

Nexa Resources Announces Approval of the Construction of the Aripuanã Project and Filing of Related Technical Report

20.10.2018 | [Business Wire](#)

[Nexa Resources S.A.](#) (“Nexa Resources” or the “Company”) (NYSE: NEXA) (TSX: NEXA) hereby informs its shareholders and the market in general that, after the conclusion of the feasibility study and detailed analysis by the Company’s management, the Board of Directors has approved today the start-up of construction of the Aripuanã project, an underground polymetallic mine and concentrate processing facility in the state of Mato Grosso, Brazil. The average zinc equivalent production of the Aripuanã project is estimated at 120 thousand tonnes per year for 13 years, considering only the mineral reserves estimated in accordance with CIM (2014) Definition Standards as incorporated in National Instrument 43-101 – Standards for Disclosure for Minerals Projects (“NI 43-101”). The Aripuanã project is expected to be operational by the beginning of 2021, with total investment estimated at approximately US\$ 392 million. Nexa Resources owns a 70% stake in the Aripuanã project through its subsidiaries.

The Company is also pleased to announce the filing of a technical report (the “Technical Report”) for the Aripuanã project entitled “Technical Report on the Feasibility Study on the Aripuanã Project, State of Mato Grosso, Brazil”. The Technical Report, dated October 15, 2018, with an effective date of July 31, 2018, was prepared by Roscoe Postle Associates Inc (“RPA”). The Technical Report summarizes the results of a feasibility study, including first-time public disclosure of mineral reserves calculated in accordance with NI 43-101 (for more details, please refer to the tables on pages 5-7 of this release).

Tito Martins, CEO Message

“The approval of the construction of the Aripuanã project reinforces Nexa’s commitment to develop our pipeline of greenfield projects. We are proud to develop a world-class project which incorporates high level safety standards, cutting-edge environmental practices including the use of dry stacking for waste material and close to 100% recirculation of water, and which utilizes high levels of automation, among several other innovative initiatives.

Positioned on the second quartile of the normal cash cost curve using Wood Mackenzie’s methodology, the final configuration of the project incorporates significant improvements when compared to previous studies, including larger scale and optimized logistics, which will contribute to the returns of the project in a scenario of limited supply coming to the market.

There is a significant increase of the expected average production according to the recent technical report compared to the estimates previously released. This larger scale brought us important efficiencies on capex compared to production in previous scenarios.

In addition, the Aripuanã project contributes to Nexa’s long-term plan to increase mining production and reduces third-party zinc concentrate supply needs.”

Aripuanã Project Highlights

- The Aripuanã zinc polymetallic deposits are typical Volcanogenic Massive Sulphide (VMS) deposits.
- The project’s zinc process flowsheet has been developed by considering conventional technologies for treatment, including sequential flotation for the recovery of zinc, copper, and lead as separate concentrates.
- The deposits are expected to support a production rate of 2.3 million tonnes of ore per year.

- The processing plant can treat up to 6,300 tonnes per day of ore.
- The concentrate production startup is expected by the beginning of 2021.
- Expected zinc equivalent average production of 120 thousand tonnes per year¹, considering only mineral reserves, including 66.7 thousand tonnes of zinc, which is equivalent to 18% of Nexa's 2017 zinc production of 375.4 thousand tonnes.
- Expected average annual production is:
 - Zinc: 66.7 thousand tonnes;
 - Lead: 23.0 thousand tonnes;
 - Copper: 3.7 thousand tonnes;
 - Silver: 1.87 million ounces (contained in copper and lead concentrates); and
 - Gold: 13.0 thousand ounces (contained in copper and lead concentrates).
- Expected Aripuanã zinc concentrate average annual production is equivalent to 28% of the volume bought in 2017 from third-party suppliers, contributing to higher mining and smelting integration.
- The proven and probable mineral reserves comprise 26.2 million tonnes at grades of 3.7% Zn, 1.4% Pb, 0.2% Cu, 0.3 g/t Au, and 34 g/t Ag.
- According to the Technical Report and based on current mineral reserves, the project has an estimated CAPEX of US\$392 million, net present value (NPV) of US\$129 million (at a discount rate of 9%), internal rate of return (IRR) of 15.8% (both in real terms), average BRL/USD FX rate of 3.90, consensus long-term metal prices¹ and life of mine of 13 years. The IRR and NPV mentioned above consider the after taxes return at the project level.
- There is excellent potential to extend mine life by up to six years at higher grades, based on the significant current inferred mineral resources and Nexa's good track record of conversion to indicated resources.

¹ Note: Consolidated mining production in thousand tonnes of zinc equivalent is calculated by converting copper, lead, silver and gold contents to a zinc equivalent grade based on consensus, long-term forecasts from banks, financial institutions, and other sources selected by Nexa. The prices used in the Technical Report and for the zinc equivalent conversion are: Zinc: US\$2,232/ton; Copper: US\$6,594/ton; Lead: US\$1,927/ton; Silver: US\$18/oz.; Gold: US\$1,216/oz.

About the Aripuanã Project

Description: The Aripuanã project is owned by Mineração Dardanelos Ltda., a joint venture among: (i) Nexa Recursos Minerais S.A. (formerly Votorantim Metais Zinco S.A.), a subsidiary of Nexa Resources that holds a 62.3% interest, and which is the operator of the project; (ii) Nexa Resources Perú S.A.A. (formerly Compañía Minera Milpo S.A.A.), a subsidiary of Nexa Resources that holds a 7.7% interest; and (iii) Mineração Rio Aripuanã Ltda. (a subsidiary of [Karmin Exploration Inc.](#) that holds the remaining 30%).

Nexa Resources is currently fully funding the development of the Aripuanã project. Karmin is not required to contribute financially to the project until the completion of a bankable feasibility study. As of October 15, 2018, with the completion of the feasibility study, Karmin has one year to decide whether it will contribute to financing the Aripuanã project on a pro-rata basis.

Aripuanã is an underground polymetallic project containing zinc, lead, copper, silver and gold. The current project targets three main elongated mineralized zones that have been defined in the central portion of the project. It is currently estimated that the Aripuanã project, when and if it is fully developed and begins operation, could produce an annual average of approximately 66.7 thousand tonnes of zinc in concentrate, 23.0 thousand tonnes of lead in concentrate, 3.7 thousand tonnes of copper in concentrate and also 1.87 million ounces of silver and 13.0 thousand ounces of gold contained in the lead and copper concentrates over a 13-year life of mine based on mineral reserves. Production is expected to commence at the beginning of 2021.

Mineral resources and mineral reserves are estimated for three mineralized zones (Arex, Link and Ambrex). Limited exploration has identified additional mineralized bodies including Massaranduba, Boroca, and Mocoto to the southeast and Arpa to the northwest as well as a smaller, deeper zone, Babaçu which lies to the southeast of the Ambrex deposit.

Location and logistics: The site is located in the north-west of the state of Mato Grosso, 1,265 kilometers by road from Rondonópolis, an additional 1,264 kilometers by railroad and road to the Três Marias smelter or 1,566 km to the Juiz de Fora smelter, or an additional 1,395 kilometers by railroad from Rondonópolis to the

port of Santos. Zinc produced at Aripuanã that may not undergo processing at our own smelters in Brazil can be exported through the port of Santos.

Mine operation and processing plant: The Technical Report summarizes the feasibility plans for the development of an operation capable of processing approximately 5,250 tonnes per day (dry basis) of Stringer material and 6,300 tonnes per day (dry basis) of Stratabound material.

Nexa Resources has selected a combination of mining methods, including longitudinal longhole retreat stoping (bench stoping) for the narrow zones of the deposits and vertical retreat mining (VRM) to mine the thicker zones. Cemented pastefill and uncemented rockfill will be used to backfill stopes.

Three individual ramps are planned to provide access to the ore bodies and ensure operational flexibility.

The current mineral residues management strategy considers dry stack (filtered) tailings disposal on surface and tailings disposal as cemented paste backfill underground. Approximately 50% of the tailings will return to the mines as material for backfill, while waste materials will be disposed on dry stacks.

The processing plant consists of a primary crushing and semi-autogenous grinding, followed by ball milling and a pebble crushing circuit (SAGB), talc pre-flotation and sequential flotation of copper, lead, and zinc.

Infrastructure: The water system is designed to maximize water recovery and effluent treatment, which is based on an engineered wetlands protection concept resulting in 100% process water recirculation, with minimal discharge to the environment.

The project also includes a 69kV Electrical Substation that is connected by 21 kilometers of transmission lines to 230kV Dardanelos Substation, which is located in Aripuanã City.

Social legacy: Nexa Resources has outlined a structured socioeconomic integrated plan for the Aripuanã project, which aims to minimize impacts and boost positive development in the region. Aligned with the Company's social strategy, the plan has set goals in five main areas:

- (i) Economic development;
- (ii) Public management and social participation;
- (iii) Childhood, youth and vulnerable groups;
- (iv) Socioenvironmental safety and health;
- (v) Indigenous people.

The Aripuanã project expects to contribute to the creation of direct and indirect jobs, and development of the region. The project is expected to create approximately 1,600 jobs during the construction phase and employ approximately 750 employees when operating.

Outlook / Update

In addition to the completion of the Technical Report, the Aripuanã project was issued its preliminary environmental license in April 2018, and the Company expects to receive the installation license by the end of 2018, which will allow it to proceed with construction. The Company also expects to receive an operation permit, which is also required for it to operate the plant, by the end of 2020.

The Company expects to invest 35% of the total estimated capital expenditures for the Aripuanã project in

2019 and 49% in 2020 with residual investments to be made during the start of production in 2021.

Since the start of exploration, the Company has drilled more than 215,000 meters in the project area and surroundings focused on mineral resources conversion and identification of mineralized deposits. Limited exploration has also identified additional mineralized bodies in the region. The Company also owns rights to conduct exploration activities on 65,887 hectares in the region.

Valuation / Funding

The Aripuanã project is positioned on the second quartile of the zinc normal cost curve considering Wood Mackenzie's methodology, with 2023 C1 zinc cash cost estimated at US\$0.14/lb net of byproduct revenue. A long-term zinc price assumption of US\$1.01/lb was used for purposes of preparing the Technical Report.

Nexa Resources expects to fund the Aripuanã project from its cash balance and operating cash flows.

Mineral Resources and Reserves under NI 43-101

According to the Technical Report, the Aripuanã project's proven and probable mineral reserves are comprised of 26.2 million tonnes at grades of 3.7% Zn, 1.4% Pb, 0.2% Cu, 0.3 g/t Au, and 34 g/t Ag, containing 2.1 billion pounds of Zn, 784 million pounds of Pb, 143 million pounds of Cu, 250,000 ounces of Au, and 28.8 million ounces of Ag.

The Aripuanã project's measured and indicated mineral resources are comprised of 5.7 million tonnes at 2.3% Zn, 0.7% Pb, 0.4% Cu, 0.5 g/t Au, and 20 g/t Ag, containing 282 million pounds of Zn, 91 million pounds of Pb, 46 million pounds of Cu, 90,000 ounces of Au, and 3.6 million ounces of Ag. Measured and indicated mineral resources are exclusive of mineral reserves. The Aripuanã project's inferred mineral resources are comprised of 23 million tonnes at 3.8% Zn, 1.5% Pb, 0.5% Cu, 0.9 g/t Au, and 37 g/t Ag, containing 1.9 billion pounds of Zn, 743 million pounds of Pb, 246 million pounds of Cu, 693,000 ounces of Au, and 28 million ounces of Ag.

The Technical Report complies with NI 43-101 and discloses the following mineral reserves and resources estimates as of July 31, 2018. The report is available at our website: <http://ir.nexaresources.com/regulatoryfilings>

Please find below tables with the Technical Report mineral reserves and mineral resources summary.

Mineral Reserves – July 31, 2018 Aripuanã Zinc Project

Deposit/Category	Tonnes (000 t)	Zn (%)	Pb (%)	Grade Cu (%)	Au (g/t)	Ag (g/t)
Arex						
Proven	4,798	3.0	1.0	0.6	0.4	30.3
Probable	1,015	2.8	0.9	0.6	0.7	22.1
Proven & Probable	5,813	2.9	1.0	0.6	0.5	28.9
Link						
Proven	1,732	4.8	1.8	0.1	0.3	40.0
Probable	6,062	4.0	1.3	0.2	0.3	33.8
Proven & Probable	7,794	4.2	1.4	0.2	0.3	35.2
Ambrex						
Proven	5,272	4.2	1.6	0.1	0.1	38.2
Probable	7,299	3.4	1.4	0.1	0.3	34.7
Proven & Probable	12,571	3.8	1.5	0.1	0.2	36.2
Totals						
Proven	11,803	3.8	1.4	0.3	0.3	35.3

Probable	14,376	3.7	1.3	0.2	0.3	33.5
Proven & Probable	26,179	3.7	1.4	0.2	0.3	34.3

Notes:

1. CIM (2014) definitions were followed for Mineral Reserves.
2. Mineral Reserves are estimated at a cut-off value of NSR = US\$ 40.00 / t processed.
3. Mineral Reserves are estimated using an average long-term zinc price of US\$1.12 per pound, a long-term lead price of US\$0.86 per pound, a long-term copper price of US\$2.99 per pound, a long-term silver price of \$18.58 per ounce, and a long-term gold price of US\$1,187 per ounce and a R\$/US\$ exchange rate of \$3.38.
4. A minimum mining width of 4.0 m was used.
5. Bulk density is 2.70 t/m³.
6. Numbers may not add due to rounding.
7. RPA is not aware of any mining, metallurgical, infrastructure, permitting, or other relevant factors that could materially affect the Mineral Reserve estimate.

Mineral Resource Estimate, July 31, 2018

Aripuanã Zinc Project

	Grade						Contained Metal				
	Tonnes (Mt)	Zn (%)	Pb (%)	Cu (%)	Au (g/t)	Ag (g/t)	Zn (Mlb)	Pb (Mlb)	Cu (Mlb)	Au (koz)	Ag (Moz)
Stratabound											
Measured	1.1	3.8	1.3	0.2	0.1	30.9	95.7	31.8	3.9	5.2	1.1
Indicated	2.5	3.2	1.0	0.1	0.1	22.1	179.1	55.6	4.1	11.4	1.8
Measured and Indicated	3.7	3.4	1.1	0.1	0.1	24.8	274.8	87.5	8.0	16.6	2.9
Inferred	14.1	6.2	2.4	0.2	0.4	53.8	1,917	735.0	51.7	158.3	24.4
Stringer											
Measured	0.7	0.2	0.1	1.1	1.2	12.9	3.0	1.5	16.4	25.1	0.3
Indicated	1.4	0.2	0.1	0.7	1.1	8.9	4.4	1.7	21.9	49.0	0.4
Measured and Indicated	2.0	0.2	0.1	0.9	1.1	10.3	7.5	3.3	38.4	74.1	0.7
Inferred	9.0	0.1	0.0	1.0	1.9	10.6	12.2	8.7	194.8	534.5	3.1
Total											
Measured	1.8	2.5	0.8	0.5	0.52	24.30	98.7	33.4	20.4	30.3	1.4
Indicated	3.9	2.1	0.7	0.3	0.48	17.50	183.6	57.4	26.0	60.4	2.2
Measured and Indicated	5.7	2.3	0.7	0.4	0.49	19.70	282.3	90.8	46.3	90.7	3.6
Inferred	23.1	3.8	1.5	0.5	0.93	37.00	1,929	743.7	246.4	692.8	27.5

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are reported using a US\$38/t Net Smelter Return (NSR) block cut-off value.
3. The NSR is calculated based on metal prices of US\$1.29 per lb Zn, US\$0.99 per lb Pb, US\$3.43 per lb Cu, US\$1,368 per troy ounce Au, and US\$21.37 per troy ounce Ag.
4. Mineral Resources are reported exclusive of Mineral Reserves.
5. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
6. Numbers may not add due to rounding.
7. RPA 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.

Please find below a table summarizing key figures over production, cost, capital expenditures and returns.

Aripuanã Feasibility Study Summary¹Aripuanã project
(on 100% basis)

unit

5 Years
Average²

LOM
Average³

Plant Throughput	'000 tonnes	2,054	1,993	25,909
------------------	-------------	-------	-------	--------

Head grade ⁵				
Zn Grade	%	4.1%	3.8%	3.8%
Pb Grade	%	1.5%	1.4%	1.4%
Cu Grade	%	0.3%	0.3%	0.3%
Ag Grade	oz/t	1.22	1.11	1.11
Au Grade	oz/t	0.01	0.01	0.01
Contained Metal				
Zn	'000 tonnes	85	75	973
Pb	'000 tonnes	30	27	355
Cu	'000 tonnes	6	5	65
Ag	koz	2,500	2,218	28,836
Au	koz	20	19	250
Net Recovery ⁵				
Zn Recovery	%	89.3%	89.1%	89.1%
Pb Recovery	%	84.4%	84.2%	84.2%
Cu Recovery	%	71.0%	74.7%	74.7%
Ag Recovery	%	84.6%	84.2%	84.2%
Au Recovery	%	69.0%	67.6%	67.6%
Contained metal in Plant Feed				
Contained Zn	'000 tonnes	76	67	867
Contained Pb	'000 tonnes	25	23	299
Contained Cu	'000 tonnes	5	4	49
Contained Ag	koz	2,214	1,867	24,275
Contained Au	koz	14.0	13.0	169.0
Zn equivalent ⁶	kt /year	135	120	1,558
Total Operating Cost ⁷	US\$/t milled	35.35	34.75	34.18
C1 Cash cost ⁸	US\$/lb	0.09	0.15	0.15
Capital Expenditures				
Initial capital	US\$ '000	-	-	392,089
Mine development ⁹	US\$ '000	9,213	4,670	60,715
Sustaining	US\$ '000	15,151	10,619	138,420
Economics - Project basis (100%)				
After-tax IRR	%	-	-	15.8%
After-Tax NPV at 7% discounting	US\$ '000	-	-	185,023
After-Tax NPV at 9% discounting	US\$ '000	-	-	129,087
After-tax NPV at 11% discounting	US\$ '000	-	-	82,625
Payback (after start-up)	years	-	-	4.6

Notes:

1. Full Cash Flow available with the Technical Report filed in conjunction with this press release
2. Average calculated over years 2021 to 2025
3. Life-of-mine (LOM) average calculated over years 2021 to 2033
4. Life-of-mine (LOM) total calculated over years 2019 to 2033
5. Grade and recovery are calculated as weighted average
6. The prices used in the Technical Report and for the zinc equivalent conversion are: Zinc: US\$2,232/ton; Copper: US\$6,594/ton; Lead: US\$1,927/ton; Silver: US\$18/oz.; Gold: US\$1,216/oz.
7. Total operating costs include mining costs, processing costs and on-site G&A
8. C1 Cash cost are reported on US\$/lb of paid zinc, net of by-product credits (Pb, Cu, Ag, Au)
9. Capitalized mining development costs

Technical Information

The scientific and technical information contained in this news release has been reviewed, verified and approved by RPA, based on the requirements of NI 43-101. The Technical Report entitled "Technical Report on the Feasibility Study on the Aripuanã Project, State of Mato Grosso, Brazil" dated October 15, 2018, with an effective date of July 31, 2018, was prepared by Jason Cox, P.Eng., Sean Horan, P. Geo., Scott Ladd, P.Eng., Avakash Patel, P.Eng. and Stephan Theben, Dipl.-Ing. of RPA Inc., each of whom are "qualified persons" as defined NI 43-101 and has been filed with Canadian securities

regulators and is available under the Company's SEDAR profile at www.sedar.com. Such report includes relevant information regarding, among others, the effective dates and the assumptions and parameters relating to mineral reserves and resources cited in this news release, as well as information regarding data verification, exploration procedures and other matters relevant to the scientific and technical disclosure contained in this news release.

About Nexa

Nexa is a large-scale, low-cost integrated zinc producer with over 60 years of experience developing and operating mining and smelting assets in Latin America. The Company currently owns and operates five long-life underground mines, three located in the Central Andes of Peru and two located in the state of Minas Gerais in Brazil. Two of the Company's mines, Cerro Lindo in Peru and Vazante in Brazil, are among the 10 largest zinc mines in the world and combined with the Company's other mining operations, place the Company among the top five producers of mined zinc globally in 2017, according to Wood Mackenzie.

CAUTIONARY STATEMENT ON FORWARD-LOOKING STATEMENTS

This news release contains certain forward-looking information and forward-looking statements as defined in applicable securities laws (collectively referred to in this News Release as "forward-looking statements"). All statements other than statements of historical fact are forward-looking statements. Forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Nexa Resources to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. These forward-looking statements include (but are not limited to) estimates, forecasts, and statements as to management's expectations with respect to the business and operations of the Company and mining production and its projects.

Forward-looking statements are necessarily based upon a number of factors and assumptions that, while considered reasonable by management, are inherently subject to significant business, economic and competitive uncertainties and contingencies. Statements concerning future production costs or volumes are based on numerous assumptions of management regarding operating matters and on assumptions that demand for products develops as anticipated, that customers and other counterparties perform their contractual obligations, that operating and capital plans will not be disrupted by issues such as mechanical failure, unavailability of parts and supplies, labor disturbances, interruption in transportation or utilities, adverse weather conditions, and that there are no material unanticipated variations in the cost of energy or supplies.

We assume no obligation to update forward-looking statements except as required under securities laws. Further information concerning risks and uncertainties associated with these forward-looking statements and our business can be found in our public disclosures filed under our profile on SEDAR (www.sedar.com) and on EDGAR (www.sec.gov).

View source version on businesswire.com: <https://www.businesswire.com/news/home/20181019005615/en/>

Contact

[Nexa Resources S.A.](#)

Leandro Cappa

Head of IR | ir@nexaresources.com

Dieser Artikel stammt von [Rohstoff-Welt.de](#)

Die URL für diesen Artikel lautet:

<https://www.rohstoff-welt.de/news/311185--Nexa-Resources-Announces-Approval-of-the-Construction-of-the-Aripuan-Project-and-Filing-of-Related-Technical->

Für den Inhalt des Beitrages ist allein der Autor verantwortlich bzw. die aufgeführte Quelle. Bild- oder Filmrechte liegen beim Autor/Quelle bzw. bei der vom ihm benannten Quelle. Bei Übersetzungen können Fehler nicht ausgeschlossen werden. Der vertretene Standpunkt eines Autors spiegelt generell nicht die Meinung des Webseiten-Betreibers wieder. Mittels der Veröffentlichung will dieser lediglich ein pluralistisches Meinungsbild darstellen. Direkte oder indirekte Aussagen in einem Beitrag stellen keinerlei Aufforderung zum Kauf-/Verkauf von Wertpapieren dar. Wir wehren uns gegen jede Form von Hass, Diskriminierung und Verletzung der Menschenwürde. Beachten Sie bitte auch unsere [AGB/Disclaimer!](#)

Die Reproduktion, Modifikation oder Verwendung der Inhalte ganz oder teilweise ohne schriftliche Genehmigung ist untersagt!
Alle Angaben ohne Gewähr! Copyright © by Rohstoff-Welt.de -1999-2026. Es gelten unsere [AGB](#) und [Datenschutzrichtlinien](#).