

Portfolio of
**ADVANCED
PROJECTS**

Gold



**Ministerio
de Economía**
República Argentina

**Secretaría
de Minería**

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ADVANCED GOLD PROJECTS



CAPEX

1,792 e M USD*



RESERVES AND RESOURCES

104,9 Moz Au**



EXPLORATION BUDGET 2024

135,8 M USD**

13

OPERATION

- 1 - AJEDREZ
- 2 - CAP-OESTE
- 3 - CERRO MORO
- 4 - CERRO NEGRO
- 5 - CERRO VANGUARDIA
- 6 - CÓRDOBA
- 7 - DON NICOLÁS
- 8 - FARALLÓN NEGRO
- 9 - GUALCAMAYO
- 10 - LAS CALANDRIAS
- 11 - LINDERO
- 12 - MINA CATALINA li
- 13 - VELADERO

1

CONSTRUCTION

- 14 - CALCATREU

1

FEASIBILITY

- 15 - SUYAI

1

PRE FEASIBILITY

- 16 - HUALILÁN

1

PEA (Preliminary Economic Assessments)

- 17 - TAGUAS

* Mt: millions of tons- Moz: million of ounces kt: thousands of tons- koz: thousand of ounces - M USD: Million of dollars.

*This CAPEX estimated number includes projects in different stages of progress that are not described in this portfolio.

**S&P 2025



ADVANCED GOLD PROJECTS

13

ADVANCED EXPLORATION

18 - CLAUDIA
19 - CONSERRAT
20 - DON JULIO
21 - DON SIXTO
22 - EL DORADO
MONSERRAT
23 - LA JOSEFINA

24 - LA MANCHURIA
25 - LAMA
26 - POTRERILLOS
27 - SAN ROQUE
28 - TEBENQUICHE CHICO
29 - VALLE ANCHO
30 - YANSO

23

INITIAL EXPLORATION

31 - ALTOS DEL CURA
32 - CACHI
33 - CALDERÓN - CALDERONCITO
34 - CENTENARIO
35 - CERRO CHOIQUE
36 - CERRO GORDO
37 - CERRO JUNCAL
38 - EL PANTANO
39 - ESPERANZA Y HUACHI
40 - FILO DE LAS VICUÑAS
41 - INCA VIEJO
42 - INCAHUASI

43 - JAGUELITO
44 - LAGUNITAS
45 - LAS OPEÑAS
46 - LIBANESA
47 - MANANTIALES
48 - MICHELLE
49 - MOSQUITO
50 - PUZZLE
51 - SASCHA
52 - TORNADO-HURACÁN
53 - ZANCARRÓN

Cerro Moro

OPERATION



LOCATION

(48° 01' 55" S - 66° 33' 45" W)

Cerro Moro is located in the Santa Cruz province of southern Argentina. Is located approximately 70 kilometer southwest of the port city of Puerto Deseado.

The mine has been operated since 2,018.



MINERALIZATION TYPE

Low Sulphidation Epithermal Style (Au-Ag)



PROPERTY DATA

OWNER / CONTROLLER

Pan American Silver Corp. (100%)



OPERATOR

Estelar Resources Limited S.A



ÁREA

304,167 ha



Cerro Moro

PROJECT GEOLOGY

Regional Geology

Cerro Moro is located within the Deseado Massif, a tectonic block in the central portion of the Santa Cruz Province that covers an area of approximately 60,000 square kilometers. The massif is underlain by the Patagonian Terrane, an early Palaeozoic to Permian allochthonous terrane that collided with Gondwana in the early Permian; it consists of Lower Palaeozoic meta-sedimentary rocks of the La Modesta Formation (also known as the Rio Deseado Complex) that are intruded by granites of Lower to Middle Palaeozoic age. The terrane is in turn unconformably overlain by continental sandstone of the La Golondrina and El Tranquilo Formations, which were deposited during the Permian and through the late Triassic (Panza and Márquez, 1994).

During the Jurassic and Cretaceous periods, the region underwent extensional tectonics and volcanism. The initial response was deposition of the epiclastic and pyroclastic Roca Blanca Formation, followed by the widespread extrusion of mafic volcanic rocks of the Bajo Pobre Formation during the Middle Jurassic. During the Middle and Upper Jurassic, these rocks were overlain by felsic and intermediate volcanic rocks and epiclastic sediments of the Bahía Laura Group. The Bahía Laura Group includes the Chon Aike and La Matilde formations. The Chon Aike Formation consists of a thick sequence of rhyolitic ignimbrites, tuffs, and volcanoclastic rocks; it is interpreted to host the gold mineralization at Cerro Moro. The La Matilde Formation is characterized by well-bedded epiclastic volcanic sandstone, felsic pyroclastic rocks, and some andesitic rocks (Panza and Marquez, 1994, Pankhurst et al., 2000).

During the Paleocene epoch, the region was covered with continental and marine sediments. More recently, during the Late Tertiary to Early Quaternary, basaltic lava flows were extruded over parts of the Deseado Massif but these lavas are not observed at Cerro Moro.

Deposit Geology

The Cerro Moro, gold-silver mineralization is associated with low-sulphidation epithermal veins, stockwork, and breccia units. Phreatic breccias (unit Hbx) are commonly spatially associated with low-sulphidation veins consisting of quartz, some adularia, and variable concentrations of pyrite, acanthite, sphalerite, and other very minor base metal sulphides.

Project Status OPERATION

Cerro Moro

Resources and Reserves (2024)

RESOURCES	Au (g/t)	Gold (koz)
Measured	5.48	21.4
Indicated	4.50	70.7

RESERVES	Au (g/t)	Gold (koz)
Proven	5.58	80.4
Probable	9.31	165.5

Technical and Economic Information

Estimated average annual production (2024): 77.5 kOz

Product to obtain: gold and silver Doré

Estimated LOM: 7 years, from 2024

Mining Method: Open pit and Underground

Company's Announcement

January 15, 2025. Pan American Silver achieves 2024 production guidance and enters 2025 with a record cash balance.

Contact

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Sources Consulted

Pan American Silver, Cerro Moro Project. <https://panamericansilver.com/operations/silver-segment/cerro-moro/>
Pan American Silver Corp., Reserves and resources. June 30, 2024.
<https://panamericansilver.com/wp-content/uploads/2024/08/Pan-American-Silver-resources-and-reserves-June-30-2024-excl-La-Arena-1.pdf>
Yamana Gold, NI 43-101 Technical report Cerro Moro Gold-Silver mine, Santa Cruz province, Argentina. August 26, 2022.
<https://s28.q4cdn.com/334653565/files/NewFolder/2022-August-Cerro-Moro.pdf>



Cerro Negro

OPERATION



LOCATION

(46° 54' 41.60" S - 70° 14' 30.63" W)

The Cerro Negro Project is located in the north-west region of the Santa Cruz province, about 345 kilometers by road southwest of the coastal city of Comodoro Rivadavia. The mine has been operated since 2,014.



MINERALIZATION TYPE

Low Sulphidation Epithermal Style (Au-Ag)



PROPERTY DATA OWNER / CONTROLLER

Newmont Goldcorp (100%)



OPERATOR

OroPlata S.A.



ÁREA

26,891 ha



Cerro Negro

PROJECT GEOLOGY

Regional Geology

The Cerro Negro gold-silver veins are located near the northwestern margin of the Deseado Massif, a 60,000 square kilometres rigid crustal block in southern Argentina bounded to the north by the Río Deseado, to the south by the Río Chico, to the east by the Atlantic coast, and to the west by the Andean Cordillera. The massif is in a backarc position relative to the Andean subduction system and is flanked by the subsiding Golfo de San Jorge and Austral sedimentary basins to the north and south, respectively. The massif is regarded by some authors as a Late Proterozoic to Permian allochthonous terrane that collided with Gondwana in the early Permian, and by others as an autochthonous part of the Gondwana continent. The Deseado Massif hosts numerous low-sulphidation epithermal vein systems (Sillitoe and Hendenquist, 2003).

A late Triassic to late Cretaceous (230–65 Ma) extensional phase, linked to the opening of the South Atlantic Ocean, triggered extensive Mesozoic and Cenozoic magmatism throughout the massif. Magmatic activity commenced in the early Jurassic, with the intrusion of granitoids and eruption of coeval pyroclastic and epiclastic volcanic rocks. Andesitic to rhyolitic volcanism continued through the mid- to late Jurassic, culminating in the deposition of epiclastic sediments in the early Cretaceous. Mid- to late Jurassic volcanism in the Deseado Massif is conventionally divided into the andesitic Bajo Pobre Formation and the rhyolitic Bahía Laura Complex, the latter comprising the Chon Aike and La Matilde Formations.

Basaltic volcanism commenced in the Cretaceous and continued throughout the Cenozoic; volcanoclastic sediments were deposited and tuffs were erupted in the early Tertiary. These units are overlain by extensive Pleistocene fluvial gravel terraces.

Deposit Geology

The known deposits and prospects at Cerro Negro are distributed within and east of a volcanic-subvolcanic complex flanked and overlain by a series of rhyolite domes. The eruptive products of the rhyolite domes form an ignimbrite apron, which post-dates the mineralization and forms extensive outcrops north and south of the volcanic-subvolcanic complex. These post-mineral ignimbrites have preserved the epithermal systems, as well as lacustrine sediments, travertine, and sinter deposited at the Late Jurassic paleo-surface. Older ignimbrites that lie east of the volcanic-subvolcanic complex host mineralization at Bajo Negro and Vein Zone.

Project Status OPERATION

Cerro Negro

Resources and Reserves (2023)

RESOURCES	Gold (g/t)	Gold (Oz 000)
Measured	3.60	200
Indicated	5.49	400

RESERVES	Gold (g/t)	Gold (Oz 000)
Proven	11.81	700
Probable	10.75	2,500

Technical and Economic Information

Estimated average annual production: 350 Oz

Estimated LOM: 6 years, from 2024

Mining Method: Underground

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Sources Consulted

Newmont Corp., Cerro Negro Project. <https://operations.newmont.com/latac/cerro-negro-argentina>
Newmont Corp., Reserves and Resources 2023. <https://operations.newmont.com/reserves-and-resources>
Gold Corp., Cerro Negro Operations Santa Cruz province, Argentina, NI 43-101 Technical Report. December 31, 2015.
https://minedocs.com/12/Cerro%20Negro_12312015_TR.pdf



Cerro Vanguardia

OPERATION



LOCATION

(48° 23' 28" S - 68° 15' 51" W)

The Cerro Vanguardia mine is located in the Santa Cruz province. Is located approximately 110 kilometers, in a straight line, northwest of Puerto de San Julián.

The mine has been operated since 1,998.



MINERALIZATION TYPE

Low Sulphidation Epithermal Style (Au-Ag)



PROPERTY DATA

OWNER / CONTROLLER

AngloGold Ashanti plc (92.5%)
Fomicruz S.E. (7.5%)



OPERATOR

Cerro Vanguardia S.A.



ÁREA

51,400 ha



Cerro Vanguardia

PROJECT GEOLOGY

Regional Geology

Cerro Vanguardia is located in the central portion of the Deseado Massif, which consists of Paleozoic low-grade metamorphic basement rocks. Mineralisation is concentrated in steeply dipping quartz veins that cut flat-lying ignimbrites and volcaniclastic rocks. All veins consist mainly of quartz, adularia, and minor electrum, native gold, silver sulfides and native silver as fine-grained disseminations. (AngloGold PR 4/11/13) The ore body consists of a series of epithermal, low-sulfidation quartz veins of the sericite-andularia type. The veins are mineralized with gold and silver and are hosted in a fracture system within a Middle Jurassic ignimbritic sequence corresponding to the Chon Aike Formation (Bahía Laura Group)

Deposit Geology

The Cerro Vanguardia is veins are typical of epithermal, low-temperature, adularia-sericite character and consist primarily of quartz in several forms. The veins show sharp contacts with the surrounding ignimbrite which hosts narrow stockwork zones that are weakly mineralized.

The mineralization of the deposit consists of 102 low-sulfidation epithermal veins hosted by Jurassic rhyolitic ignimbrites. The veins average 193 km in length and 3.5 km in width. Hydrothermal alteration comprises mostly silicification, sericitization, adularization, argillization and propylization.

Project Status OPERATION

Cerro Vanguardia

Resources and Reserves (2023)

RESOURCES	Gold (g/t)	Gold (Oz)
Measured	2.62	460,000
Indicated	2.49	1,100,000

RESERVES	Gold (g/t)	Gold (Oz)
Proven	3.26	220,000
Probable	1.91	440,000

Technical and Economic Information

Estimated average annual production: 152 kOz

Estimated LOM: 7 years, from 2024

Mining Method: Open pit and Underground

Contact

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Sources Consulted

Anglo Gold Ashanti., Cerro Vanguardia Project. <https://www.anglogoldashanti.com/portfolio/americas/cerro-vanguardia/>
Anglo Gold Ashanti, Mineral Resource and Mineral Reserve Report at 31 december 2023.
<https://reports.anglogoldashanti.com/23/wp-content/uploads/2024/04/AGA-RR23.pdf>
Anglo Gold Ashanti, Cerro Vanguardia - Americas, Operational profile.
<https://reports.anglogoldashanti.com/23/wp-content/uploads/2024/04/AGA-OP23-CERRO-VANGUARDIA.pdf>



Don Nicolás

OPERATION



LOCATION

(47° 56' 01" S - 67° 27' 06" W)

The is located in Santa Cruz province. Is located approximately 100 km from the South Atlantic Ocean. Elevations at the Project vary between 120 m.a.s.l.

The mine has been operated since 2,017.



MINERALIZATION TYPE

High Sulphidation Epithermal Style (Au-Ag)



PROPERTY DATA

OWNER / CONTROLLER

Cerrado Gold Inc. (100%)



OPERATOR

Minera Don Nicolás S.A.



ÁREA

333,400 ha



Don Nicolás

PROJECT GEOLOGY

Regional Geology

The Deseado Massif's basement rock consists of the Cambrian-aged metasedimentary rocks of the "La Modesta" Formation, intruded by granites and tonalites. The fluvial PermoTriassic sequences of the "La Juanita" and "La Golondrina" formations unconformably overlie these. They are deposited in an NNW-trending rift basin that formed along older reactivated basement structures. The Jurassic Bahia Laura Volcanic Complex is the main host of the widespread epithermal Mineralisation that defined the Deseado Massif's metallogenic character. The Bahia Laura Volcanic Complex comprises bimodal sequences. It represents widespread volcanism formed on an extensional tectonic regime related to intracontinental rifting (Fernandez, 2020).

The volcanic succession includes successively intercalated rocks of the Bajo Pobre, Cerro León, Chon Aike, and La Matilde formations, which reveal their coeval nature. The Bajo Pobre Formation and its intrusive equivalent, the Leon Formation, consist of calc-alkaline andesite and basaltic-andesite lavas flow, volcanoclastic deposits, and subvolcanic plugs (Fernandez, 2020).

The Chon Aike Formation is a felsic composition consisting of rhyolitic and dacitic ignimbrites with epiclastic deposits and ash-fall tuffs. The upper unit of the Bahia Laura Volcanic Complex is the lacustrine tuffs and tuffaceous sediments of the La Matilde Formation (Fernandez et al., 2020).

This Bi-modal volcanism, including the rhyolitic and andesitic flow and tuffaceous volcanoclastic lithologies of the Middle to Upper Jurassic age, is widely present on the Mina Don Nicolás. Numerous fault and fracture zones (which served as conduits for hydrothermal activity during periods of Jurassic volcanism) created a network of widespread, shallow mineralised "epithermal" fissure veins, breccias, and stock-work systems, many of which carry economic Au and Ag mineralisation.

Deposit Geology

Gold-silver mineralisation is associated with epithermal deposits. The Jurassic Bahia Laura Volcanic Complex is the main host of the widespread epithermal Mineralisation that defined the Deseado Massif's metallogenic character.

Project Status OPERATION

Technical and Economic Information

Estimated average annual production: 54 kOz

Estimated LOM: 5 years, from April 2024 based on existing resources

Mining Method: Open pit, Underground and Stockpile

Don Nicolás

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Resources* (2024)

Mine	Resources	Gold (g/t)	Gold (kOz)
Calandrias Sur (open pit)	M&I	0.97	400.72
	Inferred	0.62	44.99
Calandrias Norte (open pit)	M&I	14.97	37.85
	Inferred	10.69	3.64
Zorro (open pit)	M&I	1.60	10.58
	Inferred	0.81	3.16
Depleted Satellites (open pit)	M&I	1.96	2.83
	Inferred	1.62	58.14
Paloma Trend (underground)	M&I	4.34	38.36
	Inferred	3.93	11.22
TOTAL	M&I	1.13	490.34
	Inferred	1.05	121.15
Stockpiles	M&I	0.00	0.00
	Inferred	0.54	16.57

*Includes resources from the Calandrias Project

Company's Announcement

August 20, 2024. Cerrado Gold Announces Start of Exploration Campaign at its Minera Don Nicolás Mine, targeting the extension of the Life of Mine ("LOM") and the increase in mineral resources.
June 13, 2024. , Cerrado announced to release resource update and Preliminary Economic Assessment for revised mine plan at MDN in September 2024 quarter

Sources Consulted

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GeoEstima Spa., Technical Report on the Preliminary Economic Assessment of the Minera Don Nicolás gold Project, Santa Cruz, Argentina. September 19, 2024. <https://www.cerradogold.com/files/2024-09-19-PEA-Cerrado-Gold.pdf>
Cerrado Gold Inc., Don Nicolas Project Report Technical. <https://www.cerradogold.com/minera-don-nicolas/#reports>
Cerrado Gold Inc., Corporate Presentation. January 2025. <https://www.cerradogold.com/assets/Corporate-Presentation.pdf>

Farallón Negro

OPERATION



LOCATION

(27° 15' 23" S - 66° 40' 4" W)

The Farallón Negro deposit is located in the Hualfin District, Belén Department, Catamarca Province, at an average altitude of 2,600 m.a.s.l. It is located approximately 400 kilometers from the city of San Fernando del Valle de Catamarca.



MINERALIZATION TYPE

Low Sulphidation Epithermal Style
(Au-Ag)



PROPERTY DATA OWNER / CONTROLLER

YMAD (100 %)



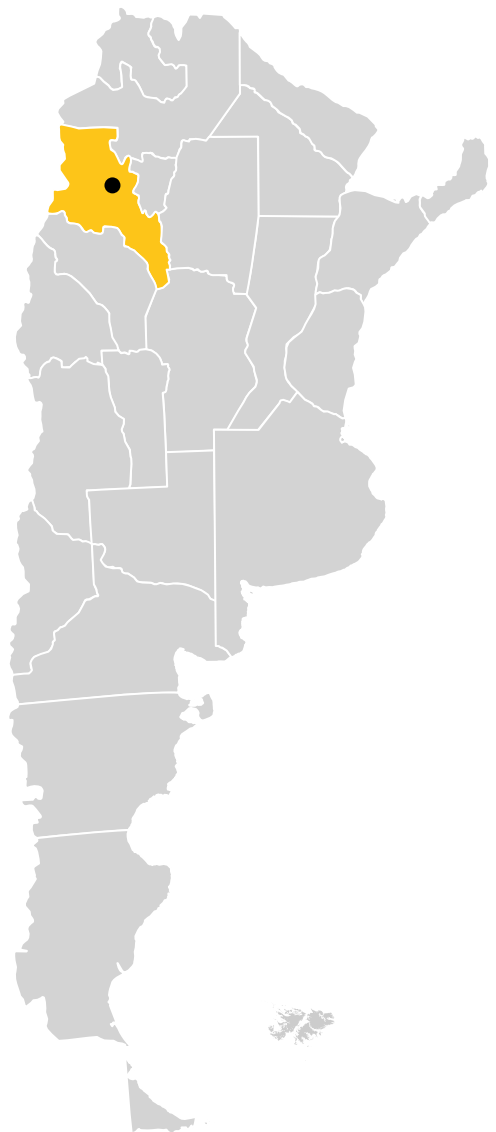
OPERATOR

YMAD



ÁREA

34,400 ha



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Farallón Negro

PROJECT GEOLOGY

Regional Geology

The Farallón Negro deposit is part of the Agua de Dionisio mining district. The oldest rocks in the area correspond to the igneous-metamorphic basement of Precambrian-Eopaleozoic age, which includes low-grade metaphorphites of the Suncho Formation and granitoids of the Capillitas Batholith, followed by Miocene continental sedimentary rocks of the Morterito Formation. The most prominent stratigraphic unit of the Agua de Dionisio mining district is the Farallón Negro volcanic complex, whose outcrops constitute the Miocene stratovolcano.

According to Sasso (1997) and Halter et al. (2005), the main activity of the stratovolcano ended with the emplacement of the Alto de la Blenda Monzonite between 7.5 and 7.02 Ma, although the later intrusion of minor dacitic and rhyolitic bodies stands out, including the Agua Tapada (7.35 Ma), Bajo las Pampitas (7.2 Ma) and Bajo de la Alumbrera (7.1-6.7 Ma) porphyritic systems. These last bodies show the beginning of the hydrothermal activity that affected the Farallón Negro volcanic complex.

Deposit Geology

The Farallón Negro – Alto de la Blenda epithermal ore deposit, dated at approximately 5.5 Ma, belongs to the Agua de Dionisio Mining District, located in the Sierras Pampeanas geological province. Ore bodies include veins, breccias and stockworks, constituted essentially by silica, carbonate (Ca - Mn) and Mn oxides alongside base metals sulphides and precious minerals (Wernert et al., 2019)

Project Status OPERATION

Contact

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Lindero

OPERATION



LOCATION

(25° 04' 56" S - 67° 46' 47" W)

Lindero mine is located in the Argentina Puna with a minimum elevation of approximately 3,500 to 4,000 m.a.s.l. The mine is located 260 km due west of Salta City.

Lindero mine has been operated since 2,020.



MINERALIZATION TYPE

Porphyry deposit



PROPERTY DATA

OWNER / CONTROLLER

Fortuna Mining Corp. (100 %)



OPERATOR

Mansfield Minera S.A



ÁREA

3,500 ha



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Lindero

PROJECT GEOLOGY

Regional Geology

The Andean volcanic arcs are concentrated along the north-trending axis of the Puna region, and along several northwest-trending structural transverse zones. The western part of the Salta Province is underlain by Paleogene and Neogene continental volcanic arcs and related sedimentary rock of the Andean cycle. Sedimentary rocks are deposited in large back-arc continental basins similar to the Siete Curvas basin, a portion of which is active and includes the Salar de Arizaro basin.

The Lindero and Arizaro Deposits are located in the southern Archibarca volcanic belt, which is characterized by adjacent or superimposed stratovolcano complexes commonly manifested by eroded volcanic cones. Rocks exposed in these belts include andesite and dacite porphyries and coeval volcanic and volcanoclastic rocks. The Siete Curvas basin is structurally bounded by large regional structures: to the north by the Calama–Olacapato–El Toro Transverse Structure, and to the south by the Archibarca Transverse Structure. The transverse zones are interpreted to be surface expressions of ancient deep crustal trans-lithospheric structures, which were initially related to the opening of the proto-Atlantic Ocean in the Cretaceous, and have been periodically reactivated (Richards, 2000). The East Fissure fault zone and the Pocitos linear zone bound the basin to the west and east, respectively. These regional north–south-trending structures are interpreted to represent suture zones of accreted terranes, similar to the West Fissure fault zone of northern Chile (Richards, 2000). Presently the trans-lithospheric structures mark the transition from flat-slab to steep-slab subduction off the west coast of South America.

Deposit Geology

The Lindero deposit is a gold porphyry system hosted within a series of diorite to monzonite porphyritic stocks that intrude coarse-grained Ordovician granites and Early Tertiary red bed sandstones. Gold-copper mineralization shows a strong relationship to lithology, potassium-feldspar alteration, and stockwork veining.

The gold mineralization at Lindero consists of two principal ore types: an oxide (weathered) type; and a hypogene (unweathered, fresh) type. These ore types are contained within a gold-copper mineralized, potassic altered, porphyry deposit which is amenable to open pit mining and heap leach processing. Gold mineralization is hosted within quartz-magnetite, quartz sulfide and biotite, chalcopyrite veinlets with haloes of disseminated chalcopyrite and magnetite. Copper mineralization is predominantly as chalcopyrite with minor bornite. In the supergene oxidized zones (oxides), copper occurs as copper oxides and chrysocolla.

Project Status OPERATION

Lindero

Resources and Reserves

RESOURCES	Au (g/t)	Cu (%)	Au (kOz)
M&I	0.42	0.10	412
Inferred	0.47	0.11	386

RESERVES	Gold (g/t)	Cu (%)	Au (kOz)
Proven & Probable	0.56	0.10	1284

Technical and Economic Information

Estimated average annual production (2,025): 93 - 105 kOz Au

Estimated LOM: 9 years, from December 2,023 based on existing reserves

Mining Method: Open pit

Company's Announcement

January 21, 2025. Fortuna reports record production of 455,958 Au Eq ounces for 2024 and provides 2025 outlook

Contact

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Sources Consulted

Fortuna Mining Corp., Lindero Project. <https://fortunamining.com/mine/lindero-mine-argentina/>

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Veladero

OPERATION



LOCATION

(29° 22' S - 69° 57' W)

The Veladero mine is located in San Juan Province, Argentina. The property is located approximately 374 kilometers northwest of the city of San Juan, at elevations of 4,000 to 4,850 m.a.s.l.

The mine has been operated since 2,005.



MINERALIZATION TYPE

High Sulphidation Epithermal Style (Au-Ag)



PROPERTY DATA

OWNER / CONTROLLER

Barrick Gold Corporation (50 %)
Shandong Gold Mining Co. Ltd. (50 %)



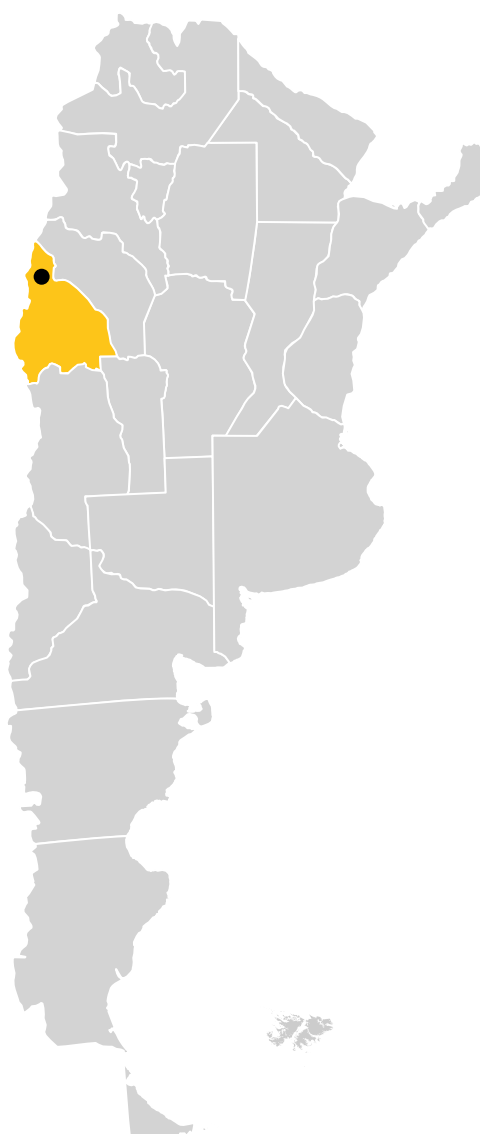
OPERATOR

Minera Andina del Sol



ÁREA

- ha



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Veladero

PROJECT GEOLOGY

Regional Geology

The Veladero deposit is situated at the north end of the El Indio Gold Belt, a 120 km by 25 km north-trending corridor of Permian to late Miocene volcanic and intrusive rocks, which host a number of hydrothermal alteration zones and epithermal mineral deposits. The belt consists of a Tertiary volcanic rift basin in which volcanic flows and tuffs were deposited and subsequently cut by associated intrusions. Basement rocks in the belt consist of andesitic to rhyolitic tuffs, lava flows, and volcanoclastic rocks of the Permo-Triassic Choiyoi Formation, which are overlain unconformably by Tertiary igneous and volcanic rocks ranging in age from older 40 Ma stocks to more recent 4 Ma tuffs, lava flows, and volcanoclastic rocks.

The El Indio Gold Belt hosts both high and low sulphidation style mineralization over approximately a 120 km strike length, from the Alturas Deposit in the south, the Tambo-El Indio mines in the middle, to the Veladero and Pascua-Lama deposits in the north. Epithermal mineralization within this belt is associated with Tertiary structural trends.

Deposit Geology

The Veladero deposit is a hypogene-oxidized, high sulphidation gold-silver deposit hosted by volcanoclastic sediments, tuffs, and volcanic breccias related to a Miocene diatreme-dome complex. Hydrothermal alteration is typical of high sulphidation gold deposits, with a silicified core grading outward into advanced argillic alteration, then into peripheral argillic and propylitic alteration haloes. Gold occurs as fine native grains, and is dominantly associated with silicification and with iron oxide or iron sulfate fracture coatings. Silver mineralization is distinct from gold, and occurs as a broader, more diffuse envelope, probably representing a separate mineralizing event.

Project Status OPERATION



Resources and Reserves (2024)

RESOURCES	Gold (g/t)	Gold (MOz)
M&I	0.65	2.3
Inferred	0.5	0.29

RESERVES	Gold (g/t)	Gold (MOz)
Proven & Probable	0.67	1.6

Technical and Economic Information

Estimated average annual production (2,024): 210,000 - 240,000 Oz
Estimated LOM: 4 years, from 2,024.
Mining Method: Open pit

Contact

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Sources Consulted

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<https://www.camarco.org.ar/2024/03/12/la-mina-veladero-extendio-10-anos-su-vida-util-y-proyecta-produccion-hasta-2034/>



Calcatreu

CONSTRUCTION



LOCATION

(41° 52' 59.01" S - 69° 31' 59.99" W)

The Calcatreu Project is located in the center-west region of the Río Negro province, approximately 60 km south of Ingeniero Jacobacci city.



MINERALIZATION TYPE

Low Sulphidation Epithermal Style (Au-Ag)



PROPERTY DATA

OWNER / CONTROLLER

Patagonia Gold.



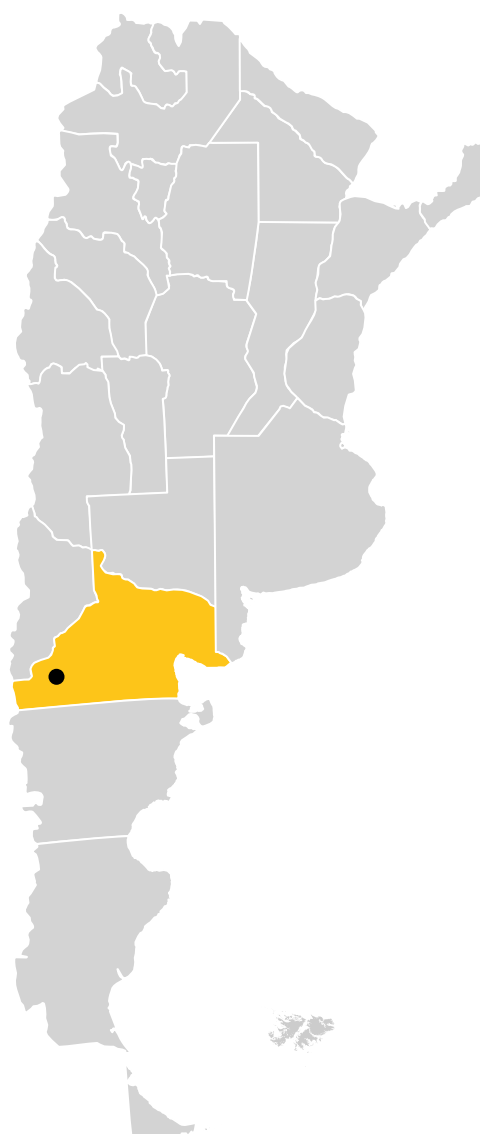
OPERATOR

Minera Aqualine Argentina SAU



ÁREA

41,800 ha



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Calcatreu

PROJECT GEOLOGY

Regional Geology

The oldest units in the region correspond to the igneous-metamorphic basement, represented by the Neoproterozoic to Eopaleozoic schists, gneisses and migmatites of the Cushamen Formation, and the granitic, grano-dioritic and tonalitic intrusives eopaleozoics to neopaleozoics of the Mamil Choique and Lipetrén Formations. The Jurassic vulcanites of the Garamilla Formation are arranged on the basement units, which include rhyolites, rhyodacites and pyroclastic rocks of similar composition. These rocks are covered by the Jurassic deposits of the Taquetrén Formation, made up of andesitic ignimbrites interspersed by andesitic and dacitic lava bodies, considered equivalent to the Lonco Formation Trapial (Wernert M. S., et al., 2024).

Hodgkin and Rivera (2001) defined the Calcatreu Volcano-Tectonic Basin for the deposit area. This back-arc or intra-arc basin would have experienced extensional structuring under a pull-apart regime, with normal faulting of NE-SW vergence. According to the authors, this dynamic would be associated with the tectonism of the Gastre Fault Zone, and would have led to the genesis of at least 5 rhyolitic to andesitic volcanic events in the basin, equivalent to the Garamilla and Taquetrén formations, and to which it would also be associated the emplacement of intermediate to acidic porphyries responsible for hydrothermalism linked to the epithermal mineralization of Calcatreu. During the Cretaceous, the continental sedimentites of the Angostura Colorada Formation were deposited on the previous units, followed by the shallow and transitional marine sedimentites of the Coli Toro Formation. The Cenozoic stratigraphy of the region includes volcanic rocks of the Huitrera Formation, which include andesites, basalts, trachytes, rhyolites and ignimbrites of intermediate composition, and that correspond to the Paleocene-Eocene. Above and during the Miocene-Pliocene, the tuffs of the Collón Curá Formation were, as well as various basaltic plateau units. Quaternary deposits are represented by fluvial, alluvial and lagoon sedimentites, as well as modern plateau basalts.

Deposit Geology

The Calcatreu project includes numerous swarms of epithermal veins and associated stockworks, filled with multiple pulses of silica, carbonates, adularia and few sulphides, with a predominance of banded and brecciated textures. Based on this mineralogy and its textures, the project is classified as a low-sulfidation epithermal system according to Hedenquist et al. (2000) or as an Au-Ag deposit of the adularia-sericite type according to the models proposed by Corbett and Leach (1998). The main mineralized bodies of the deposit include veins 49, Nelson E, Nelson O, Castro N, Castro S, Belén, Mariano, Amistad, Amancay and Viuda de Castro, as well as other minor mineralized zones. The bodies are generally arranged in a NE-SW direction, with the exception of the Viuda de Castro vein, whose orientation is E-W.

Project Status CONSTRUCTION



Calcatreu

Resources (2018)

RESOURCES	Gold (koz)	Silver (koz)
Indicated	669	6275
Inferred	215	5467

Technical and Economic Information

Estimated average annual production: 97 kOz

CAPEX: 79,15 million USD

Estimated LOM: 5 years

Mining Method: -

Company's Announcement

November 7, 2024. Patagonia Gold Receives Full and Final Permit to Advance with the Construction and Development of Calcatreu.

Contact

<https://patagoniagold.com/>

+54 11 5278 6950

Sources Consulted

Patagonia Gold, Calcatreu Project. <https://patagoniagold.com/operations/calcatreu/>

Patagonia Gold, New Releases. <https://patagoniagold.com/investors/news-releases/>

Patagonia Gold, Investor Presentation, October 2022

<https://patagoniagold.com/wp-content/uploads/2022/10/Patagonia-Gold-Corporate-Presentation-Q4-2022-.pdf>

Patagonia Gold Plc., NI 43-101 Technical Report Mineral Resource Estimate Calcatreu Gold-Silver Project, Rio Negro Province, Argentina. December 31, 2018. <https://minedocs.com/21/Calcatreu-TR-12212018.pdf>

Suyai

FEASIBILITY



LOCATION

(42° 52' 59" S - 71° 05' 59" W)

The Suyai Underground Mine project is located on the Esquel mountain range, at a distance of approximately 28 kilometers by road, or 9 kilometers in a straight line from the city of Esquel, in the province of Chubut.



MINERALIZATION TYPE

Low Sulphidation Epithermal Style (Au-Ag)



PROPERTY DATA

OWNER / CONTROLLER

Pan American Silver Corp (60%),
CAM (40%)



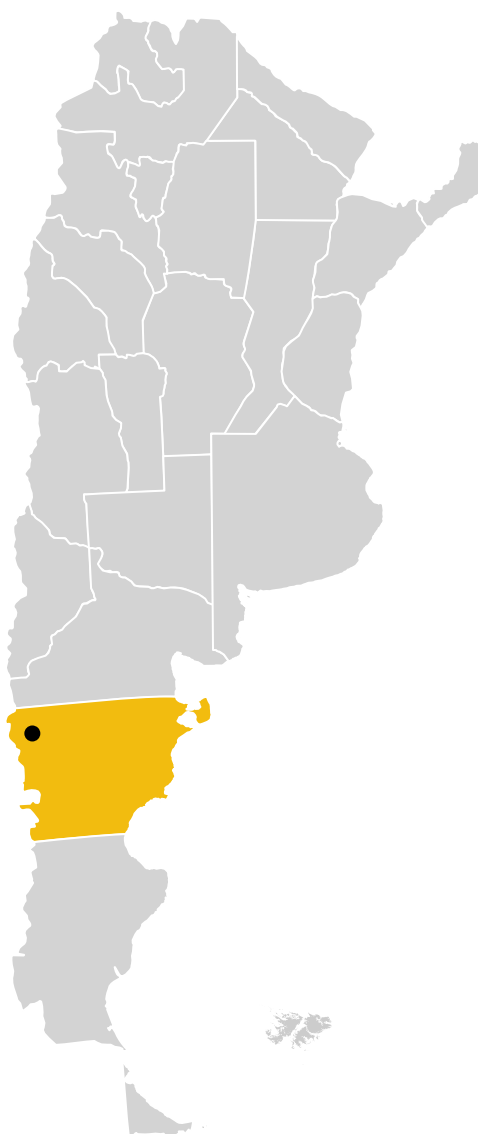
OPERATOR

Suyai del Sur S.A.



ÁREA

36,702 ha



Suyai

PROJECT GEOLOGY

Regional Geology

The deposit is located in the Cordón Esquel, a northwest bound elevation where Palaeozoic and Tertiary rocks emerge. The basal unit is a set of Palaeozoic metasediments. They are covered by a marine sedimentary sequence of Jurassic age and in discordance covered by basaltic, andesitic and pyroclastic flows, at the top, of the Upper Jurassic. The sequence is intruded by granites from the Lower Cretaceous and culminates in volcanic and sedimentary deposits from the Tertiary (Oligocene).

Deposit Geology

The mineralization system is in epithermal veins of Quartz- Adularia-Sericite, hosted in rocks of andesitic composition of Jurassic age. Precious metals are found by filling in cavities. The veins have an angle of 25° to 35° and are distributed in a structural corridor 5 km long and 2 km wide, in gently folded andesitic volcanic rocks.

Project Status FEASIBILITY

Suyai

Resources

RESOURCES	Metal Content	
	Au (oz)	Ag (Oz)
Measured and Indicated	2,286,000	3,523,000
Inferred	274,000	575,000

Technical and Economic Information

Estimated average annual production: Gold: 250,000 Oz

Product to obtain: Doré (Au-Ag)

Estimated LOM: 10 years

CAPEX: 220 million USD

Mining Method: Underground

Contact

ir@panamericansilver.com

1 (604) 806-3191

Sources Consulted

Yamana Gold Inc. Summary of Mineral Reserve and Mineral Resource Estimates. December 31, 2021.

[https://s28.q4cdn.com/334653565/files/doc_downloads/2022/Yamana-AR21_R-R_for-website_07-02-22_315pm_ARIAL-\(I\).pdf](https://s28.q4cdn.com/334653565/files/doc_downloads/2022/Yamana-AR21_R-R_for-website_07-02-22_315pm_ARIAL-(I).pdf)

Yamana Gold Inc. Annual information form for the fiscal year ended December 31, 2017. March 27, 2018.

<https://www.sec.gov/Archives/edgar/data/1264089/000126408918000005/ex9912017aif.htm>

Meridian Gold Inc. Esquel Gold Project, Argentina. Technical Report, March 31, 2003

Hualilán

PREFEASIBILITY



LOCATION

(30° 44' 5.46" S - 68° 57' 14.18" W)

Located in San Juan province Argentina. Access to the project is excellent with a double lane sealed highway covering the 120 kilometres from San Juan City, the regional capital and major mining hub, to within 400 metres from the project.



MINERALIZATION TYPE

Skarn (Zn-Au)



PROPERTY DATA OWNER / CONTROLLER

Challenger Gold Ltd.



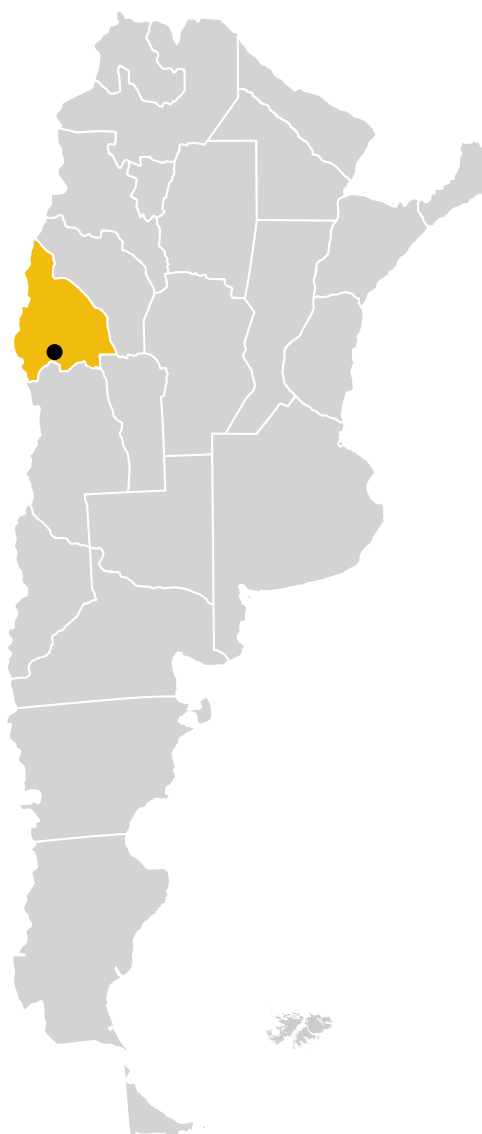
OPERATOR

Golden Mining S.A.



ÁREA

6,747 ha



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Hualilán

PROJECT GEOLOGY

Regional Geology

Hualilán is located within the Central Precordillera. The area is a fold and thrust belt incorporating shallow marine and terrestrial sedimentary rocks of a lower Palaeozoic back-arc basin with minor volcanic and intrusive rocks. Porphyry intrusive rocks with dacitic and tonalitic composition range in age from 13 Ma to 5 Ma. The area is flanked to the north, west and south by diversity of mineral deposits from large tonnage copper and gold porphyries, skarn, manto and Carlin-style replacement deposits and epithermal deposit, as well as vein and breccia-hosted deposits.

Deposit Geology

The Project is the site of extensive zinc skarn mineralisation with a gold overprint which makes it a somewhat unique style of mineralisation.

Commonly zinc skarns occur in continental settings associated convergent tectonic plate margins as is the case at Hualilán, located in the pre-cordillera of the western South American convergent plate margin. Zinc skarns commonly contain high grade zinc, lead, and silver although zinc is usually dominant. Mineralisation and skarn alteration at Hualilán occurs in all three main rock types. In all host rocks, the zinc skarn mineralisation is overprinted by a slightly later phase of gold – silver mineralisation. This second phase of mineralisation is mesothermal to deep epithermal and may be related to but is separate from the zinc skarn. Importantly, the gold mineralisation is deposited in the same reactivated faults and fractures as the zinc skarn.

Project Status PRE-FEASIBILITY

Hualilán

Resources (2023)

RESOURCES	Gold Eq. (Moz)
Indicated	2.12
Inferred	0.7

*The values correspond to the Hualilán project.

Technical and Economic Information

Estimated average annual production: 116 kOz Au
CAPEX: 152 million USD
Estimated LOM: 7 years
Mining Method: underground

Company's Announcement

March 29, 2023. CEL Delivers Significant High-Grade Mineral Resource Estimate of 1.6 Moz at 5.0 g/t AuEq within 2.8Moz AuEq at Hualilán

Contact

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Sources Consulted

Challenger Gold Limited. Hualilán Gold Project. <https://challengergold.com/projects/argentina/hualilan-project/>
Challenger Gold Limited. Interim Financial Report for the half-year. Juna 30, 2024
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SRK Consulting. Independent Geologist Report on the Mineral Assets of Challenger Exploration Limited. May 2019.
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Taguas

PEA



LOCATION

(29° 11' 27.79" S - 69° 52' 35.98" W)

Access to the site is from the town of Tudcum, located 200 km from the city of San Juan. To reach Taguas, the 148 km mining road that links Tudcum to the Veladero gold mine is used. From Veladero one must travel 25 km further north along the Las Taguas River to reach the Project camp.



MINERALIZATION TYPE

High Sulphidation Epithermal Style (Au-Ag)



PROPERTY DATA

OWNER / CONTROLLER

Orvana Minerals Corp.



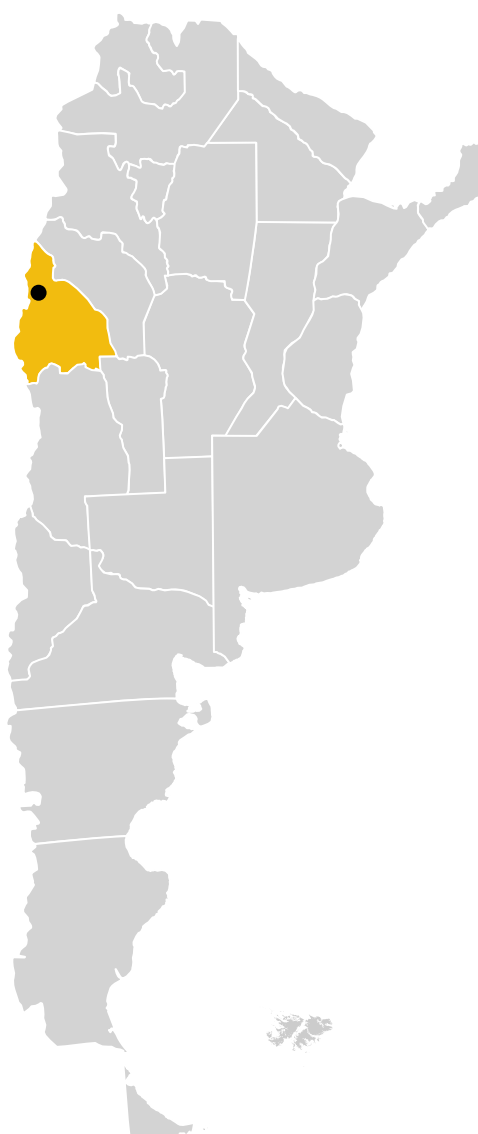
OPERATOR

Compañía Minera Piuquenes S.A.



ÁREA

3,274 ha



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Taguas

PROJECT GEOLOGY

Regional Geology

Taguas is located at the northern end of the Cura Valley volcanic belt, of tertiary age, and on the eastern flank of the El Indio metallogenic belt (Siddeley and Araneda, 1990). The physical continuity of the volcanism and stratigraphy of the thin Chilean Cura Valley volcanic belt has been confirmed by several regional studies (Ramos 1995, 1998 and Godeas et al., 1993). The Cura Valley belt has similarities with the Chilean flank in both age and type of basement and alterations (Davidson and Mpodozis, 1991) and is an extension of the El Indio belt in Argentina.

Deposit Geology

The Taguas property is home to a high-sulfidation gold-silver epithermal system housed in altered Tertiary volcanic rhyolites. Supergene gold-silver oxide mineralization occurs in the southern half of Taguas, at Cerro Taguas Norte, Cerro Taguas Sur, Cerro III and Cerro IV. This mineralization consists of sub-vertical mineralized structures, which also impact in the northeast, in a zone of lower grade mineralization. The high grade zones range in width from 1.5m to 8m and in length from 40m to over 500m. High grade zones consist of relatively continuous mineralization with gold grades ranging from 0.2 to over 4.0 g/t Au and 10 to over 50 g/t Au. Oxidation extends from the surface to approximately 200m below the surface. Gold-silver sulphides (pyrite-enargite) have been found in the north central zone of the property, at Cerro Campamento, and at Cerro Silla Sur. In addition, intersections grading over 50 g/t Au and 100 g/t Ag have been recognized in discrete mineralized vein structures ranging in length from 1.5 m to 5 m. Evidence of porphyry copper-gold mineralization has also been found on the Taguas property.

Project Status PRELIMINARY ECONOMIC ASSESSMENT

Company's Announcement

June 6, 2022. Orvana announces Taguas Project phase I infill & growth drilling results.
February 11, 2022. Orvana reports Q1 FY2022 results and announces filing of PEA NI 43-101 Report for Taguas.

Taguas

Resources

INFERRED	GOLD		SILVER	
	Grade (Gr/T)	Gold Contained (Oz)	Grade (Gr/T)	Silver Contained (Oz)
Cerro Campamento	4.01	196,311	41.4	2,024,422
Cerro Silla Sur	3.14	75,632	57.9	1,396,163
Cerros Taguas combined	0.3	936,000	9.2	28,882,000
INDICATED				
Cerros Taguas Oxide	0.37	467,000	11.1	14,037,000

Technical and Economic Information

Estimated average annual production: Gold: 41,000 Oz | Silver: 902,300 Oz

Product to obtain: Gold-silver doré bars

CAPEX: 141.1 million USD

Estimated LOM: 10 years

Mining Method: Open pit

Contact

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Toronto, Ontario M5J 1S9
Tel: 416 369 1629

Sources Consulted

Orvana Minerals Corp., Taguas Project. <https://www.orvana.com/English/operations/Taguas/default.aspx>

Orvana Minerals Corp., New Releases. <https://www.orvana.com/English/news/default.aspx>

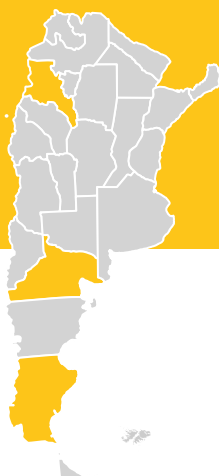
Orvana Minerals Corp., Preliminary Economic Assessment , NI 43-101 Technical Report on the Taguas Heap Leach Project. December 29, 2021.

https://s2.q4cdn.com/372236871/files/doc_downloads/2022/04/Preliminary-Economic-Assessment-NI-43-101-Technical-Report-on-the-Taguas-Heap-Leach-Project-San-Juan-Argentina-%E2%80%93-December-29-2021.pdf

New Releases. Orvana announces taguas project phase i infill & growth drilling results. June 06, 2022

<https://www.orvana.com/English/news/news-details/2022/R-E-P-E-A-T---ORVANA-ANNOUNCES-TAGUAS-PROJECT-PHASE-I-IN-FILL--GROWTH-DRILLING-RESULTS/default.aspx>





Mining Projects in the Prospecting Stage





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