



Avanco Resources (ASX: AVB)

26 May 2017

Suite 3, 257 York Street
Subiaco, WA 6008
Australia.

PO Box 1726
West Perth, WA 6872,
Australia

Tel: +61 8 9324 1865
Fax: +61 8 9200 1850

Contacts:

Nicholas Bias
Head of Corporate Affairs
nbias@avancoresources.com
Tel: +61 (0)497 888 227
+44 (0)7771 450 679

For the latest news:

www.avancoresources.com

Directors:

Colin Jones
Tony Polglase
Simon Mottram
Luis Azevedo
Vern Tidy
Luiz Ferraz
Paul Chapman

Management:

Wayne Phillips
Scott Funston
Nicholas Bias
Otávio Monteiro

POSITIVE PRE-FEASIBILITY STUDY FOR PEDRA BRANCA – DEFINITIVE FEASIBILITY STUDY COMMENCED

Avanco is pleased to announce conclusive and positive results from the Pedra Branca East Pre-Feasibility Study, facilitating the immediate start of a Definitive Feasibility Study to advance the Project.

Pedra Branca East will add 24,000 tonnes of annual copper production, with the option for a further 10,000 tonnes from Pedra Branca West. With 14,000 tonnes of annual production already being forecast from the operating Antas Mine, this will help Avanco realise its ambition of becoming the next mid-tier copper producer.

HIGHLIGHTS

- **Pre-Feasibility Study (PFS)¹ demonstrates the viability of a large-scale standalone underground mining operation at Pedra Branca East (PBE)².**
- **Financial modelling³ of the PFS findings provide sufficient confidence for Company to commence infill drilling for reserve definition, as part of the Definitive Feasibility Study (DFS)**
- **PFS main conclusions:**
 - **1.2Mtpa production for 24,000t Cu and 16,000oz Au per annum^{4,5}**
 - **NPV⁷ estimated at \$200 million with a 34% IRR^{6,7,8}**
 - **Estimated \$368 million LOM⁹ net cash flow**
 - **Pre-production CapEx \$158 million¹⁰**
 - **Estimated C1 costs, approximately \$1.30/lb¹⁰ assuming a conservative copper prices of \$2.65 to \$2.95/lb and BRL:USD rate of 3.20.**
- **Surface infrastructure is mostly in place, including Access roads, by-pass road around Vila Feitosa, Office complex, facilities and communications, and ROM pad**

Commenting on the study, Tony Polglase, Managing Director of Avanco said: *“Pedra Branca is the company’s second and larger project. The Pedra Branca East Pre-Feasibility Study has returned positive results, providing the confidence to advance immediately to a definitive feasibility study. Our vision is clear, to be the next-mid-tier copper company, and the development of Pedra Branca will get us there. I am encouraged by the results and look forward to advancing the project.”*

PEDRA BRANCA – PRE-FEASIBILITY STUDY

Pedra Branca is Avanco’s second and much larger project, located ~50km (straight line) southwest of the producing Antas Mine. Pedra Branca comprises two adjacent high grade, steeply dipping copper-gold deposits, East and West (PBE and PBW). PBE is the subject of the current study and the results are considered very positive.

Key outputs from financial modelling of the full-scale development at PBE are:

- 1.2Mtpa production for 24,000t Cu (19,200t Cu to 28,800t Cu) and 16,000oz Au (12,800oz Au to 19,200oz Au) per annum^{4,5}
- NPV₇ ~US\$200M (~US\$160M to ~US\$240M) and IRR 34%^{6,7,8} (28% to 41%)
- ~US\$368 million LOM⁹ net cash flow (~US\$309M to ~US\$463M)
- Pre-production CAPEX US\$158M¹⁰
- C1 cost ~US\$1.30/lb¹⁰

The PBE Pre-Feasibility Study was completed to an overall ±20% level of accuracy.

ASX Chapter 5 Compliance and Cautionary Statement

The information and production target presented herein is based on a Pre-Feasibility Study where Reserves have not been declared, thus there is no assurance of economic development and for the findings of this study to be realised.

The production target referred to is based on Mineral Resources which are classified 19% Measured, 55% Indicated, and 26% Inferred. There is a low level of geological confidence associated with Inferred Resources, and there is no certainty that further exploration work will result in the determination of Indicated Resources, or that the production target itself will be realised.

All JORC modifying factors have been sufficiently considered, including: mining studies, underground designs, processing studies, laboratory scale metallurgical testwork, conceptual engineering and infrastructure assessments. Capital and operating costs, where applicable, are based on actual costs from the Company’s nearby Antas Mine. Third party accredited consultants have been used to complete or have contributed to the majority of technical aspects of the study and independent peer reviews, with the remainder of the work completed by Company technical staff. These studies support the assumptions that have been made in the Pre-Feasibility Study.

The Company has concluded it has a reasonable basis for providing the forward-looking statements included in this ASX Release. The Company also believes it has a reasonable basis to expect to be able to fund a Definitive Feasibility and any early decline development from existing cash reserves. Subject to additional financing it is also reasonable to expect that the full scale Pedra Branca East Project will be developed in the future. Please refer to Annexures A to E for further information.

All material assumptions on which the forecast financial information is based are set out in this announcement.

PEDRA BRANCA EAST – PRE-FEASIBILITY STUDY

In 2016 the Company announced the results of the PBE Scoping Study¹¹. This exercise studied development of a 1.2Mtpa standalone operation in the East producing 24,000tpa of copper in concentrates. The Study included the option of an initial small scale “Development Stage” scenario wherein the Hanging Wall High Grade Zone¹² would be exploited and trucked to Antas

In late 2016 the early development stage option became redundant since capacity at Antas to treat other ores no longer exists following the upgrade in production guidance at the Antas mine. Consequently, management removed the early development option from the Pre-feasibility Study. The final PFS therefore focused on achieving full-scale production from a standalone mine at Pedra Branca East as soon as practicable.

STUDY	NPV ₇	IRR	CapEx	Accuracy
Prefeasibility Study 2017	\$200 Million	34%	\$158 Million	± 20%
Scoping Study 2016	\$213 Million	44%	\$150 Million	± 35%
Prefeasibility Study using Scoping Study economic metrics (2016 metal pricing and FOREX rate)	\$224 Million	38%	\$151 Million	± 20%

Financial modelling in the more detailed PFS demonstrates an NPV within approximately 6% of the NPV previously published in the Scoping Study. The lower IRR is attributed to the absence of development stage cash flows.

Upsides and savings realised in the PFS have largely offset the impact of a softening long term copper price and strengthening Brazilian Real since publication of the Scoping Study. The current PFS study uses April 2017 pricing and related modelling indices.

Analysis illustrates that if the Scoping Study indices are applied to the PFS, an increment of approximately 10% is achieved on the NPV, serving to demonstrate that the project has improved even without the benefit of the early cashflows.

PBE is most sensitive to copper price, with a 10% increase improving NPV by approximately 40%. In terms of costs, a 10% reduction in operational costs improves NPV by 16% whereas a 10% reduction in capital costs improves NPV by 11%.

In terms of opportunities identified by the PFS to extend/expand and/or improve flexibility at the PBE project, these included:

- Extending the Mineral Resources available at PBE, including conversion of Inferred Resources to higher classifications
- Open pit and/or underground potential at the PBW deposit, which is at an earlier stage of development
- Exploration potential in the surrounding tenements
- Improvement in commodity prices, depreciation of the Brazilian Real and/or realisation of available tax relief

The successful completion of the PFS at PBE and the commencement of a Definitive Feasibility Study and associated infill reserve drilling are important strategic milestones for the future growth of the Company as it aspires to be the next mid-tier copper producer.

A summary of the Pre-Feasibility Study is included with this announcement and can be viewed on the Company's website.

The Company has already commenced the Definitive Feasibility Study. It is envisaged that this will be completed, and announced to shareholders within 12 months, i.e. before the end of May 2018.

TONY POLGLASE
MANAGING DIRECTOR

For further information please visit www.avancoresources.com or contact:

NICK BIAS
Head of Corporate Affairs
nbias@avancoresources.com
+61 417 888 227 / +44 (0)7771 450 679

CARAJAS COPPER – Mineral Resources ^{13,14,15,16,17}							
DEPOSIT	Category	Million Tonnes	Cu (%)	Au (ppm)	Copper Metal (T)	Gold Metal (Oz)	
PB East ¹⁸	Measured	1.98	2.7	0.7	53,000	43,000	
	Indicated	5.72	2.8	0.7	161,000	123,000	
	Inferred	2.78	2.7	0.6	75,000	55,000	
	Total	10.48	2.8	0.7	289,000	221,000	
PB West ¹⁸	Indicated	4.46	2.04	0.61	91,000	87,000	
	Inferred	2.74	1.72	0.56	47,000	49,000	
	Total	7.19	1.92	0.59	138,000	136,000	
PEDRA BRANCA	Total	17.67	2.44	0.65	427,000	357,000	
ANTAS NORTH ¹⁸	Measured	1.96	3.42	0.76	67,000	48,000	
	Indicated	1.61	2.23	0.42	36,000	22,000	
	Inferred	1.89	1.59	0.23	30,000	14,000	
	Total	5.46	2.43	0.48	133,000	84,000	
ANTAS SOUTH ¹⁹	Measured	0.59	1.34	0.18	8,000	3,000	
	Indicated	7.50	0.7	0.2	53,000	49,000	
	Inferred	1.99	1.18	0.2	24,000	13,000	
	Total	10.08	0.83	0.2	85,000	65,000	
TOTAL		33.21	1.95	0.49	645,000	506,000	
ANTAS COPPER MINE – Ore Reserves ^{20,21}							
LOCATION	JORC Category	Economic Cut-Off Cu%	Million Tonnes	Copper (%)	Gold (g/t)	Copper Metal (T)	Gold Metal (Oz)
ANTAS MINE	Proved	0.65	1.23	3.34	0.73	41,100	28,900
	Probable	0.65	1.69	2.16	0.47	36,500	25,500
MINE STOCKPILES	Proved	0.65	0.12	2.26	0.53	2,800	2,100
TOTAL PROVEN + PROBABLE			3.04	2.64	0.58	80,400	56,500
CENTROGOLD – Mineral Resources ²²							
DEPOSIT	Category	Million Tonnes	Au (g/t)		Gold Metal (Oz)		
CONTACT ZONE ²³	Indicated	2.1	2.5		168,000		
	Inferred	5.9	2.2		424,000		
Total		8.1	2.3		592,000		
BLANKET ZONE ²³	Indicated	10.8	1.7		597,000		
	Inferred	1.4	2.2		97,000		
Total		12.2	1.8		694,000		
TOTAL		20.2	2.0		1,286,000		

Footnotes:

1. See Pre- Feasibility Study summary of economic results and material assumptions below. The Pre-Feasibility Study is based on a mid-level techno-financial assessment, and is not sufficient to for the estimation of an Ore Reserve Estimate, assurance of full economic development, or that the findings of this study will be realised
2. Iron Oxide Copper Gold (IOCG) deposit. Typical of that found in the Carajas Province of Brazil, and well documented in respected geological texts
3. EBITA model (Earnings Before Interest, Taxes and Amortisation)
4. The production targets referred to, are based on Mineral Resources which are classified 19% Measured, 55% Indicated, and 26% Inferred
5. There is a low level of geological confidence associated with Inferred Resources, and there is no certainty that further exploration work will result in the determination of Indicated Resources, or that the production target itself will be realised
6. Based on Pre-Feasibility Study findings for the development of the full PBE mining operation, with standalone plant
7. Net Present Value (NPV)
8. Internal Rate of Return (IRR)
9. Life of Mine (LOM)
10. These values are subject to the variance normally associated with Pre-Feasibility Studies
11. Refer ASX Announcement “Pedra Branca East Scoping Study Clears Pathway to Decline Development”, 12 September 2016, for Competent Person’s Consent, material assumptions, and technical parameters underpinning the Pedra Branca East Scoping Study
12. The HW-HGZ is defined as a geologically distinct zone of higher grade mineralisation that sits on the hangingwall contact of PBE. It is the widest and most prominent high grade zone within PBE and persists throughout the entire deposit
13. Refer ASX Announcement “Pedra Branca Resource Upgrade, Advances Development Strategy”, 26 May 2016, for Competent Person’s Consent, material assumptions, and technical parameters underpinning the Pedra Branca East resource estimates
14. See ASX Announcement “Pedra Branca Resource Upgrade Delivers Substantial Increase in Both Contained Copper and Confidence”, 13 July 2015, for Competent Person’s Consent, material assumptions, and technical parameters underpinning the Pedra Branca West resource estimate
15. See ASX Announcement “Stage 1 set to excel on new high grade Copper Resource”, 7 May 2014, for Competent Person’s Consent, material assumptions, and technical parameters underpinning the Antas North resource estimate
16. See ASX announcement “Major Resource Upgrade for Rio Verde”, 8 February 2012, for Competent Person’s Consent, material assumptions, and technical parameters underpinning the Antas South resource estimate
17. The Antas South JORC compliant resource was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012, on the basis that the information has not materially changed since it was last reported
18. Grade Tonnage Reported above a Cut-off Grade of 0.9% Copper
19. Grade Tonnage Reported above a Cut-off Grade of 0.3% Cu for Oxide Resources
20. See ASX Announcement “Maiden Reserves Exceed Expectations for Antas Copper”, 17 September 2014, for Competent Person’s Consent, material assumptions, and technical parameters underpinning the Antas North JORC (2012) Reported Reserve estimate
21. Measured and Indicated Resources are inclusive of those Mineral Resources modified to produce the Ore Reserves
22. Grade Tonnage Reported above a Cut-off Grade of 1.0g/t Gold
23. Refer ASX Announcement “CentroGold – Improved Mineral Resource Confidence Advances Scoping Study”, 26 April 2017, for Competent Person’s Consent, material assumptions, and technical parameters underpinning the CentroGold Mineral Resource estimates
24. National Department of Minerals and Petroleum

PEDRA BRANCA EAST PREFEASIBILITY STUDY

Contents

1	Introduction	8
2	Project Location, Access and Infrastructure	8
3	Mineral Rights, Licenses and Land	9
4	Prefeasibility Study Parameters and Material Assumptions	10
5	Study Team	11
6	Local Geology and Mineralisation.....	11
7	Mineral Resources.....	13
8	Mining.....	14
	Geotechnical and Hydrology.....	14
	Mining Method Selection.....	14
	Backfilling	15
	Safety	15
	Cut-Off Grades	16
	Mine Dilution	16
	Mine Recovery and Production Losses	16
	Access.....	17
	Box Cut and Portal	17
	Sub Levels.....	17
	Production.....	17
	Ore and Waste Handling	18
	Ventilation.....	18
9	Site Layout	18
10	Production Schedule	20
11	Metallurgy.....	20
12	Processing Plant	21
13	Personnel	22
14	Environmental, Safety, Community and Sustainability	22
15	Capital Cost Estimates	22
	Ongoing Mine Development	24
16	Operating Cost Estimates	24
17	Marketing and Price Forecasts.....	24
18	Cash Flow Modelling	25
19	Sensitivity Analysis	25
20	Financing Options.....	26
Annexure A:	Forward Looking Statement	28
Annexure B:	Reasonable Basis.....	28
Annexure C:	Competent Person’s Statements	29
Annexure D:	Project Risks	30
Annexure E:	Material Assumptions used in the Prefeasibility Study.....	31

1 Introduction

Avanco Resources Limited (“AVB”, “Avanco” or “the Company”) is developing the Pedra Branca copper-gold deposit in the Carajás region of the Pará State of Brazil.

In September 2016, Avanco released the results of a Scoping Study for the Pedra Branca Project. The positive results of this study have formed the basis for proceeding with the Prefeasibility Study.

AVB engaged a number of consultants and independent contractors, and also used its in-house expertise to prepare the various inputs required for this Prefeasibility Study. The results of these investigations have been compiled by CSA Global Ltd to form a Prefeasibility Study for a 1.2 Mtpa froth flotation concentrator of similar design to the currently operating Antas plant, associated infrastructure and underground mining of the Pedra Branca East deposit.

2 Project Location, Access and Infrastructure

Pedra Branca is part of the Canaã Block Exploration area, consisting of a single concession with an area of 3,195.07 hectares. The site is some 20 kilometres directly southwest of the town of Canaã dos Carajás, which is ~50 kilometres south of the city of Parauapebas by sealed road PA-160. Access is via the western sealed road recently build by Vale, which accesses the large S11D iron ore project. After reaching the village of Feitosa, 10 kilometres of public gravel road accesses the deposit area (Figure 1). During 2016, Avanco has constructed a bypass road to reduce heavy traffic through the village and a 120m concrete bridge over the Parauapebas River.

Parauapebas is a well-developed city that services the agricultural needs of the region and provides services to the significant mining presence in the region, in particular the large Vale SA iron ore and copper mines nearby. Processing fabrication and engineering facilities and regional offices of the large mining equipment suppliers support the numerous mining projects in the area. The Carajás airport at Parauapebas has direct flights from Belém and Belo Horizonte, as well as flights from Brasília (via Marabá).

The Pedra Branca deposit is on flat ground to the east of the Parauapebas River. The area is used exclusively for cattle grazing and has no environmental constraints. The site has good infrastructure, with available water and power nearby. It is close to Sossego, a world class copper gold mine operated by Vale SA and it is approximately 72 road km from Avanco’s now operational Antas Project.

The climate in the region is tropical and humid with two distinct seasons. The dry season extends from June to September and the rainy season from October to May. Annual rainfall is approximately 1,600mm and the average daily temperature is 25°C, but may be cooler during June and July

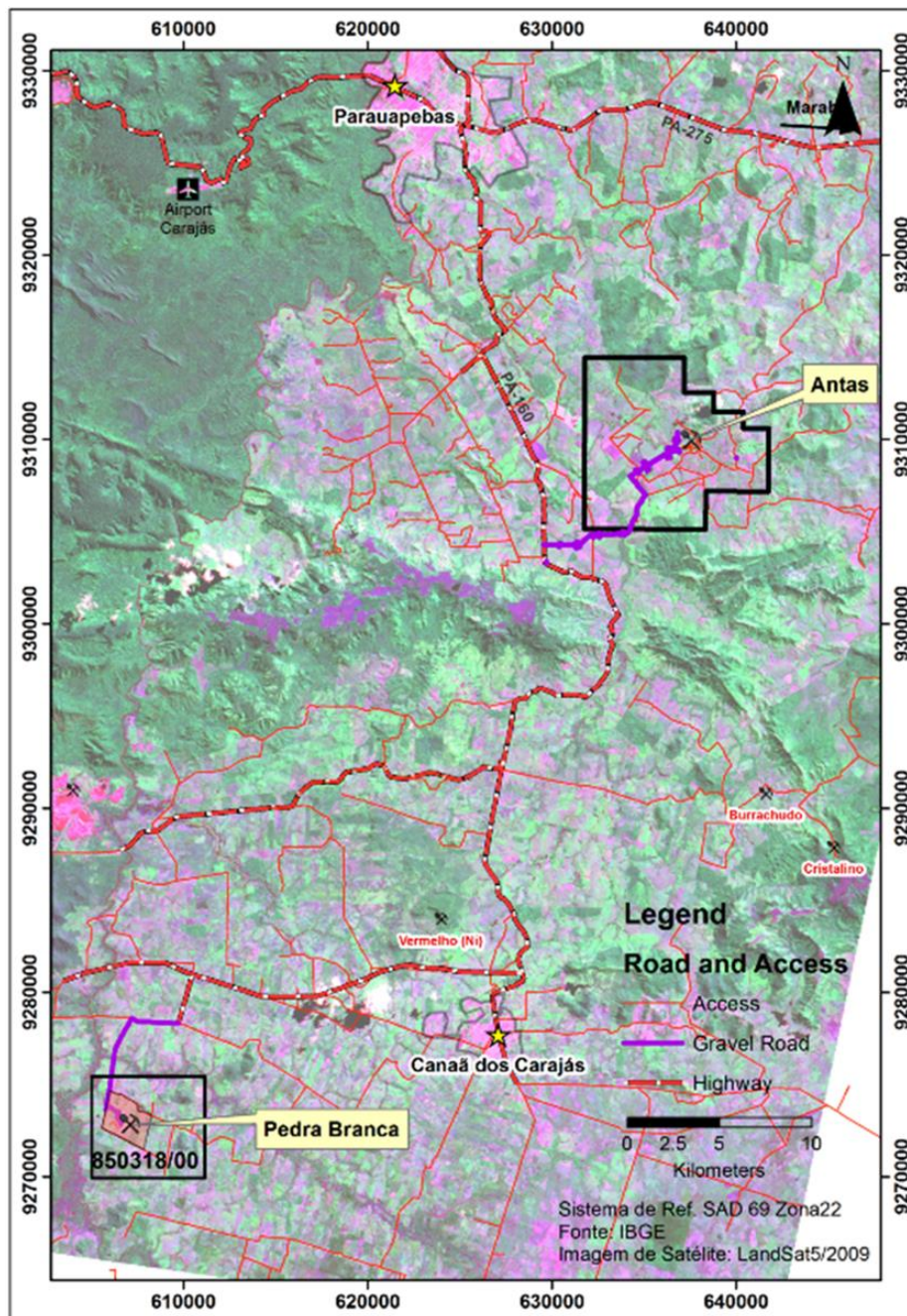


Figure 1. Regional Location and Access for Pedra Branca Project

3 Mineral Rights, Licenses and Land

The Pedra Branca Project lies within Exploration Licence DNPM No 850318/00, consisting of 3,195.07 hectares as shown in Figure 1. The Final Exploration Report and Preliminary Economic Assessment (PAE) has been approved by the DNPM²³, and the Company is now in the process of the application for both a trial mining license and a full mining license, which the Company believes will be granted in due course. The Prefeitura (Local Authority) has approved the construction of the box-cut and portal for the underground mining access decline and these works were completed in late 2016.

The Pedra Branca Project and all proposed infrastructure are located on a single freehold cattle farm, which has been purchased, and thus Avanco controls this land.

4 Prefeasibility Study Parameters and Material Assumptions

The PBE Prefeasibility Study has been completed to an overall $\pm 20\%$ level of accuracy using the parameters and assumptions set out in Table 1.

The mining and processing methods identified in the Scoping Study of underground sub-level open stoping with delayed fill and froth flotation were confirmed as the preferred options during the Prefeasibility Study. The production rate of 1.2 Mtpa was determined as the maximum sensible production level based on maintaining a minimum of two mining areas.

Production scheduling has been based on the current Mineral Resource estimate, providing an operational mine life of approximately nine years. This has the potential to be increased as the Pedra Branca East deposit is still open both at depth and along strike. There are also a number of proximal deposits, the most significant of which is Pedra Branca West.

Table 1: Key Assumptions and Outcomes

Underground Mine Development	27 months
Plant and Infrastructure Construction and Commissioning	18 months
Ramp up of underground mining (post development period)	6 months
Mine life, including development and construction	11.5 years
LOM mill throughput (Mt) - includes low grade material	10.9Mt
Average LOM copper production (tpa post ramp-up)	24,000t
Average LOM gold production (ozpa post ramp-up)	16,000oz
Measured Resource used in study	19%
Indicated Resource used in study	55%
Inferred Resource used in study	26%
Annual throughput (Mtpa)	~1.2Mtpa
Average LOM mill copper feed grade (% copper)	2.06%
Average LOM mill gold feed grade (g/t gold)	0.49g/t
Flotation plant copper recovery	95%
Flotation plant gold recovery	86%
Copper price (US\$/lb)	Year 1: \$2.65 Year 2: \$2.74 Year 3: \$2.83 Year 4: \$2.87 Year 5 +: \$2.94
Gold Price (US\$/oz)	Year 1: \$1,252 Year 2: \$1,291 Year 3: \$1,300 Year 4: \$1,278 Year 5 +: \$1,270
Copper royalties	5%
Gold royalties	27%
Concentrate transport costs (US\$/t)	\$150
Treatment charge (US\$/t)	\$73.50
Refining charges— copper (US\$/lb)	\$0.074
Refining charge – gold (US\$/oz)	\$4
Exchange rate (USD:BRL)	3.20
Mining recovery	95%
Underground mining cost (US\$/t)	\$29.30
Processing cost (US\$/t)	\$15.25
General and admin (US\$/t)	\$3.20
Maximum Negative Cash Flow (US\$M)	\$158 Million ¹⁰
Projected C1 cost (US\$/lb)	~\$1.30 ¹⁰

5 Study Team

Third party accredited consultants have been used to complete or have contributed to the majority of technical aspects of the Study and for independent peer reviews, with the remainder of the work completed by Company technical staff. Table 2 summarises the principal study activities and the responsible entities.

Table 2. Principal Study Team and Activities

Study Discipline	Industry Expert
Project Manager	Avanco
Site Infrastructure/Basic engineering	Onix Engenharia e Consultoria Ltda.
Geology	Avanco
Resource Estimation	CSA Global Pty Ltd, Perth
Geotechnical Engineering	Dr Mauri Ferreira, Geotécnica e Mecânica de Rochas Ltda.
Mining Engineering	Diogo Caupers, Consulting Mining Engineer
Process Engineering	Avanco and Frank Rezende, of AU@BR
Metallurgical Testwork	Avanco and Frank Rezende of AU@BR
Environmental Assessment	Terra Meia Ambiente, Belém
Tailings Management Facility Design	Antonio Landi Borges, and ALB Engenharia
Brazilian Legal	FFA Legal, Rio de Janeiro
Independent/Peer Review	
Mining Engineering	Keith Marshall, of Marshall Mining Associates
Field data and QA/QC procedures	CSA Global Pty Ltd, Perth
Geotechnical and Hydrology	Allan Moss of Sonal Mining Technology

6 Local Geology and Mineralisation

Pedra Branca East (PBE) is an Iron Oxide Copper Gold (IOCG) type deposit located within the Carajás Basement, and is hosted predominantly by diorite and sheared granite. Country rocks are mostly biotite-gneisses (ortho-gneisses), while pegmatite dykes are abundant in proximity to the ore zones.

This deposit occurs along an E-W striking regional shear zone, which is represented by metres wide mylonitic zones marked by intense silicification. This shear zone is regionally crosscut by north-south, northeast and northwest striking faults.

Hydrothermal alteration shows a typical IOCG zonation.

- a. Regional (distal) sodic-calcic alteration: albite, scapolite, silica, chlorite.
- b. Proximal potassic alteration: K-feldspar, biotite.
- c. Iron and calcic alteration (ore related): magnetite, coarse amphibole (mostly actinolite), apatite. This is directly associated with the ore zone (sulphides).
- d. Sulphidation: including principally chalcopryrite in balance with variable quantities of pyrrhotite and more rarely pyrite.

Alteration phases “a” to “d” are sequential in time frame, i. e., regional sodic-calcic alteration comes first and sulphidation (mineralisation) is the last phase.

The structural evolution of the area includes three main phases of deformation:

- Phase 1 – Main East / West structure, with strong tectonic imbrication and related to shearing, generally sub-vertical to steep south dipping.
- Phase 2 – Northeast oriented brittle-ductile faulting with inferred strike-slip movement. A North West fault interpreted from the AB magnetic data, which separates PBE from PBW also belongs to this phase.
- Phase 3 – This is related to North - South fracturing and minor faulting, which were identified in the drill cores.

PBE consists of a single continuous orebody, which strikes east-west and has a >600m strike extension. It is a sub-vertical to steeply dipping (south) plunging shoot (Figure 2), with a thicker higher grade central core which follows the plunge. The orebody begins to shallow out in dip at depth, >400m below surface and beyond.

The ore zone itself is typified by zones of high grade breccia matrix ore (fragments of hydrothermal breccia cemented together by semi-massive sulphides), which are interspersed with zones of lower grade disseminated mineralisation. The most dominant of the high-grade zones is the Hanging Wall High Grade Zone (HW-HGZ), which sits on the hanging wall contact and is present across the entire depth and breadth of the PBE orebody. The hanging wall high grade zone has a sharp and easily identifiable “knife edge” contact, as can be seen in Figure 3.

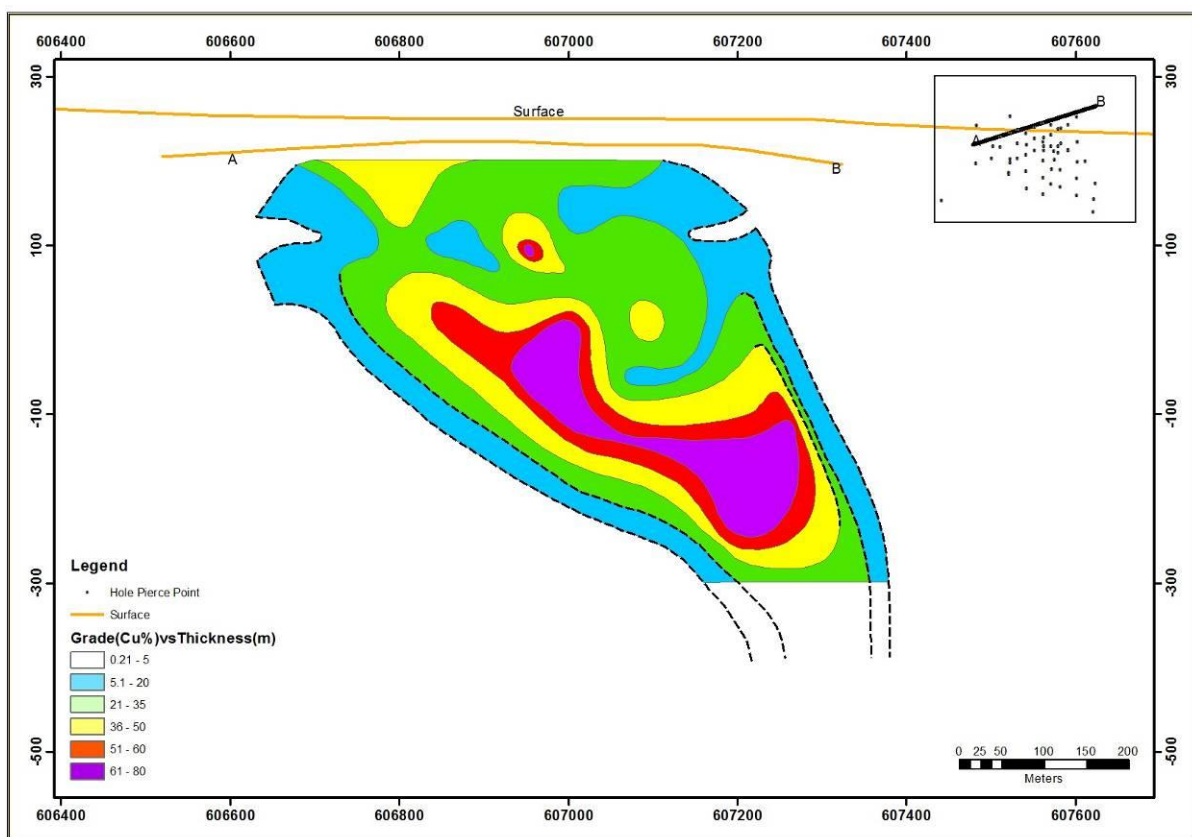


Figure 2. Longitudinal Section of Pedra Branca East deposit showing a central high grade zone and shallow plunge to the east

Two main ore types are identified:

- Semi-massive, high grade breccia matrix ore: consists of hydrothermal breccia zones with matrix filled by magnetite and chalcopyrite, plus subordinate pyrrhotite and less pyrite. The clasts are made of altered host rock and coarse amphibole. The typical range of assays for this ore type is between 4.0% copper to 10.0% copper.
- Disseminated ore: a low to medium grade ore which envelops the high-grade zone. It consists of the same sulphide assemblage, which is also associated with magnetite that occurs as fine disseminations in the host rock, sometimes following the foliation, and also filling veinlets and fractures. The typical assays range from below cut-off grade (0.9% copper) to 2.5% copper.

The contacts between the high-grade breccia matrix ore and adjacent low grade disseminated ore or barren wall rock are usually quite sharp (Figure 3).

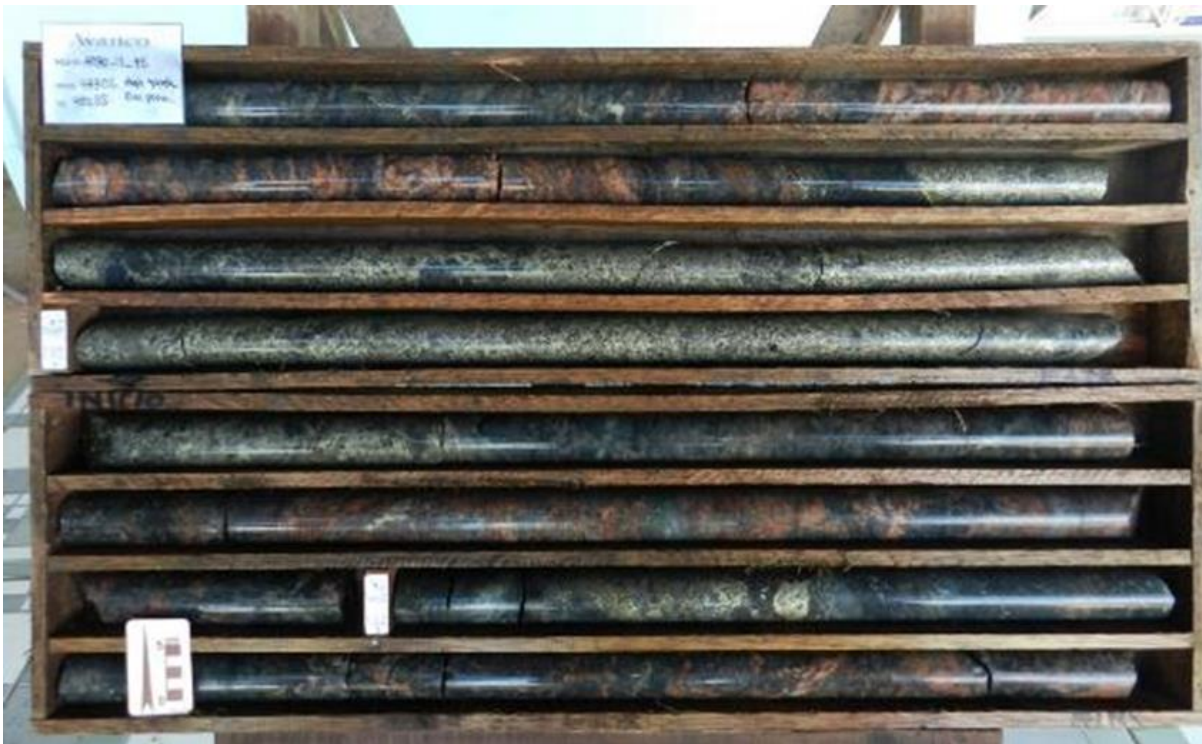


Figure 3. High grade breccia matrix - Hole APBD-12-15: 2.60m at 9.73% copper, 1.92 g/t gold from 474.5m. Notice the proximal potassic alteration (K-feldspar in red)

7 Mineral Resources

CSA Global was commissioned by Avanco to complete Mineral Resource estimates for Pedra Branca East (PBE) and Pedra Branca West (PBW) soon after the acquisition of the project in 2012.

In May 2016, CSA Global updated the Mineral Resource estimate for PBE (refer to ASX Announcement “Resource Upgrade Advances Pedra Branca Development Strategy”, 26 May 2016, for Competent Person’s Consent, material assumptions and technical parameters underpinning the PBE Mineral Resource estimate, including JORC Table 1, Sections 1, 2, and 3).

Three dimensional solids were created by joining sectional interpretations of the copper mineralisation, which were based on a nominal lower cut-off grade of 0.2% copper for the disseminated mineralisation and 1.0% copper for the high grade domain. These solids were used to constrain the Mineral Resource estimate. A block model was created using 10.0m east by 5.0m north by 10.0m RL parent blocks. Ordinary Kriging was

used to estimate grades into the blocks from composited sample data. A 1.0m composite data set was used for variography and grade estimation.

The PBE Mineral Resource is classified and reported in accordance with the JORC Code 2012. Mineral Resource classification is based on data quality, confidence in the geological interpretation, drill spacing and geostatistical measures.

The PBE Mineral Resource is summarised in Table 3.

Table 3. Mineral Resource Estimate for Pedra Branca East, May 2016

PEDRA BRANCA EAST – Mineral Resource as at May 2016							
Classification	Type	Economic Cut-Off Cu%	Tonnes (Mt)	Copper (Cu %)	Gold (Au g/t)	Copper Metal (kt)	Gold (koz)
Measured	PRIMARY	0.90	1.98	2.7	0.7	53	43
Indicated	PRIMARY	0.90	5.72	2.8	0.7	162	123
Measured + Indicated			7.70	2.8	0.7	215	166
Inferred	PRIMARY	0.90	2.78	2.7	0.6	75	55
TOTAL			10.48	2.8	0.7	289	221

Notes:

- 1 The Mineral Resource was estimated within constraining wireframe solids created using a 0.2% and 1.0% Cu cut-off grades for the low grade and high grade domains respectively
- 2 The Mineral Resource is globally reported above 0.9% Cu assuming underground mining methods.
- 3 Due to the effects of rounding, the sum of individual values will not necessarily equal the total

8 Mining

Geotechnical and Hydrology

Initial geotechnical and hydrological investigations have indicated that the majority of the mine openings will be in a hydro-stratigraphic unit with low conductivity and very little water storage capacity in an extremely competent geotechnical domain with high Rock Quality Designation factors. The mechanical strength of the rock mass will allow openings of significant dimensions. For the proposed stope heights of 30 m, a maximum stope length of 150 m is recommended. Further, specific geotechnical, investigations will form part detailed project design.

Mining Method Selection

Underground mining was selected after a pit optimisation study returned very low recovery of Mineral Resources at a high strip ratio.

Sublevel open stoping (SLOS) with delayed filling was selected as the most appropriate mining method for PBE, as the mineralisation is relatively wide and competent, is steep dipping with strong wall rocks and has favourable operating and preproduction capital costs. Sublevel intervals will be 30 m sill to sill. The variant of SLOS to be employed at Pedra Branca is termed “bench and fill”, this minimises waste development required and allows the use of ‘non- entry’ mining techniques using radio remote controlled loading from the open stope.

Each stope includes a drill level at the top and an extraction level at the bottom, developed in ore longitudinally along the hanging wall contact with the drive then enlarged to the footwall contact ahead of stoping. Geotechnical analysis indicates that ground support will vary with ground conditions, but the

majority of the stopes will require support by means of 2.4m bolts supplemented by the installation of cable bolts in wider areas.

Once stope development to limits is complete, a slot raise is mined between the two sub-levels and progressively blasted to full width. With wide orebody widths, the sharp hanging wall contact, good interpretation and with modern drilling equipment, dilution due to drilling accuracy will be minimal.

Blastholes will be loaded with emulsion and shot in one to three row blasts to monitor blasting practices and maximize effective work time.

Large capacity load-haul-dump (LHD) units remove broken muck from the extraction elevation and either transport to a “transfer stock point” on the level or dump directly into mine trucks. It is expected that contracted 40 tonne articulated trucks will be used during the development phase and larger capacity, more efficient machines will be used once the mine moves to a higher production rate. The LHDs will be operated by radio remote control allowing loading inside the open stope while the operator remains in a safe location.

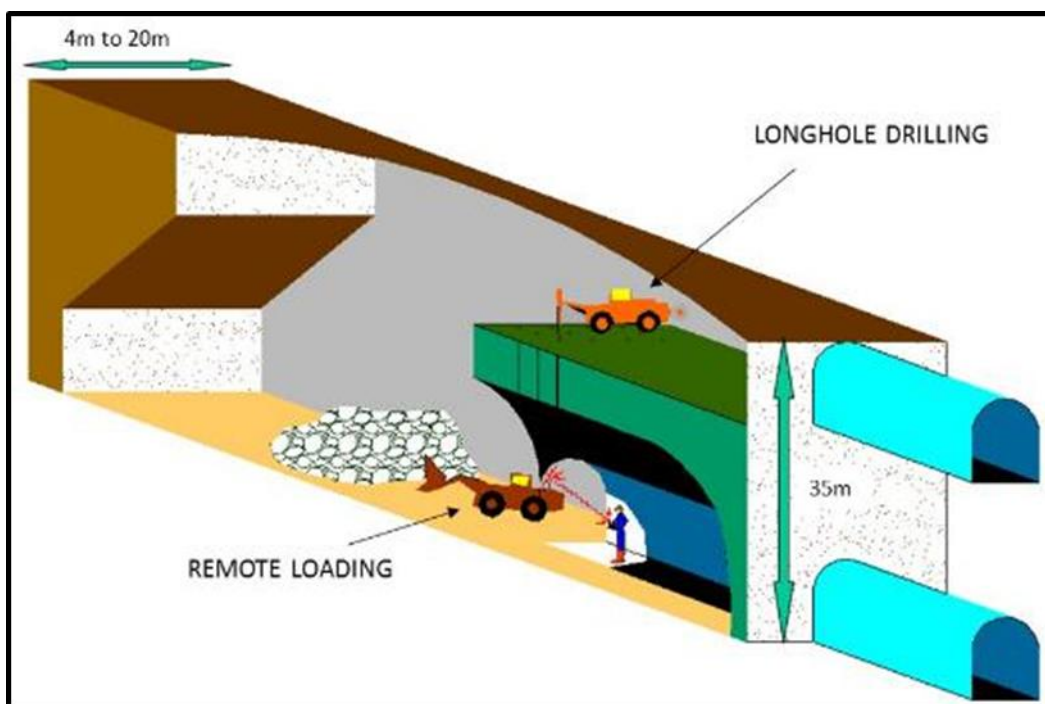


Figure 4. Longitudinal Bench and Fill Stoping

Backfilling

Backfill will be by means of cemented paste fill supplied through a series of boreholes and pipes connected to the backfill plant on surface. Stopes will be filled to within 5 metres of the back, with the remaining opening being used as the loading level for the stope above.

Whenever possible waste development rock will be disposed of directly in to empty stopes as part of the backfilling process; however, it will not always be possible or convenient to synchronize waste development and stope backfilling and in such cases waste will be hauled to surface and trucked later to stopes that are being filled.

Safety

The SLOS method of mining, employing remote loading, is a safe and well understood method that has been applied worldwide, including a number of mines within Brazil. It is classified as a “Non-Entry” method as, with radio controlled loading equipment, workers do not enter the working stope but remain under a supported secured roof at all times.

Cut-Off Grades

As the Pedra Branca deposit contains two valuable elements, being copper and gold, it is common to express the value of the minor element (Au) as an equivalent of the main element of interest (Cu). The factor used to convert Pedra Branca gold grades to a copper equivalent was derived employing the projected metallurgical recoveries, process charges, concentrate transport, treatment and refining charges and royalties, including the 25% BlackRock Royalty on gold. The gold contribution was then obtained from the Antas financial model, employing an average of the predicted copper and gold prices, and calculated as a percentage contribution of total income. This approach is valid as metallurgical test work has indicated that Pedra Branca material will have similar process characteristics to those of the Antas material

Two cut-off grade calculations have been used:

True Cut-Off

Here all costs, i.e. mining, transport, processing and overheads are computed and are divided by the calculated income per tonne of ore, i.e. total income at the twin metal price of interest, after all metallurgical recoveries, smelter terms and royalties have been applied.

Forced Development Cut-Off

Forced Development Cut-Off is applied where mining development must be carried out through material that is below the overall cut-off grade, but could have value. Here the mining cost is considered to be “sunk” and the cut-off grade is calculated as above, applying only the other costs to be incurred after mining.

In the above calculations, the actual Antas process costs, metallurgical recoveries and smelter terms were applied to a range of copper price scenarios, coming from the Avanco consensus pricing model, then an average taken, see Table 4.

Table 4. Cut-Off Grade Summary

Copper Price	US\$5,500/t
Gold Price	US\$1,162/oz
%Gold Value	12.5%
Combined Copper Gold price	US\$6,188/t
Net Value after NSR & Royalties	US\$4,448/t
True Cut-Off Grade	1.2%
Forced Development Cut-Off Grade	0.6%

Mine Dilution

Transforming the mineable resource estimate to a diluted mineable reserve requires incorporating planned, unplanned, and backfill dilution, in addition to applying production losses.

Planned dilution is integral to the stope design with the sub-grade material contained within stope included. It is measured as a component of the mineable resource estimate, rather than added to the mineable resource estimate and is included in the grade of the material in the block model by the mine planning software.

Unplanned dilution is defined as sub-grade material that originates outside the stope design boundaries and gets mined inadvertently. A “wall rock allowance” was included to cater for this dilution. Backfill dilution will also be inadvertently incurred while extracting ore on top of previously filled stopes and backfill dilution is assumed to contain no metal with remnant grades in tailings ignored.

Mine Recovery and Production Losses

Production losses account for ore grade material that will not be recovered during the mining process. Production loss grades are assumed to be the weighted average of the mineable resource, unplanned

dilution and backfill dilution grades. As the orebody is wide and the inclination is steep it is considered that these losses will be relatively low and the total material mass was reduced by 5% to cater for production losses.

Where sill pillars are required it is assumed that 70% of these will be recovered on retreat from the mining block.

The mining inventory estimated for PBE, including dilution and recovery factors is 10.9 Mtpa, containing 2.1% Cu and 0.5 g/t Au.

Access

Access to the Pedra Branca East mine will be by a decline from the surface with dimensions of 5.5 m x 5.5 m sufficient for the use of 50 t to 63 t trucks. It will be developed in the footwall granites. To enter competent granite quickly the decline gradient will initially be 15%, reducing to 12.5% once sufficient rock cover is achieved. The decline will be provided with 8m wide “passing bays” at suitable intervals and initially carry the mine services, although these will be re-routed through an intake ventilation raise at a later stage.

Development will be carried out by contractors using standard trackless underground equipment with a twin boom electro-hydraulic jumbo being employed for drilling. Removal of blasted material will be by means of a LHD machine loading to “re-muck” positions mined at suitable intervals. This will clean the face efficiently and ensure that reasonable development rates are achieved.

Ramp development ventilation will be by means of a surface mounted auxiliary axial fan forcing through ventilation ducting to the working face. Initially sub-level development will be ventilated by means of a combination of series ventilation and “Tees” from the main system until an upcast raisebore completes the first circuit.

Box Cut and Portal

The location of the box-cut and portal has been chosen based on ground conditions during the wet season, the thickness and profile of the saprolite and surface topography. The box-cut and portal have been completed in late 2016.

Sub Levels

Access cross cuts from the decline to the orebody will be driven at a 5.5m x 5.5m profile and are designed to provide a position for a mobile substation and a stocking position for development/stopping ore.

Sub-level development will then be undertaken on a 5m x 5m cross section in ore. Support of sub-levels will be by means of bolts, supplemented by cable bolts when the level is enlarged to full ore width ahead of stopping.

Production

The mine production stage requires footwall drifts to be mined in granite to provide sufficient stopping faces to achieve the required production rate. Typically, four cross cut accesses will be mined on each sub-level to provide a minimum of 4 faces retreating each way towards the access.

Stopes are sequenced so that one side can be stopped for filling, whilst the other side continues producing. Once the filling is complete to within 5m of the back, “re-slotting” will take place followed by enlargement and production. On completion of the stopping and filling of one side of the central access, production moves up, with the drilling drift of the previous level becoming the loading drift of the upper stope.

Ore and Waste Handling

The production loaders will load from the stope under remote control and transfer directly to a truck if available or will transfer back to a purpose mined stock bay, located close to the decline crosscut. Haulage to surface will be in high capacity trucks loaded directly from the stopes by the production LHDs or by means of a dedicated front end loader (FEL) when hauling from the stock points.

The underground mining method chosen for PBE produces limited quantities of waste during access development. During initial development, this waste will be stockpiled on surface until stoping commences, whereupon it will be trucked into the mine as backfill. Mine scheduling indicates that the waste stockpile will peak at approximately 270 kt at the end of Year 2.

The location of the proposed waste dump is shown on the site plan (Figure 5).

Once the process plant and paste fill plant have been commissioned, ongoing development waste will continue to be disposed of into stopes being backfilled.

Ventilation

The primary functions of the mine ventilation system are to distribute fresh air to all mine workings and dilute equipment exhaust, dust, blasting gases and other pollutants to acceptable levels and direct the contaminated air to surface. A negative pressure ventilation system will provide sufficient fresh air for these purposes with fans installed on each of the exhaust raises. Initially, the decline and two raises will intake with two exhaust raises upcasting. These will be supplemented by two more upcast raises as the mine develops. Total ventilation requirements are based on current Brazilian requirements and experience elsewhere.

9 Site Layout

Onix Engineering have prepared a site layout plan (Figure 5) for the proposed PBE mine complex, taking due consideration of potential future open pit mining of the Pedra Branca West (PBW) deposit. The process plant and paste fill plant are located on a plateau above the Tailings Management Facility (TMF) and close to ROM pad and portal, but not directly above workings that are close to surface. The TMF is located in a natural low lying valley to the north west of the process plant. The results of a geotechnical and hydrogeological study, including test work, carried out by Dr Mauri Ferreira of Geotechnia Mecanica de Rochas Ltda, was used in developing the proposed site layout. Detailed studies specifically focused on the surface facilities are currently being planned.

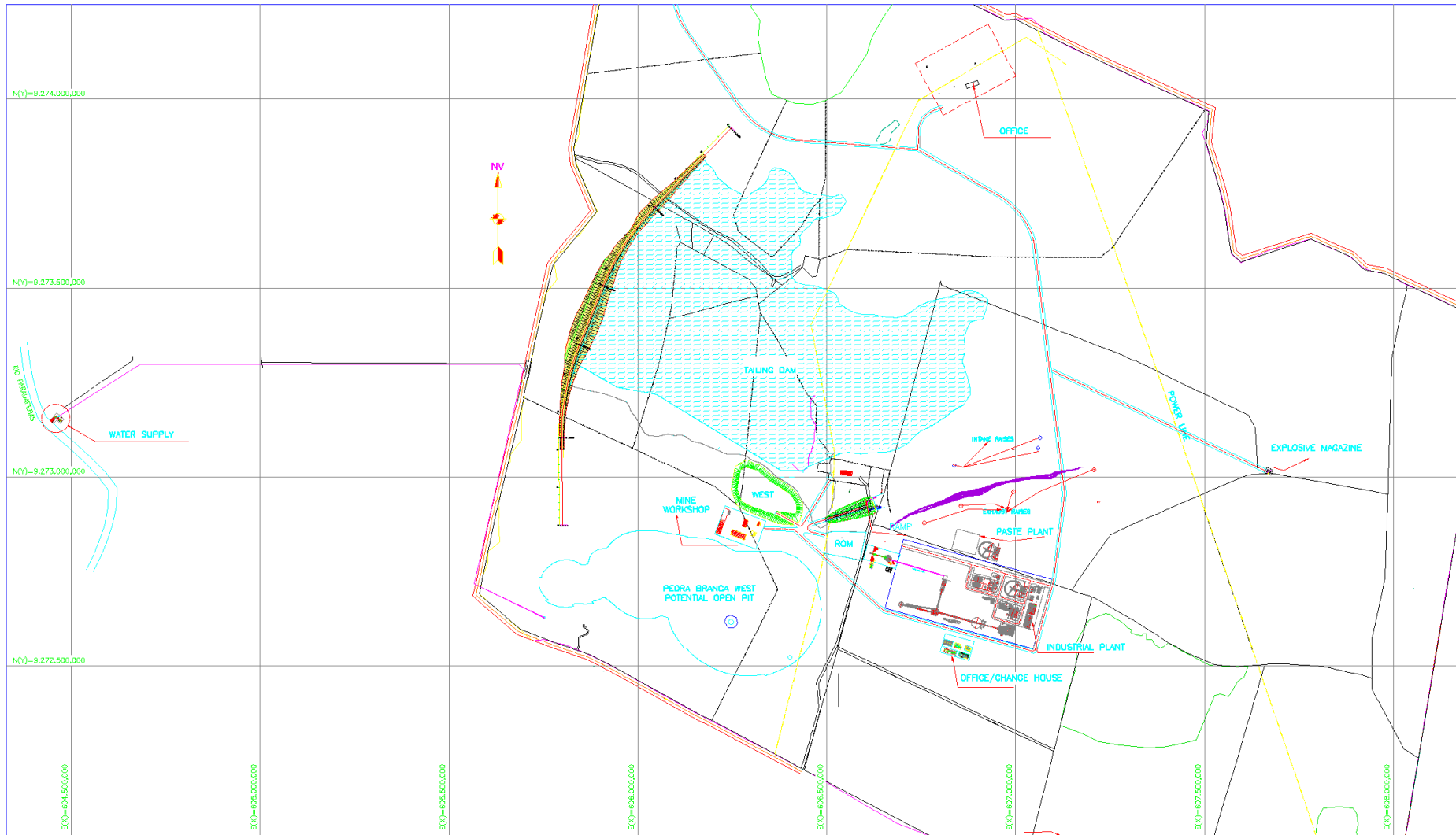


Figure 5. Proposed Site Layout

10 Production Schedule

Table 5 below, presents the proposed mine production schedule, showing the percentage of material used in the schedule which was derived from Inferred Resources. This schedule is based on site works commencing late in Year 1, with the first ore intersection occurring during sublevel development in Q2 of Year 3.

Table 5. Pedra Branca East Proposed Production Schedule

Year	Plant feed (kt)	% Cu	g/t Au	Plant Feed derived from Inferred Mineral Resources (%)	Waste (kt)
1	0				129.7
2	0				274.2
3	670.1	2.2	0.6	13	358.5
4	1,228.9	2.3	0.6	11	274.5
5	1,244.5	2.2	0.5	9	355.8
6	1,230.3	2.2	0.5	11	317.2
7	1,228.1	2.2	0.5	15	179.5
8	1,203.5	2.0	0.5	14	42.4
9	1,229.2	1.9	0.4	19	159.9
10	1,214.0	1.9	0.4	62	16.7
11	1,177.3	1.9	0.4	64	0
12	482.3	1.8	0.5	59	0
Total	10,908.3	2.1	0.5	26	2,108.4

This production schedule is based on Mineral Resources which are classified as 19% Measured, 55% Indicated and 26% Inferred. There is a low level of geological confidence associated with Inferred Resources, and there is no certainty that further exploration work will result in the determination of Indicated Resources, or that the production target itself will be realised.

A significant drilling programme is planned for the PBE deposit to be conducted during 2017. Should the drill programme fail to convert the Inferred Resources included in the production schedule to a higher classification, the effect would be to shorten the currently planned mine life by just over two years and reduce total revenue by approximately 25% and total operating costs by a similar amount.

11 Metallurgy

Metallurgical test work undertaken by SGS in Belo Horizonte to date shows that the ore types and their mineralogy lend themselves to simple froth flotation processing; work that is supported by experience with comparable ores specifically at Avanco's Antas Mine.

The economic mineral at Pedra Branca is chalcopyrite, similar to other nearby IOCG deposits nearby, such as Sossego and Antas North. Other sulphides present in the deposit include medium to low levels of iron sulphides (mainly pyrite, with minor pyrrhotite) in the massive sulphide ores. The use of selective collectors prevents the flotation of the iron sulphides, so they do not contaminate the copper concentrates.

The similar behaviour of gold and copper during the treatment process indicates that most of the gold is physically associated with the copper sulphides. Free gold particles will also be recovered to the copper

concentrate. As total gold recoveries achieved in the tests are lower than the respective copper recoveries, some gold is not physically associated with the copper sulphides.

The gangue minerals consist of silicate minerals from host rocks gneiss and diorite, being quartz, feldspar, mica, amphibole and chlorite; there are also some iron sulphides and fine magnetite. The gangue minerals do not interfere with the processing nor pose environmental problems associated with tailings storage.

The results of locked cycle flotation tests confirmed that at a concentrate grade of ~26% Cu, ~97% copper recovery was achieved. It is expected that there will be enough flexibility in plant operations to trade some recovery for grade following the grade vs recovery curve. Thus, it can be estimated that Pedra Branca materials similar to the sample tested when ground to 106 microns will produce concentrates grades of ~28% Cu with plant copper recoveries of ~95%.

12 Processing Plant

A 1.2 Mtpa process plant will be constructed at Pedra Branca (Figure 6) and will be similar to the Antas plant now in production. This plant will consist of three stage crushing, single stage ball milling, traditional copper rougher / cleaner / cleaner scavenger and recleaner flotation circuit, with early production of final concentrate on the first rougher cell. Concentrates from the other rougher cells will be reground before entering the cleaner circuits. Copper concentrates will be dewatered to approximately 8% moisture, using a high rate thickener and filter press.

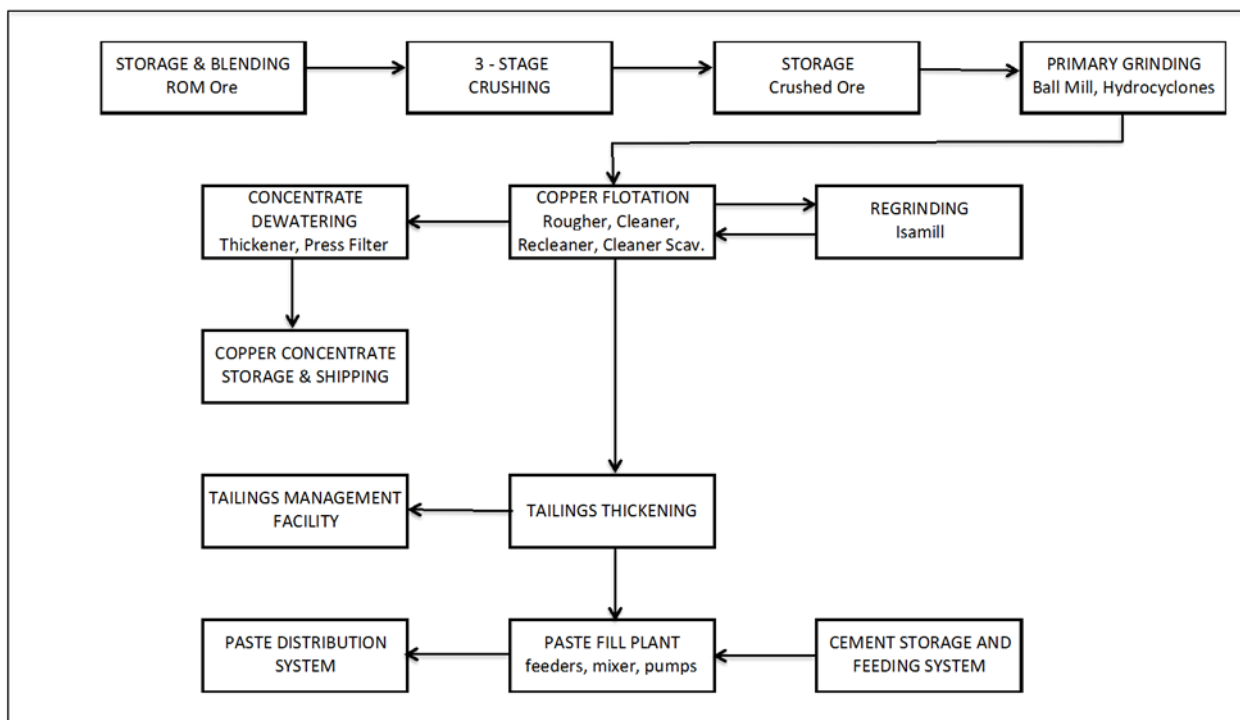


Figure 6: Pedra Branca Proposed Process Flow Sheet

Tailings will be thickened and pumped to either the paste fill plant or to a conventional TMF, with tails being beached along the upstream face of the impoundment wall. The TMF has been sized to cater for two consecutive high rainfall years. Water will be reclaimed for process use from the TMF using a floating pump pontoon.

The paste fill plant will further densify the tailings prior to mixing with cement and being pumped underground for stope filling. Over mine life it is expected that approximately 5.7 Mt of paste will be required, with approximately 4.4 Mt of tailings reporting to the TMF.

Annual production is expected to be about 24 kt Cu and 16 kOz Au contained in ~28% Cu concentrates.

The concentrate analysis has shown that any deleterious elements present are below levels which would attract penalties.

13 Personnel

It is planned that underground development will be undertaken by contractor, with Avanco teams for sub-level open stoping (SLOS). An experienced Brazilian mining contractor was contracted and completed the box cut and portal in late 2016. Stopping and later development will be carried out by Avanco, supervised by an experienced management and technical team.

The proposed personnel schedule is given in Table 6.

Table 6 Pedra Branca Personnel Requirements

	Management/ Technical	Operators/maintenance / assistants	Total
Mine, including contractor	18	266	284
Process Plant	13	111	124
General and Administration	11	12	23
Support	11	5	16
Total	53	394	447

Salaries and wages are based on the current scales at Antas, supplemented where necessary by additional underground payments. All on costs, including allowances for external specialists, office supplies, meals etc. have been included.

It is expected that the Avanco workforce will be sourced locally, supplemented by some experienced external operational and technical staff.

14 Environmental, Safety, Community and Sustainability

When granted, it is expected that the Licence to Operate (LO) will contain a strict set of environmental conditions and reporting, with a full environmental impact assessment likely to be required after a period of operation. Avanco will comply with all required environmental conditions and apply international best practice where Brazilian regulations provide insufficient guidance.

The Pedra Branca Project will use international standards of “Loss Control Management” for all activities related to health and safety and will comply with Brazilian regulations.

Pedra Branca will rely on the local communities to provide the majority of the workforce. Relevant training, using contractor and expatriate expertise where needed will be integral in the project development and operation. The provision of several hundred jobs will have a flow on effect on local communities with new business opportunities and indirect job creation.

The current planned mine life is based only on the Mineral Resources currently estimated for the PBE deposit. There are numerous potential sources of additional economic plant feed which could extend this mine life on tenements held by Avanco

15 Capital Cost Estimates

Capital expenditure estimates are summarised in Table 7. A contingency 20% has been included in the cash flow modelling. Accuracy is considered to be +/-20%.

Mine capital costs have been estimated by Avanco, with a subsequent “sanity check” undertaken using contractor schedule of rates for the mine development. Project implementation capital costs are estimated at US\$ 158M based on the maximum negative cashflow, while capital over the full life of mine is estimated at US\$ 273M, (including contingency).

Plant and Infrastructure capital costs have been based on initial design work and the known costs of the recently constructed Antas plant, suitably scaled for the higher throughput design and material costs currently being experienced for routine maintenance at Antas. A site layout plan and cost study prepared by Onix Engineering further supports the surface infrastructure cost estimates and CELPA, the local power supply utility, has provided a quotation for construction of the connection to the local grid. The capital for the paste fill plant has been based on a similar Brazilian built plant.

Plant, surface infrastructure and initial paste fill capital is estimated at US\$103M, which will be expended over years 2 and 3 of the project.

Table 7. Estimated Capital Expenditure

	Yr1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Total
Contingency	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	
Mine Capital													
Horizontal Development	8.8	14.7	15.4	11.8	14.0	12.6	8.1	1.2	4.7	0.5	0.0	0.0	91.9
Vertical Development	0.2	0.6	5.1	1.5	1.0	1.9	0.9	0.7	0.6	0.0	0.0	0.0	12.5
Mobile Equipment	0.0	5.7	20.5	0.0	1.8	1.4	1.3	1.8	0.5	0.0	0.0	0.0	32.9
Ventilation	0.1	0.3	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
Pumping	0.0	0.0	0.3	0.3	0.0	0.3	0.3	0.0	0.3	0.0	0.0	0.0	1.5
Water, Power, Workshop, Services	0.5	1.3	3.2	2.4	1.4	2.5	2.2	0.7	2.0	0.6	0.6	0.6	18.1
Training	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
Contractor Mob/ Demob	0.3	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.5
Total Mine Capex	10.0	22.6	47.4	15.7	18.2	18.4	12.8	4.3	7.8	1.1	0.6	0.6	159.6
Paste Plant													
Paste Fill Plant	0.0	1.4	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7
Paste Fill Distribution	0.1	0.4	0.6	0.4	0.6	0.5	0.2	0.1	0.3	0.0	0.0	0.0	3.3
Total Paste Fill	0.1	1.8	7.8	0.4	0.6	0.5	0.2	0.1	0.3	0.0	0.0	0.0	12.0
Process Plant													
Mechanical Equipment	0	7.2	7.2	0	0	0	0	0	0	0	0	0	14.3
Structural Steel / Plate Work	0	1.1	1.1	0	0	0	0	0	0	0	0	0	2.2
Piping, Electrical, Instrumentation	0	5.7	5.7	0	0	0	0	0	0	0	0	0	11.3
Civil Construction	0	5.2	5.2	0	0	0	0	0	0	0	0	0	10.4
ME Erection	0	6.2	6.2	0	0	0	0	0	0	0	0	0	12.4
Plant Construction Indirects	0	0.5	0.5	0	0	0	0	0	0	0	0	0	1.1
Plant Construction	0	1.1	1.1	0	0	0	0	0	0	0	0	0	2.1
Metso Filter Plant Turn-Key	0	2.4	2.4	0	0	0	0	0	0	0	0	0	4.9
Owners, Engineering and Commissioning	0	5.3	5.3	0	0	0	0	0	0	0	0	0	10.7
Early Works Eng. & Mgmt.	0	1.6	1.6	0	0	0	0	0	0	0	0	0	3.2
Detail Eng. Design and Costing	0.6	0.0	0.0	0	0	0	0	0	0	0	0	0	0.6
International Consultants	0	0.5	0.5	0	0	0	0	0	0	0	0	0	1.0
Plant Total	0.6	36.8	36.8	0	0	0	0	0	0	0	0	0	74.2
Tailings Management Facility		2.0	2.0										4.0
Infrastructure													
Clearing and Earthworks		1.3	1.3										2.6
Power Supply Line		2.7	2.7										5.4
Offices and facilities		0.9	0.9										1.7
Water supply, treatment & sewerage		0.6	0.6										1.3
Infrastructure Total		5.5	5.5										15.0
Mine Closure												12	12.0
TOTAL CAPEX	10.6	68.7	99.5	16.2	18.8	18.9	13.0	4.5	8.1	1.1	0.6	12.6	272.8

Ongoing Mine Development

The ongoing mine capital estimate consists of continuing mine development, equipment purchases and required infrastructure. The estimate was prepared by an independent consulting mining engineer employing the mine design, a schedule of rates prepared by the contractor, equipment costs from original equipment manufacturers and includes AVB costs incurred servicing and supervising the project.

In line with the “Underhand” mining approach, capitalised development will continue throughout a large proportion of mine life, as the mine is continually being deepened by means of decline development.

The accuracy of the Prefeasibility Study is considered to be +/-20%.

16 Operating Cost Estimates

Mine operating costs including development through mining blocks, SLOS and paste fill have been estimated to average US\$29.3/t, based on actual labour costs, local costs for supplies and consumables, lower quartile operational efficiencies and OEM estimates. Costs were then benchmarked against information from other Brazilian mines.

Plant operating costs have been based on actual Antas variable processing costs of US\$12.20/t and fixed costs of US\$3.66M/a. For the 1.2 Mtpa Pedra Branca operation, this equates to US\$15.25/t.

General and Administration operating costs have been estimated at US\$3.20/t, based on the actual 2016 Antas G&A costs, scaled down by approximately 10%, as Pedra Branca will share some administrative functions with Antas.

A contingency of 10% has been applied to operational cost estimates. Summary shown in Table 8.

Table 1: Summary of Operating Costs

	Cost Per Tonne (US\$)
Mining	\$29.30
Processing	\$15.25
G&A	\$3.20
Contingency	\$4.75
Total	\$52.50

17 Marketing and Price Forecasts

The selling costs or smelter treatment and refining terms and conditions used for this study are sourced from current offtake provisions already in place for the sale of Antas concentrates. It is expected that Pedra Branca concentrates will be of similar quality and attract similar sales contracts. It is not expected that Pedra Branca concentrates will be subject to any penalty conditions.

Price forecasts for copper and gold (Table 9) have been drawn from the consensus forecast of April 2017.

Table 9: Metal price forecasts

	Units	2018	2019	2020	2021	Long term
Copper	US\$/lb	2.65	2.74	2.83	2.87	2.94
Gold	US\$/oz	1,252	1,291	1300	1,278	1,270

18 Cash Flow Modelling

The results of simple cash flow modelling (Table 10) on an EBITA annual basis for the 1.2 Mtpa Pedra Branca East Project are summarised in **Error! Reference source not found.** Overall model accuracy is considered to be +/-20%. The project is most sensitive to changes in copper price, with a 10% increase in copper price improving the NPV by approximately 40%.

Table 10: Cash Flow Model Summary (US\$M)

	Yr1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Total
Revenue	-	-	77.8	148.8	147.0	141.8	140.8	129.7	124.1	121.7	120.2	46.2	1198.0
Operating Costs	-	-	36.8	63.2	58.9	57.9	58.8	58.6	58.2	59.0	53.9	24.0	529.2
Operational Margin	-	-	40.9	85.7	88.1	83.9	82.0	71.1	65.9	62.7	66.3	22.2	668.8
Total Capex	10.6	68.7	99.5	16.2	18.8	18.9	13.0	4.5	8.1	1.1	0.6	12.6	272.8
Glencore Payment				10.0	-	-	-	-	-	-	-	-	
Cash Flow	(10.6)	(68.7)	(58.6)	59.5	69.3	65.0	69.0	66.7	57.8	61.5	65.7	9.6	386.0
Cumulative Cash Flow	(10.6)	(79.4)	(138.0)	(78.5)	(9.2)	55.8	124.7	191.4	249.2	310.7	376.4	386.0	
NPV @ 7%	US\$M	200.2											
IRR	%	34											
Payback	Years	5											
Max Neg Cash Flow	US\$M	158.0											
C1 cost (\$/t)		1.30											

The ranges for the major metrics, taking into account the estimated accuracy of the Prefeasibility Study of +/- 20% are given below in Table 11;

Table 11: Project Metric Ranges

Metric	Unit	Value	Range	
			-20%	+20%
Cumulative Cash Flow	US\$M	386	309	463
NPV	US\$M	200	160	240
IRR	%	34	28	41
Life of Mine Capex	US\$M	273	218	327
Max Neg Cash Flow	US\$M	158	126	190
C1 Cost	\$/t	1.30	1.04	1.56

19 Sensitivity Analysis

The sensitivity of the project cash flows in terms of NPV to changes in operating costs, capital costs, metallurgical recoveries, copper and gold prices and overall revenue has been modelled and is presented in Figure 7 and Table 12 below.

The project is most sensitive to changes in copper price, with a 10% positive increase improving NPV by approximately 40%, whereas a 10% increase in the gold price only improves NPV by 4%. In terms of cost, a 10% reduction in operational costs improves NPV by 16% whereas a 10% reduction in capital costs improves NPV by 11%.

Figure 7: Project sensitivity – NPV

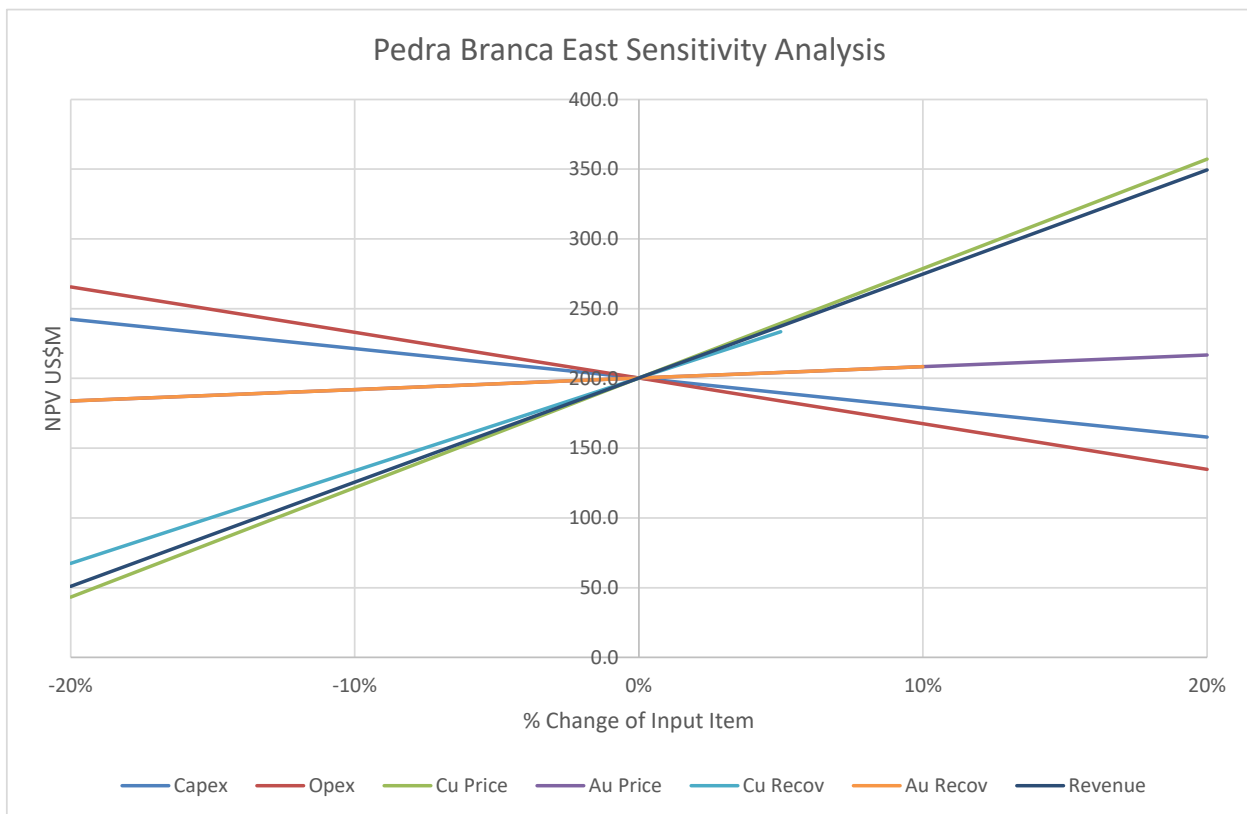


Table 12: Project Sensitivity - NPV % Change

% Change in Factor	-20%	-10%	-5%	0%	5%	10%	20%
Capex	21%	11%	5%	0%	-5%	-11%	-21%
Opex	33%	16%	8%	0%	-8%	-16%	-33%
Cu Price	-78%	-39%	-20%	0%	20%	39%	78%
Au Price	-8%	-4%	-2%	0%	2%	4%	8%
Cu Recov	-66%	-33%	-17%	0%	17%		
Au Recov	-8%	-4%	-2%	0%	2%	4%	
Revenue	-75%	-37%	-19%	0%	19%	37%	75%

20 Financing Options

Avanco has 100% ownership of the Pedra Branca Project, with no debt or other covenants. This very clean ownership structure enhances opportunities and provides maximum flexibility for potential funding structures for the Project’s development.

The Company is in a strong position with more than USD\$23,000,000 in the bank with no debt or other covenants over its cash or assets, enabling the funding of continued feasibility studies and initial development work.

The Study has provided positive economic metrics and the planned timetable of activities to deliver key development milestones that is conducive to the staged funding of the Project. The positive technical and economic fundamentals provide a platform for discussions on traditional debt, equity financiers and forward sales arrangements.

The Company's board has extensive experience in financing and in developing projects internationally, and several board members and senior executives have been involved with Avanco since the IPO in 2007.

Current management has recently developed and constructed the capital cost efficient, 100% owned Antas Copper Mine (Antas) within the same geological area, approximately 70 kilometres from the Pedra Branca Project. The declaration of commercial production at Antas was announced on 1 July 2016 and the successful negotiation of an offtake agreement for the sale of its copper, gold and silver production was finalised in April 2016. The Antas mine has generated EBITDA of approximately \$23M since commencement of operations.

The Antas mine is forecast to generate positive free cash flow for the life of mine that would support all debt and equity financing available to the Company and help with negotiations in obtaining the best available financing terms for the Pedra Branca Project.

The Company's major shareholders comprise high quality investment funds including the BlackRock Group (BlackRock Inc. and its subsidiaries), Greenstone Management Limited (in its capacity as general partner of Greenstone Resources LP) and Appian Natural Resources Fund GP LP and Appian Holdings Limited, all of which participated in the Company's financing of the Antas Copper Mine into production.

The Company's aim will be to avoid dilution to existing shareholders as much as possible.

In summary, the board and management of Avanco have a demonstrated track record of success in Brazil, achieved through technical and financial capability to identify, acquire, define, develop and operate quality mineral assets. In particular, the Company's Chairman, Mr Colin Jones has over 40 years of underground mining experience, including 10 years of supervising mine development and 20 years of operational experience in a number of commodities. Importantly Mr Jones has operational experience of the mining method to be adopted at Pedra Branca and was the lead consultant for Rio Tinto for the successful development of the MSF nickel mine in Minas Gerais, Brazil.

All the material assumptions on which the forecast financial information is based has been included in this announcement.

For the reasons outlined above, the board believes that there is a 'reasonable basis' to assume that future funding will be available and securable.

Annexure A: Forward Looking Statement

The announcement may contain certain forward-looking statements. Words ‘anticipate’, ‘believe’, ‘expect’, ‘forecast’, ‘estimate’, ‘likely’, ‘intend’, ‘should’, ‘could’, ‘may’, ‘target’, ‘plan’, ‘potential’ and other similar expressions are intended to identify forward-looking statements. Indication of, and guidance on, future costings, earnings and financial position and performance are also forward-looking statements.

Such forward looking statements are not guarantees of future performance, and involve known and unknown risks, uncertainties and other factors, many of which are beyond the control of Avanco Resources Ltd, its officers, employees, agents and associates, which may cause actual results to differ materially from those expressed or implied in such forward-looking statements.

Actual results, performance, or outcomes may differ materially from any projections or forward-looking statements or the assumptions on which those statements are based.

You should not place any undue reliance on forward-looking statements and neither Avanco nor its directors, officers, employees, servants or agents assume any responsibility to update such information.

The stated production target is based on the Company’s current expectations of future results or events and should not be relied upon by investors when making investment decisions. Further evaluation work and appropriate studies are required to establish sufficient confidence that this target will be met.

This announcement has been prepared in compliance with the JORC Code 2012 Edition and the current ASX Listing Rules.

Annexure B: Reasonable Basis

The Board of Avanco believe that it has a reasonable basis for making the forward-looking statements in this announcement, including with respect to the production target and forecast financial information.

The following information is specifically provided in support of the Board’s belief:

- (a) The Prefeasibility Study has been prepared to what the Company considered equal or better than a Prefeasibility Study level of accuracy of $\pm 20\%$;
- (b) The production targets referred to, are based on Mineral Resources which are classified 19% Measured, 55% Indicated, and 26% Inferred;
- (c) The Mineral Resource estimate for PBE was last updated and published in 26 May 2016. Refer ASX Announcement “Resource Upgrade Advances Pedra Branca Development Strategy”, 26 May 2016, for Competent Person’s Consent, material assumptions, and technical parameters underpinning the PBE Mineral Resource estimates. The material assumptions and technical parameters used in this Mineral Resource estimate continue to apply, and have not changed;
- (d) A Preliminary Economic Assessment has been submitted to the DNPM²⁴, and the Company is now in the process of the application for both a trial mining license, a full mining license and all licences required for the construction and operation of the process plant and associated facilities., which the Company believes will be granted in due course;
- (e) Metallurgical testwork on PBE samples has shown very similar properties to ore from the Company’s producing Antas Copper Mine;
- (f) Processing and operating costs were based on actual costs at the Company’s producing Antas Copper Mine, located ~70km to the north of Pedra Branca. These costs are considered representative;
- (g) Mining costs were derived from a selection of appropriately chosen operating underground mines, both in Brazil and in Portugal, in particular operations where members of the team responsible for production of the Prefeasibility Study have actual recent experience;

- (h) A basic geotechnical engineering study was completed by independent consultant Mauri Ferreira of Geotécnica e Mecânica de Rochas Ltda. Mr. Ferreira was responsible for the geotechnical engineering in the Feasibility Study (and subsequent successful mining operation) for the Company's producing Antas Copper Mine. Mr. Ferreira is widely considered to be one of Brazil's leading experts in the field of geotechnical engineering, in both underground and open pit mining;
- (i) Capital costs for the 1.2Mtpa plant were based on actual costs for the construction of the recently commissioned Antas Copper Mine's flotation plant. Refer ASX Announcement "Commencement of Commercial Production", 04 July 2016;
- (j) The Prefeasibility Study was compiled by CSA Global Ltd based on information completed internally by the Company, using both employees and directors, none of whom have less than 20 years' experience, and most of whom also qualify as a Competent Person (CP) as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Independent consultants were used for key areas of the Study, in particular site Infrastructure and basic engineering, resource estimation, geotechnical engineering, mining engineering, and environmental assessment. Furthermore, independent consultants have been used for Peer Review of the completed works. All material assumptions on which the forecast financial information is based have been included in the announcement;
- (k) As a group, the Avanco Board has a long and successful track record in identifying, discovering, developing, implementing and commissioning of both open pit and underground mineral resource projects internationally, including Brazil, and operating quality mining assets;
- (l) The Company also believes it has a reasonable basis to expect to be able to fund the development of the Pedra Branca East Project in the future; and
- (m) The Company already has an off-take contract for the sale of its high quality Antas copper concentrate. The Board does not see any impediment to extending this contract, or executing a new contract to include what it believes will be equally high quality concentrates from Pedra Branca.

Annexure C: Competent Person's Statements

The information in this report that relates to the Prefeasibility Study and Documentation within, has been compiled by Mr Karl Van Olden who is a full-time employee of CSA Global Pty Ltd. Mr Van Olden is a Fellow of the Australasian Institute of Mining and Metallurgy and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the JORC Code (2012). Mr Van Olden consents to the disclosure of this information in this report in the form and context in which it appears.

The information in this report that relates to Exploration Results, Mineral Resources and ASX Chapter 5 Compliance is an accurate representation of the available data and is based on information compiled by Mr Simon Mottram who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Mottram is an Executive Director of Avanco Resources Limited; in which he is also a shareholder. Mr Mottram has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person (CP) as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Mottram consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this ASX Release that relates to Production Targets, mining engineering, and underground mine design in the Prefeasibility Study was undertaken by Mr Diogo Caupers, a Mining Engineer and a full-time independent consultant with over 30 years' experience. Mr Caupers is a member of the Australasian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, as defined by the 2012 Edition of the Joint Ore Reserves Committee (JORC) "Australasian Code for Reporting of

Exploration Results, Mineral Resources and Ore Reserves". Mr Caupers consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this ASX Release that relates to production targets, mining engineering and underground mine design in the Prefeasibility Study has been peer reviewed by Mr Colin Jones (MIMM), an Independent Non-Executive Director (Chairman) of Avanco Resources Limited and a consulting Mining Engineer, specialising in underground mining, with over 40 years' experience, including operational experience with the chosen mining method. Mr Jones consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this ASX Release that relates to metallurgy, metallurgical testwork, froth flotation and mineral processing in the Prefeasibility Study was undertaken by Mr Wayne Phillips. Mr Phillips is Head of Projects and an executive officer of Avanco Resources Limited; in which he is also a shareholder. Mr Phillips is a Chemical Engineer with over 35 years' experience, with a focus on metallurgy, froth flotation and hydrometallurgy. Mr Phillips consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Annexure D: Project Risks

Key risks identified during the Prefeasibility Study work include, but are not limited to:

- Adverse movements in the US\$ copper and gold prices;
- Adverse movements in the US\$:BRL exchange rates;
- Conversion of existing Mineral Resources to Ore Reserves;
- Access to project funding;
- Timely approval by Government Authorities of the various licenses and permits required;
- Sovereign and legal risks of Brazil;
- The Company depends on key management personnel and may not be able to attract and retain qualified personnel;
- General global economic conditions that may adversely affect the Company's growth and future prospects; and
- Results of future Definitive Feasibility Studies.

Annexure E: Material Assumptions used in the Prefeasibility Study

Criteria	Commentary																								
Status of Study	<ul style="list-style-type: none"> The information and production target presented herein is based on a Prefeasibility Study. A Prefeasibility Study is a comprehensive study for the technical and economic viability of a mineral project that has advanced to a stage where a preferred mining method is established and an effective method of mineral processing is determined. It includes a financial analysis based on reasonable assumptions of relevant factors affecting the project. All project costs are in US Dollars (US\$) 																								
MRE supporting Production Targets	<ul style="list-style-type: none"> Refer ASX Announcement “Resource Upgrade Advances Pedra Branca Development Strategy”, 26 May 2016, for Competent Person’s Consent, material assumptions, and technical parameters underpinning the PBE MRE, including JORC Table 1, Sections 1, 2, and 3 The PBE (JORC 2012 compliant) MRE was last updated and disclosed in May 2016. It has not been updated since, nor is Avanco aware of new data/information that could materially affect information contained within that announcement. All material assumptions and technical parameters relating to that MRE continue to apply. The form and context in which the Competent Person’s findings have been presented have not been materially modified since that that announcement. 																								
Capital Costs	<ul style="list-style-type: none"> All costs have been estimated to a Prefeasibility Study level of accuracy The mine development CAPEX estimates up to access to the first SLOS stope and the Process Plant and Infrastructure CAPEX estimates used in the Prefeasibility Study are as follows. As production ramp up commences before construction CAPEX is complete, the maximum negative cash flow is indicative of the financing level required. <table border="1" data-bbox="480 1189 1318 1442"> <thead> <tr> <th>Including 20% Contingency</th> <th>US Dollars (\$M)</th> </tr> </thead> <tbody> <tr> <td>U/G Development</td> <td>\$40</td> </tr> <tr> <td>Mine Mobile Equipment</td> <td>\$26</td> </tr> <tr> <td>Plant & Site Infrastructure</td> <td>\$103</td> </tr> <tr> <td>TOTAL</td> <td>\$169</td> </tr> <tr> <td>Maximum Negative Cash Flow</td> <td>\$158</td> </tr> </tbody> </table>	Including 20% Contingency	US Dollars (\$M)	U/G Development	\$40	Mine Mobile Equipment	\$26	Plant & Site Infrastructure	\$103	TOTAL	\$169	Maximum Negative Cash Flow	\$158												
Including 20% Contingency	US Dollars (\$M)																								
U/G Development	\$40																								
Mine Mobile Equipment	\$26																								
Plant & Site Infrastructure	\$103																								
TOTAL	\$169																								
Maximum Negative Cash Flow	\$158																								
Revenue Inputs	<table border="1" data-bbox="480 1489 1318 2054"> <thead> <tr> <th></th> <th>Units</th> <th>US Dollars (\$M)</th> </tr> </thead> <tbody> <tr> <td>Copper Price</td> <td>US\$/lb</td> <td>Year 1: \$2.65 Year 2: \$2.74 Year 3: \$2.83 Year 4: \$2.87 Year 5 +: \$2.94</td> </tr> <tr> <td>Gold Price</td> <td>US\$/oz</td> <td>Year 1: \$1,252 Year 2: \$1,291 Year 3: \$1,300 Year 4: \$1,278 Year 5 +: \$1,270</td> </tr> <tr> <td>Concentrate Transport Costs</td> <td>US\$/t</td> <td>\$150</td> </tr> <tr> <td>Treatment Charges</td> <td>US\$/t</td> <td>\$73.5</td> </tr> <tr> <td>Refining Charges – Copper</td> <td>US\$/lb</td> <td>\$0.074</td> </tr> <tr> <td>Refining Costs – Gold</td> <td>US\$/oz</td> <td>\$4</td> </tr> <tr> <td>Exchange Rate</td> <td>USD/BRL</td> <td>3.20</td> </tr> </tbody> </table>		Units	US Dollars (\$M)	Copper Price	US\$/lb	Year 1: \$2.65 Year 2: \$2.74 Year 3: \$2.83 Year 4: \$2.87 Year 5 +: \$2.94	Gold Price	US\$/oz	Year 1: \$1,252 Year 2: \$1,291 Year 3: \$1,300 Year 4: \$1,278 Year 5 +: \$1,270	Concentrate Transport Costs	US\$/t	\$150	Treatment Charges	US\$/t	\$73.5	Refining Charges – Copper	US\$/lb	\$0.074	Refining Costs – Gold	US\$/oz	\$4	Exchange Rate	USD/BRL	3.20
	Units	US Dollars (\$M)																							
Copper Price	US\$/lb	Year 1: \$2.65 Year 2: \$2.74 Year 3: \$2.83 Year 4: \$2.87 Year 5 +: \$2.94																							
Gold Price	US\$/oz	Year 1: \$1,252 Year 2: \$1,291 Year 3: \$1,300 Year 4: \$1,278 Year 5 +: \$1,270																							
Concentrate Transport Costs	US\$/t	\$150																							
Treatment Charges	US\$/t	\$73.5																							
Refining Charges – Copper	US\$/lb	\$0.074																							
Refining Costs – Gold	US\$/oz	\$4																							
Exchange Rate	USD/BRL	3.20																							

Criteria	Commentary												
Mining Assumptions	<ul style="list-style-type: none"> The production target is based on Sub-Level Open Stopping (SLOS) as the chosen mining method at PBE, at a production/processing rate of 1.2Mtpa Geotechnical assumptions were drawn from work carried out at a prefeasibility study level by independent consultants. Material mining assumptions <table border="1"> <tr> <td>Mining Dilution</td> <td>Derived from Stope design plus wall rock allowance plus 1.1% backfill dilution</td> </tr> <tr> <td>Mining Recovery</td> <td>95%</td> </tr> </table> 	Mining Dilution	Derived from Stope design plus wall rock allowance plus 1.1% backfill dilution	Mining Recovery	95%								
Mining Dilution	Derived from Stope design plus wall rock allowance plus 1.1% backfill dilution												
Mining Recovery	95%												
Metallurgical Assumptions	<ul style="list-style-type: none"> Metallurgical assumptions are shown below: <table border="1"> <thead> <tr> <th>Metal</th> <th>Plant Recovery %</th> </tr> </thead> <tbody> <tr> <td>Copper</td> <td>95%</td> </tr> <tr> <td>Gold</td> <td>86%</td> </tr> </tbody> </table> 	Metal	Plant Recovery %	Copper	95%	Gold	86%						
Metal	Plant Recovery %												
Copper	95%												
Gold	86%												
Infrastructure	<ul style="list-style-type: none"> Infrastructure costs were estimated to a Prefeasibility Study level of accuracy, and based on the installation of a 1.2Mtpa froth flotation plant and all associated infrastructure at PB Costs were factored from actual costs from the recently built and operating Antas Copper Mine, owned and operated by Avanco and from site layout plans developed by independent engineering consultancies for TMF, paste-fill plant and site infrastructure General information regarding the Company's PB project can be found on the Company's website 												
Classification	<ul style="list-style-type: none"> The production targets referred to, are based on Mineral Resources which are classified 19% Measured, 55% Indicated, and 26% Inferred. Inferred resources have a low level of geological confidence and there is no guarantee that further exploration work will result in their conversion to higher levels of confidence, or the realisation of these production targets. The Inferred Mineral Resources contribute approximately two years of the project life. 												
Economic Cut-off	<ul style="list-style-type: none"> All costs have been estimated to a Prefeasibility Study level of accuracy A design production/processing rate of 1.2Mtpa was used, while SLOS is the chosen mining method The break-even cut-off grade was estimated at 1.2% Copper (using a Copper price of \$2.50/lb and a Gold price of \$1,162/Oz), or \$52.50 per tonne as shown below based on the conversion of gold values to equivalent copper values and on Antas sales terms. This COG is conservative and will be refined in future work. <table border="1"> <thead> <tr> <th></th> <th>Cost Per Tonne (US\$)</th> </tr> </thead> <tbody> <tr> <td>Mining</td> <td>\$29.30</td> </tr> <tr> <td>Processing</td> <td>\$15.25</td> </tr> <tr> <td>G&A</td> <td>\$3.20</td> </tr> <tr> <td>Contingency</td> <td>\$4.75</td> </tr> <tr> <td>Total</td> <td>\$52.50</td> </tr> </tbody> </table> 		Cost Per Tonne (US\$)	Mining	\$29.30	Processing	\$15.25	G&A	\$3.20	Contingency	\$4.75	Total	\$52.50
	Cost Per Tonne (US\$)												
Mining	\$29.30												
Processing	\$15.25												
G&A	\$3.20												
Contingency	\$4.75												
Total	\$52.50												
Independent Audit	<ul style="list-style-type: none"> Key parts of the Prefeasibility Study have been independently reviewed. Specifically: <ul style="list-style-type: none"> Underground mining methods and assumptions, and economic assumptions and assessment, by Keith Marshall, of Marshall Mining Associates Metallurgical testwork and assumptions, and flow sheet analysis by Frank Rezende, of AU@BR Geotechnical and Hydrology by Mr Allan Moss of Sonal Mining Technology 												