

## **ASX** Release

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Suite 2, 12 Parliament Place West Perth WA 6005 PO BOX 902 West Perth WA 6872

**P** + 61 8 9482 0540

**F** + 61 8 9482 0505

E admin@azimuthresources.com.au

W www.azimuthresources.com.au

## Contact

### Dominic O'Sullivan

Managing Director

### **Richard Monti**

Executive Director

E rmonti@azimuthresources.com.au

### Joshua Ward

Company Secretary

E jward@azimuthresources.com.au

## **Directors**

Michael Hunt - Chairman

Dominic O'Sullivan - Managing Director

Richard Monti — Executive Director

Dean Felton - Non-Executive Director

## **Issued Capital**

336,790,109 Ordinary Shares 37,592,200 Unlisted Options

## **ASX Code**

AZH (Fully Paid Ordinary Shares)

## **About Azimuth:**

Azimuth Resources is a Perth based, Guyana focused gold explorer with a portfolio of gold and uranium exploration projects totalling over 8,000km² of granted licences (East and West Omai Projects) prospective for gold and 4,000km² (Amakura Project) prospective for uranium.

# Smarts Deposit - Initial Positive Metallurgical Test Work

## **Highlights**

Cyanidation test work demonstrates average recoveries of:

- 93.72% in Oxide material
- 92.47% in Fresh material

Gravity test work reveals average recoveries of:

- 38.3% in Oxide material
- 33.1% in Fresh material

Azimuth Resources Limited has recently received positive results from a sighter metallurgy program on a range of oxide and fresh materials testing the amenability to both cyanide leach and gravity recovery methods on samples from its 100% controlled Smarts Deposit, West Omai Project, Guyana South America.

Eleven composites, were tested at ACME Metallurgical Laboratories in Vancouver, Canada, using laboratory leaching and gravity concentration apparatus. The composites were chosen to represent a range of grades from both oxidised and fresh material. In addition two composites each of oxide and fresh material representing a spread of grades from spatially diverse locations within the deposit were also tested. Details of each sample type are given in the tables below.

The results in both programs were extremely positive. Especially of significance are the high recoveries achieved in both oxidised and fresh materials indicating that gold mineralisation at the Smarts Deposit is not refractory and both oxide and fresh material will be amenable to treatment by conventional CIP or CIL.

- For the cyanide leach program, the average recovery for the 11 composites was 93%, with the exception of 2, all being greater than 90%.
- In the gravity amenability program, by average, 35% of gold was recovered to concentrate with 5 of the 11 tests yielding recoveries greater than 45%.



The summary of the test results from both programs are presented below:

**Table 1 - Cyanide Leach Program Results** 

Test	Type of Material	Head Grade (g/t Au)	Au Recovery (72 hours)	NaCN Consumption
		(8) 01 10.7	(* =)	(kg/t)
C1	High Grade Oxide	14.98	92.7	1.37
C2	High Grade Fresh	6.59	92.7	1.32
C3	Medium Grade Oxide (no quartz veining)	2.01	87.4	1.25
C4	Low Grade Oxide (no quartz veining)	0.86	95.9	1.05
C5	Medium Grade Fresh	3.61	90.1	1.05
C6	Medium Grade Fresh	2.54	92.0	1.28
C7	Low Grade Oxide (with Quartz	0.63	95.7	0.62
	veining)			
C8	Higher Grade Fresh	4.05	94.8	1.13
C9	Low Grade Fresh (with Quartz	0.87	88.8	1.35
	veining)			
C10	Oxide Composite of Low, medium	9.75	96.9	1.19
	and High Grades			
C11	Fresh composite of Low Medium	4.34	96.4	0.96
	and High Grades			
Average All		4.57	93.04%	1.14
Samples				
Average Oxide		5.64	93.72	1.10
Samples				
Average Fresh		3.67	92.47	1.18
Samples				

Samples were leached for 72 hours at a grind size of  $P_{80}$  = 75 microns and at 40% solids pulp density with industry standard reagent addition rates maintained. The reagent consumption rates observed are considered to be acceptable.

Not all samples illustrated complete leaching at 72 hours, indicating the likely presence of free gold. This presents opportunities for further improvement of recoveries with the integration of gravity and leaching processes.

**Table 2 – Gravity Amenability Program Results** 

	Type of Material	Head Grade	Pan	Au Recovery (%)
Test		(g/t Au)	Concentrate	(to concentrate)
			Mass (%)	
G1	High Grade Oxide	13.0	0.1	11.6
G2	High Grade Fresh	8.3	0.2	49.8
G3	Low Grade Oxide (no quartz veining)	1.3	0.2	46.0
G4	Low Grade Oxide (no quartz veining)	0.7	0.1	33.5
G5	Medium Grade Fresh	2.1	0.2	24.3



Test	Type of Material	Head Grade (g/t Au)	Pan Concentrate Mass (%)	Au Recovery (%) (to concentrate)
G6	Medium Grade Fresh	2.0	0.3	21.2
G7	Low Grade Oxide (with Quartz veining)	0.6	0.2	55.8
G8	Higher Grade Fresh	3.4	0.1	25.2
G9	Low Grade Fresh (with Quartz veining)	0.6	0.2	20.8
G10	Oxide Composite	7.8	0.1	44.8
G11	Fresh composite	3.6	0.1	57.5
Average Oxide Samples		4.68	0.14%	38.3%
Average Fresh Samples		3.33	0.18%	33.1%
Average All Samples		3.94	0.16%	35.5%

Encouragingly, most of the gravity tests exhibited these levels of recovery at the low mass recovery rates of 0.1 - 0.2% of feed mass. Azimuth believes that the results from both of these series of tests, make a compelling case for further investigation into what appears to be a simple flow sheet solution for the project.

As the resource continues to be developed, further definitive metallurgical testing will be undertaken and currently results of metallurgical test work for the Hicks deposit are awaited. Historic leach test work performed by Cambior on the Hicks deposit indicated encouraging levels of extraction. Although details of the test work method are not available, the recoveries achieved appear to be in line with the recent results at Smarts. Recoveries from 9 leach tests from a broad range of head grades returned levels ranging from 76% to 99% gold extraction with an average across the tests of 89%, giving further support for the view the material is a free milling ore.

After receipt of results from Hicks, the next suite of metallurgical tests will begin to consider the likely flow sheet that will best suit the deposits of the West Omai Project.

Yours faithfully,

**Dominic O'Sullivan** 

**Managing Director** 

The information in this report that relates to exploration results, mineral resources or ore reserves is based on information compiled by Mr Dominic O'Sullivan, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr O'Sullivan is the Managing Director and full-time employee of Azimuth Resources Limited Mr O'Sullivan 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 as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'")