



# **Tritton and Girilambone Operations**

Monthly Environmental Monitoring  
Report

July 2015

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**JULY 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. 12 - PZH001	Quarterly	02/07/2015	Arsenic	0.001	mg/L
			Barium	0.023	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0004	mg/L
			Chloride	3630	mg/L
			Chromium	<0.001	mg/L
			Cobalt	<0.001	mg/L
			Conductivity (EC)	14900	µS/cm
			Copper	0.011	mg/L
			Iron	<0.05	mg/L
			Lead	<0.001	mg/L
			Manganese	0.099	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.008	mg/L
			pH	7.44	pH Unit
			Sulfate	2150	mg/L
			Vandium	<0.01	mg/L
Zinc	0.066	mg/L			
SWL	18.21	m			
EPA ID No. 13 - PZH002	Quarterly	10/07/2015	Arsenic	0.007	mg/L
			Barium	0.021	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	<0.0001	mg/L
			Chloride	2950	mg/L
			Chromium	<0.001	mg/L
			Cobalt	<0.001	mg/L
			Conductivity (EC)	12700	µS/cm
			Copper	0.008	mg/L
			Iron	13.7	mg/L
			Lead	<0.001	mg/L
			Manganese	0.190	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.002	mg/L
			pH	7.40	pH Unit
			Sulfate	1860	mg/L
			Vandium	<0.01	mg/L
Zinc	0.088	mg/L			

			SWL	33.99	m
EPA ID No. 14 - PZH003	Quarterly	10/07/2015	Arsenic	<0.001	mg/L
			Barium	0.019	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0002	mg/L
			Chloride	4390	mg/L
			Chromium	0.002	mg/L
			Cobalt	<0.001	mg/L
			Conductivity (EC)	17600	µS/cm
			Copper	0.013	mg/L
			Iron	0.10	mg/L
			Lead	<0.001	mg/L
			Manganese	0.010	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.016	mg/L
			pH	7.04	pH Unit
			Sulfate	2760	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.132	mg/L
			SWL	70.41	m
EPA ID No. 16 - PZH005	Quarterly	14/07/2015	Arsenic	0.001	mg/L
			Barium	0.020	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0010	mg/L
			Chloride	4290	mg/L
			Chromium	<0.001	mg/L
			Cobalt	<0.001	mg/L
			Conductivity (EC)	16600	µS/cm
			Copper	0.039	mg/L
			Iron	0.10	mg/L
			Lead	0.031	mg/L
			Manganese	0.145	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.036	mg/L
			pH	7	pH Unit
			Sulfate	1480	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.211	mg/L
			SWL	17.09	m
EPA ID No. 17 - PZH006	Quarterly	14/07/2015	Arsenic	<0.001	mg/L
			Barium	0.037	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	<0.0001	mg/L
			Chloride	3150	mg/L
			Chromium	<0.001	mg/L



			Nickel	0.004	mg/L
			pH	7.28	pH Unit
			Sulfate	1670	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.036	mg/L
			SWL	25.3	m
EPA ID No. 20 - PZH009	Quarterly	27/07/2015	Arsenic	0.001	mg/L
			Barium	0.044	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0002	mg/L
			Chloride	3720	mg/L
			Chromium	<0.001	mg/L
			Cobalt	0.003	mg/L
			Conductivity (EC)	18300	µS/cm
			Copper	0.011	mg/L
			Iron	<0.05	mg/L
			Lead	<0.001	mg/L
			Manganese	0.240	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.005	mg/L
			pH	7.28	pH Unit
			Sulfate	2250	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.022	mg/L
			SWL	20.32	m
EPA ID No. 23 - PZH014	Quarterly	28/07/2015	Arsenic	0.001	mg/L
			Barium	0.012	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0003	mg/L
			Chloride	3330	mg/L
			Chromium	<0.001	mg/L
			Cobalt	<0.001	mg/L
			Conductivity (EC)	15600	µS/cm
			Copper	0.005	mg/L
			Iron	<0.05	mg/L
			Lead	<0.001	mg/L
			Manganese	0.021	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.008	mg/L
			pH	7.07	pH Unit
			Sulfate	1640	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.019	mg/L
			SWL	53.46	m
EPA ID	Quarterly	27/07/2015	Arsenic	0.002	mg/L

No. 24 - PZH015			Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vandium Zinc SWL	0.027 <0.001 0.0003 3500 <0.001 0.004 17300 0.005 <0.05 <0.001 0.171 <0.0001 0.007 7 2220 <0.01 0.019 54.52	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. 25 - PZH017	Quarterly	02/07/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vandium Zinc SWL	<0.001 0.040 <0.001 <0.0001 2780 <0.001 <0.001 11700 0.004 1.92 <0.001 0.151 <0.0001 <0.001 7.41 903 <0.01 0.030 51.61	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 m

## JULY 2015 – GROUNDWATER MONITORING REPORT

### GIRILAMBONE OPERATIONS LICENCE NO.4501

Licensee: TRITTON RESOURCES LIMITED					
EPL No. 4501					
Sample Point	Monitoring Frequency	Sampled	Parameter	Measurement	Unit
EPA ID No. 2 - GIP224	Monthly	10/07/2015	Arsenic	<0.010	mg/L
			Barium	0.024	mg/L
			Beryllium	<0.010	mg/L
			Cadmium	<0.0010	mg/L
			Chloride	7590	mg/L
			Chromium	<0.010	mg/L
			Cobalt	<0.010	mg/L
			Conductivity (EC)	30800	µS/cm
			Copper	0.059	mg/L
			Iron	<0.50	mg/L
			Lead	<0.010	mg/L
			Manganese	0.070	mg/L
			Mercury	<0.0001	mg/L
			Nickel	<0.010	mg/L
			pH	7.41	pH Unit
			Sulfate	4170	mg/L
			Vandium	<0.10	mg/L
			Zinc	0.076	mg/L
SWL	5.11	m			
EPA ID No. 3 - GIP225	Monthly	22/07/2015	Arsenic	<0.010	mg/L
			Barium	<0.010	mg/L
			Beryllium	<0.010	mg/L
			Cadmium	<0.0010	mg/L
			Chloride	4700	mg/L
			Chromium	<0.010	mg/L
			Cobalt	0.010	mg/L
			Conductivity (EC)	29600	µS/cm
			Copper	0.053	mg/L
			Iron	<0.50	mg/L
			Lead	<0.010	mg/L
			Manganese	0.200	mg/L
			Mercury	<0.0001	mg/L
			Nickel	<0.010	mg/L
			pH	7.06	pH Unit
			Sulfate	11400	mg/L
			Vandium	<0.10	mg/L
			Zinc	0.292	mg/L

			SWL	11.02	m
EPA ID No. 7 - GIP274	Monthly	24/07/2015	Arsenic	<0.010	mg/L
			Barium	0.013	mg/L
			Beryllium	<0.010	mg/L
			Cadmium	<0.0010	mg/L
			Chloride	8630	mg/L
			Chromium	<0.010	mg/L
			Cobalt	<0.010	mg/L
			Conductivity (EC)	32200	µS/cm
			Copper	<0.010	mg/L
			Iron	<0.50	mg/L
			Lead	<0.010	mg/L
			Manganese	0.062	mg/L
			Mercury	<0.0001	mg/L
			Nickel	<0.010	mg/L
			pH	7.07	pH Unit
			Sulfate	3220	mg/L
			Vandium	<0.10	mg/L
			Zinc	<0.050	mg/L
			SWL	17.59	m
EPA ID No. 12 - GIP290	Monthly	28/07/2015	Arsenic	<0.001	mg/L
			Barium	0.016	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0186	mg/L
			Chloride	2630	mg/L
			Chromium	<0.001	mg/L
			Cobalt	0.068	mg/L
			Conductivity (EC)	15800	µS/cm
			Copper	0.051	mg/L
			Iron	<0.05	mg/L
			Lead	0.003	mg/L
			Manganese	8.08	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.010	mg/L
			pH	7.30	pH Unit
			Sulfate	3590	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.226	mg/L
			SWL	15.25	m
EPA ID No. 13 - GIP291	Monthly	28/07/2015	Arsenic	<0.001	mg/L
			Barium	0.023	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0010	mg/L
			Chloride	5730	mg/L
			Chromium	0.007	mg/L



			Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vandium Zinc SWL	0.007 26500 0.032 0.20 0.002 0.113 <0.0001 0.006 7.50 2860 <0.01 0.171 9.96	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. 14 - GIP292A	Monthly	22/07/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vandium Zinc SWL	0.050 <0.010 0.073 2.85 1930 0.050 43.9 32700 204 116 <0.010 457 <0.0001 12.8 3.91 31400 0.10 207 6.95	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	22/07/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury	0.328 <0.010 0.494 6.54 1260 0.131 90.3 32700 786 984 <0.010 572 <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	24.1	mg/L
			pH	3.21	pH Unit
			Sulfate	45800	mg/L
			Vandium	1.26	mg/L
			Zinc	482	mg/L
			SWL	7.09	m
EPA ID No. 17 - GIP293	Monthly	28/07/2015	Arsenic	0.02	mg/L
			Barium	0.01	mg/L
			Beryllium	0.01	mg/L
			Cadmium	1.82	mg/L
			Chloride	3,230.00	mg/L
			Chromium	0.01	mg/L
			Cobalt	24.2	mg/L
			Conductivity (EC)	41,500.00	µS/cm
			Copper	20.1	mg/L
			Iron	0.31	mg/L
			Lead	0.01	mg/L
			Manganese	457	mg/L
			Mercury	0	mg/L
			Nickel	8.93	mg/L
			pH	4.78	pH Unit
			Sulfate	32,700.00	mg/L
			Vandium	0.1	mg/L
			Zinc	73	mg/L
			SWL	12.77	m
EPA ID No. 18 - GIP294	Monthly	29/07/2015	Arsenic	<0.010	mg/L
			Barium	<0.010	mg/L
			Beryllium	<0.010	mg/L
			Cadmium	3.20	mg/L
			Chloride	1250	mg/L
			Chromium	<0.010	mg/L
			Cobalt	42.5	mg/L
			Conductivity (EC)	49500	µS/cm
			Copper	134	mg/L
			Iron	0.14	mg/L
			Lead	<0.010	mg/L
			Manganese	315	mg/L
			Mercury	0.0004	mg/L
			Nickel	14.3	mg/L
			pH	5.59	pH Unit
			Sulfate	49900	mg/L
			Vandium	<0.10	mg/L
			Zinc	197	mg/L
			SWL	12.83	m
EPA ID	Monthly	14/07/2015	Arsenic	<0.010	mg/L



			Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vandium Zinc SWL	0.004 0.14 <0.001 0.001 <0.0001 <0.001 7.60 189 <0.01 0.119 26.04	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. 22 - GIP298	Monthly	24/07/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vandium Zinc SWL	<0.010 <0.010 <0.010 0.0032 8340 <0.010 0.054 31200 0.413 <0.50 <0.010 0.376 <0.0001 0.020 7.05 3020 <0.10 0.317 21.21	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. 23 - GIP299	Monthly	24/07/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH	0.002 0.016 <0.001 0.0018 4560 <0.001 0.003 22100 0.038 0.08 <0.001 0.031 <0.0001 0.003 7.11	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	4960	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.091	mg/L
			SWL	26.79	m
EPA ID No. 24 - GIP300	Monthly	24/07/2015	Arsenic	<0.010	mg/L
			Barium	0.037	mg/L
			Beryllium	<0.010	mg/L
			Cadmium	0.0011	mg/L
			Chloride	8010	mg/L
			Chromium	<0.010	mg/L
			Cobalt	0.029	mg/L
			Conductivity (EC)	33500	µS/cm
			Copper	0.109	mg/L
			Iron	<0.50	mg/L
			Lead	<0.010	mg/L
			Manganese	1.15	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.025	mg/L
			pH	7.06	pH Unit
			Sulfate	5880	mg/L
			Vandium	<0.10	mg/L
			Zinc	0.141	mg/L
			SWL	18.57	m
EPA ID No. 25 - GIP301	Monthly	29/07/2015	Arsenic	<0.001	mg/L
			Barium	0.037	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0001	mg/L
			Chloride	3950	mg/L
			Chromium	<0.001	mg/L
			Cobalt	0.025	mg/L
			Conductivity (EC)	19200	µS/cm
			Copper	0.007	mg/L
			Iron	<0.05	mg/L
			Lead	<0.001	mg/L
			Manganese	0.930	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.015	mg/L
			pH	7.55	pH Unit
			Sulfate	1920	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.016	mg/L
			SWL	14.99	m
EPA ID No. 26 - GIP302	Monthly	29/07/2015	Arsenic	0.002	mg/L
			Barium	0.017	mg/L
			Beryllium	<0.001	mg/L

			Cadmium	0.0023	mg/L
			Chloride	4900	mg/L
			Chromium	0.001	mg/L
			Cobalt	0.058	mg/L
			Conductivity (EC)	30300	µS/cm
			Copper	0.039	mg/L
			Iron	<0.05	mg/L
			Lead	<0.001	mg/L
			Manganese	10.1	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.064	mg/L
			pH	7.19	pH Unit
			Sulfate	9810	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.065	mg/L
			SWL	15.29	m