

Challenger Mines Pty Ltd

**Environment Protection Licence 10265
Monitoring Data Summary**

December 2017

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1. INTRODUCTION

Environmental Protection Licence (EPL) holders are required under the *Protection of the Environment Operations Act 1997* to make publicly available their monitoring results for those parameters specified in the EPL. This document has been prepared to satisfy this requirement.

Challenger Mines operations are conducted in accordance with EPL 10265. The licence details are as follows:

License Holder: Challenger Mines Pty Limited

Licence Number: 10265

Premises: Challenger Mines

33 Ryans Road

Adelong 2729

Access to Licence: <http://www.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=10265&id=10265&option=licence&searchrange=licence&range=POEOlicence&prp=no&status=Issued>

Monitoring Locations: See main text and **Appendix A**

This document provides a summary of environmental monitoring data sampled as prescribed by EPL 10265 for December 2017.

Monitoring data provided is as follows:

- Air quality
- Surface water quality
- Ground water quality

2. AIR QUALITY

Under EPL 10265 CMPL is required to undertake dust monitoring at EPA Monitoring Points 11,12,13,14, and 15 (**Appendix A**)

2.1 Dust

Pollutant:	Total Solid Particles
Unit of measure:	Grams per square metre per month
Monitoring location:	See Table 1 and Appendix A .
Monitoring frequency required by licence:	Monthly

Table 1. Dust Monitoring Summary

		EPL 11	EPL 12	EPL 13	EPL 14	EPL 15
	Sample Date					
	14/12/2018	Result	Result	Result	Result	Result
Total Insoluble Solids Per Sampling Period	g/m ² /30 days	0.6	0.5	0.5	X	0.4

3. SURFACE WATER

Under EPL 10265 CMPL is required to undertake surface water monitoring at EPA Monitoring Points 3,4,5, and 6 (**Appendix A**).

Pollutant:	Various see Table 2
Unit of measure:	See Table 2
Monitoring location:	See Table2 and Appendix A .
Monitoring frequency required by licence:	Quarterly at EPL4,5,6 and weekly at EPL 3 during discharge

Table 2 Surface Water Monitoring Summary

Sample Date	05/12/2017				
		EPL 3	EPL 4	EPL 5	EPL
Analyte Name	Units				
pH**	No unit	7.2	7.7	7.8	7.7
Conductivity @ 25 C	µS/cm	340	360	450	300
Fluoride	mg/L	0.17	0.19	0.38	0.20
Sulphate, SO4	mg/L	88	91	100	61
Biochemical Oxygen Demand (BOD5)	mg/L	<5	<5	<5	<5
Total Cyanide	mg/L	<0.004	<0.004	<0.004	<0.004
Oil and Grease	mg/L	16	7	14	7
Chemical Oxygen Demand	mg/L	24	26	17	22
Total Suspended Solids Dried at 103-105°C	mg/L	24	27	6	9
Anionic Surfactants as MBAS (Calc. as LAS MW 288)	mg/L	0.2	0.2	0.1	0.1
Total Aluminium	mg/L	1.7	1.1	0.18	1.1
Total Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001
Total Cadmium	mg/L	<0.0001	<0.0001	<0.0001	<0.0001
Total Chromium	mg/L	0.003	0.002	<0.001	0.001
Total Cobalt	mg/L	<0.001	<0.001	<0.001	<0.001
Total Copper	mg/L	0.010	0.008	0.002	0.005
Total Lead	mg/L	0.001	<0.001	<0.001	<0.001
Total Manganese	mg/L	0.028	0.018	0.004	0.014
Total Molybdenum	mg/L	0.002	0.001	0.002	0.002
Total Nickel	mg/L	0.002	0.001	<0.001	0.001
Total Selenium	mg/L	<0.001	<0.001	<0.001	<0.001
Total Zinc	mg/L	0.006	<0.005	0.006	0.008
Total Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001

4. Ground Water

Under EPL 10265 CMPL is required to undertake ground water monitoring at EPA Monitoring Points 7,8,9 and 10 (**Appendix A**).

Pollutant:	Various see Table 3
Unit of measure:	See Table 3
Monitoring location:	See Table3 and Appendix A .
Monitoring frequency required by licence:	Quarterly

All groundwater bores were inspected and found to be dry this quarter no sampling required.

Appendix A

EPL monitoring Locations for Dust, Groundwater and Surface Waters

EPL SAMPLING LOCATIONS FOR WATER AND DUST MONITORING

