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TRITTON OPERATIONS

Tritton and Girilambone Operations

Monthly Environmental Monitoring Report

May 2017

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YARRANDALE ROAD, HERMIDALE, NSW, 2831

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BOORAMUGGA ROAD, GIRILAMBONE, NSW, 2831

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MAY 2017 – 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. 12 - PZH001	Quarterly	Sampled: 15/5/17	Arsenic	<0.001	mg/L ¹
			Barium	0.031	mg/L
			Beryllium	<0.001	mg/L
		Obtained: 30/5/17	Cadmium	0.0003	mg/L
			Chloride	4450	mg/L
			Chromium	0.001	mg/L
		Published: 8/06/2017	Cobalt	<0.001	mg/L
			Conductivity (EC)	15100	µS/cm
			Copper	0.011	mg/L
			Iron	0.09	mg/L
			Lead	<0.001	mg/L
			Manganese	0.02	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.006	mg/L
			pH	7.62	pH Unit
			Sulfate	1810	mg/L
			Vanadium	<0.01	mg/L
Zinc	0.039	mg/L			
SWL	11.17	m			
EPA ID No. 13 - PZH002	Quarterly	Sampled: 15/5/17	Arsenic	0.002	mg/L
			Barium	0.019	mg/L
			Beryllium	<0.001	mg/L
		Obtained: 30/5/17	Cadmium	0.0001	mg/L
			Chloride	3660	mg/L
			Chromium	<0.001	mg/L
		Published: 8/06/2017	Cobalt	<0.001	mg/L
			Conductivity (EC)	13100	µS/cm
			Copper	0.006	mg/L
			Iron	5.72	mg/L
			Lead	<0.001	mg/L
			Manganese	0.187	mg/L
			Mercury	<0.0001	mg/L
			Nickel	<0.001	mg/L
			pH	7.17	pH Unit
			Sulfate	1740	mg/L
			Vanadium	<0.01	mg/L

¹ Milligrams per litre

			Zinc SWL	0.061 25.61	mg/L m
EPA ID No. 14 - PZH003	Quarterly	Sampled: 15/5/17 Obtained: 30/5/17 Published: 8/06/2017	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	<0.001 0.016 <0.001 0.0003 5390 <0.001 0.002 17700 0.011 0.32 0.001 0.064 <0.0001 0.007 7.23 2150 <0.01 0.061 62.91	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. 15 - PZH004	Quarterly	Sampled: 15/5/17 Obtained: 15/5/17 Published: 8/06/2017	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	DRY	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 mg/L pH Unit mg/L mg/L mg/L mg/L m
EPA ID No. 16 - PZH005	Quarterly	Sampled: 15/5/17 Obtained: 30/5/17	Arsenic Barium Beryllium Cadmium Chloride Chromium	0.002 0.017 <0.001 0.0006 5210 <0.001	mg/L mg/L mg/L mg/L mg/L mg/L

		Published: 8/06/2017	Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	0.002 16200 0.031 0.09 0.005 0.098 <0.0001 0.035 7.39 1210 <0.01 0.051 10.14	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. 17 - PZH006	Quarterly	Sampled: 15/5/17 Obtained: 30/5/17 Published: 8/06/2017	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	<0.001 0.028 <0.001 <0.0001 2990 0.002 0.004 11300 0.006 0.64 0.011 0.09 <0.0001 0.005 7.28 1690 <0.01 0.008 30.68	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 mg/L pH Unit mg/L mg/L mg/L m

MAY 2017 – 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: 10/5/17	Arsenic	<0.010	mg/L
			Barium	0.029	mg/L
			Beryllium	<0.010	mg/L
		Obtained: 20/5/17	Cadmium	0.0027	mg/L
			Chloride	8840	mg/L
			Chromium	<0.010	mg/L
		Published: 8/06/2017	Cobalt	<0.010	mg/L
			Conductivity (EC)	30600	µS/cm
			Copper	0.042	mg/L
			Iron	<0.10	mg/L
			Lead	<0.010	mg/L
			Manganese	0.079	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.016	mg/L
			pH	7.37	pH Unit
			Sulfate	4580	mg/L
			Vanadium	<0.10	mg/L
Zinc	0.067	mg/L			
SWL	4.31	m			
EPA ID No. 3 - GIP225	Monthly	Sampled: 10/5/17	Arsenic	<0.010	mg/L
			Barium	0.065	mg/L
			Beryllium	<0.010	mg/L
		Obtained: 20/5/17	Cadmium	<0.0010	mg/L
			Chloride	5880	mg/L
			Chromium	<0.010	mg/L
		Published: 8/06/2017	Cobalt	0.011	mg/L
			Conductivity (EC)	31900	µS/cm
			Copper	0.019	mg/L
			Iron	2.04	mg/L
			Lead	<0.010	mg/L
			Manganese	0.919	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.015	mg/L
			pH	6.98	pH Unit
			Sulfate	9370	mg/L
			Vanadium	<0.10	mg/L
Zinc	0.058	mg/L			
SWL	10.64	m			

EPA ID No. 4 - GIP234	Quarterly	Sampled: 29/5/17 Obtained: 29/5/17 Published: 8/06/2017	SWL	24.91	m
EPA ID No. 5 - GIP273	Quarterly	Sampled: 29/5/17 Obtained: 29/5/17 Published: 8/06/2017	SWL	16.76	m
EPA ID No. 7 - GIP274	Monthly	Sampled: 1/5/17 Obtained: 20/5/17 Published: 8/06/2017	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	<0.010 0.011 <0.010 <0.0010 9760 <0.010 <0.010 31900 0.024 0.11 <0.010 0.04 <0.0001 0.012 7.19 2970 <0.10 <0.050 17.19	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. 6 - GIP276	Quarterly	Sampled: 29/5/17 Obtained: 29/5/17 Published: 8/06/2017	SWL	20.79	m
EPA ID No. 8 - GIP277	Quarterly	Sampled: 29/5/17	SWL	16.79	m

		<p>Obtained: 29/5/17</p> <p>Published: 8/06/2017</p>			
EPA ID No. 9 - GIP278	Quarterly	<p>Sampled: 29/5/17</p> <p>Obtained: 29/5/17</p> <p>Published: 8/06/2017</p>	SWL	25.18	m
EPA ID No. 10 - GIP279A	Quarterly	<p>Sampled: 29/5/17</p> <p>Obtained: 29/5/17</p> <p>Published: 8/06/2017</p>	SWL	24.16	m
EPA ID No. 11 - GIP280A	Quarterly	<p>Sampled: 29/5/17</p> <p>Obtained: 29/5/17</p> <p>Published: 8/06/2017</p>	SWL	21.91	m
EPA ID No. 12 - GIP290	Monthly	<p>Sampled: 10/5/17</p> <p>Obtained: 20/5/17</p> <p>Published: 8/06/2017</p>	<p>Arsenic</p> <p>Barium</p> <p>Beryllium</p> <p>Cadmium</p> <p>Chloride</p> <p>Chromium</p> <p>Cobalt</p> <p>Conductivity (EC)</p> <p>Copper</p> <p>Iron</p> <p>Lead</p> <p>Manganese</p> <p>Mercury</p> <p>Nickel</p> <p>pH</p> <p>Sulfate</p> <p>Vanadium</p>	<p><0.010</p> <p>0.016</p> <p><0.010</p> <p>0.0351</p> <p>3600</p> <p><0.010</p> <p>0.163</p> <p>16600</p> <p>0.103</p> <p><0.10</p> <p><0.010</p> <p>10.9</p> <p><0.0001</p> <p>0.025</p> <p>6.91</p> <p>4500</p> <p><0.10</p>	<p>mg/L</p> <p>mg/L</p> <p>mg/L</p> <p>mg/L</p> <p>mg/L</p> <p>mg/L</p> <p>mg/L</p> <p>μS/cm</p> <p>mg/L</p> <p>mg/L</p> <p>mg/L</p> <p>mg/L</p> <p>mg/L</p> <p>mg/L</p> <p>mg/L</p> <p>pH Unit</p> <p>mg/L</p> <p>mg/L</p>

			Zinc SWL	0.417 14.68	mg/L m
EPA ID No. 13 - GIP291	Monthly	Sampled: 10/5/17 Obtained: 20/5/17 Published: 8/06/2017	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	<0.010 0.018 <0.010 <0.0010 7650 <0.010 <0.010 25300 0.04 <0.10 <0.010 0.064 <0.0001 <0.010 7.29 2750 <0.10 <0.050 9.12	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. 14 - GIP292A	Monthly	Sampled: 1/5/17 Obtained: 20/5/17 Published: 8/06/2017	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	0.187 <0.100 <0.100 3.14 1970 0.321 45.3 32900 222 75.2 <0.100 382 <0.0001 16.3 3.92 34500 <1.00 195 5.49	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. 16 - GIP292AS	Monthly	Sampled: 1/5/17 Obtained: 20/5/17	Arsenic Barium Beryllium Cadmium Chloride Chromium	0.422 <0.100 0.5 6.83 1460 0.184	mg/L mg/L mg/L mg/L mg/L mg/L

		Published: 8/06/2017	Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	90 34100 680 1420 <0.100 465 0.0001 29.8 3.66 43600 1.28 416 5.41	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. 17 - GIP293	Monthly	Sampled: 16/5/17 Obtained: 30/5/17 Published: 8/06/2017	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	0.039 <0.010 0.024 2.33 4330 <0.010 31.3 41900 66.7 1.38 0.012 444 0.0004 11.4 4.34 33400 <0.10 120 13.02	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. 18 - GIP294	Monthly	Sampled: 2/5/17 Obtained: 20/5/17 Published: 8/06/2017	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel	<0.100 <0.100 <0.100 2.37 1860 <0.100 28.2 50400 139 1.7 <0.100 191 0.0008 10.2	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	5.47	pH Unit
			Sulfate	43900	mg/L
			Vanadium	<1.00	mg/L
			Zinc	151	mg/L
			SWL	11.88	m
EPA ID No. 19 - GIP295	Monthly	Sampled: 10/5/17	Arsenic	<0.010	mg/L
			Barium	0.047	mg/L
			Beryllium	<0.010	mg/L
		Obtained: 20/5/17	Cadmium	<0.0010	mg/L
			Chloride	9030	mg/L
			Chromium	<0.010	mg/L
		Published: 8/06/2017	Cobalt	<0.010	mg/L
			Conductivity (EC)	30000	µS/cm
			Copper	0.023	mg/L
			Iron	0.14	mg/L
			Lead	<0.010	mg/L
			Manganese	0.596	mg/L
			Mercury	<0.0001	mg/L
			Nickel	<0.010	mg/L
			pH	7.43	pH Unit
Sulfate	2400	mg/L			
Vanadium	<0.10	mg/L			
Zinc	<0.050	mg/L			
SWL	18.11	m			
EPA ID No. 20 - GIP296	Monthly	Sampled: 2/5/17	Arsenic	<0.010	mg/L
			Barium	0.019	mg/L
			Beryllium	<0.010	mg/L
		Obtained: 20/5/17	Cadmium	<0.0010	mg/L
			Chloride	4700	mg/L
			Chromium	<0.010	mg/L
		Published: 8/06/2017	Cobalt	<0.010	mg/L
			Conductivity (EC)	23200	µS/cm
			Copper	0.048	mg/L
			Iron	0.11	mg/L
			Lead	<0.010	mg/L
			Manganese	0.041	mg/L
			Mercury	<0.0001	mg/L
			Nickel	<0.010	mg/L
			pH	6.86	pH Unit
Sulfate	7290	mg/L			
Vanadium	<0.10	mg/L			
Zinc	0.075	mg/L			
SWL	7.55	m			
EPA ID No. 21 - GIP297	Monthly	Sampled: 16/5/17	Arsenic	0.006	mg/L
			Barium	<0.001	mg/L
			Beryllium	<0.001	mg/L

		Obtained: 30/5/17 Published: 8/06/2017	Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	<0.0001 63 <0.001 <0.001 978 0.005 <0.05 <0.001 0.002 <0.0001 <0.001 7.89 151 <0.01 <0.005 25.39	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. 22 - GIP298	Monthly	Sampled: 16/5/17 Obtained: 30/5/17 Published: 8/06/2017	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	0.001 0.004 <0.001 0.0021 10300 0.001 0.026 31300 0.016 0.2 <0.001 0.44 <0.0001 0.012 6.65 2370 <0.01 0.06 20.81	mg/L mg/L mg/L mg/L mg/L mg/L mg/L µS/cm mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L m
EPA ID No. 23 - GIP299	Monthly	Sampled: 2/5/17 Obtained: 20/5/17 Published: 8/06/2017	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead	<0.010 <0.010 <0.010 0.0021 7250 <0.010 <0.010 31500 0.093 <0.10 <0.010	mg/L mg/L mg/L mg/L mg/L mg/L mg/L µS/cm mg/L mg/L mg/L

			Manganese	0.025	mg/L
			Mercury	<0.0001	mg/L
			Nickel	<0.010	mg/L
			pH	6.62	pH Unit
			Sulfate	8820	mg/L
			Vanadium	<0.10	mg/L
			Zinc	<0.050	mg/L
			SWL	28.15	m
EPA ID No. 24 - GIP300	Monthly	Sampled: 2/5/17 Obtained: 20/5/17 Published: 8/06/2017	Arsenic	<0.010	mg/L
			Barium	0.019	mg/L
			Beryllium	<0.010	mg/L
			Cadmium	0.0011	mg/L
			Chloride	5500	mg/L
			Chromium	<0.010	mg/L
			Cobalt	<0.010	mg/L
			Conductivity (EC)	35300	µS/cm
			Copper	0.062	mg/L
			Iron	<0.10	mg/L
			Lead	<0.010	mg/L
			Manganese	<0.010	mg/L
			Mercury	0.0002	mg/L
			Nickel	<0.010	mg/L
			pH	6.68	pH Unit
			Sulfate	16700	mg/L
			Vanadium	<0.10	mg/L
			Zinc	<0.050	mg/L
			SWL	19.21	m
EPA ID No. 25 - GIP301	Monthly	Sampled: 16/5/17 Obtained: 30/5/17 Published: 8/06/2017	Arsenic	<0.001	mg/L
			Barium	0.028	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0003	mg/L
			Chloride	5720	mg/L
			Chromium	<0.001	mg/L
			Cobalt	0.014	mg/L
			Conductivity (EC)	19000	µS/cm
			Copper	0.081	mg/L
			Iron	<0.05	mg/L
			Lead	<0.001	mg/L
			Manganese	0.622	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.01	mg/L
			pH	7.02	pH Unit
			Sulfate	1680	mg/L
			Vanadium	<0.01	mg/L
			Zinc	0.019	mg/L
			SWL	14.84	m

EPA ID No. 26 - GIP302	Monthly	Sampled: 16/5/17	Arsenic	0.002	mg/L
			Barium	0.019	mg/L
		Obtained: 30/5/17	Beryllium	<0.001	mg/L
			Cadmium	0.009	mg/L
		Published: 8/06/2017	Chloride	6610	mg/L
			Chromium	0.005	mg/L
			Cobalt	0.213	mg/L
			Conductivity (EC)	29600	µS/cm
			Copper	0.077	mg/L
			Iron	1.45	mg/L
			Lead	0.015	mg/L
			Manganese	18.9	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.17	mg/L
		pH	6.46	pH Unit	
		Sulfate	8130	mg/L	
Vanadium	<0.01	mg/L			
Zinc	0.046	mg/L			
SWL	16.28	m			