



# **Tritton and Girilambone Operations**

Monthly Environmental Monitoring  
Report

May 2015

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**MAY 2015 – GROUNDWATER MONITORING REPORT**  
**TRITTON OPERATIONS LICENCE NO.11254**

Licensee: TRITTON RESOURCES LIMITED					
EPL No. 11254					
Sample Point	Monitoring Frequency	Sampled	Parameter	Measurement	Unit
EPA ID No. 27 - PZH019	Quarterly	06/05/2015	Arsenic	0.017	mg/L
			Barium	0.033	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	<0.0001	mg/L
			Chloride	2650	mg/L
			Chromium	<0.001	mg/L
			Cobalt	<0.001	mg/L
			Conductivity (EC)	10700	µS/cm
			Copper	0.004	mg/L
			Iron	2.63	mg/L
			Lead	<0.001	mg/L
			Manganese	0.034	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.002	mg/L
			pH	7.57	pH Unit
			Sulfate	929	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.064	mg/L
SWL	105.04	m			
EPA ID No. 28 - PZH020	Quarterly	06/05/2015	Arsenic	0.001	mg/L
			Barium	0.030	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0004	mg/L
			Chloride	3080	mg/L
			Chromium	<0.001	mg/L
			Cobalt	<0.001	mg/L
			Conductivity (EC)	12800	µS/cm
			Copper	0.016	mg/L
			Iron	0.07	mg/L
			Lead	<0.001	mg/L
			Manganese	0.011	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.004	mg/L
			pH	7.96	pH Unit
			Sulfate	1230	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.081	mg/L

			SWL	72.19	m
EPA ID No. 29 - PZH021	Quarterly	06/05/2015	Arsenic	0.002	mg/L
			Barium	0.104	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	<0.0001	mg/L
			Chloride	3960	mg/L
			Chromium	<0.001	mg/L
			Cobalt	<0.001	mg/L
			Conductivity (EC)	15400	µS/cm
			Copper	<0.001	mg/L
			Iron	8.06	mg/L
			Lead	<0.001	mg/L
			Manganese	2.50	mg/L
			Mercury	<0.0001	mg/L
			Nickel	<0.001	mg/L
			pH	7.70	pH Unit
			Sulfate	1660	mg/L
			Vandium	<0.01	mg/L
Zinc	0.007	mg/L			
SWL	59.09	m			
EPA ID No. 30 - PZH022	Quarterly	06/05/2015	SWL	112	m
EPA ID No. 31 - PZH023	Quarterly	06/05/2015	SWL	137.15	m

**MAY 2015 – GROUNDWATER MONITORING REPORT**  
**GIRILAMBONE OPERATIONS LICENCE NO.4501**

<b>Licensee: TRITTON RESOURCES LIMITED</b>					
<b>EPL No. 4501</b>					
<b>Sample Point</b>	<b>Monitoring Frequency</b>	<b>Sampled</b>	<b>Parameter</b>	<b>Measurement</b>	<b>Unit</b>
EPA ID No. 2 - GIP224	Monthly	11/05/2015	Arsenic	<0.010	mg/L
			Barium	0.025	mg/L
			Beryllium	<0.010	mg/L
			Cadmium	<0.0010	mg/L
			Chloride	7740	mg/L
			Chromium	<0.010	mg/L
			Cobalt	<0.010	mg/L
			Conductivity (EC)	30800	µS/cm
			Copper	0.031	mg/L

			Iron Lead Manganese Mercury Nickel pH Sulfate Vandium Zinc SWL	0.18 <0.010 0.079 <0.0001 0.012 7.64 4290 <0.10 0.057 5.09	mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L mg/L m
EPA ID No. 3 - GIP225	Monthly	07/05/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vandium Zinc SWL	<0.010 0.015 <0.010 0.0012 5290 <0.010 0.012 32800 0.098 0.17 0.012 0.360 <0.0001 0.017 7.41 13200 <0.10 0.168 10.99	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 mg/L mg/L mg/L m
EPA ID No. 4 - GIP234	Quarterly	01/05/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate	<0.010 0.026 <0.010 0.0024 6570 <0.010 0.012 25100 0.107 <0.10 0.056 0.168 0.0003 0.034 7.71 2580	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

			Vandium Zinc SWL	<0.10 0.251 25.05	mg/L mg/L m
EPA ID No. 5 - GIP273	Quarterly	07/05/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vandium Zinc SWL	<0.010 0.028 <0.010 <0.0010 9510 <0.010 <0.010 <0.010 33800 0.034 <0.10 <0.010 0.163 0.0004 0.010 7.56 3320 <0.10 0.475 17.16	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. 7 - GIP274	Monthly	26/05/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vandium Zinc SWL	<0.010 0.016 <0.010 <0.0010 10100 <0.010 <0.010 <0.010 31700 <0.010 <0.10 <0.010 0.069 <0.0001 <0.010 7.34 3140 <0.10 <0.050 17.61	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. 6 - GIP276	Quarterly	01/05/2015	Arsenic Barium Beryllium Cadmium	<0.010 0.016 <0.010 <0.0010	mg/L mg/L mg/L mg/L

			Chloride	8250	mg/L
			Chromium	<0.010	mg/L
			Cobalt	<0.010	mg/L
			Conductivity (EC)	31000	µS/cm
			Copper	0.029	mg/L
			Iron	<0.10	mg/L
			Lead	0.018	mg/L
			Manganese	0.057	mg/L
			Mercury	<0.0001	mg/L
			Nickel	<0.010	mg/L
			pH	7.51	pH Unit
			Sulfate	3140	mg/L
			Vandium	<0.10	mg/L
			Zinc	0.062	mg/L
			SWL	21.1	m
EPA ID No. 8 - GIP277	Quarterly	01/05/2015	Arsenic	<0.001	mg/L
			Barium	0.021	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0001	mg/L
			Chloride	775	mg/L
			Chromium	0.001	mg/L
			Cobalt	0.001	mg/L
			Conductivity (EC)	4670	µS/cm
			Copper	0.019	mg/L
			Iron	0.13	mg/L
			Lead	0.017	mg/L
			Manganese	0.030	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.002	mg/L
			pH	7.92	pH Unit
			Sulfate	437	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.068	mg/L
			SWL	17.45	m
EPA ID No. 9 - GIP278	Quarterly	01/05/2015	Arsenic	<0.010	mg/L
			Barium	0.018	mg/L
			Beryllium	<0.010	mg/L
			Cadmium	<0.0010	mg/L
			Chloride	7230	mg/L
			Chromium	<0.010	mg/L
			Cobalt	<0.010	mg/L
			Conductivity (EC)	26500	µS/cm
			Copper	0.014	mg/L
			Iron	0.16	mg/L
			Lead	0.020	mg/L

			Manganese	<0.010	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.016	mg/L
			pH	6.96	pH Unit
			Sulfate	2720	mg/L
			Vandium	<0.10	mg/L
			Zinc	0.053	mg/L
			SWL	25.17	m
EPA ID No. 10 - GIP279A	Quarterly	01/05/2015	Arsenic	<0.010	mg/L
			Barium	0.039	mg/L
			Beryllium	<0.010	mg/L
			Cadmium	<0.0010	mg/L
			Chloride	7510	mg/L
			Chromium	<0.010	mg/L
			Cobalt	<0.010	mg/L
			Conductivity (EC)	27800	µS/cm
			Copper	0.058	mg/L
			Iron	<0.10	mg/L
			Lead	<0.010	mg/L
			Manganese	0.051	mg/L
			Mercury	<0.0001	mg/L
			Nickel	<0.010	mg/L
			pH	7.48	pH Unit
			Sulfate	2800	mg/L
			Vandium	<0.10	mg/L
			Zinc	<0.050	mg/L
			SWL	24.31	m
EPA ID No. 11 - GIP280A	Quarterly	07/05/2015	Arsenic	<0.010	mg/L
			Barium	0.041	mg/L
			Beryllium	<0.010	mg/L
			Cadmium	<0.0010	mg/L
			Chloride	5010	mg/L
			Chromium	<0.010	mg/L
			Cobalt	<0.010	mg/L
			Conductivity (EC)	19200	µS/cm
			Copper	0.025	mg/L
			Iron	0.13	mg/L
			Lead	<0.010	mg/L
			Manganese	0.044	mg/L
			Mercury	<0.0001	mg/L
			Nickel	<0.010	mg/L
			pH	7.79	pH Unit
			Sulfate	1960	mg/L
			Vandium	<0.10	mg/L
			Zinc	0.174	mg/L

			SWL	21.96	m
EPA ID No. 12 - GIP290	Monthly	27/05/2015	Arsenic	<0.001	mg/L
			Barium	0.015	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0192	mg/L
			Chloride	3600	mg/L
			Chromium	<0.001	mg/L
			Cobalt	0.065	mg/L
			Conductivity (EC)	15600	µS/cm
			Copper	0.046	mg/L
			Iron	<0.05	mg/L
			Lead	0.004	mg/L
			Manganese	7.58	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.009	mg/L
			pH	6.97	pH Unit
			Sulfate	3570	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.252	mg/L
			SWL	15.38	m
EPA ID No. 13 - GIP291	Monthly	27/05/2015	Arsenic	<0.001	mg/L
			Barium	0.025	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0018	mg/L
			Chloride	8280	mg/L
			Chromium	0.007	mg/L
			Cobalt	0.019	mg/L
			Conductivity (EC)	26400	µS/cm
			Copper	0.083	mg/L
			Iron	0.14	mg/L
			Lead	0.002	mg/L
			Manganese	0.238	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.010	mg/L
			pH	7.23	pH Unit
			Sulfate	2880	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.141	mg/L
			SWL	9.71	m
EPA ID No. 14 - GIP292A	Monthly	07/05/2015	Arsenic	0.107	mg/L
			Barium	<0.010	mg/L
			Beryllium	0.075	mg/L
			Cadmium	2.67	mg/L
			Chloride	1980	mg/L
			Chromium	0.051	mg/L



			Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vandium Zinc SWL	42.9 33000 186 112 <0.010 417 0.0002 14.3 3.87 32300 0.11 181 6.76	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	07/05/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vandium Zinc SWL	0.526 <0.010 0.471 5.93 1260 0.161 81.5 31400 697 986 <0.010 535 0.0001 24.1 3.29 42900 1.08 377 6.83	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. 17 - GIP293	Monthly	27/05/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury	<0.010 <0.010 <0.010 0.815 5060 <0.010 8.27 37200 3.87 <0.10 <0.010 220 <0.0001	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	2.94	mg/L
			pH	6.40	pH Unit
			Sulfate	25800	mg/L
			Vandium	<0.10	mg/L
			Zinc	26.8	mg/L
			SWL	12.72	m
EPA ID No. 18 - GIP294	Monthly	27/05/2015	Arsenic	<0.010	mg/L
			Barium	0.015	mg/L
			Beryllium	<0.010	mg/L
			Cadmium	0.456	mg/L
			Chloride	2540	mg/L
			Chromium	<0.010	mg/L
			Cobalt	4.94	mg/L
			Conductivity (EC)	30600	µS/cm
			Copper	10.5	mg/L
			Iron	<0.10	mg/L
			Lead	<0.010	mg/L
			Manganese	34.4	mg/L
			Mercury	<0.0001	mg/L
			Nickel	1.68	mg/L
			pH	6.60	pH Unit
			Sulfate	21000	mg/L
			Vandium	<0.10	mg/L
			Zinc	24.4	mg/L
			SWL	13.07	m
EPA ID No. 19 - GIP295	Monthly	07/05/2015	Arsenic	<0.010	mg/L
			Barium	0.051	mg/L
			Beryllium	<0.010	mg/L
			Cadmium	<0.0010	mg/L
			Chloride	8000	mg/L
			Chromium	<0.010	mg/L
			Cobalt	<0.010	mg/L
			Conductivity (EC)	30200	µS/cm
			Copper	0.024	mg/L
			Iron	0.28	mg/L
			Lead	<0.010	mg/L
			Manganese	0.659	mg/L
			Mercury	<0.0001	mg/L
			Nickel	<0.010	mg/L
			pH	7.54	pH Unit
			Sulfate	2690	mg/L
			Vandium	<0.10	mg/L
			Zinc	0.117	mg/L
			SWL	18.44	m
EPA ID	Monthly	27/05/2015	Arsenic	<0.001	mg/L



			Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vandium Zinc SWL	<0.010 <0.10 <0.010 0.062 <0.0001 <0.010 7.50 2860 <0.10 <0.050 -	mg/L mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L m
EPA ID No. 23 - GIP299	Monthly	26/05/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vandium Zinc SWL	0.003 0.015 <0.001 0.0017 5860 <0.001 <0.001 23600 0.012 0.35 <0.001 0.014 <0.0001 0.002 7.21 5640 <0.01 0.049 26.87	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. 24 - GIP300	Monthly	26/05/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH	<0.010 0.044 <0.010 0.0023 9520 <0.010 0.023 33100 0.051 <0.10 <0.010 1.40 <0.0001 0.041 7.30	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

			Sulfate	5640	mg/L
			Vandium	<0.10	mg/L
			Zinc	0.125	mg/L
			SWL	18.69	m
EPA ID No. 25 - GIP301	Monthly	26/05/2015	Arsenic	<0.001	mg/L
			Barium	0.030	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	<0.0001	mg/L
			Chloride	4170	mg/L
			Chromium	<0.001	mg/L
			Cobalt	0.009	mg/L
			Conductivity (EC)	15000	µS/cm
			Copper	0.008	mg/L
			Iron	0.10	mg/L
			Lead	<0.001	mg/L
			Manganese	0.678	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.007	mg/L
			pH	7.56	pH Unit
			Sulfate	1620	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.037	mg/L
			SWL	14.25	m
EPA ID No. 26 - GIP302	Monthly	27/05/2015	Arsenic	<0.010	mg/L
			Barium	0.030	mg/L
			Beryllium	<0.010	mg/L
			Cadmium	0.0122	mg/L
			Chloride	8680	mg/L
			Chromium	<0.010	mg/L
			Cobalt	0.107	mg/L
			Conductivity (EC)	31100	µS/cm
			Copper	0.307	mg/L
			Iron	0.11	mg/L
			Lead	<0.010	mg/L
			Manganese	2.74	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.074	mg/L
			pH	7.30	pH Unit
			Sulfate	6420	mg/L
			Vandium	<0.10	mg/L
			Zinc	0.969	mg/L
			SWL	15.17	m