

Winstone Aggregates
 541 Hebden Cres
 PO Box 31-447
 LOWER HUTT 5040
 Attention: Kristian Otto

Analytical Report

Report Number: 17/62716
 Issue: 1
 23 January 2018

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
17/62716-01	Miscellaneous Sample		18/01/2018 07:20	18/01/2018 11:48	14266272

Notes: sample site: 72 Te Roto Rd

Test	Result	Units	Comments	Signatory
0001 pH	6.3			Marylou Cabral KTP
0052 Alkalinity - Total	22	g CaCO3/m ³		Marylou Cabral KTP
0055 Conductivity at 25°C	9.5	mS/m		Marylou Cabral KTP
0602 Chloride	8.02	g/m ³		Shanel Kumar KTP
0605 Nitrate - Nitrogen	0.34	g/m ³		Shanel Kumar KTP
1642 Total Hardness	26	g CaCO3/m ³		Shanel Kumar KTP
1800 Aluminium - Dissolved	< 0.005	g/m ³		Shanel Kumar KTP
1810 Calcium - Dissolved	7.93	g/m ³		Shanel Kumar KTP
1819 Iron - Dissolved	0.034	g/m ³		Shanel Kumar KTP
1822 Magnesium - Dissolved	1.59	g/m ³		Shanel Kumar KTP
1823 Manganese - Dissolved	< 0.005	g/m ³		Shanel Kumar KTP
5007 TPH C7 - C9	< 0.1	mg/L		Alan Stanley KTP
5010 TPH C10 - C12	< 0.1	mg/L		Alan Stanley KTP
5012 TPH C13 - C19	< 0.1	mg/L		Alan Stanley KTP
5015 TPH C20 - C26	< 0.1	mg/L		Alan Stanley KTP
5021 TPH C27 - C37	0.3	mg/L		Alan Stanley KTP
5040 Maximum TPH Content	< 0.5	mg/L		Alan Stanley KTP
M0408 Faecal Coliforms	< 1	cfu/100mL		Maria Norris KTP
M0409 E. coli	< 1	cfu/100mL		Maria Norris KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
17/62716-02	Miscellaneous Sample		18/01/2018 08:10	18/01/2018 11:49	14266272

Notes: sample site: Winstone Bore

Test	Result	Units	Comments	Signatory
0001 pH	6.1			Marylou Cabral KTP
0052 Alkalinity - Total	24	g CaCO3/m ³		Marylou Cabral KTP
0055 Conductivity at 25°C	10.1	mS/m		Marylou Cabral KTP
0602 Chloride	8.36	g/m ³		Shanel Kumar KTP
0605 Nitrate - Nitrogen	0.35	g/m ³		Shanel Kumar KTP
1642 Total Hardness	29	g CaCO3/m ³		Shanel Kumar KTP
1800 Aluminium - Dissolved	< 0.005	g/m ³		Shanel Kumar KTP
1810 Calcium - Dissolved	8.76	g/m ³		Shanel Kumar KTP
1819 Iron - Dissolved	< 0.005	g/m ³		Shanel Kumar KTP
1822 Magnesium - Dissolved	1.76	g/m ³		Shanel Kumar KTP
1823 Manganese - Dissolved	0.006	g/m ³		Shanel Kumar KTP
5007 TPH C7 - C9	< 0.1	mg/L		Alan Stanley KTP
5010 TPH C10 - C12	< 0.1	mg/L		Alan Stanley KTP
5012 TPH C13 - C19	< 0.1	mg/L		Alan Stanley KTP

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
17/62716-02	Miscellaneous Sample		18/01/2018 08:10	18/01/2018 11:49	14266272
Notes: sample site: Winstone Bore					
Test	Result	Units	Comments	Signatory	
5015 TPH C20 - C26	< 0.1	mg/L		Alan Stanley KTP	
5021 TPH C27 - C37	0.3	mg/L		Alan Stanley KTP	
5040 Maximum TPH Content	< 0.5	mg/L		Alan Stanley KTP	
M0408 Faecal Coliforms	146	cfu/100mL	Above extreme maximum of 1	Yuemei Yu KTP	
M0409 E. coli	< 1	cfu/100mL		Yuemei Yu KTP	

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
17/62716-03	Miscellaneous Sample		18/01/2018 08:25	18/01/2018 09:48	14266272
Notes: sample site: Winstone Pond					
Test	Result	Units	Comments	Signatory	
0001 pH	6.8			Marylou Cabral KTP	
0052 Alkalinity - Total	18	g CaCO3/m ³		Marylou Cabral KTP	
0055 Conductivity at 25°C	7.9	mS/m		Marylou Cabral KTP	
0602 Chloride	7.32	g/m ³		Shanel Kumar KTP	
0605 Nitrate - Nitrogen	0.03	g/m ³		Shanel Kumar KTP	
1642 Total Hardness	21	g CaCO3/m ³		Shanel Kumar KTP	
1800 Aluminium - Dissolved	< 0.005	g/m ³		Shanel Kumar KTP	
1810 Calcium - Dissolved	6.20	g/m ³		Shanel Kumar KTP	
1819 Iron - Dissolved	< 0.005	g/m ³		Shanel Kumar KTP	
1822 Magnesium - Dissolved	1.24	g/m ³		Shanel Kumar KTP	
1823 Manganese - Dissolved	< 0.005	g/m ³		Shanel Kumar KTP	
5007 TPH C7 - C9	< 0.1	mg/L		Alan Stanley KTP	
5010 TPH C10 - C12	< 0.1	mg/L		Alan Stanley KTP	
5012 TPH C13 - C19	< 0.1	mg/L		Alan Stanley KTP	
5015 TPH C20 - C26	< 0.1	mg/L		Alan Stanley KTP	
5021 TPH C27 - C37	0.1	mg/L		Alan Stanley KTP	
5040 Maximum TPH Content	< 0.5	mg/L		Alan Stanley KTP	
M0408 Faecal Coliforms	66	cfu/100mL	Above extreme maximum of 1	Yuemei Yu KTP	
M0409 E. coli	< 1	cfu/100mL		Yuemei Yu KTP	

Comments:

Sampled by ELS using approved containers and techniques.

All samples analysed as we receive them. Delivery was within the correct time and temperature conditions.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA 22nd Edition Method 4500 H.	0.1
Alkalinity - Total	APHA 22nd Edition Method 2320 B	1 g CaCO3/m ³
Conductivity at 25°C	APHA 22nd Edition Method 2510 B.	0.1 mS/m
Chloride	Ion Chromatography following USEPA 300.0 (modified).	0.02 g/m ³
Nitrate - Nitrogen	Ion Chromatography following USEPA 300.0 (modified).	0.01 g/m ³
Total Hardness	ICP-OES following APHA 22nd Edition Method 3120 B (modified).	1 g CaCO3/m ³
Aluminium - Dissolved	ICP-OES following APHA 22nd Edition Method 3120 B (modified).	0.005 g/m ³
Calcium - Dissolved	ICP-OES following APHA 22nd Edition Method 3120 B (modified).	0.01 g/m ³
Iron - Dissolved	ICP-OES following APHA 22nd Edition Method 3120 B (modified).	0.005 g/m ³
Magnesium - Dissolved	ICP-OES following APHA 22nd Edition Method 3120 B (modified).	0.01 g/m ³

Test	Methodology	Detection Limit
Manganese - Dissolved	ICP-OES following APHA 22nd Edition Method 3120 B (modified).	0.005 g/m ³
TPH C7 - C9	Total Petroleum Hydrocarbon performed by GC-FID.	0.1 mg/L
TPH C10 - C12	Total Petroleum Hydrocarbon performed by GC-FID	0.1 mg/L
TPH C13 - C19	Total Petroleum Hydrocarbon performed by GC-FID	0.1 mg/L
TPH C20 - C26	Total Petroleum Hydrocarbon performed by GC-FID	0.1 mg/L
TPH C27 - C37	Total Petroleum Hydrocarbon performed by GC-FID	0.1 mg/L
Maximum TPH Content	Total Petroleum Hydrocarbon performed by GC-FID.	0.5 mg/L
Faecal Coliforms	APHA 22nd Edition 9222 D:2012	1 cfu/100mL
E. coli	APHA 22nd Edition 9222G:2012	1 cfu/100mL

"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

g/m³ is the equivalent to mg/L and ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.

All test methods and confidence limits are available on request. This report must not be reproduced except in full, without the written consent of the laboratory.



Report Released By
Rob Deacon



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