

# SEPTEMBER 2015 QUARTERLY ACTIVITIES REPORT

# HIGHLIGHTS

- Construction at Antas commenced in May 2015 and continues to progress on schedule and within budget. Management aim to be commissioning in the 1<sup>st</sup> Quarter, 2016
- > No Lost Time Injuries, Medical Treatment Incidents or Environmental events occurred during the quarter
- Forty percent of Construction CAPEX has been spent. Plant earthworks are complete and ~80% of civil works are completed
- > The plant site has been connected to the 34.5kV high-tension power line
- > Site expenditure, including labour costs, are in local currency (Brazilian Real), consequently the weakening Real is reducing construction costs and financial risk
- Pre-stripping of the Antas Open Pit has commenced on schedule
- The Lump Sum Turn Key Metso Filter construction is on schedule
- Installation of the crushing circuit is nearing completion, with electrical connection and reticulation progressing
- > Construction of the Tailings Management Facility (TMF) drainage filter is complete. Lifting and compaction of the dam embankment is ongoing, with completion anticipated during November
- > Avanco's construction "Owner's Team" is operating very effectively, has been expanded, reinforced and provides continuous progress reporting
- > Antas is forecast to ramp-up to ~12,000t of copper and ~7,000oz of gold per annum
- **Execution of Off-Take contract(s) for concentrates is targeted for December**
- The Company is financially strong, debt free and owns 100% of both Antas and the proximal, larger, Stage 2 Pedra Branca Copper Project
- ► Good progress has been achieved on the Pedra Branca scoping study
- The Managing Director has relocated to site to ensure 'Operational Readiness'

Level 3, 680 Murray Street West Perth. WA 6005

PO Box 1726 West Perth. WA 6872

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

#### **Contact:**

Tony Polglase Managing Director

E-mail:

info@avancoresources.com

For the latest news: www.avancoresources.com

#### **Directors / Management:**

Colin Jones
Tony Polglase
Simon Mottram
Wayne Phillips
Scott Funston
Luis Azevedo
Vern Tidy
Jailson Araujo
João Goncalves
Tim Wither
Otávio Monteiro
Antonio Madalosso

ASX Symbol: AVB





## ANTAS MINE DEVELOPMENT

Pre-production mining and plant building works are scheduled for completion during Quarter 1, 2016 with commissioning thereafter. The cost of the construction and working capital is predominantly denominated in Brazilian Reals (BRL) and estimated at US\$60M (FX US\$1 = BRL3.00).

Seventy-five percent of capital expenditure has now been committed, ~40% of CAPEX has been expended, and forecast costs remain within budget.

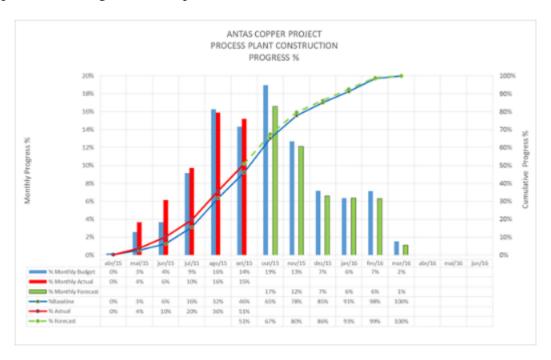
Recent weakening of the local currency is expected to yield savings, producing a very desirable increase in the contingency funds available to address difficulties should they arise.

Construction activities are progressing very well and have passed a number of important milestones, including the delivery of a new mining fleet and the start of the pre-stripping over the Antas open-pit.

All civil construction is now "above ground", reducing the risk of delays associated with seasonal rainfall.

With most of the budget having been committed project risk is now mainly related to the 'execution' of the works, and thereafter to operational implementation.

Cognisant of the execution risks, which is (now) mainly associated with mechanical and electrical completion, the Avanco owner's team has been expanded. This will reinforce site supervision during the critical period ahead of Christmas and New Year.



With reference to the above construction 'S' curve, plant construction activities are ~51% complete and have followed the planned schedule.



Management are very pleased with the quality of the contractors' workmanship and their adherence to safe working practices. No Lost Time Injuries or Medical Treatment Incidents occurred during the quarter.

### PRE-PRODUCTION MINING

# **Mining**

Following the Letter of Intent (LOI) signed with mining contractor, Mining and Civil Australia (MACA), the mining fleet was mobilised. Establishment of the contractor's administration and maintenance facilities close to the mine is progressing well. Equipment mobilised to site includes:

- 1 x R964 Liebherr excavator
- 5 x A40F (40t) Volvo articulated trucks
- 1 x CAT D8 dozer
- 1 x CAT 14M Grader
- 1 x Volvo L90 loader
- 2 x Cat 5150C Blast-hole Drills (equipped with downhole sampling/cyclones etc)

MACA will substitute the current excavator for a larger 100t machine when mining progresses into the more demanding fresh rock.



Delivery of Cat 5150C production drill rigs

The ore/fresh rock interface is 15m below surface and likely be reached by the end of November. The stripping of the saprolite cover is anticipated to remain "free-digging", with no transition material. On reaching the interface, high and low grade copper mineralisation is expected to be contiguous with the fresh rock surface.



The selection of the explosives supplier is very advanced, with blasting planned for November. Blasting will allow more tractable fresh rock surfaces to be established for the pit and ramps prior to the wet season. After crushing, liberated waste rock is ideal for haul road maintenance.

The mining schedule is oriented to provide low grade ore for plant commissioning as early as December with increasing quantities of higher grade ore delivered to the ROM from December.



Initial MACA mining crew

Avanco looks forward to establishing a long term working relationship with Mining and Civil Australia. MACA has made significant commitments to Antas and have demonstrated their ability to establish a safe and productive operation.



Mining 240RL with saprolite material marked out

Pre-stripping of the open-pit is advancing ahead of schedule with major infrastructure, including the haul road, workshop and office facilities, nearing completion.





Delivered Volvo A40F fleet and grader

The A40F Volvo fleet has exceeded performance expectations and will be increased to six trucks by mid-2016 to align with haulage profiles. The Volvos are being utilised by MACA elsewhere in Brazil where conditions are far more challenging than Carajas, and are achieving 96% availability with the benefit of strong Original Equipment Manufacturer support.



First loads - Volvo A40F and R964 excavator



Establishment of mining benches - Antas Stage One



# **Grade Control**

The grade control orientation study by CSA Global determined the future parameters for production grade control drilling/sampling. Results confirm high grade mineralisation ~15m vertically below surface (as predicted in the JORC Compliant Reserve model). The study has identified that the spacing of grade control holes can be increased thus reducing future drilling costs.

Having established an optimum grade control drill pattern a follow-up grade control programme has already commenced. This exercise represents the next step in de-risking mine implementation by comparing the grade control model with the resource model. Assays are expected in the coming weeks, with management expecting positive results associated with the intersection of the shallow high grade zones.

A review of the grade control test patterns has indicated that mineralisation could be thicker in some areas, reducing requirements for selective mining. The programme also confirmed a gold enriched zone in the Saprolite above the deposit. Whilst the size of the zone is relatively small, the feasibility of recovering the gold warrants investigation. In the interim this material is being stockpiled separately.



Cleaning splitter for sample preparation



# PLANT CONSTRUCTION



Overview of construction activities around the beneficiation plant

# **Crushing Circuit**



Earthworks associated with the initial ROM Pad construction are complete and the retaining wall erected. The jaw crusher is installed below the tip head, awaiting only the feed hopper, grizzly and electrics





Secondary cone crusher/screen of local manufacture, being configured to produce a -20mm sized feed to the ball mill. The ball mill feed will be stockpiled above the reclaim tunnel below

# **Grinding**



The Ball Mill feed reclaim tunnel civils are completed





Installation of the Ball Mill concrete foundation represents the most complex item of civil work of the project. This activity has now reached the trunnion pedestal elevations where precision is paramount



The 12'x24' Metso Ball Mill shell (flanges) being prepared for mounting of the trunnion heads



# **Flotation**



Flotation floor civils are sufficiently advanced to allow the start of structural steel to support the float cells



Rougher-Scavenger OK 38 Flotation Cells ready for lifting into position once the steel structures are ready





Flotation area electrical installation is simplified by the use/delivery of pre-wired Motor Control Centers

# **Dewatering**



Concentrate Thickener fabrication in progress



Metso VPA plate and frame pressure filter main assembly, ready for installation within the building





Filter House building footings are completed and structural steel building is progressing on schedule

# **Utilities**



Foundations being prepared for process water and raw water tanks





Administration offices, dining hall and first aid post, all well advanced

# **Tailings Management Facility (TMF)**

Having overcome slight delays attributed to boulders discovered within the centerline of the embankment, construction is now back on schedule with completion expected in November. Following earth works, the installation of electical and water reclaim reticulation systems will commence.



Earthworks continue to raise the crest of the dam wall



# **Infrastructure**



34.5Kv power cables being connected to the transmission poles



The mine access road, including construction of a number of river bridges, is ongoing



### OPERATIONAL READINESS

Preparation for the pending transition from construction to production is underway. Management aims to be ready for commissioning in Quarter 1 2016. Hiring of operational and technical staff is gaining momentum, assisted by the availability of skilled personnel residing in the Carajas Mining District.

Operations are expected to benefit from the weakening local currency through potentially lower OPEX in US\$ terms. Brazilian inflation of ~9% will erode some of this cost saving.

### CONCENTRATES MARKETING AND LOGISTICS

Progress towards securing off-take contracts for Antas copper concentrates continue with a very good reception from potential "off-takers" in London during London Metal Exchange (LME) week. Avanco has engaged a very experienced concentrates marketing specialist to assist with negotiations. More than twenty trading/smelter groups have expressed interest and made offers for the "clean" Antas product over the past year. Offers have now been adjudicated and shortlisted for final negotiations.

The end of December is being targeted for the execution of an off-take contract, or contracts, for which a term of three years is envisaged. A three year term facilitates optionality for the Company to negotiate future larger contracts in anticipation of additional production from Stage 2 (Pedra Branca).

Shipping containers are considered the optimum approach for the ~48,000tpa of Antas concentrates. This shipping preference might change to bulk cargo in the future and /or with the addition of Stage 2 production.

Management have re-inspected warehousing/port facilities proximal to Belem some ~750km from the mine. The Company is confident that existing logistics/export facilities are adequate and available for Antas.

# **HEATH SAFETY AND ENVIRONMENT**

No Lost Time Injuries, Medical Treatment Incidents or Environmental events occurred during the quarter. Around 500 employees/contractors were provided with mandatory comprehensive Induction Safety training for the specific needs of construction activities.

Safety awareness (toolbox) meetings took place daily. Various health and safety education and inspection routines have been implemented and are being vigilantly monitored.





Avanco provides Safety Awareness Training aimed at reducing accidents in the construction workplace

## STAGE 2 – PEDRA BRANCA

Pedra Branca is the Company's second and much larger copper project located 50km southwest of Antas North (Stage 1).

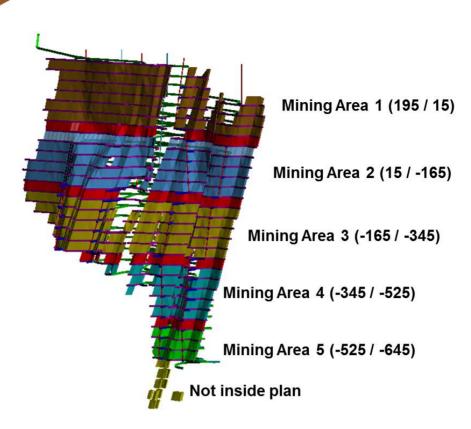
A substantial amount of work on the Scoping Study has been completed and Management's impression of the project's feasibility to date is very positive.

Highlights of conceptual studies to date include:

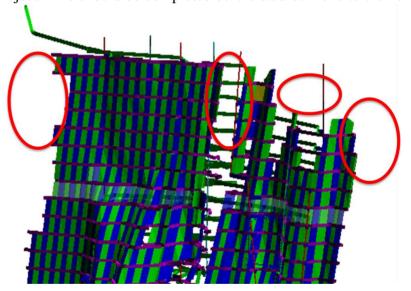
- Strong indications that the Eastern Orebody will provide for a 'stand-alone' mining operation
- Potentially feasible to produce >25,000tpa of copper (+gold credits) from the East
- East hosts wide mineralisation (>15m), within competent wall rocks
- Orebodies suitable for efficient "Longitudinal Sub Level Bench and Fill Mining"
- Simple copper sulphide mineralisation metallurgical testing yields good results
- Based on "Scoping" studies CAPEX and OPEX, the East offers a significant value proposition
- High percentage of the East production is within the higher confidence JORC Reported Indicated Resource Category
- Upside to come from the West Orebody
- West improves with depth, justifying further drilling

Exploiting the Eastern Orebody is the Company's priority. A suitable mining sequence has been developed, as illustrated below:





Pedra Branca East Study work has identified a number of areas (below) within the Eastern orebody model that strongly warrant additional drilling, aimed at increasing the near term value of the project. This should be completed before studies move to the next stage.



Whilst cognisant of previously indicated Stage 2 timelines it has been necessary to direct greater management effort to the construction activity at Antas.

# REGIONAL EXPLORATION

Activities have focused on the Candeias license, approximately 25km West of Pedra Branca.

Soil sampling revealed strongly coincident Ni-Cu-PGE anomalism over two distinct magnetic highs. Mapping and rock chip sampling shows both magnetic highs to be related to layered mafic-ultramafic intrusions (peridotite-pyroxenite-gabbro).



A programme of power auger drilling has commenced (94 holes), with four holes completed to date. The composition of saprolite rocks intersected to date indicate primitive parental magmas in both bodies, something that is not unusual in the Carajas. There is an abundance of primitive crustal contaminated layered intrusions in the Carajas Mineral Province, and several known deposits (Ni-Cu-PGE and PGE-Ni).

Preliminary results in the four holes completed to date support the coincident Ni-Cu-PGE anomalism observed in soil geochemistry.

Generative work continues to examine new opportunities within the district.

## **CORPORATE**

The Board believes progress at Antas is very encouraging and remains on target for the start of commissioning in Quarter 1, 2016.

The construction spend is on budget and the Company has sufficient funds on hand to see Antas into production (assisted significantly by a softening local currency).

The Company's cash position as of the end of September was approximately \$61.5m. A further US\$8m is available (pro-rata with construction spend) from the BlackRock Royalty Transaction.

Avanco is debt free, unhedged and owns 100% of its production offtake.

The Board recognises the importance of and the commitment required during the next six months. Consequently, the Managing Director has relocated to Brazil to manage Operational Readiness preparations. The Board has authorised the Managing Director to rapidly deploy contingent funds to mitigate commissioning delays, should they occur. The Director of Operations is in residence close to the mine, and will assume responsibility for copper production on transition to 24 hour operations.

Tony Polglase Managing Director



## **ABOUT AVANCO**

- Avanco (ASX-AVB) is an emerging mid-tier copper company situated in the mining friendly world class Carajas Mineral Province, Brazil
- Avanco either owns, or holds the rights to 100% of the second largest area of mineral tenure in the World Class Carajas region (behind Vale SA)
- The Antas Copper Mine (also known as Stage 1) is Avanco's first mine development. Antas hosts JORC Reported Ore Reserves (Proved + Probable) of: 2.649 million tonnes at 3.19% copper and 0.66gpt Gold for 84,518 tonnes of contained copper and 56,277 ounces of Gold at a 0.9% Cu cut-off
- Pedra Branca, known as Stage 2 is located in the same district as Stage 1. This represents the Company's next project, is also a high grade copper deposit and is considerably larger. Pedra Branca hosts JORC Reported Ore Resources (Indicated + Inferred) of: 18.58 million tonnes at 2.45% copper and 0.61gpt Gold for 454,000 tonnes of contained copper and 363,000 ounces of Gold at a 0.9% Cu cut-off. Drilling aimed at increasing resources is being planned
- The Company is ultimately well positioned to potentially operate a number of high grade, low cost copper/gold mines in the region which will establish Avanco as a potentially profitable long life producer
- Management have been successful in obtaining funding for Antas via an equity capital raising putting Avanco in a strong financial position whereby management believes it is fully funded into production whist remaining debt and covenant free
- Construction of Antas is well advanced and expected to produce around 12,000tpa of copper in concentrates from 2016
- Antas will produce desirable clean copper concentrates, the Company retains ownership to the rights for its production off-take
- The Company is well supported by institutional shareholders: Blackrock World Mining Trust, Appian Natural Resources Fund, Greenstone Resources and Glencore
- Avanco is managed by highly experienced international and Brazilian mining professionals, most of whom are Portuguese speaking and reside in Brazil
- Whilst near term priorities are focussed on transition to copper producer status and resource growth, Brazil offers significant opportunities to enhance shareholder value with new discoveries and acquisitions



	CARAJ	JAS - TOTAL J	ORC Rep	ortec	l Mineral I	Resources,1,2,3	3,4		
DEPOSIT	Category	Million Tonnes	Cu (%)		Au pm)	Copper Metal (T)		old al (Oz)	
PB East <sup>5</sup>	Indicated	7.96	2.81	0	.63	224,000		160,000	
	Inferred	3.43	2.70	0	0.61	92,000	67	,000	
	Total	11.39	2.78	0	.62	316,000	22'	227,000	
PB West <sup>5</sup>	Indicated	4.46	2.04	0	.61	91,000	00 87,000		
	Inferred	2.74	1.72	0	0.56	47,000	49	,000	
	Total	7.19	1.92	0	.59	138,000	130	5,000	
PEDRA BRANCA	Total	18.58	2.45		.61	454,000	36.	3,000	
ANTAS NORTH <sup>5</sup>	Measured	2.83	3.01	_	.72	85,000		66,000	
	Indicated	1.65	2.20		.42	36,000		,000	
	Inferred	1.9	1.59		.23	30,000		,000	
	Total	6.38	2.38	_	.50	152,000		102,000	
	Measured	0.59	1.34		.18	- , , -		000	
ANTAS SOUTH <sup>6</sup>	Indicated	7.5	0.7		0.2	53,000		,000	
	Inferred	1.99	1.18	(	0.2	24,000	13	13,000	
	Total	10.08	0.83	(	0.2	85,000	65	,000	
TOTAL		35.04	1.97	0	0.47 691,000		530,000		
	ANT	AS NORTH – J	ORC Repo	orted	l Ore Rese	rves <sup>7,8</sup>			
Classification	Type	Economic Cut- Off Cu%	Tonne (Mt)	S	Copper (%)	Gold (g/t)	Copper Metal (T)	Gold (Oz)	
Proved	ROM Ore	0.90	1.385	1.385		0.74	50,137	33,046	
Probable	ROM Ore	0.90	1.264	1.264		0.57	34,381	23,231	
PROVEN + PROBABLE ROM ORE		2.649	•	3.19	0.66	84,518	56,277		
Proved	Low Grade	0.65	0.342		0.74	0.30	2,531	3,308	
Probable	Low Grade	0.65	0.635		0.72	0.23	4,572	4,709	
TOTAL PROVEN + PROBABLE			3.63		2.53	0.55	91,621	64,294	

#### **Competent Persons Statement**

The information in this report that relates to Exploration Results 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.

- 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 resource estimates
- 2. 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
- 3. 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
- 4. 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
- 5. Grade Tonnage Reported above a Cut-off Grade of 0.9% Copper
- 6. Grade Tonnage Reported above a Cut-off Grade of 0.3% Cu for Oxide Resources
- 7. 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
- 8. Measured and Indicated Resources are inclusive of those Mineral Resources modified to produce the Ore Reserves

# **Appendix 1 – Interests in Mining Tenements Held**

Project	Property Name	Tenure Title Holder	Interest %	AREA (ha)	DNPM <sup>8</sup> No of Area	Status of Tenure	
STAGE 1	RIO VERDE	AVB	100	7,290.69	PL 470	Mining Concession	
	RIO VERDE		100	7,290.69	853.714/93	Mining Concession	
	SERRA VERDE	AVB	100	2,391	850.622/2007	#	
	SERRA VERDE	AVB	100	7,359	850.892/2006	***	
	ESTRELA EAST	VDM**	100	4,230	850.825/2005	#	
	AGUA BOA	VDM	100	1,327	850.016/2013	#	
	AGUA BOA	ARM	100	8,907	850.823/2005	***	
	AGUA BOA	ARM	100	6,552	850.121/2009	Granted to 2016	
	AGUA BOA	VDM	100	8,957	850.826/2012	***	
STAGE 2	PEDRA BRANCA	VDM	100	3,195	850.318/2000	Final Report Approved	
5111022	PEDRA BRANCA	VDM**	100	722	850.218/2000	Granted to 2015	
	PEDRA BRANCA	VDM**	100	9,997	850.015/2008	Granted to 2016	
	PEDRA BRANCA	VDM	100	8,881	850.570/2003	Granted to 2016	
	PEDRA BRANCA	AVB	100	4,106	850.202/2013	Granted to 2016	
	PEDRA BRANCA	VDM	100	9,391	850.707/2009	Granted to 2017	
	PEDRA BRANCA	VDM	100	9,879	850.526/2004	Granted to 2017 Granted to 2017	
				-			
	PEDRA BRANCA	VDM	100	1,040	850.278/2005	Granted to 2017	
	PEDRA BRANCA	EST	100	4,998	850.053/2014	Granted to 2018	
	PEDRA BRANCA	VDM	#	9,859	851.067/2007	Granted to 2018	
	PEDRA BRANCA	VDM**	100	240	850.217/2000	Granted to 2018	
	PEDRA BRANCA	AVB	#	5,000	851.674/2011	Granted to 2018	
	PEDRA BRANCA	VDM	#	7,770	850.780/2012	Granted to 2018	
	PEDRA BRANCA	VDM	100	9,988	850.226/2009	۸	
	PEDRA BRANCA	EST	#	4,999	850.700/2013	#	
	PEDRA BRANCA	AVB	#	598	300.420/2011	#	
	PEDRA BRANCA	VDM**	#	4,980	850.146/1995	#	
	PEDRA BRANCA	VDM**	#	9,993	850.173/2002	#	
	PEDRA BRANCA	VDM**	#	9,755	850.181/2001	#	
	PEDRA BRANCA	VDM**	#	10,000	850.300/1993	#	
	PEDRA BRANCA	EST	#	1,904	851.037/2013	#	
	PEDRA BRANCA	VDM	#	7,770	851.195/2012	#	
Terrativa Carajas Option	CARAJAS REGIONAL	TM	@	4,953	850.193/2012	Granted to 2015@	
•	CARAJAS REGIONAL	TM	@	8,106	850.727/2012	Granted to 2015@	
	CARAJAS REGIONAL	TM	#@	12	851.240/2011	#@	
	CARAJAS REGIONAL	TM	#@	426	850.538/2012	#@	
	CARAJAS REGIONAL	TM	#@	34	850.538/2012	#@	
	CARAJAS REGIONAL	TM	#@	2	850.538/2012	#@	
	CARAJAS REGIONAL	TM	#@	27	850.473/2012	#@	
	CARAJAS REGIONAL	TM	#@	27	850.473/2012	#@	
	CARAJAS REGIONAL	TM	#@	11	850.473/2012	#@	
	CARAJAS REGIONAL	TM	#@	14	850.398/2012	#@	
	CARAJAS REGIONAL	TM	#@	1,967	850.600/2012	#@	
	CARAJAS REGIONAL	TM	#@	2,606	850.130/2013	#@	
	CARAJAS REGIONAL	TM	#@	13	850.531/2012	#@	
	CARAJAS REGIONAL	TM	#@	8,309	850.913/2012	#@	
	CARAJAS REGIONAL	TM	#@	984	851.040/2013	#@	
	CARAJAS REGIONAL	TM	#@	959	851.158/2013	#@	
	CARAJAS REGIONAL	TM	#@	937	851.159/2013	#@	
	CARAJAS REGIONAL	TM	#@	977	851.157/2013	#@	
	CARAJAS REGIONAL	TM	#@	3,312	850.239/2014	#@	

Project	Property Name	Tenure Title Holder	Interest %	AREA (ha)	DNPM <sup>8</sup> No of Area	Status of Tenure
	CARAJAS REGIONAL	TM	#@	182	850.570/2014	#@
	CARAJAS REGIONAL	TM	#@	5,040	850.238/2014	#@
	CARAJAS REGIONAL	TM	#@	4,934	850.571/2014	#@
	CARAJAS REGIONAL	TM	#@	7,462	850569/2014	#@
	CARAJAS REGIONAL	TM	#@	5,409	851797/2013	#@***
	CARAJAS REGIONAL	TM	#@	4,061	850071/2014	#@
	CARAJAS REGIONAL	TM	#@	52	851537/2013	#@
	CARAJAS REGIONAL	TM	#@	484	852007/2013	#@
	CARAJAS REGIONAL	TM	#@	663	851462/2013	#@
	CARAJAS REGIONAL	TM	#@	8,047	851514/2011	#@
	CARAJAS REGIONAL	TM	#@	9,729	850288/2014	#@
Touro Nickel Project	TRINDADE SOUTH	AVB	100	48	850.568/2011	۸
	TRINDADE SOUTH	AVB	100	49	850.567/2011	Granted to 2015
	TRINDADE SOUTH	AVB	#	9,797	850.781/2013	#
	TRINDADE SOUTH	AVB	#	9,797	850.569/2011	#***
Regional Exploration	CARAJAS NORTH	VDM	#	4,347	850.015/2013	#***

AVB = AVB Mineracao ARM = Avanco Resources Mineracao VDM = Vale Dourado Mineracao EST = Estela do Brazil Mineracao TM = Terrativa Minerias.S.A.

# Summary of Development, Exploration and Evaluation Expenditure Incurred per Project

Project	Current Quarter Payments
	\$A'000
Stage 1	15,638
Stage 2	1,000
Regional Exploration	-
Total	16,638

 $<sup>* \</sup> Renewable \ on \ approval \ of \ the \ Final \ Exploration \ Report \ by \ the \ National \ Department \ of \ Mineral \ Production. \ Awaiting \ final \ decision.$ 

<sup>\*\*</sup> Expected to be, or awaiting or in the process of being transferred into respective subsidiary

<sup>\*\*\*</sup> Subject to pending legal process

<sup>\*\*\*\*</sup> Option Agreement

<sup>^</sup> Application for an extension of term, awaiting decision

<sup>#</sup> New application for exploration permit (size of tenement may be reduced/reshaped, if approved and before approval)

<sup>@</sup> Part of the Terrativa Option