



Atalaya Mining Plc
1 Lampousas Street
1095 Nicosia, Cyprus
Tel: +357 22442705
Fax: +357 22421956
www.atalayamining.com

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Atalaya Mining Plc.
("Atalaya" or "the Company")

New Independent Mineral Resource Estimates for San Dionisio and San Antonio

Including open pit zone at San Dionisio with an estimated copper resource grade that is ~140% higher than existing reserves at Cerro Colorado open pit

Atalaya Mining Plc (AIM: ATYM, TSX: AYM) is pleased to announce new Mineral Resource Estimates, prepared in accordance with CIM guidelines and disclosure requirements of NI 43-101, for its San Dionisio and San Antonio deposits, which form part of Proyecto Riotinto and are located adjacent to the Company's operating Cerro Colorado open pit and 15 Mtpa plant. The estimates will be included in a new NI 43-101 technical report that is being prepared by Ore Reserves Engineering for the overall Proyecto Riotinto property and which will be published in Q2 2022.

Highlights

- San Dionisio Open Pit resource: west extension of existing Cerro Colorado open pit
 - M&I Resource: 56.1 Mt at 0.91% Cu, 1.14% Zn, 0.23% Pb (0.15% Cu cut-off)
 - Copper resource grade: ~140% higher than existing reserves at Cerro Colorado
- San Dionisio Underground: polymetallic resource located below potential open pit
 - Inferred Resource: 12.4 Mt at 1.01% Cu, 2.54% Zn, 0.62% Pb
- San Antonio Underground: polymetallic resource east of the Cerro Colorado pit
 - Inferred Resource: 11.8 Mt at 1.32% Cu, 1.79% Zn, 0.99% Pb
- Preliminary Economic Assessment ("PEA") is planned during 2022 for an operating schedule that combines Cerro Colorado reserves with higher grade material from the San Dionisio deposit
- Subject to the relocation of certain infrastructure and receipt of final permits, the potential open pit at San Dionisio could begin to deliver material to the Proyecto Riotinto plant by mid to late 2023
 - Could potentially account for approximately one-third of processing capacity, with Cerro Colorado ore providing the remainder
 - San Dionisio contains copper mineralisation that could be processed at the existing plant with minimal modifications
 - Contribution from San Dionisio could potentially provide an uplift to Riotinto copper production by increasing the blended head grade

Alberto Lavandeira, CEO, commented:

"The completion of an independent Mineral Resource Estimate for the San Dionisio deposit is an important milestone for Atalaya. As a result of its location beside Cerro Colorado and its nature as a pit extension, San Dionisio could become a near-term source of feed for the Proyecto Riotinto plant. Its development could provide material that is substantially higher grade than Cerro Colorado's existing reserves, thereby increasing copper production while maintaining current plant processing rates.

Similarly, the new NI 43-101 compliant Mineral Resource Estimate for San Antonio highlights another potential source of higher grade material that could increase production and extend mine

life in the Riotinto District. Its proximity to the Riotinto plant and legacy infrastructure are expected to expedite future development and reduce capital intensity.”

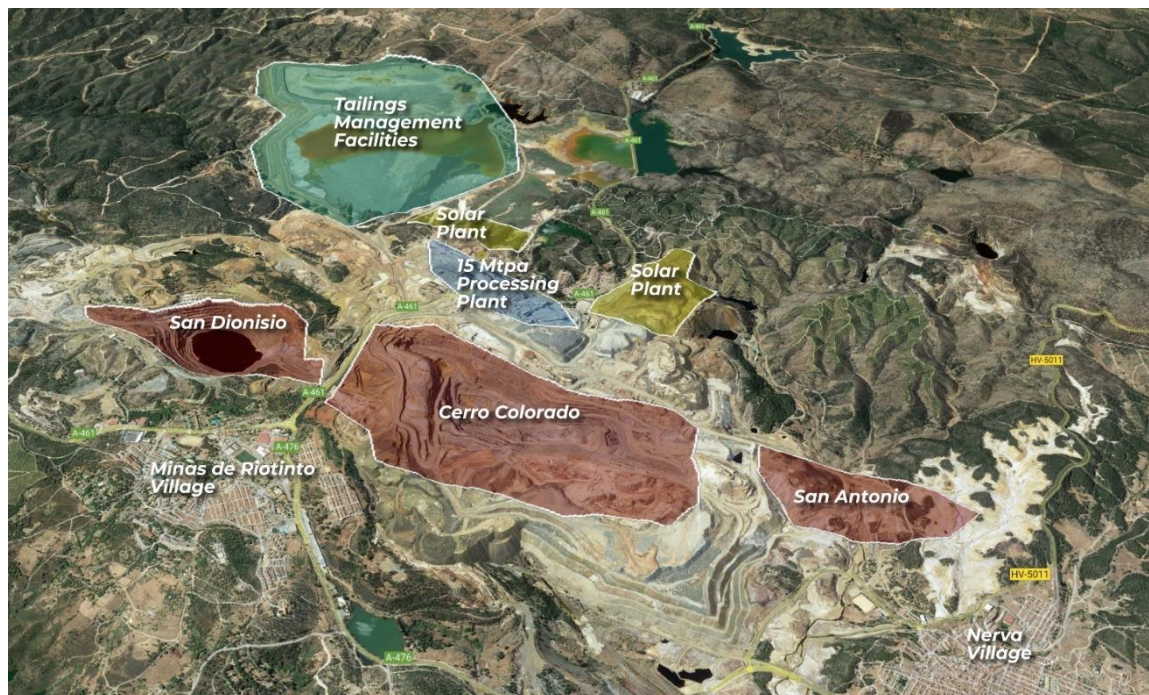
Proyecto Riotinto Overview

Since its restart in 2015, all mining at Proyecto Riotinto has been conducted from the Cerro Colorado open pit. The other known mineral deposits within the Riotinto concession area – the San Dionisio deposit and the San Antonio deposit – have not been mined by Atalaya.

The San Dionisio deposit is located less than 1 kilometre west of the Cerro Colorado pit, and was historically mined by the Corta Atalaya open pit and the Pozo Alfredo underground mine, which targeted copper-rich stockwork and massive sulphide mineralisation.

The San Antonio deposit is located around 1 kilometre east of the Cerro Colorado pit. It is an eastern extension of the historical Planes deposit, which was mined in the early 20th century. Mineralisation at San Antonio is characterised mainly by massive sulphides and the deposit is shallow at 150 – 300 metres below surface. In the 1960s and 1970s, an exploration programme at the deposit was undertaken by sinking a shaft, developing two levels and completing 183 drill holes, however, no mining took place. The deposit can be accessed by a ramp collared at the east of the Cerro Colorado pit.

Figure 1: Approximate Locations of Riotinto orebodies



New Proyecto Riotinto NI 43-101 Technical Report

Ore Reserves Engineering of Lakewood, CO, was retained by Atalaya to prepare a new NI 43-101 technical report for the overall Proyecto Riotinto property, including the Cerro Colorado, San Dionisio and San Antonio deposits.

San Dionisio Mineral Resource Estimation Details

The drilling data used for resource estimation was based on 1,003 drillholes over 83,554 metres, of which 45 holes over 16,991 metres were completed by Atalaya between 2015-2021, while the remainder by past operators.

The Mineral Resource model was created as a three-dimensional block model using Datamine Studio RM software. The model block size is 10x10x10 metres, which is consistent with the estimated mining bench height and the estimated selective mining unit. The horizontal extent of the model is defined to cover the San Dionisio deposit, plus sufficient space outside the deposit to cover the ultimate pit.

San Dionisio Mineral Resource Estimate

Table 1: San Dionisio Open Pit – By Cut-off

San Dionisio Open Pit - Total Mineral Resource								
% Cu cut-off	Class	Mt	Grade			Contained Metal		
			Cu %	Zn %	Pb %	Cu kt	Zn kt	Pb kt
0.14	Measured	50.8	0.92	1.09	0.21	467	556	108
	Indicated	6.6	0.70	1.31	0.35	46	86	23
	M+I	57.4	0.89	1.12	0.23	513	642	131
	Inferred	0.9	0.77	0.54	0.23	7	5	2
0.15	Measured	49.7	0.94	1.11	0.22	466	552	107
	Indicated	6.4	0.71	1.33	0.35	46	86	23
	M+I	56.1	0.91	1.14	0.23	511	638	130
	Inferred	0.8	0.78	0.55	0.23	7	5	2
0.16	Measured	48.5	0.96	1.13	0.22	464	548	106
	Indicated	6.3	0.72	1.35	0.36	45	85	22
	M+I	54.8	0.93	1.16	0.23	509	633	128
	Inferred	0.8	0.79	0.56	0.24	7	5	2

Notes: July 2021 Model (21G) - 31 Dec 2020 Topo - \$3.60/lb Cu Pit; totals may not sum due to rounding

Table 2: San Dionisio Open Pit – By Ore Type

San Dionisio Open Pit - Copper Resource (MinZ & Zone2a)								
% Cu cut-off	Class	Mt	Grade			Contained Metal		
			Cu %	Zn %	Pb %	Cu kt	Zn kt	Pb kt
0.15	Measured	27.0	0.78	0.28	0.06	212	75	17
	Indicated	2.0	0.66	0.18	0.04	13	4	1
	M+I	29.0	0.78	0.27	0.06	225	78	18
	Inferred	0.4	0.95	0.19	0.03	4	1	0

San Dionisio Open Pit - Polymetallic Resource (Contact & MS)								
% Cu cut-off	Class	Mt	Grade			Contained Metal		
			Cu %	Zn %	Pb %	Cu kt	Zn kt	Pb kt
0.15	Measured	22.6	1.12	2.11	0.40	253	477	90
	Indicated	4.4	0.73	1.85	0.49	32	82	22
	M+I	27.0	1.06	2.07	0.41	286	559	112
	Inferred	0.4	0.62	0.91	0.43	3	4	2

Notes: July 2021 Model (21G) - 31 Dec 2020 Topo - \$3.60/lb Cu Pit; totals may not sum due to rounding

Table 3: San Dionisio Underground

San Dionisio Underground - Total Mineral Resource								
	Mt	Grade			Contained Metal			
		Cu %	Zn %	Pb %	Cu kt	Zn kt	Pb kt	
Inferred Resource	12.4	1.01	2.54	0.62	125	315	76	

Notes: July 2021 Model (21G); totals may not sum due to rounding

Planned Preliminary Economic Assessment

The new Mineral Resource Estimate for San Dionisio will be used to support a PEA that considers concurrent mining from the Cerro Colorado open pit and the open pit portion of the San Dionisio deposit. Atalaya expects to complete the PEA in 2022.

San Dionisio Conceptual Development Plan

Based on the new Mineral Resource Estimate and prior internal studies, Atalaya believes that the development of the San Dionisio deposit has the potential to create significant value for the Company. The Company will further evaluate the development plan in the PEA.

Mining

The open pit portion of the Mineral Resource at San Dionisio is expected to be mineable by conventional open pit methods, with San Dionisio being an extension of the operating Cerro Colorado open pit. In order to expand the Cerro Colorado pit into the San Dionisio area, the Company would need to relocate the public road, power lines and water lines that currently run between the two deposits. Further dewatering of the historical Atalaya pit would also be required once open pit mining reaches a certain level, similar to how Cerro Colorado was operated.



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Mining would be conducted concurrently at San Dionisio and Cerro Colorado, with current expectations that San Dionisio would contribute approximately one-third of existing processing capacity of 15 Mtpa, while Cerro Colorado would account for the remaining two-thirds of ore.

Processing

San Dionisio has two main types of mineralisation – copper and polymetallic. In the initial years of operation, copper-rich material plus approximately 10% high-grade polymetallic material would be mined from the upper zones of the Mineral Resource and processed. According to past metallurgical tests and additional work completed by the Company, it is expected that San Dionisio copper material could be blended with ore from Cerro Colorado and processed at the existing Proyecto Riotinto plant without requiring any major plant modifications.

Upon transitioning to the polymetallic mineralisation, certain modifications to the plant are expected to be required in order to improve copper recoveries and recover zinc and lead. Options include the addition of a conventional differential flotation circuit, and / or the application of the E-LIX System. Atalaya recently approved construction of a Phase I industrial plant that utilises the E-LIX System.

Impact

The contribution by San Dionisio of approximately one-third of future processing feed is expected to provide an uplift to the blended grade at the plant, due to San Dionisio's open pit copper resource grade being approximately 140% higher than Cerro Colorado's existing reserves. This is expected to provide an uplift to copper production at Proyecto Riotinto, even as plant processing capacity is maintained at current levels.

As other deposits in the Riotinto District are developed, such as San Antonio and Proyecto Masa Valverde, further Cerro Colorado ore is expected to be displaced to provide additional capacity for higher grade material.

Permitting

The Company is advancing the various permits and modifications required to develop the San Dionisio deposit and to continue operations at Cerro Colorado, including those related to relocating the public road, power lines and water lines, additional long term tailings capacity and heritage matters.

San Antonio Mineral Resource Estimation Details

The drilling data used for resource estimation was based on 185 drillholes over 18,305 metres, of which 8 holes over 1,504 metres were completed by Atalaya, with the remainder by past operators.

The Mineral Resource model for the mineralised zone of San Antonio was created as a three-dimensional block model using Datamine Studio RM software. The model block size is 2x2x2 metres, which is used to more accurately define the geometry of the deposit. The horizontal extent of the model is defined to cover the San Antonio deposit and the adjacent Planes deposit, plus sufficient space outside the deposit for mine planning.

San Antonio Mineral Resource Estimate

Table 4: San Antonio Underground

San Antonio Underground - Total Mineral Resource							
	Mt	Grade			Contained Metal		
		Cu %	Zn %	Pb %	Cu kt	Zn kt	Pb kt
Inferred Resource	11.8	1.32	1.79	0.99	155	210	117

Notes: May 2021 Model (21E); totals may not sum due to rounding

San Antonio Conceptual Development Plan

Mining of the San Antonio deposit is likely to be conducted via underground methods. The deposit would be accessed by constructing a ramp collared in the eastern portion of the Cerro Colorado pit that connects to the historical Pozo Rotilio shaft, which could provide the future mine with ventilation and an emergency exit. Due to San Antonio's shallow nature and sub-horizontal shape, the mining methods are expected to be room and pillar and complemented with sublevel open stoping.

In advance of any development decision for San Antonio, the Company will complete additional drilling from surface, including confirmation and infill drilling to upgrade the current Inferred Resources to higher categories, as well as exploration drilling to the east where the deposit is believed to remain open. In addition, metallurgical testwork will be required to confirm recoveries and determine whether conventional differential flotation or the E-LIX System are most suitable.

Qualified Person Statement

The Mineral Resource Estimates for San Dionisio and San Antonio were prepared by Ore Reserves Engineering ("ORE") in accordance with CIM guidelines and with Canadian regulatory requirements set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") under the supervision of Alan Noble, PE of ORE. Mr. Noble is a Qualified Person as defined under NI 43-101 and the AIM Rules and is independent of the Company. Mr. Noble consents to the inclusion of information related to Mineral Resources in this disclosure, in the form and context it appears.

Glossary of Terms

Ag	Silver
Au	Gold
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
Cu	Copper
CuEq	Copper Equivalent
FLEM	Fixed Loop Electromagnetic Survey
g/t	Grams per tonne
Indicated Mineral Resources	An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.

	<p>Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation.</p> <p>An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.</p>
Inferred Mineral Resource	<p>An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity.</p> <p>An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.</p>
kt	Thousand tonnes
Measured Mineral Resources	<p>A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.</p> <p>Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.</p>
M&I Mineral Resources	The aggregate of Measured Mineral Resources and Indicated Mineral Resources.
Mineral Resources	A concentration or occurrence of material of intrinsic economic interest in or on the Earth's crust in such a form and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.
Mt	Million tonnes
Mtpa	Million tonnes per annum
n.a.	Not available
NI 43-101	Canadian National Instrument for the Standards of Disclosure for Mineral Projects
ORE	Ore Reserves Engineering
Pb	Lead



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PEA	Preliminary Economic Assessment
PPM	Parts per million
S	Sulphur
Stockwork	It's a complex 3D network of structurally controlled or randomly oriented veins. They are common in many ore deposit types. They are also referred to as stringer zones.
VMS	Volcanic Massive Sulphide
Zn	Zinc

This announcement contains information which, prior to its publication constituted inside information for the purposes of Article 7 of Regulation (EU) No 596/2014.

Contacts:

SEC Newgate UK	Elisabeth Cowell / Axaule Shukanayeva / Max Richardson	+ 44 20 3757 6882
4C Communications	Carina Corbett	+44 20 3170 7973
Canaccord Genuity (NOMAD and Joint Broker)	Henry Fitzgerald-O'Connor / James Asensio	+44 20 7523 8000
BMO Capital Markets (Joint Broker)	Tom Rider / Andrew Cameron	+44 20 7236 1010
Peel Hunt LLP (Joint Broker)	Ross Allister / David McKeown	+44 20 7418 8900

About Atalaya Mining Plc

Atalaya is an AIM and TSX-listed mining and development group which produces copper concentrates and silver by-product at its wholly owned Proyecto Riotinto site in southwest Spain. Atalaya's current operations include the Cerro Colorado open pit mine and a modern 15 Mtpa processing plant, which has the potential to become a centralised processing hub for ore sourced from its wholly owned regional projects around Riotinto that include Proyecto Masa Valverde and Proyecto Riotinto East. In addition, the Group has a phased, earn-in agreement for up to 80% ownership of Proyecto Touro, a brownfield copper project in the northwest of Spain. For further information, visit www.atalayamining.com