

1509-0067



CLIENT: Macquarie Gold (Challenger Mines)						ANALYTES REQUIRED <i>Complete &amp; tick as required</i>															
CONTACT: Brett Hampel/Ramon Atayde						Alkalinity, BOD, CN, Ec, pH	Hardness, SAR	TSS, Turbidity	Al, As, B, Cd, Ca, Cr, Co, Cu	Fe, Pb, Mg, Mn, Hg, Mo, Ni, F	K, Se, Na, S, Zn	Oil & Grease	Cl, F								
ADDRESS: 65 Golden Gully Road Sadelong NSW 2729																					
TELEPHONE: 0407 729 788						E-mail: bwh.business@bigpond.com															
SAMPLE IDENTIFICATION	NATURE OF SAMPLE	DATE SAMPLED	TIME SAMPLED	CONTAINER TYPE	NUMBER OF CONTAINERS																
Goodwin dam	Water	10-9-15	9:30	Plastic/glass	1																
Goodwin dam	Oil & Grease	10-9-15	9:30	Plastic/glass	1							✓									
decline sample	water	10-9-15	9:30	plastic	1																
decline sample	oil & Grease	10-9-15	9:30	Glass	1							✓									

Please supply a brown glass O&G bottle if Oil and grease is required as well as a 1L plastic

RELINQUISHED BY:	NAME	SIGNATURE	ORGANISATION	DATE	TIME
	melanie Baker	<i>M. Baker</i>	Challenger mines	10-9-15	9:30
Mode of Transport <small>Include Consignment Note # if applicable</small>					
RECEIVED BY:					



Macquarie Gold Ltd  
c/- 'Willowie' Delegate Road  
Bombala NSW 2632  
Attention: Mike Walcott

Monday, September 28, 2015



NATA Accredited Laboratory  
Number: 9597

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## LABORATORY ANALYSIS REPORT

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<u>Facility:</u>	<u>Order #</u>	<u>Date Received</u>
<u>Sample Type</u>	<u>Collected By</u>	
Water	Melanie Maher	14-September-2015

<u>EAL ID</u>	<u>Client ID.</u> Date/Time sample taken	<u>Test</u>	<u>Result (units)</u>	<u>Method Reference</u>	<u>Limit of Reporting</u>
15Sep-0230	Goodwin Dam 10.09.15 9.30am	Alkalinity, Total as CaCO <sub>3</sub>	104 mg/L	APHA 2320 B	2
		Aluminium (acid extractable)	1.38 mg/L	APHA 3030 E/3120 B	0.03
		Arsenic (acid extractable)	<0.02 mg/L	APHA 3030 E/3120 B	0.02
		Biochemical Oxygen Demand	<2 mg/L	APHA 5210 B/4500-O G	2
		Boron (acid extractable)	1.06 mg/L	* APHA 3030 E/3120 B	0.02
		Cadmium (acid extractable)	<0.002 mg/L	APHA 3030 E/3120 B	0.002
		Calcium (acid extractable)	44.5 mg/L	APHA 3030 E/3120 B	0.03
		Chloride	5.2 mg/L	APHA 4110 B	0.1
		Chromium (acid extractable)	<0.002 mg/L	APHA 3030 E/3120 B	0.002
		Cobalt (acid extractable)	<0.003 mg/L	* APHA 3030 E/3120 B	0.003
		Copper (acid extractable)	<0.002 mg/L	APHA 3030 E/3120 B	0.002
		Cyanide	<0.002 mg/L	* APHA 4500-CN E	0.002
		Conductivity	392 µS/cm	APHA 2510 B	1
		Fluoride	0.4 mg/L	APHA 4110 B	0.1
		Total Hardness as CaCO <sub>3</sub>	160 mg/L	APHA 2340 B	2
		Iron (acid extractable)	0.61 mg/L	APHA 3030 E/3120 B	0.01
		Lead (acid extractable)	<0.01 mg/L	APHA 3030 E/3120 B	0.01
		Magnesium (acid extractable)	12.0 mg/L	APHA 3030 E/3120 B	0.02
		Manganese (acid extractable)	0.071 mg/L	APHA 3030 E/3120 B	0.001
		Mercury	<0.0001 mg/L	Analysis by Ecovise, Melbourne (acc no: 992)	
		Molybdenum (acid extractable)	<0.01 mg/L	* APHA 3030 E/3120 B	0.01
		Nickel (acid extractable)	<0.01 mg/L	APHA 3030 E/3120 B	0.01

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<u>Sample Type</u>	<u>Collected By</u>	
Water	Melanie Maher	14-September-2015

<u>EAL ID</u>	<u>Client ID.</u> Date/Time sample taken	<u>Test</u>	<u>Result (units)</u>	<u>Method Reference</u>	<u>Limit of Reporting</u>
15Sep-0230	Goodwin Dam 10.09.15 9.30am	Oil & Grease	3 mg/L	APHA 5520 D	1
		Phosphorus	0.02 mg/L	APHA 3030 E/3120 B	0.02
		pH	7.8 pH units	APHA 4500-H+ B	
		Potassium (acid extractable)	2.5 mg/L	APHA 3030 E/3120 B	0.2
		Sodium Adsorption Ratio	1 Ratio	LTM-W-039	
		Selenium (acid extractable)	<0.02 mg/L	APHA 3030 E/3120 B	0.02
		Sodium (acid extractable)	16.4 mg/L	APHA 3030 E/3120 B	0.05
		Sulphur (acid extractable)	26.9 mg/L	* APHA 3030 E/3120 B	0.06
		Total Suspended Solids	3 mg/L	APHA 2540 D	2
		Turbidity	12 NTU	APHA 2130 B	1
		Zinc (acid extractable)	0.008 mg/L	APHA 3030 E/3120 B	0.002
15Sep-0231	Decline Water 10.09.15 9.30am	Alkalinity, Total as CaCO <sub>3</sub>	194 mg/L	APHA 2320 B	2
		Aluminium (acid extractable)	0.30 mg/L	APHA 3030 E/3120 B	0.03
		Arsenic (acid extractable)	<0.02 mg/L	APHA 3030 E/3120 B	0.02
		Biochemical Oxygen Demand	<2 mg/L	APHA 5210 B/4500-O G	2
		Boron (acid extractable)	0.71 mg/L	* APHA 3030 E/3120 B	0.02
		Cadmium (acid extractable)	<0.002 mg/L	APHA 3030 E/3120 B	0.002
		Calcium (acid extractable)	103 mg/L	APHA 3030 E/3120 B	0.03
		Chloride	7.3 mg/L	APHA 4110 B	0.1
		Chromium (acid extractable)	<0.002 mg/L	APHA 3030 E/3120 B	0.002
		Cobalt (acid extractable)	<0.003 mg/L	* APHA 3030 E/3120 B	0.003

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Water	Melanie Maher	14-September-2015

<u>EAL ID</u>	<u>Client ID.</u> Date/Time sample taken	<u>Test</u>	<u>Result (units)</u>	<u>Method Reference</u>	<u>Limit of Reporting</u>
15Sep-0231	Decline Water 10.09.15 9.30am	Copper (acid extractable)	<0.002 mg/L	APHA 3030 E/3120 B	0.002
		Cyanide	<0.002 mg/L	* APHA 4500-CN E	0.002
		Conductivity	730 µS/cm	APHA 2510 B	1
		Fluoride	0.9 mg/L	APHA 4110 B	0.1
		Total Hardness as CaCO3	328 mg/L	APHA 2340 B	2
		Iron (acid extractable)	0.57 mg/L	APHA 3030 E/3120 B	0.01
		Lead (acid extractable)	<0.01 mg/L	APHA 3030 E/3120 B	0.01
		Magnesium (acid extractable)	17.1 mg/L	APHA 3030 E/3120 B	0.02
		Manganese (acid extractable)	0.493 mg/L	APHA 3030 E/3120 B	0.001
		Mercury	<0.0001 mg/L	Analysis by Ecowise, Melbourne (acc no: 992)	
		Molybdenum (acid extractable)	<0.01 mg/L	* APHA 3030 E/3120 B	0.01
		Nickel (acid extractable)	<0.01 mg/L	APHA 3030 E/3120 B	0.01
		Oil & Grease	6 mg/L	APHA 5520 D	1
		Phosphorus	<0.02 mg/L	APHA 3030 E/3120 B	0.02
		pH	7.2 pH units	APHA 4500-H+ B	
		Potassium (acid extractable)	5.6 mg/L	APHA 3030 E/3120 B	0.2
		Sodium Adsorption Ratio	<1 Ratio	LTM-W-039	
		Selenium (acid extractable)	<0.02 mg/L	APHA 3030 E/3120 B	0.02
		Sodium (acid extractable)	19.4 mg/L	APHA 3030 E/3120 B	0.05
		Sulphur (acid extractable)	59.0 mg/L	* APHA 3030 E/3120 B	0.06
		Total Suspended Solids	<2 mg/L	APHA 2540 D	2
		Turbidity	7 NTU	APHA 2130 B	1

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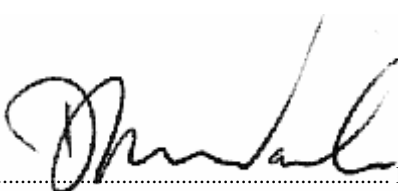
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15Sep-0231	<b>Decline Water</b> 10.09.15 9.30am	<b>Zinc (acid extractable)</b>	<b>0.047</b> mg/L	APHA 3030 E/3120 B	0.002

*Note:*

*NATA accreditation not held for tests marked with \**

Signed .....  ..... David Wade, Laboratory Manager.

*All samples analysed as received.  
All soil results are reported on a dry basis.  
The EAL takes no responsibility for the end use of results within this report.  
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