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TRITTON OPERATIONS

Tritton and Girilambone Operations

Monthly Environmental Monitoring Report

February 2016

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YARRANDALE ROAD, HERMIDALE, NSW, 2831

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BOORAMUGGA ROAD, GIRILAMBONE, NSW, 2831

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FEBRUARY 2016 – GROUNDWATER MONITORING REPORT
TRITTON OPERATIONS LICENCE NO.11254

Licensee: TRITTON RESOURCES LIMITED					
EPL No. 11254					
Sample Point	Monitoring Frequency	Date	Parameter	Measurement	Unit
EPA ID No. 18 - PZH007	Quarterly	Sampled: 3/02/2016	Arsenic	<0.001	mg/L
			Barium	0.136	mg/L
			Beryllium	<0.001	mg/L
		Obtained: 18/02/2016	Cadmium	0.001	mg/L
			Chloride	1530	mg/L
			Chromium	0.001	mg/L
		Published: 2/03/2016	Cobalt	0.021	mg/L
			Conductivity (EC)	7980	µS/cm
			Copper	0.137	mg/L
			Iron	0.48	mg/L
			Lead	0.012	mg/L
			Manganese	0.477	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.027	mg/L
			pH	6.96	pH Unit
			Sulfate	1130	mg/L
			Vanadium	<0.01	mg/L
Zinc	0.113	mg/L			
SWL	38.17	m			
EPA ID No. 19 - PZH008	Quarterly	Sampled: 3/02/2016	Arsenic	0.019	mg/L
			Barium	0.02	mg/L
			Beryllium	<0.001	mg/L
		Obtained: 18/02/2016	Cadmium	<0.0001	mg/L
			Chloride	3660	mg/L
			Chromium	0.002	mg/L
		Published: 2/03/2016	Cobalt	<0.001	mg/L
			Conductivity (EC)	14800	µS/cm
			Copper	0.009	mg/L
			Iron	0.84	mg/L
			Lead	<0.001	mg/L
			Manganese	0.06	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.002	mg/L
			pH	6.86	pH Unit
			Sulfate	1780	mg/L
			Vanadium	<0.01	mg/L
Zinc	0.032	mg/L			
SWL	23.38	m			

EPA ID No. 20 - PZH009	Quarterly	Sampled: 3/02/2016	Arsenic	<0.001	mg/L
		Obtained: 18/02/2016	Barium	0.039	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	<0.0001	mg/L
			Chloride	4630	mg/L
			Chromium	0.001	mg/L
			Cobalt	0.004	mg/L
			Conductivity (EC)	18700	µS/cm
			Copper	0.022	mg/L
			Iron	1.06	mg/L
			Lead	0.001	mg/L
			Manganese	0.193	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.002	mg/L
			pH	6.84	pH Unit
Sulfate	2340	mg/L			
Vanadium	<0.01	mg/L			
Zinc	0.018	mg/L			
SWL	18.22	m			
EPA ID No. 22 - PZH013	Quarterly			DRY	
EPA ID No. 23 - PZH014	Quarterly	Sampled: 3/02/2016	Arsenic	0.001	mg/L
		Obtained: 18/02/2016	Barium	0.012	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0004	mg/L
			Chloride	4050	mg/L
			Chromium	<0.001	mg/L
			Cobalt	0.001	mg/L
			Conductivity (EC)	16200	µS/cm
			Copper	0.008	mg/L
			Iron	0.2	mg/L
			Lead	<0.001	mg/L
			Manganese	0.031	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.006	mg/L
			pH	6.53	pH Unit
Sulfate	1740	mg/L			
Vanadium	<0.01	mg/L			
Zinc	0.037	mg/L			
SWL	51.75	m			
EPA ID No. 24 - PZH015	Quarterly	Sampled: 3/02/2016	Arsenic	<0.001	mg/L
		Obtained: 18/02/2016	Barium	0.022	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0002	mg/L
			Chloride	4380	mg/L

		Published: 2/03/2016	Chromium	<0.001	mg/L
			Cobalt	0.002	mg/L
			Conductivity (EC)	17800	µS/cm
			Copper	0.007	mg/L
			Iron	0.18	mg/L
			Lead	0.003	mg/L
			Manganese	0.083	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.004	mg/L
			pH	6.52	pH Unit
			Sulfate	2170	mg/L
			Vanadium	<0.01	mg/L
			Zinc	0.028	mg/L
			SWL	52.32	m

FEBRUARY 2016 – GROUNDWATER MONITORING REPORT
GIRILAMBONE OPERATIONS LICENCE NO.4501

Licensee: TRITTON RESOURCES LIMITED					
EPL No. 4501					
Sample Point	Monitoring Frequency	Date	Parameter	Measurement	Unit
EPA ID No. 2 - GIP224	Monthly	Sampled: 10/02/2016	Arsenic	<0.010	mg/L
			Barium	0.026	mg/L
			Beryllium	<0.010	mg/L
		Obtained: 26/02/2016	Cadmium	0.0015	mg/L
			Chloride	8760	mg/L
			Chromium	<0.010	mg/L
		Published: 2/03/2016	Cobalt	<0.010	mg/L
			Conductivity (EC)	30700	µS/cm
			Copper	0.031	mg/L
			Iron	<0.10	mg/L
			Lead	<0.010	mg/L
			Manganese	0.231	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.015	mg/L
			pH	6.71	pH Unit
			Sulfate	4440	mg/L
			Vanadium	<0.10	mg/L
Zinc	0.084	mg/L			
SWL	5.39	m			
EPA ID No. 3 - GIP225	Monthly	Sampled: 8/02/2016	Arsenic	<0.010	mg/L
			Barium	0.03	mg/L
			Beryllium	<0.010	mg/L
		Obtained: 26/02/2016	Cadmium	<0.0010	mg/L
			Chloride	6100	mg/L
			Chromium	<0.010	mg/L
		Published: 2/03/2016	Cobalt	0.015	mg/L
			Conductivity (EC)	32800	µS/cm
			Copper	0.042	mg/L
			Iron	0.4	mg/L
			Lead	<0.010	mg/L
			Manganese	0.479	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.015	mg/L
			pH	7	pH Unit
			Sulfate	16200	mg/L
			Vanadium	<0.10	mg/L
Zinc	0.248	mg/L			
SWL	11.21	m			

EPA ID No. 7 - GIP274	Monthly	Sampled: 8/02/2016 Obtained: 26/02/2016 Published: 2/03/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	<0.010 0.016 <0.010 <0.0010 10000 <0.010 <0.010 32100 <0.010 <0.10 <0.010 0.063 <0.0001 0.011 7.08 3410 <0.10 <0.050 17.74	mg/L mg/L mg/L mg/L mg/L mg/L mg/L µS/cm mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L mg/L m
EPA ID No. 12 - GIP290	Monthly	Sampled: 9/02/2016 Obtained: 26/02/2016 Published: 2/03/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	<0.001 0.021 <0.001 0.0254 3620 0.001 0.118 16500 0.215 0.14 0.007 11.2 <0.0001 0.026 6.45 4530 <0.01 0.496 15.29	mg/L mg/L mg/L mg/L mg/L mg/L mg/L µS/cm mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L mg/L m
EPA ID No. 13 - GIP291	Monthly	Sampled: 17/02/2016 Obtained: 26/02/2016 Published: 2/03/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC)	<0.010 0.023 <0.010 0.002 8000 <0.010 <0.010 26500	mg/L mg/L mg/L mg/L mg/L mg/L mg/L µS/cm

			Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	0.054 <0.10 <0.010 0.133 <0.0001 <0.010 6.77 3110 <0.10 0.105 9.68	mg/L mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L mg/L m
EPA ID No. 14 - GIP292A	Monthly	Sampled: 9/02/2016 Obtained: 26/02/2016 Published: 2/03/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	0.05 <0.010 0.077 2.81 2580 0.057 48 33000 220 118 <0.010 500 <0.0001 14.7 3.89 33600 <0.10 182 6.22	mg/L mg/L mg/L mg/L mg/L mg/L mg/L μS/cm mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L m
EPA ID No. 16 - GIP292AS	Monthly	Sampled: 9/02/2016 Obtained: 26/02/2016 Published: 2/03/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate	0.306 <0.010 0.528 8.1 1550 0.261 115 34800 1020 1540 0.015 619 <0.0001 33.9 3.33 57600	mg/L mg/L mg/L mg/L mg/L mg/L mg/L μS/cm mg/L mg/L mg/L mg/L mg/L pH Unit mg/L

			Vanadium	1.45	mg/L
			Zinc	628	mg/L
			SWL	6.24	m
EPA ID No. 17 - GIP293	Monthly	Sampled: 11/02/2016	Arsenic	0.027	mg/L
			Barium	<0.010	mg/L
			Beryllium	<0.010	mg/L
		Obtained: 26/02/2016	Cadmium	2.04	mg/L
			Chloride	4280	mg/L
			Chromium	<0.010	mg/L
		Published: 2/03/2016	Cobalt	28.6	mg/L
			Conductivity (EC)	41800	µS/cm
			Copper	30.4	mg/L
			Iron	0.87	mg/L
			Lead	0.012	mg/L
			Manganese	483	mg/L
			Mercury	0.0004	mg/L
			Nickel	9.06	mg/L
			pH	4.11	pH Unit
			Sulfate	36400	mg/L
			Vanadium	<0.10	mg/L
Zinc	92.5	mg/L			
SWL	12.79	m			
EPA ID No. 18 - GIP294	Monthly	Sampled: 11/02/2016	Arsenic	<0.010	mg/L
			Barium	<0.010	mg/L
			Beryllium	<0.010	mg/L
		Obtained: 26/02/2016	Cadmium	3.08	mg/L
			Chloride	1960	mg/L
			Chromium	<0.010	mg/L
		Published: 2/03/2016	Cobalt	40.6	mg/L
			Conductivity (EC)	49900	µS/cm
			Copper	170	mg/L
			Iron	0.19	mg/L
			Lead	0.011	mg/L
			Manganese	270	mg/L
			Mercury	0.0004	mg/L
			Nickel	12.1	mg/L
			pH	4.91	pH Unit
			Sulfate	49600	mg/L
			Vanadium	<0.10	mg/L
Zinc	206	mg/L			
SWL	13.12	m			
EPA ID No. 19 - GIP295	Monthly	Sampled: 10/02/2016	Arsenic	<0.010	mg/L
			Barium	0.049	mg/L
		Obtained: 26/02/2016	Beryllium	<0.010	mg/L
			Cadmium	<0.0010	mg/L
			Chloride	9280	mg/L

		Published: 2/03/2016	Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	<0.010 0.012 29900 0.048 <0.10 <0.010 0.695 <0.0001 0.01 6.68 3030 <0.10 0.091 18.29	mg/L mg/L µS/cm mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L m
EPA ID No. 20 - GIP296	Monthly	Sampled: 10/02/2016 Obtained: 26/02/2016 Published: 2/03/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	<0.010 0.014 <0.010 <0.0010 3990 <0.010 <0.010 21300 0.014 <0.10 <0.010 0.014 <0.0001 <0.010 6.72 6840 <0.10 <0.050 8.17	mg/L mg/L mg/L mg/L mg/L mg/L mg/L µS/cm mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L m
EPA ID No. 21 - GIP297	Monthly	Sampled: 10/02/2016 Obtained: 26/02/2016 Published: 2/03/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury	<0.001 0.021 <0.001 0.0003 4960 <0.001 0.001 17000 0.008 <0.05 <0.001 0.012 <0.0001	mg/L mg/L mg/L mg/L mg/L mg/L mg/L µS/cm mg/L mg/L mg/L mg/L mg/L

			Nickel	0.003	mg/L
			pH	6.81	pH Unit
			Sulfate	1910	mg/L
			Vanadium	<0.01	mg/L
			Zinc	0.026	mg/L
			SWL	25.64	m
EPA ID No. 22 - GIP298	Monthly	Sampled: 10/02/2016 Obtained: 26/02/2016 Published: 2/03/2016	Arsenic	<0.010	mg/L
			Barium	<0.010	mg/L
			Beryllium	<0.010	mg/L
			Cadmium	<0.0010	mg/L
			Chloride	9800	mg/L
			Chromium	<0.010	mg/L
			Cobalt	<0.010	mg/L
			Conductivity (EC)	31100	µS/cm
			Copper	0.019	mg/L
			Iron	<0.10	mg/L
			Lead	<0.010	mg/L
			Manganese	0.088	mg/L
			Mercury	<0.0001	mg/L
			Nickel	<0.010	mg/L
			pH	6.71	pH Unit
			Sulfate	3270	mg/L
			Vanadium	<0.10	mg/L
			Zinc	<0.050	mg/L
			SWL	21.32	m
EPA ID No. 23 - GIP299	Monthly	Sampled: 17/02/2016 Obtained: 26/02/2016 Published: 2/03/2016	Arsenic	<0.010	mg/L
			Barium	<0.010	mg/L
			Beryllium	<0.010	mg/L
			Cadmium	0.0024	mg/L
			Chloride	7660	mg/L
			Chromium	<0.010	mg/L
			Cobalt	<0.010	mg/L
			Conductivity (EC)	31200	µS/cm
			Copper	0.037	mg/L
			Iron	<0.10	mg/L
			Lead	<0.010	mg/L
			Manganese	0.024	mg/L
			Mercury	<0.0001	mg/L
			Nickel	<0.010	mg/L
			pH	6.37	pH Unit
			Sulfate	8510	mg/L
			Vanadium	<0.10	mg/L
			Zinc	<0.050	mg/L
			SWL	27.32	m
EPA ID No. 24 -	Monthly	Sampled: 17/02/2016	Arsenic	<0.010	mg/L
			Barium	0.016	mg/L

GIP300		Obtained: 26/02/2016 Published: 2/03/2016	Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	<0.010 0.0014 5860 <0.010 <0.010 35200 0.023 <0.10 <0.010 <0.010 <0.0001 <0.010 6.34 17200 <0.10 <0.050 19.46	mg/L mg/L mg/L mg/L mg/L μS/cm mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L mg/L m
EPA ID No. 25 - GIP301	Monthly	Sampled: 9/02/2016 Obtained: 26/02/2016 Published: 2/03/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	<0.001 0.03 <0.001 0.0007 4700 <0.001 <0.001 16800 0.029 <0.05 <0.001 0.07 <0.0001 0.009 6.49 2100 <0.01 0.085 15.03	mg/L mg/L mg/L mg/L mg/L mg/L μS/cm mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L m
EPA ID No. 26 - GIP302	Monthly	Sampled: 10/02/2016 Obtained: 26/02/2016 Published: 2/03/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron	<0.010 0.017 <0.010 0.0015 6530 <0.010 0.065 30100 0.014 <0.10	mg/L mg/L mg/L mg/L mg/L mg/L μS/cm mg/L mg/L

			Lead	<0.010	mg/L
			Manganese	11.4	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.086	mg/L
			pH	6.27	pH Unit
			Sulfate	10600	mg/L
			Vanadium	<0.10	mg/L
			Zinc	0.06	mg/L
			SWL	15.26	m