



Tritton and Girilambone Operations

Monthly Environmental Monitoring
Report

January 2015



JANUARY 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	Monthly	7/01/2015	Arsenic	0.002	mg/L
			Barium	0.020	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0001	mg/L
			Chloride	3830	mg/L
			Chromium	0.001	mg/L
			Cobalt	0.002	mg/L
			Conductivity (EC)	14900	µS/cm
			Copper	0.010	mg/L
			Iron	<0.05	mg/L
			Lead	<0.001	mg/L
			Manganese	0.112	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.008	mg/L
			pH	7.20	pH Unit
			Sulfate	1990	mg/L
			Vandium	<0.01	mg/L
Zinc	0.047	mg/L			
SWL	21.57	m			
EPA ID No. 13 - PZH002	Monthly	7/01/2015	Arsenic	0.004	mg/L
			Barium	0.019	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	<0.0001	mg/L
			Chloride	3070	mg/L
			Chromium	<0.001	mg/L
			Cobalt	<0.001	mg/L
			Conductivity (EC)	12800	µS/cm
			Copper	0.007	mg/L
			Iron	5.39	mg/L
			Lead	<0.001	mg/L
			Manganese	0.165	mg/L
			Mercury	<0.0001	mg/L
			Nickel	<0.001	mg/L
			pH	7.38	pH Unit
			Sulfate	1550	mg/L
			Vandium	<0.01	mg/L
Zinc	0.008	mg/L			

			SWL	38.98	m
EPA ID No. 14 - PZH003	Monthly	7/01/2015	Arsenic	<0.001	mg/L
			Barium	0.033	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0004	mg/L
			Chloride	4760	mg/L
			Chromium	0.004	mg/L
			Cobalt	0.008	mg/L
			Conductivity (EC)	18600	µS/cm
			Copper	0.037	mg/L
			Iron	0.98	mg/L
			Lead	0.004	mg/L
			Manganese	0.068	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.018	mg/L
			pH	7.32	pH Unit
			Sulfate	2890	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.074	mg/L
			SWL	72.57	m
EPA ID No. 15 - PZH004	Monthly	7/01/2015		DRY	
EPA ID No. 16 - PZH005	Monthly	7/01/2015	Arsenic	0.001	mg/L
			Barium	0.042	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0023	mg/L
			Chloride	4760	mg/L
			Chromium	0.001	mg/L
			Cobalt	0.068	mg/L
			Conductivity (EC)	17500	µS/cm
			Copper	0.087	mg/L
			Iron	0.06	mg/L
			Lead	0.005	mg/L
			Manganese	0.680	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.107	mg/L
			pH	7.27	pH Unit
			Sulfate	1420	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.385	mg/L
			SWL	18.8	m
EPA ID No. 17 - PZH006	Monthly	7/01/2015	Arsenic	0.001	mg/L
			Barium	0.051	mg/L
			Beryllium	<0.001	mg/L

			Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	0.0016 3550 0.009 0.012 13300 0.064 0.53 0.095 0.228 <0.0001 0.016 7.01 1330 <0.01 0.192 40.74	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. 18 - PZH007	Monthly	7/01/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	0.002 0.127 <0.001 0.0010 3360 0.029 0.028 13800 0.249 1.23 0.050 0.664 <0.0001 0.038 7.35 1700 <0.01 0.130 43.95	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. 19 - PZH008	Monthly	7/01/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron	0.010 0.024 <0.001 0.0002 3770 0.005 <0.001 14800 0.023 0.28	mg/L mg/L mg/L mg/L mg/L mg/L mg/L µS/cm mg/L mg/L

			Lead	<0.001	mg/L
			Manganese	0.060	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.008	mg/L
			pH	7.24	pH Unit
			Sulfate	1590	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.068	mg/L
			SWL	27.16	m
EPA ID No. 20 - PZH009	Monthly	7/01/2015	Arsenic	<0.001	mg/L
			Barium	0.047	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	<0.0001	mg/L
			Chloride	4770	mg/L
			Chromium	0.001	mg/L
			Cobalt	0.001	mg/L
			Conductivity (EC)	18700	µS/cm
			Copper	0.093	mg/L
			Iron	0.05	mg/L
			Lead	<0.001	mg/L
			Manganese	0.327	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.002	mg/L
			pH	7.28	pH Unit
			Sulfate	2120	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.034	mg/L
			SWL	22.91	m
EPA ID No. 22 - PZH013	Monthly	-		DRY	
EPA ID No. 23 - PZH014	Monthly	8/01/2015	Arsenic	<0.001	mg/L
			Barium	0.015	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0001	mg/L
			Chloride	4160	mg/L
			Chromium	<0.001	mg/L
			Cobalt	<0.001	mg/L
			Conductivity (EC)	15900	µS/cm
			Copper	0.006	mg/L
			Iron	0.10	mg/L
			Lead	<0.001	mg/L
			Manganese	0.008	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.004	mg/L

			pH	7.01	pH Unit
			Sulfate	1570	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.011	mg/L
			SWL	54.51	m
EPA ID No. 24 - PZH015	Monthly	8/01/2015	Arsenic	0.010	mg/L
			Barium	0.050	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	<0.0001	mg/L
			Chloride	4610	mg/L
			Chromium	0.001	mg/L
			Cobalt	0.019	mg/L
			Conductivity (EC)	17300	µS/cm
			Copper	0.015	mg/L
			Iron	6.27	mg/L
			Lead	0.002	mg/L
			Manganese	1.14	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.009	mg/L
			pH	6.83	pH Unit
			Sulfate	2170	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.018	mg/L
			SWL	59.58	m
EPA ID No. 25 - PZH017	Monthly	7/01/2015	Arsenic	<0.001	mg/L
			Barium	0.045	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)	11700	µS/cm
			Copper	0.006	mg/L
			Iron	3.43	mg/L
			Lead	<0.001	mg/L
			Manganese	0.171	mg/L
			Mercury	<0.0001	mg/L
			Nickel	<0.001	mg/L
			pH	7.68	pH Unit
			Sulfate	847	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.020	mg/L
			SWL	57.07	m
EPA ID No. 27 -	Monthly	8/01/2015	Arsenic	0.021	mg/L
			Barium	0.030	mg/L

PZH019			Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	<0.001 <0.0001 2780 <0.001 <0.001 10700 0.004 3.59 <0.001 0.034 <0.0001 <0.001 7.65 831 <0.01 0.012 104.59	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. 28 - PZH020	Monthly	8/01/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	<0.001 0.029 <0.001 0.0003 3320 <0.001 0.001 12800 0.023 0.41 <0.001 0.124 <0.0001 0.007 7.29 1110 <0.01 0.095 72.04	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. 29 - PZH021	Monthly	8/01/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper	<0.001 0.092 <0.001 <0.0001 4100 <0.001 <0.001 15400 0.002	mg/L mg/L mg/L mg/L mg/L mg/L mg/L μS/cm mg/L

			Iron	0.69	mg/L
			Lead	<0.001	mg/L
			Manganese	2.61	mg/L
			Mercury	<0.0001	mg/L
			Nickel	<0.001	mg/L
			pH	7.45	pH Unit
			Sulfate	1440	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.009	mg/L
			SWL	59.01	m
EPA ID No. 30 - PZH022	Monthly	-		DRY	
EPA ID No. 31 - PZH023	Monthly	-		DRY	

**JANUARY 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	15/01/2015	Arsenic	0.002	mg/L
			Barium	0.023	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0003	mg/L
			Chloride	8210	mg/L
			Chromium	0.004	mg/L
			Cobalt	<0.001	mg/L
			Conductivity (EC)	30700	µS/cm
			Copper	0.028	mg/L
			Iron	0.14	mg/L
			Lead	0.002	mg/L
			Manganese	0.058	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.012	mg/L
			pH	7.83	pH Unit
			Sulfate	4370	mg/L
			Vandium	<0.01	mg/L
Zinc	0.064	mg/L			
SWL	4.48	m			

EPA ID No. 3 - GIP225	Monthly	19/01/2015	Arsenic	0.003	mg/L
			Barium	0.007	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0008	mg/L
			Chloride	5800	mg/L
			Chromium	0.002	mg/L
			Cobalt	0.007	mg/L
			Conductivity (EC)	32600	µS/cm
			Copper	0.053	mg/L
			Iron	0.13	mg/L
			Lead	0.008	mg/L
			Manganese	0.338	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.012	mg/L
			pH	7.54	pH Unit
			Sulfate	13400	mg/L
			Vandium	<0.01	mg/L
Zinc	0.091	mg/L			
SWL	10.63	m			
EPA ID No. 7 - GIP274	Monthly	13/01/2015	Arsenic	0.003	mg/L
			Barium	0.018	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0002	mg/L
			Chloride	9560	mg/L
			Chromium	0.001	mg/L
			Cobalt	0.009	mg/L
			Conductivity (EC)	32000	µS/cm
			Copper	0.006	mg/L
			Iron	0.47	mg/L
			Lead	0.005	mg/L
			Manganese	0.083	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.007	mg/L
			pH	7.66	pH Unit
			Sulfate	3100	mg/L
			Vandium	<0.01	mg/L
Zinc	0.034	mg/L			
SWL	17.61	m			
EPA ID No. 12 - GIP290	Monthly	14/01/2015	Arsenic	0.001	mg/L
			Barium	0.016	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0186	mg/L
			Chloride	3280	mg/L
			Chromium	<0.001	mg/L
Cobalt	0.074	mg/L			

			pH	4.05	pH Unit
			Sulfate	31900	mg/L
			Vandium	0.14	mg/L
			Zinc	184	mg/L
			SWL	5.43	m
EPA ID No. 16 - GIP292AS	Monthly	14/01/2015	Arsenic	0.476	mg/L
			Barium	0.013	mg/L
			Beryllium	0.507	mg/L
			Cadmium	7.43	mg/L
			Chloride	1370	mg/L
			Chromium	0.160	mg/L
			Cobalt	93.0	mg/L
			Conductivity (EC)	31000	µS/cm
			Copper	842	mg/L
			Iron	1330	mg/L
			Lead	0.018	mg/L
			Manganese	570	mg/L
			Mercury	0.0003	mg/L
			Nickel	28.3	mg/L
			pH	3.45	pH Unit
			Sulfate	44500	mg/L
Vandium	1.30	mg/L			
Zinc	431	mg/L			
SWL	5.43	m			
EPA ID No. 17 - GIP293	Monthly	19/01/2015	Arsenic	0.043	mg/L
			Barium	<0.010	mg/L
			Beryllium	<0.010	mg/L
			Cadmium	2.11	mg/L
			Chloride	4100	mg/L
			Chromium	<0.010	mg/L
			Cobalt	26.9	mg/L
			Conductivity (EC)	40600	µS/cm
			Copper	27.0	mg/L
			Iron	0.42	mg/L
			Lead	<0.010	mg/L
			Manganese	446	mg/L
			Mercury	0.0006	mg/L
			Nickel	9.02	mg/L
			pH	4.50	pH Unit
			Sulfate	33900	mg/L
Vandium	<0.10	mg/L			
Zinc	88.6	mg/L			
SWL	12.14	m			
EPA ID No. 18 -	Monthly	19/01/2015	Arsenic	0.022	mg/L
			Barium	0.039	mg/L

GIP294			Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vandium Zinc SWL	<0.010 3.20 1890 <0.010 41.4 48900 123 0.84 <0.010 266 0.0006 13.2 5.54 46800 <0.10 211 12.01	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. 19 - GIP295	Monthly	15/01/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vandium Zinc SWL	0.001 0.058 <0.001 <0.0001 8490 <0.001 0.004 29800 0.007 0.34 <0.001 0.668 <0.0001 0.004 7.67 2930 <0.01 0.013 18.37	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. 20 - GIP296	Monthly	19/01/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper	<0.001 0.014 <0.001 0.0005 2610 <0.001 0.004 18300 0.038	mg/L mg/L mg/L mg/L mg/L mg/L mg/L μS/cm mg/L

			Iron	<0.05	mg/L
			Lead	<0.001	mg/L
			Manganese	0.043	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.008	mg/L
			pH	7.92	pH Unit
			Sulfate	6290	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.052	mg/L
			SWL	7.27	m
EPA ID No. 21 - GIP297	Monthly	13/01/2015	Arsenic	0.006	mg/L
			Barium	<0.001	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	<0.0001	mg/L
			Chloride	80	mg/L
			Chromium	0.001	mg/L
			Cobalt	<0.001	mg/L
			Conductivity (EC)	1060	µS/cm
			Copper	0.010	mg/L
			Iron	0.11	mg/L
			Lead	<0.001	mg/L
			Manganese	0.004	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.002	mg/L
			pH	8.19	pH Unit
			Sulfate	187	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.028	mg/L
			SWL	25.74	m
EPA ID No. 22 - GIP298	Monthly	13/01/2015	Arsenic	0.001	mg/L
			Barium	0.005	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0003	mg/L
			Chloride	9110	mg/L
			Chromium	0.001	mg/L
			Cobalt	<0.001	mg/L
			Conductivity (EC)	31200	µS/cm
			Copper	0.009	mg/L
			Iron	0.24	mg/L
			Lead	<0.001	mg/L
			Manganese	0.065	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.002	mg/L
			pH	7.74	pH Unit
			Sulfate	3070	mg/L

			Vandium	<0.01	mg/L
			Zinc	0.028	mg/L
			SWL	21.15	m
EPA ID No. 23 - GIP299	Monthly	13/01/2015	Arsenic	0.002	mg/L
			Barium	0.026	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0010	mg/L
			Chloride	3560	mg/L
			Chromium	0.003	mg/L
			Cobalt	<0.001	mg/L
			Conductivity (EC)	16000	µS/cm
			Copper	0.019	mg/L
			Iron	0.22	mg/L
			Lead	<0.001	mg/L
			Manganese	0.013	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.005	mg/L
			pH	7.70	pH Unit
			Sulfate	4130	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.046	mg/L
			SWL	26.96	m
EPA ID No. 24 - GIP300	Monthly	13/01/2015	Arsenic	<0.001	mg/L
			Barium	0.048	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0029	mg/L
			Chloride	8900	mg/L
			Chromium	0.008	mg/L
			Cobalt	0.041	mg/L
			Conductivity (EC)	33800	µS/cm
			Copper	0.116	mg/L
			Iron	0.15	mg/L
			Lead	0.001	mg/L
			Manganese	1.45	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.070	mg/L
			pH	7.87	pH Unit
			Sulfate	5420	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.172	mg/L
			SWL	18.79	m
EPA ID No. 25 - GIP301	Monthly	15/01/2015	Arsenic	<0.001	mg/L
			Barium	0.023	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0001	mg/L

			Chloride	3650	mg/L
			Chromium	<0.001	mg/L
			Cobalt	<0.001	mg/L
			Conductivity (EC)	14200	µS/cm
			Copper	0.008	mg/L
			Iron	0.22	mg/L
			Lead	<0.001	mg/L
			Manganese	0.119	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.006	mg/L
			pH	7.96	pH Unit
			Sulfate	1590	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.027	mg/L
			SWL	14.12	m
EPA ID No. 26 - GIP302	Monthly	15/01/2015	Arsenic	0.001	mg/L
			Barium	0.031	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.0087	mg/L
			Chloride	7880	mg/L
			Chromium	0.002	mg/L
			Cobalt	0.104	mg/L
			Conductivity (EC)	30900	µS/cm
			Copper	0.333	mg/L
			Iron	0.15	mg/L
			Lead	0.001	mg/L
			Manganese	1.72	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.071	mg/L
			pH	7.62	pH Unit
			Sulfate	6090	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.546	mg/L
			SWL	14.67	m