# **ASX** Release

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# **Directors**

Michael Hunt - Chairman

Dominic O'Sullivan - Managing Director

Richard Monti – Executive Director

Dean Felton - Non-Executive Director

# **Issued Capital**

382,309,058 Ordinary Shares 39,442,200 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.



# Hicks Deposit - Initial Positive Metallurgical Test Work

# **Highlights**

Cyanidation test work demonstrates average whole ore recoveries of:

- 93.3% in Oxide material
- 92.8% in Fresh material

Gravity amenability test work reveals average recoveries of:

- 7% in Oxide material
- 16% in Fresh material

Azimuth Resources Limited has recently received positive results from a sighter metallurgy test work 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 Hicks Deposit, West Omai Project, Guyana, South America.

Eleven interval 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, one composite of fresh material representing a spread of grades from spatially diverse locations within the deposit was also tested. Details of each sample type are given in the tables below.

The results were extremely positive. Of significance to the Company are the high extraction rates (recoveries) achieved in both oxidised and fresh materials indicating that gold mineralisation at the Hicks Deposit, as is also the case 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 all tests except 3 yielding greater than 90%.
- In the gravity amenability program, by average, 12% of gold was recovered to a secondary (panned) concentrate, following a primary (centrifugal) concentration stage recovery rate of 40%.

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

**Table 1 - Cyanide Leach Program Results** 

Test	Type and Location of Material	Head Grade (g/t Au)	Au Recovery (72 hours)	NaCN Consumption (kg/t)
C1	Oxide Ore - HRC007 - 32 -33m	0.79	91.4	1.4
C2	Oxide Ore - HRC007 - 27 -31m	2.44	89.8	1.6
C3	Oxide Ore - HRC001 - 6 -9m	0.10	94.0	1.0
C4	Oxide Ore - HRC007 17 - 22m	2.23	96.0	1.0
C5	Oxide Ore - HRC101 - 9 -15m	1.29	95.5	0.9
C6	Fresh Ore - HRC079 - 61 -62m	0.57	93.0	1.0
C7	Fresh Ore - HRC018 113 - 114m	1.84	96.5	0.6
C8	Fresh Ore - HRC004 72 -75m	4.90	89.4	0.3
C9	Fresh Ore - HRC004 69 - 70m	4.01	88.0	0.7
C10	Fresh Ore - HRC079 60 - 61m	0.66	94.3	0.5
C11	Fresh Ore - Bulk Rejects			
	Compilation	0.63	95.8	0.4
Average All				
Samples		1.77	93.1	0.9
Average Oxide		4.27	00.0	4.3
Samples		1.37	93.3	1.2
Average Fresh Samples		2.10	92.8	0.6

Samples were leached for 72 hours at a target 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 and are also in line with what was observed in the Smarts test work program.

Although excellent extraction rates were achieved, 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 as well as incorporating the use of leach kinetics accelerants such as oxygen and lead nitrate.



**Table 2 – Gravity Amenability Program Results** 

		Au Grade			Au Recovery, %		Mass Pull %	
Test No.	Composite	Head Grade	Gravity Con	Pan Con	Gravity Con	Pan Con	Gravity Con	Pan Con
		g/t	g/t	g/t	%	%	%	%
G1	Oxide - HRC007 - 32 -33m	0.41	2.4	8.8	21.2	3.3	3.6	0.2
G2	Oxide - HRC007 - 27 -31m	2.97	13.9	83.0	24.6	3.2	5.1	0.1
G3	Oxide - HRC001 - 6 -9m	0.05	0.8	3.6	51.3	17.5	3.7	0.3
G4	Oxide - HRC007 17 - 22m	2.31	9.0	141.8	23.5	6.5	6.1	0.1
G5	Oxide - HRC101 - 9 -15m	1.42	3.7	67.3	24.1	4.5	7.4	0.1
G6	Fresh - HRC079 - 61 -62m	0.35	3.8	48.5	55.0	14.9	3.8	0.1
G7	Fresh - HRC018 113 - 114m	1.56	8.5	237.8	28.3	9.6	5.9	0.1
G8	Fresh - HRC004 72 -75m	5.32	43.4	230.6	54.1	21.0	6.1	0.4
<b>G</b> 9	Fresh - HRC004 69 - 70m	3.91	37.7	284.6	45.7	6.7	4.7	0.1
G10	Fresh - HRC079 60 - 61m	0.53	5.4	185.0	55.0	19.6	6.4	0.1
G11	Fresh - Bulk Rejects Compilation	0.61	5.6	144.2	62.5	26.7	5.6	0.1
Average All Samples					40.5	12.1	5.3	0.2
Average Oxide Ore Samples					28.9	7.0	5.2	0.2
Average Fresh Ore Samples					50.1	16.4	5.4	0.2

As expected, the Hicks samples exhibited a lower level of response to the gravity concentration tests than the earlier Smarts work.

However, there is clearly amenability to gravity concentration with composites showing 21% - 63% of gold being recovered to **primary** gravity concentrate in 3% - 7% of the mass. There is an opportunity to improve upon the recovery values seen in the secondary (panned) concentrate recovery (average 12%) using intense cyanidation technology (Inline Leach Reactors) as opposed to solely a second stage of physical separation processes such as jigs or tabling to reduce mass pull and increase concentrate grade.

With this in mind, it is a realistic target for gravity gold recovery rates for Hicks material to be closer to an average of the observed primary and secondary stage recovery rates, in the vicinity of 20% – 30%. The next phase of test work on the project will investigate this opportunity further.



With the recent results received from Smarts recently also exhibiting excellent cyanide extraction rates, these Hicks results reinforce Azimuth's belief that ore from the West Omai deposits is indeed defined as free milling with significant potential for efficiency gains in gravity concentration.

As the resource continues to be developed, the next suite of metallurgical tests will allow Azimuth to begin to consider a simple 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'"). Mr O'Sullivan consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.