any mining, metallurgical, infrastructure, permitting, or other relevant factors that could materially affect the Mineral Reserve estimate.

25.3 Mineral Processing

- Historically, gold recovery in dredging and terrace mining operations was not systematically measured due to the absence of regular sampling, process stream analysis, and flow measurement systems. Recovery was estimated indirectly by reconciliation of production with the mine plan and estimated contained gold in the mined areas.
- In 2021, Mineros implemented a program of regular process surveys on the five bucket line dredges, managed by metallurgical staff. Each dredge is currently surveyed weekly. These surveys involve sampling process streams and measuring flow rates, typically by timing how long it takes to fill a bucket. The data collected is used to identify process inefficiencies, optimize processes, and address operational challenges.
- Mineros has also initiated a recovery improvement project focused on:
  - Investigating the use of centrifugal gravity concentrators on bucket line dredges.
  - Exploring opportunities for process control enhancements and optimization.
- As part of this initiative, automatic samplers were installed on key process streams for two bucket line dredges on a trial basis. Samples are sent two to three times a week to the El Bagre laboratory for analysis. Mineros plans to extend the installation of automatic samplers on the other four bucket line dredges, further improving data collection and process monitoring.

25.4 Infrastructure

- The Property has been in operation for many decades and its infrastructure is well established. Over time, it has been expanded and upgraded to fully support the needs of the operation.
- Mineros has implemented security measures to safeguard assets, personnel, and operational continuity. The main working compound is enclosed within a gated perimeter, monitored by security personnel, and equipped with controlled access systems.
- Significant investment has been made to ensure environmental compliance and support sustainable operations, including advanced systems for effluent treatment, sediment control, and progressive reclamation of mined lands.

25.5 Environmental Studies, Permitting, and Social or Community Impact

- SLR is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource and Mineral Reserve estimates.
- It is noted, however, that escalation of illegal mining has occurred within the Nechí River, as well as in Mineros active mining areas and former mine rehabilitated areas causing operational health and safety risks, short and potential long term environment impacts, and socio-economic concerns. Government action to date has been ineffective in deterring illegal mining activities, which remain an ongoing challenge.
- Mineros has a commitment to progressive environmental and socially acceptable sustainable operations that minimize environmental impacts of its alluvial mining activities operations and major infrastructure. Impacts from mining are controlled and mining areas are progressively remediated. Major facilities are well maintained, and material recycling, reuse, and waste management systems are effective and well managed.
- Prior to 2012, mercury was used in the quaternary concentration stage of gold recovery on the dredges. The use of mercury was carefully managed and controlled in accordance with government regulatory requirements. Commencing in 2012, Mineros eliminated the use of mercury for gold recovery from some of its operations. By 2014, all use of mercury had been eliminated from its barge and plant facilities. This was a significant achievement from a technical, environmental, and social perspective, and sets a performance standard for other alluvial mining and surface mining operations in the region.
- The dredge processing is operating well, with the change from mercury amalgamation to gravity recovery contributing to a safer environment.
- Mineros' approved EMP provides the framework for meeting environmental regulations and corporate social obligations. The EMP provides overall strategic and technical guidance to operations ensuring conformance with environmental and social requirements. It is in line with industry best practice.
- Since 2020, the Nechí Alluvial Property has been designated a PINE in Colombia by the MEM. This designation confirms Mineros' sustainable contribution to the country,

region, and society and ensures that Mineros will receive priority considerations during procedures with any level of government.

- Starting in 2020, Mineros developed an integrated mine planning and environmental management approach in which new LOM areas/blocks were grouped within Environmental Permitting Stages. This approach ensures that environmental studies and assessments for each stage are identified early, scheduled, and undertaken as needed to support timely submission of environmental applications and reviews in advance of mining activities.
- Mineros has a long history of legal mining operation in the Nechí River region. Permits are in place for the Nechí Alluvial Property and Mineros' operations are in material compliance. The most recent ANLA approval for mining was granted in April 2022, and Mineros has environmental permits on hand and in good standing to support current mining operations in accordance with its environmental impact assessment (EIA) approvals and commitments from 2024 to 2026 and has a program for carrying out environmental studies in support of the permitting process through to 2033.
- Mineros has an effective environmental management system that is continuously evolving and improving. Environmental performance monitoring and control systems are refined to reflect changes to operations and areas of activities. Environmental tracking of key performance indicators allows for operational monitoring of achievements against planned targets and commitments.
- Mineros continues to use a new approach for alluvial mining of large blocks that reduces impacts on the environment during active mining and enhances restoration and return of mined lands to pre-mining landforms and environments. This approach reduces impacts on the main river channels, including limiting water used in mining, reduction of sediment load to the river, and reduction of the release of chemicals, wastes, and other substances into the river system. Using this new approach, restoration efforts are carried out in a manner that strives to achieve a final landform that is similar to the pre-mining setting of the area.
- Mineros maintains a mining formalization program, pursuant to which it educates, trains, contracts labour from, and in some cases provides equipment to, various local informal alluvial mining groups and their members. These initiatives provide significant job opportunities to local peoples and generate real wealth and social contributions while mitigating environmental impacts and avoiding the use of mercury. In 2024, 400 direct jobs and an estimated 1,200 indirect jobs were generated through Mineros program of collaboration and contracting with formalized third-party miners. These formalized miners pay taxes and royalties and operate in accordance with Mineros' environmental and labour guidelines and standards, all of which contributes to the social and economic well being of the local and regional communities. The Nechí Alluvial Property LOM plan includes 13 Brazilian dredges operated under contract pursuant to Mineros' formalization program, of which three are electric-powered and owned by Mineros, and 10 are diesel-powered and owned by formalized miners. As of December 31, 2024, formalized miners operated a total of 10 Brazilian dredges of which three were electric-powered and owned by Mineros, and seven were diesel-powered and owned by formalized miners. Mineros plans to recruit three additional diesel-powered Brazilian dredges under its formalization program to replace them in 2025.
- Mineros has excellent closure practices. Alluvial mine blocks are reclaimed on a progressive basis with the objective of re-establishing pre-mining geomorphic conditions

and agreed future land use objectives consistent with local landforms. Costs associated with these efforts, including the operation of supporting activities and infrastructure (e.g., nurseries, etc.), are carried as part of the annual operating costs of the alluvial mining operations.

- For reclamation of lands and waterways impacted by past and existing mining, Mineros carries a current closure liability of US$43.8 million, with annual forecast reclamation expenditures ranging from US$0.79 million to US$5.5 million, depending on the extent of areas impacted by prior mining in various reclamation parcels. These costs appear reasonable in respect to mine reclamation and compensation for past and existing closure requirements. SLR's review notes, however, that Mineros carries no liability allowance for closure of future mining areas included in the 2025 LOM plan or for decommissioning of facilities and equipment and closure of the industrial zone infrastructure at El Bagre or other support areas.
- In addition, Mineros compensates landowners/farmers for the use of the land, damage caused by the mining operation, lost crops, lost time, etc., depending on the type of crops, size of farmland, etc., and, after completion of reclamation, carries out residential building construction and revegetation with plants and crops at agreed locations. When the farmers are returned to site after mining, Mineros assists them in obtaining proper titles with the ANT.
- The dramatic increase in illegal mining in Colombia, including along the Nechí River has been a significant challenge for Mineros. With the rise in gold prices, illegal miners have significantly increased their numbers and scale of operating dredges to work within the Nechí Alluvial Property, within Mineros active mining areas, and mining in areas previously mined and reclaimed by Mineros. Ongoing illegal mining impacts local and regional environment, individual and community health, safety and socioeconomics. These activities are a cause for concern and need to be addressed as expeditiously as possible by local, regional and federal governments.

25.6 Capital and Operating Costs

- The Nechí Alluvial Property is an active operation. Capital and operating cost estimates were prepared using recent operating performance data and the 2024 operating budget as a baseline.
- Mineros has undertaken a review of the cost centres associated with operating costs items. This process has improved the methodology for estimating costs compared to previous technical reports, enabling more accurate budgeting and forecasting.
- The QP has reviewed the sustaining capital and operating costs for the Nechí operations and considers these estimates reasonable and appropriate, contingent on achieving the planned production targets.
- SLR has reviewed the LOM cash flow model for the Nechí Alluvial Property and confirms that the Mineral Reserves are economically viable under current operating conditions.

26.0 Recommendations

26.1 Geology and Mineral Resources

1 Ensure the consistent implementation of QA/QC protocols across all drilling campaigns. This includes:

- Regular audits of sampling, logging, and assay data to maintain the reliability and reproducibility.
- Enhance documentation and integration of QA/QC results into the resource estimation process.
- Continue assessing and prioritizing old tailings in previously mined areas known to have higher gold grades. While this is operationally ongoing, focus on evaluating the feasibility of converting these tailings into Mineral Resources or Minerals Reserves. This will require detailed drilling, sampling, and metallurgical testing to address the challenges associated with variability, recovery, and economic viability.

2 Continue exploration and infill drilling using the Ward and sonic drill methodologies. Prioritize zones with lower data density to:

- Facilitate the upgrading of Inferred Resources to Indicated or Measured categories, supporting better mine planning and economic evaluations.
- Continue developing and refining the 3D block model by integrating additional geological and assay data. This should include further validation of lithological and granulometric domains to enhance the accuracy of the resource estimation process.
- Evaluate the use of advanced estimation techniques, such as geostatistical simulations, to model the uncertainty and variability of gold distribution more effectively.
- Explore potential extensions of the resource by targeting under-explored areas along the alluvial plain, particularly paleochannels that may host additional mineralization.
- Continue to refine the overburden surface model to enhance the delineation of barren material, ensuring more precise resource reporting and mine planning.

26.2 Mining and Mineral Reserves

1. Sustain Exploration and Infill Drilling
   - Continue targeted exploration and infill drilling campaigns to expand Mineral Resources and upgrade existing Mineral Resources to Mineral Reserves. This is essential for offsetting Mineral Reserve depletion and extending the LOM.
2. Infill Drilling Program
   - Continue a systematic infill drilling program with a tightly spaced drill pattern covering active ore zones.
   - Focus on collecting sufficient geological data to delineate ore grades and define ore blocks with greater precision.
   - Employ this program to create high-resolution, short-term block models to predict ore location, grade, and volume more effectively for operational planning.

3. Regular Data Reconciliation
    - Continue with the routine reconciliation of actual mining results against planned figures to identify variances in extraction volume and metal content.
    - Monitor mineral dilution levels to ensure that mine plans remain aligned with operational goals.
    - Integrate reconciliation findings into the resource model to refine future mining plans and improve overall accuracy.
4. Optimize Pit Design and Scheduling
    - Continue with regular evaluation of pit designs and mining schedules to ensure optimal material extraction and sequencing. Incorporate updated drilling data and modifying factors into designs to maximize resource recovery.
5. Enhance Operational Monitoring
    - Continue with the implementation of advanced technology, such as GPS-enabled equipment and real-time monitoring systems, to track ore extraction and movement.
    - Leverage drone-based mapping and LiDAR surveys to improve surface monitoring, identify terrain changes, and optimize short- and long-term mine planning. Integrate drone survey data with existing GIS systems to improve spatial analysis.
    - Continue with the implementation of 3D bathymetric mapping to create detailed underwater topographies, enabling more precise control over dredging operations and improved reconciliation of mined volumes against plans. This data should be regularly integrated into mine models to support route optimization and efficient resource recovery.
6. Debottleneck Overburden Removal
    - Increase the utilization of suction dredges to remove overburden more efficiently and at a lower cost compared to bucket dredges. Consider increasing the number of suction dredges.
    - Investigate options for lowering surface water levels (e.g., further dike engineering) to allow suction dredges to access deeper overburden layers.
    - Optimize the synchronization of suction dredge overburden removal rates with bucket dredge operations to prevent bottlenecks and maximize the productivity of higher-cost bucket dredge units.
7. Optimize Mining of Ore Zones
    - Avoid mining gold-bearing gravels that demonstrate negative net value.
    - Review and refine Mineral Reserve replacement strategies to ensure alignment with LOM targets.
    - Maintain a pipeline of exploration targets and prioritize areas with the highest potential for conversion to Mineral Reserves.

26.3 Mineral Processing

1 In the QP’s opinion, regular or continuous measurement of recovery and plant performance is an essential exercise for metallurgical accounting and process

monitoring and optimization, as well as to support reconciliation between processing, mining, and geological production and plans. Mineros has prudently begun a program of process surveying and recovery improvement. The QP recommends that Mineros continue to develop and build upon this program to maximize gold recovery and operational efficiency.

2 Finer or flake-like gold in some areas of the deposit may result in lower recoveries during dredging operations. The QP recommends starting a program of test work specifically aimed at recovery of fine or flakey gold in order to be better prepared for this eventuality.

26.4 Environment

1 SLR notes that between 2019 and 2020, the permitting regime for Mineros operations was harmonized with ANLA the federal environmental regulator, assuming administrative responsibility for all permitting. Previously, such responsibility was shared by ANLA and a regional environmental regulatory authority. Since harmonization, the permitting process has evolved, and may continue to evolve, as Mineros becomes more familiar with ANLA's approaches to and requirements for baseline data and EIAs, and as ANLA increases its understanding of Mineros' operations through the mining life cycle. In this respect, SLR continues to recommend and support Mineros efforts to:

- Develop integrated environmental plans and schedules for permitting synchronized with LOM exploitation plan.
- Engage with ANLA to establish appropriate terms of reference for future permit applications.
- Initiate additional baseline studies for future mining well in advance of LOM timeframe for mining.
- Integrate the strategic environmental plan into the overall performance management plan to ensure it is tracked regularly along with other critical performance indicators.

2 Appropriate management of surface waters in and around the facilities is a key factor for Mineros' successful alluvial mining operation. In this regard, SLR supports and encourages Mineros' efforts to investigate new technologies and approaches to ensure the Nechí Alluvial Property operations are not negatively impacted by extreme precipitation and runoff events, as well as mitigating potential environmental and social concerns associated with water discharge to the receiving environment.

3 In addition, SLR recommends that Mineros:

- Consider adding estimated costs for the reclamation and compensation of future mining areas included in the 2025 LOM plan to the current existing closure liability allowance of US$43.8 million for closure of past and existing closure requirements.
- Develop closure costs for decommissioning of facilities and equipment and reclamation of its industrial zone infrastructure and related items at El Bagre and other support areas.
- Continue to engage with local, regional, and federal officials to the degree practically possible to assist them in working toward a sustainable solution to this illegal mining and its negative impacts, which cause significant frustrations to Mineros and local and regional inhabitants.

26.5 Capital and Operating Costs

1. Continuously monitor cost trends in the Colombian market for labour, consumables, and support services to anticipate and manage potential fluctuations.
2. Proactively negotiate and secure fixed-price contracts for critical goods and services whenever feasible, reducing exposure to economic uncertainties such as inflation or exchange rate volatility.
3. Continue refining the cost allocation process across Nechí operations' cost centres to enable more accurate cost estimation and budgeting.
4. Use advanced financial modelling and data analytics tools to enhance the granularity of cost tracking, ensuring that all operational expenses are appropriately categorized and allocated.
5. Regularly review and prioritize capital investment projects based on their potential to improve efficiency, reduce operating costs, or extend the LOM.
6. Conduct cost-benefit analyses for proposed projects, including sensitivity studies to assess their viability under varying economic conditions.
7. Implement periodic reconciliation of actual versus planned costs to identify and address variances promptly.
8. Establish clear performance metrics and benchmarks for cost centres to improve accountability and operational transparency, and ensure that expenditures remain aligned with operational goals and financial performance metrics.
9. Invest in technologies or processes that offer long-term operational cost savings, such as automation, energy efficiency upgrades, or alternative energy sources.
10. Explore strategies to reduce fuel consumption, optimize maintenance schedules, and streamline supply chain management.
11. Maintain relationships with local suppliers and industry stakeholders to stay informed about market trends and potential cost-saving opportunities.
12. Regularly benchmark operational costs against similar operations in Colombia and globally to identify areas for improvement.

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SLR. 2021. Technical Report on the Nechí Alluvial Gold Mineral Resource and Mineral Reserve Estimates, Antioquia Department, Colombia. Report prepared for Mineros S.A. by SLR Consulting (Canada) Ltd. October 29, 2021.

Suelos & Rocas. 2021. Geometric design and stability analysis of slopes in mining pits for dredging. Report prepared for Mineros S.A. by Suelos & Rocas Ingenieria S.A.S. Ref. No. IT-MINEROS-1122-04-01-Rev0. March 23, 2021.

U.S. Department of the Interior Bureau of Land Management. 1969. Placer examination principles and practice. Technical Bulletin 4, 209 p., reprinted by Alaskan Prospectors Publishing.

28.0 Date and Signature Date

This report titled "NI 43-101 Technical Report on the Nechí Alluvial Property, Antioquia Department, Colombia" with an effective date of December 31, 2024 was prepared and signed by the following authors:

	(Signed & Sealed) ***Luke Evans***
Dated at Toronto, ON March 31, 2025	Luke Evans, M.Sc., P.Eng.
	(Signed & Sealed) ***Goran Andric***
Dated at Toronto, ON March 31, 2025	Goran Andric, P.Eng.
	(Signed & Sealed) ***Eduardo Zamanillo***
Dated at Toronto, ON March 31, 2025	Eduardo Zamanillo, M.Sc., MBA, CHMC(RM)
	(Signed & Sealed) ***Lance Engelbrecht***
Dated at Toronto, ON March 31, 2025	Lance Engelbrecht, P.Eng.
	(Signed & Sealed) ***Gerd M. Wiatzka***
Dated at Richmond Hill, ON March 31, 2025	Gerd M. Wiatzka, B.A.Sc., P.Eng.

29.0 Certificate of Qualified Person

29.1 Luke Evans

I, Luke Evans, M.Sc., P.Eng., as an author of this report entitled "NI 43-101 Technical Report on the Nechí Alluvial Property, Antioquia Department, Colombia" with an effective date of December 31, 2024 prepared for Mineros S.A., do hereby certify that:

1. I am Global Technical Director – Geology Group Leader, and Principal Geologist with SLR Consulting (Canada) Ltd, of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
2. I am a graduate of University of Toronto, Ontario, Canada, in 1983 with a Bachelor of Science (Applied) degree in Geological Engineering and Queen's University, Kingston, Ontario, Canada, in 1986 with a Master of Science degree in Mineral Exploration.
3. I am registered as a Professional Engineer and a Consulting Engineer in the Province of Ontario (Reg.# 90345885) and as a Professional Engineer in the Province of Quebec (Reg.# 105567). I have worked as a professional geologist for a total of 40 years since my graduation. My relevant experience for the purpose of the Technical Report is:
    - Consulting Geological Engineer specializing in resource and reserve estimates, audits, technical assistance, and training since 1995.
    - Review and report as a consultant on numerous exploration and mining projects around the world for due diligence and regulatory requirements.
    - Senior Project Geologist in charge of exploration programs at several gold and base metal mines in Quebec.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I visited the Nechí Alluvial Property most recently from August 17 to 19, 2021.
6. I am responsible for overall preparation of the Technical Report, in particular Sections 1.1.1.1, 1.1.2.1, 1.3.1 to 1.3.6, 2 to 12, 14, 23, 25.1, 26.1 and related disclosure in Section 27 of the Technical Report.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have prepared previous internal technical reports dated September 11, 2017, March 31, 2018, July 31, 2019, and August 15, 2020 on the Nechí Alluvial Property for Mineros and a Technical Report on the Property dated October 29, 2021 that is available on SEDAR.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 31st day of March, 2025.

(Signed & Sealed) ***Luke Evans***

Luke Evans, M.Sc., P.Eng.

29.2 Goran Andric

I, Goran Andric, P.Eng., as an author of this report entitled "NI 43-101 Technical Report on the Nechí Alluvial Property, Antioquia Department, Colombia" with an effective date of December 31, 2024 prepared for Mineros S.A., do hereby certify that:

1. I am Principal Mining Engineer with SLR Consulting (Canada) Ltd, of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
2. I am a graduate of the University of Belgrade, Serbia, in 1988 with a Bachelor of Science. degree in Mining and Mineral Engineering.
3. I am registered as a Professional Engineer in the Province of Ontario (Reg. #100103151). I have worked as a mining engineer for a total of 33 years since my graduation. My relevant experience for the purpose of the Technical Report is:
   - Operational and consulting experience in coal, base metal, and precious metal projects in North and South America, Europe, Asia, and Africa.
   - Principal Mining Engineer at an international consulting firm, with responsibilities including conceptual and feasibility studies, project management, open pit mine design and planning, equipment selection and costing, economic analysis, practical solutions for operational improvements, and preparation of NI 43-101 and Competent Person's reports.
   - Mine Superintendent at a coal mine in British Columbia.
   - Shift Production Engineer to Assistant Mine Manager at a large-scale coal mine in Europe.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I have not visited the Nechí Alluvial Property.
6. I am responsible for Sections 1.1.1.2, 1.1.2.2, 1.3.7, 1.3.8, 15, 25.2, and 26.2 and related disclosure in Section 27 of the Technical Report.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 31st day of March, 2025.

(Signed & Sealed) ***Goran Andric***

Goran Andric, P.Eng.

29.3 Eduardo Zamanillo

I, Eduardo Zamanillo, M.Sc., MBA, ChMC(RM), as an author of this report entitled “NI 43-101 Technical Report on the Nechí Alluvial Property, Antioquia Department, Colombia” with an effective date of December 31, 2024 prepared for Mineros S.A., do hereby certify that:

1. I am Principal Mining Engineer with SLR Consulting (Canada) Ltd, of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
2. I am a graduate of the Pontificia Universidad Católica de Chile with a Bachelor of Science degree in Industrial Civil Engineer/Mining Engineer in 2000, Universidad de Chile with a M.Sc. degree in Global Business in 2009, and Cranfield University, UK, with an MBA degree in 2012.
3. I am registered as a Competent Person with Comisión Minera de Chile (Reg. #0508). I have worked as a mining engineer for a total of 24 years since my graduation. My relevant experience for the purpose of the Technical Report is:
    - Over 24 years of operational and consulting experience in the mining industry, working with top-tier base metal, precious metal, iron ore, and lithium assets across North and South America, Europe, Asia, and Africa.
    - Extensive expertise in open-pit, underground, and alluvial mining operations, covering a wide range of mining methods and deposit types.
    - Proven experience in strategic mine planning, business development, project management, and operational optimization, with a strong focus on cost reduction strategies and efficiency improvements. Specialized background in assessing, valuing, and conducting due diligence on mining projects, supporting investment decisions and resource development strategies.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I have visited the Nechí Alluvial Property from September 18 to 20, 2024.
6. I am responsible for Sections 1.1.1.6, 1.1.2.5, 1.2, 1.3.11, 1.3.13, 16, 19, 21, 22, 24, 25.6, 26.5, and related disclosure in Section 27 of the Technical Report.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 31st day of March, 2025.

(Signed & Sealed) ***Eduardo Zamanillo***

Eduardo Zamanillo, M.Sc., MBA, ChMC(RM)

29.4 Lance Engelbrecht

I, Lance Engelbrecht, P.Eng., as an author of this report entitled “NI 43-101 Technical Report on the Nechí Alluvial Property, Antioquia Department, Colombia” with an effective date of December 31, 2024 prepared for Mineros S.A., do hereby certify that:

1. I am Technical Manager – Metallurgy, and a Principal Metallurgist with SLR Consulting (Canada) Ltd, of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
2. I am a graduate of the University of the Witwatersrand, Johannesburg, South Africa in 1992 with a Bachelor of Science degree in Engineering, Metallurgy and Materials (Mineral Processing Option).
3. I am registered as a Professional Engineer in the Provinces of Ontario (Reg.# 100540095) and Newfoundland and Labrador (Reg.# 10730). I have worked as a metallurgist for a total of 30 years since my graduation. My relevant experience for the purpose of the Technical Report is:
    - Review and report as a metallurgical consultant on numerous mining operations and projects for due diligence and regulatory requirements.
    - Preparation of conceptual, prefeasibility, and feasibility studies for projects around the world including for precious metals, base metals, and rare earths, as well as test work interpretation, recommendations, and supervision.
    - Management and operational experience at Canadian and international milling, smelting, and refining operations.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I visited the Nechí Alluvial Gold Property from September 18 to 20, 2024.
6. I am responsible for Sections 1.1.1.3, 1.1.1.4, 1.1.2.3, 1.3.9, 1.3.10, 13, 17, 18, 25.3, 25.4, 26.3, and related disclosure in Section 27 of the Technical Report.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 31st day of March, 2025.

(Signed & Sealed) ***Lance Engelbrecht***

Lance Engelbrecht, P.Eng.

29.5 Gerd M. Wiatzka

I, Gerd M. Wiatzka, B.A. Sc., P.Eng., as an author of this report entitled "NI 43-101 Technical Report on the Nechí Alluvial Property, Antioquia Department, Colombia" with an effective date of December 31, 2024 prepared for Mineros S.A., do hereby certify that:

1. I am a Consulting Civil/Environmental Engineer, National Expert, Vice President and Director Mining of Arcadis Canada Inc. of Unit 300, 8133 Warden Avenue, Markham Ontario, L6G 1B3.
2. I am a graduate of the University of Waterloo, Waterloo, Ontario, in 1974 with a B.A.Sc. (Honours) degree in Civil Engineering.
3. I am registered as a Professional Engineer in the Province of Ontario (Reg.# 49882012). I have worked as a civil/environmental engineer for more than 40 years since my graduation. My relevant experience for the purpose of the Technical Report is:
   - More than 40 professional years of experience primarily in the resource section, which include:
   - More than 35 years' experience as an environmental professional.
   - Approximately seven years experience in management information and technology services.
   - Worldwide project experience in the mining sector including environmental assessments, closure planning, numerous due diligence assessments, liability assessments, NI 43-101 reviews of projects and major mining operations.
   - Provision of expert services to state and federal governments as well as national and international financial institutions (including the European Bank for Reconstruction and Development, the International Finance Organization).
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I most recently visited the Nechí Alluvial Property from July 16 to 18, 2024.
6. I am responsible for Sections 1.1.1.5, 1.1.2.4, 1.3.12, 20, 25.5, 26.4, and related disclosure in Section 27 of the Technical Report.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have prepared previous internal technical reports dated October 17, 2008, December 16, 2010, September 11, 2017, March 31, 2018, July 31, 2019, and August 15, 2020 on the Nechí Alluvial Property for Mineros and a Technical Report on the Property dated October 29, 2021 that is available on SEDAR.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 31st day of March, 2025.

(Signed & Sealed) ***Gerd M. Wiatzka***

Gerd M. Wiatzka, B.A.Sc., P.Eng.

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