

MAZLAB PTY. LIMITEDA.C.N. 109 324 370
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NSW NSW 2486Phone: 07 5523 9922
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Job. No. : GSM1523

Issued: 30/7/07, 2:37 PM

Project : GJ0638, for Gilbert & Sutherland

Sam No.	Client I.D.	Soil Type (truncated description)	Date Sampled	Reaction to Peroxide	Reaction to HCl	pH _F 1:5 suspension in 1 molar NaCl	pH _{OX} 1:5 suspension in 1 molar NaCl
10184	BH14 4.00-4.50	SAND (SP), dark brown	27/07/2007	Slight	Nil	4.2	3.6
10185	BH14 6.00-6.50	SAND (SP), dark brown	27/07/2007	Slight	Nil	4.3	3.7
10186	BH15 0.00-0.50	Sandy CLAY (CL), dark grey-brown	27/07/2007	Slight	Nil	4.5	4.0
10187	BH15 0.50-1.00	Sandy CLAY (CL), dark grey-brown	27/07/2007	Slight	Nil	4.6	3.9
10188	BH15 1.00-1.50	SAND (SP), dark grey-brown	27/07/2007	Slight	Nil	4.2	3.7
10189	BH15 1.50-2.00	SAND (SP), dark grey-brown	27/07/2007	Slight	Nil	4.1	3.7
10190	BH15 2.00-2.50	SAND (SP), dark grey-brown	27/07/2007	Slight	Nil	4.1	3.6
10191	BH15 2.50-3.00	SAND (SP), dark grey-brown	27/07/2007	Slight	Nil	4.1	3.6

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Mobile: 04 2714 9374**Provisional Test Results**Job. No. : **GSM1523**

Issued: 2/8/07, 12:09 PM

Project : **GJ0638, for Gilbert & Sutherland**

Sam No.	Client I.D.	Soil Type (truncated description)	Date Sampled	Reaction to Peroxide	Reaction to HCl	pHf 1:5 suspension in 1 molar NaCl	pHfox 1:5 suspension in 1 molar NaCl
10198	BH15 0.50-1.00	SAND (SP), grey-brown	30/07/2007	Nil	Nil	3.7	3.2
10199	BH15 3.50-4.00	SAND (SP), dark grey-brown	30/07/2007	Nil	Nil	4.0	3.5
10200	BH15 4.50-5.00	SAND (SP), grey-brown	30/07/2007	Slight	Nil	4.3	3.6
10201	BH15 5.50-6.00	SAND (SP), brown-grey-brown	30/07/2007	Slight	Nil	4.6	3.9
10202	BH16 0.00-0.50	SAND (SP), light grey, light brown & dark grey	30/07/2007	Slight	Nil	4.0	3.2
10203	BH16 1.00-1.50	SAND (SP), grey	30/07/2007	Nil	Nil	3.8	3.3
10204	BH16 1.50-2.00	SAND (SP), dark grey	30/07/2007	Slight	Nil	3.0	2.6
10205	BH16 2.50-3.00	SAND (SP), dark grey	30/07/2007	Slight	Nil	3.6	2.7
10206	BH16 3.50-4.00	SAND (SP), dark grey	30/07/2007	Slight	Nil	3.7	3.0
10207	BH17 0.00-0.50	SAND (SP), grey-light grey	30/07/2007	Slight	Nil	4.0	3.3
10208	BH17 0.50-1.00	SAND (SP), grey-dark grey	30/07/2007	Nil	Nil	4.0	3.5
10209	BH17 1.00-1.50	SAND (SP), grey-dark grey	30/07/2007	Nil	Nil	3.6	3.3
10210	BH17 1.50-2.00	SAND (SP), grey-dark grey	30/07/2007	Nil	Nil	3.4	3.0
10211	BH17 2.00-2.50	SAND (SP), grey-dark grey	30/07/2007	Nil	Nil	3.8	3.4
10212	BH17 2.50-3.00	SAND (SP), dark grey-brown	30/07/2007	Slight	Nil	4.0	3.5
10213	BH17 3.50-4.00	SAND (SP), dark grey-brown	30/07/2007	Slight	Nil	4.2	3.7
10214	BH17 4.50-5.00	SAND (SP), dark grey-brown	30/07/2007	Nil	Nil	4.2	3.8
10215	BH17 5.50-6.00	SAND (SP), dark grey	30/07/2007	Nil	Nil	4.3	3.9
10216	BH18 0.00-0.50	SAND (SP), grey-light grey	30/07/2007	Nil	Nil	3.6	3.2
10217	BH18 0.50-1.00	Silty SAND (SM), dark grey	30/07/2007	Slight	Nil	3.3	2.9
10218	BH18 1.00-1.50	Silty SAND (SM), dark grey	30/07/2007	Slight	Nil	3.4	3.1
10219	BH18 1.50-2.00	Silty SAND (SM), dark grey	30/07/2007	Nil	Nil	3.5	3.3
10220	BH18 2.50-3.00	Silty SAND (SM), dark grey	30/07/2007	Slight	Nil	3.8	3.3
10221	BH18 3.50-4.00	Silty SAND (SM), dark grey-brown	30/07/2007	Nil	Nil	4.2	3.7
10222	BH18 4.50-5.00	Silty SAND (SM), dark grey-brown	30/07/2007	Nil	Nil	4.3	3.8
10223	BH18 5.50-6.00	SAND (SP), grey-dark brown	30/07/2007	Slight	Nil	4.4	3.7
10224	BH19 0.00-0.50	Silty SAND (SM), dark grey	30/07/2007	Slight	Nil	3.6	3.2
10225	BH19 0.50-1.00	Silty SAND (SM), dark grey	30/07/2007	Nil	Nil	3.7	3.4
10226	BH19 1.00-1.50	Silty SAND (SM), dark grey	30/07/2007	Nil	Nil	3.8	3.4
10227	BH19 1.50-2.00	Silty SAND (SM), dark grey-brown	30/07/2007	Slight	Nil	4.0	3.6
10228	BH19 2.50-3.00	Silty SAND (SM), dark grey-brown	30/07/2007	Slight	Nil	4.0	3.6
10229	BH19 3.50-4.00	Silty SAND (SM), dark grey-brown	30/07/2007	Slight	Nil	4.2	3.6
10230	BH19 4.50-5.00	Silty SAND (SM), dark grey-brown	30/07/2007	Nil	Nil	4.4	3.9
10231	BH19 5.50-6.00	Silty SAND (SM), dark brown & grey-brown	30/07/2007	Nil	Nil	4.5	4.0

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Issued: 2/8/07, 12:19 PM

Project : GJ0638, for Gilbert & Sutherland

Sam No.	Client I.D.	Soil Type (truncated description)	Date Sampled	Reaction to Peroxide	Reaction to HCl	pH _F 1:5 suspension in 1 molar NaCl	pH _{FOx} 1:5 suspension in 1 molar NaCl
10236	BH10 0.20-0.50	SAND (SP), grey-brown	31/07/2007	Nil	Nil	3.9	3.4
10237	BH10 0.50-1.00	SAND (SP), grey-light grey	31/07/2007	Nil	Nil	3.9	3.6
10238	BH10 1.00-1.50	SAND (SP), grey-brown	31/07/2007	Nil	Nil	3.4	3.0
10239	BH10 1.50-2.00	SAND (SP), dark grey & grey-brown	31/07/2007	Nil	Nil	3.3	2.9
10240	BH10 2.50-3.00	SAND (SP), dark grey & grey-brown	31/07/2007	Nil	Nil	3.7	3.2
10241	BH10 3.50-4.00	SAND (SP), dark grey & grey-brown	31/07/2007	Slight	Nil	4.3	3.4
10242	BH10 4.50-5.00	SAND (SP), brown & dark grey-brown	31/07/2007	Slight	Nil	4.4	3.6
10243	BH10 5.50-6.00	SAND (SP), brown & dark grey-brown	31/07/2007	Slight	Nil	4.4	3.7
10244	BH16 4.50-5.00	SAND (SP), dark grey	31/07/2007	Slight	Nil	3.7	2.8
10245	BH16 5.50-6.00	SAND (SP), dark grey	31/07/2007	Slight	Nil	3.9	3.1
10246	BH20 0.00-0.50	SAND (SP), grey-light grey	31/07/2007	Nil	Nil	3.9	3.4
10247	BH20 0.50-1.00	SAND (SP), grey-light grey	31/07/2007	Nil	Nil	4.0	3.5
10248	BH20 1.00-1.50	SAND (SP), grey	31/07/2007	Nil	Nil	3.5	3.1
10249	BH20 1.50-2.00	SAND (SP), dark grey	31/07/2007	Nil	Nil	3.3	2.8
10250	BH20 2.50-3.00	SAND (SP), dark grey	31/07/2007	Strong	Nil	3.8	2.5
10251	BH20 3.50-4.00	SAND (SP), dark grey	31/07/2007	Strong	Nil	4.0	2.9
10252	BH20 4.50-5.00	SAND (SP), dark grey & dark brown	31/07/2007	Slight	Nil	4.3	3.5
10253	BH20 5.50-6.00	SAND (SP), dark grey & dark brown	31/07/2007	Slight	Nil	4.4	3.5
10254	BH21 0.00-0.50	SAND (SP), grey-light grey	31/07/2007	Slight	Nil	3.9	3.3
10255	BH21 0.50-1.00	SAND (SP), grey-light grey	31/07/2007	Slight	Nil	4.4	4.0
10256	BH21 1.00-1.50	SAND (SP), grey-dark grey	31/07/2007	Nil	Nil	3.0	2.6
10257	BH21 1.50-2.00	SAND (SP), grey-dark grey	31/07/2007	Slight	Nil	3.4	2.8
10258	BH21 2.50-3.00	SAND (SP), grey-dark grey	31/07/2007	Slight	Nil	3.8	3.0
10259	BH21 3.50-4.00	SAND (SP), grey-dark grey	31/07/2007	Slight	Nil	4.1	3.5
10260	BH21 4.50-5.00	SAND (SP), grey-dark grey	31/07/2007	Slight	Nil	4.0	3.3
10261	BH21 5.50-6.00	SAND (SP), grey-dark grey	31/07/2007	Slight	Nil	4.2	3.5

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Provisional Test Results - Chromium Reducible Sulphur

Issued: 2/8/07, 2:31 PM

Job. No. : GSM1523 Project : GJ0638, for Gilbert & Sutherland

Client I.D.	Date Sampled / Tested	Description	Reactions Peroxide Acid Shell Size	Density (t/m ³) MVC (%)	pH _{KCl}	SCr (molH ⁺ /t) (%S)	TAA (mol H ⁺ /t) %S	ANC SNAs (mol H ⁺ /t)	Liming Rate (Kg/dry t)
BH12 0.00-0.50	23/07/2007 1/08/2007	Silty CLAY (Cl), dark grey-brown, with sand & organics, moist	Slight Nil	- 39.8	4.1	3 0.00	118 0.19	- 0	9.3
BH12 1.00-1.50	23/07/2007 1/08/2007	SAND (SP), fine grained, grey-brown, trace of silt, moist	Moderate Nil	- 24.2	4.5	23 0.04	15 0.02	-	3.0
BH12 1.50-2.00	23/07/2007 1/08/2007	SAND (SP), fine grained, grey-brown, trace of silt, moist	Slight Nil	- 24.7	4.6	18 0.03	13 0.02	-	2.4
BH12 2.50-3.00	23/07/2007 1/08/2007	Silty SAND (SM), fine grained, dark grey-brown, moist	Slight Nil	- 28.7	4.7	8 0.01	27 0.04	-	2.8
BH12 4.00-5.00	23/07/2007 1/08/2007	Silty SAND (SM), fine grained, brown-dark brown, moist	Slight Nil	- 29.6	4.6	64 0.10	60 0.10	-	9.7
BH12 6.00-6.50	23/07/2007 1/08/2007	SAND (SP), fine grained, brown, trace of silt & fine gravel, moist	Moderate Nil	- 24.0	4.7	55 0.09	15 0.02	-	5.4
BH13 0.00-0.50	23/07/2007 1/08/2007	SAND (SP), fine grained, dark grey & brown, trace of silt, moist	Nil Nil	- 7.5	3.7	0 0.00	33 0.05	- 0	2.5
BH13 0.50-1.00	23/07/2007 1/08/2007	SAND (SP), fine grained, light brown, moist	Nil Nil	- 3.8	5.1	0 0.00	5 0.01	-	nil
BH13 1.50-2.00	23/07/2007 1/08/2007	SAND (SP), fine grained, grey-dark grey, trace of silt, moist	Moderate Nil	- 26.1	4.5	33 0.05	17 0.03	-	3.9
BH13 2.50-3.00	23/07/2007 1/08/2007	SAND (SP), fine grained, dark grey-brown, with silt, moist	Nil Nil	- 28.3	4.2	5 0.01	95 0.15	- 0	7.7
BH13 4.50-5.50	23/07/2007 1/08/2007	SAND (SP), fine grained, brown-dark brown, with silt, moist	Slight Nil	- 28.1	4.3	12 0.02	61 0.10	- 0	5.6
BH14 0.00-0.50	23/07/2007 1/08/2007	SAND (SP), fine grained, dark grey & brown, trace of silt, moist	Slight Nil	- 6.7	4.2	0 0.00	15 0.02	- 0	nil *
BH14 1.00-1.50	23/07/2007 1/08/2007	Silty SAND (SM), fine grained, grey & dark grey, moist	Nil Nil	- 18.6	4.0	0 0.00	22 0.04	- 0	1.7
BH14 2.00-2.50	23/07/2007 1/08/2007	SAND (SP), fine grained, dark brown, trace of silt, moist	Nil Nil	- 29.5	3.9	0 0.00	42 0.07	- 0	3.2

Test method follows procedures described in Acid Sulfate Soils Laboratory Methods Guidelines - Version 2.1

Liming rate is calculated from SCr + TAA using a supplied combined safety and neutralising factor of 155.0% and composite action level of 18molH⁺/t. ie. TAA + (Nas X 0.75) + SCr - (ANC / safety factor).

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Provisional Test Results

Job. No. : GSM1523

Issued: 6/8/07, 12:13 PM

Project : GJ0638, for Gilbert & Sutherland

Sam No.	Client I.D.	Soil Type (truncated description)	Date Sampled	Reaction to Peroxide	Reaction to HCl	pH _F 1:5 suspension in 1 molar NaCl	pH _{FOx} 1:5 suspension in 1 molar NaCl
10287	BH25 0.00-0.50	Silty SAND (SM), grey-brown	2/08/2007	Nil	Nil	3.7	3.5
10288	BH25 0.50-1.00	SAND (SP), grey-brown	2/08/2007	Nil	Nil	3.4	3.1
10289	BH25 1.00-1.50	SAND (SP), grey-brown	2/08/2007	Nil	Nil	3.7	3.3
10290	BH25 1.50-2.00	SAND (SP), dark grey-brown	2/08/2007	Slight	Nil	3.9	3.3
10291	BH25 2.50-3.00	SAND (SP), dark grey-brown	2/08/2007	Slight	Nil	3.4	3.2
10292	BH25 3.50-4.00	SAND (SP), dark grey-brown	2/08/2007	Moderate	Nil	4.0	3.0
10293	BH25 4.50-5.00	SAND (SP), dark grey-brown	2/08/2007	Slight	Nil	4.3	3.5
10294	BH25 5.50-6.00	SAND (SP), dark grey-brown	2/08/2007	Slight	Nil	4.7	3.7
10295	BH26 0.00-0.50	Sandy CLAY (CL), dark grey-brown	2/08/2007	Nil	Nil	3.9	3.3
10296	BH26 0.50-1.00	SAND (SP), grey-brown	2/08/2007	Nil	Nil	3.9	3.4
10297	BH26 1.00-1.50	SAND (SP), grey-brown	2/08/2007	Moderate	Nil	4.1	2.8
10298	BH26 1.50-2.00	SAND (SP), grey-brown	2/08/2007	Moderate	Nil	4.2	2.9
10299	BH26 2.50-3.00	SAND (SP), grey-brown	2/08/2007	Moderate	Nil	4.5	2.8
10300	BH26 3.50-4.00	SAND (SP), grey-brown	2/08/2007	Moderate	Nil	4.5	2.8
10301	BH26 4.50-5.00	SAND (SP), grey-brown	2/08/2007	Moderate	Nil	4.5	2.8
10302	BH26 5.50-6.00	SAND (SP), grey-brown	2/08/2007	Slight	Nil	4.8	3.6
10303	BH27 0.00-0.50	SAND (SP), grey-brown	2/08/2007	Nil	Nil	3.7	3.4
10304	BH27 0.50-1.00	SAND (SP), dark grey-brown	2/08/2007	Slight	Nil	3.5	3.0
10305	BH27 1.00-1.50	Sandy CLAY (CL), dark grey	2/08/2007	Nil	Nil	3.1	2.9
10306	BH27 1.50-2.00	Sandy CLAY (CL), dark grey	2/08/2007	Nil	Nil	3.2	3.0
10307	BH27 2.00-2.50	Sandy CLAY (CL), dark grey	2/08/2007	Nil	Nil	3.3	3.0
10308	BH27 2.50-3.00	Sandy CLAY (CL), dark grey	2/08/2007	Nil	Nil	3.4	3.0
10309	BH27 3.00-3.50	SAND (SP), grey-brown	2/08/2007	Nil	Nil	3.5	3.2
10310	BH27 3.50-4.00	SAND (SP), dark grey-brown	2/08/2007	Nil	Nil	3.6	3.3
10311	BH27 4.00-4.50	SAND (SP), dark grey-brown	2/08/2007	Nil	Nil	3.7	3.5
10312	BH27 4.50-5.00	SAND (SP), dark grey-brown	2/08/2007	Nil	Nil	3.7	3.4
10313	BH27 5.00-5.50	SAND (SP), dark grey-brown	2/08/2007	Nil	Nil	3.9	3.5

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Job. No. : GSM1523

Issued: 6/8/07, 12:08 PM

Project : GJ0638, for Gilbert & Sutherland

Sam No.	Client I.D.	Soil Type (truncated description)	Date Sampled	Reaction to Peroxide	Reaction to HCl	pH _F 1:5 suspension in 1 molar NaCl	pH _{FOX} 1:5 suspension in 1 molar NaCl
10287	BH25 0.00-0.50	Silty SAND (SM), grey-brown	2/08/2007	Nil	Nil	3.7	3.5
10288	BH25 0.50-1.00	SAND (SP), grey-brown	2/08/2007	Nil	Nil	3.4	3.1
10289	BH25 1.00-1.50	SAND (SP), grey-brown	2/08/2007	Nil	Nil	3.7	3.3
10290	BH25 1.50-2.00	SAND (SP), dark grey-brown	2/08/2007	Slight	Nil	3.9	3.3
10291	BH25 2.50-3.00	SAND (SP), dark grey-brown	2/08/2007	Slight	Nil	3.4	3.2
10292	BH25 3.50-4.00	SAND (SP), dark grey-brown	2/08/2007	Moderate	Nil	4.0	3.0
10293	BH25 4.50-5.00	SAND (SP), dark grey-brown	2/08/2007	Slight	Nil	4.3	3.5
10294	BH25 5.50-6.00	SAND (SP), dark grey-brown	2/08/2007	Slight	Nil	4.7	3.7
102	BH26 0.00-0.50	Sandy CLAY (CL), dark grey-brown	2/08/2007	Nil	Nil	3.9	3.3
10296	BH26 0.50-1.00	SAND (SP), grey-brown	2/08/2007	Nil	Nil	3.9	3.4
10297	BH26 1.00-1.50	SAND (SP), grey-brown	2/08/2007	Moderate	Nil	4.1	2.8
10298	BH26 1.50-2.00	SAND (SP), grey-brown	2/08/2007	Moderate	Nil	4.2	2.9
10299	BH26 2.50-3.00	SAND (SP), grey-brown	2/08/2007	Moderate	Nil	4.5	2.8
10300	BH26 3.50-4.00	SAND (SP), grey-brown	2/08/2007	Moderate	Nil	4.5	2.8
10301	BH26 4.50-5.00	SAND (SP), grey-brown	2/08/2007	Moderate	Nil	4.5	2.8
10302	BH26 5.50-6.00	SAND (SP), grey-brown	2/08/2007	Slight	Nil	4.8	3.6
10303	BH27 0.00-0.50	SAND (SP), grey-brown	2/08/2007	Nil	Nil	3.7	3.4
10304	BH27 0.50-1.00	SAND (SP), dark grey-brown	2/08/2007	Slight	Nil	3.5	3.0
10305	BH27 1.00-1.50	Sandy CLAY (CL), dark grey	2/08/2007	Nil	Nil	3.1	2.9
10306	BH27 1.50-2.00	Sandy CLAY (CL), dark grey	2/08/2007	Nil	Nil	3.2	3.0
10307	BH27 2.00-2.50	Sandy CLAY (CL), dark grey	2/08/2007	Nil	Nil	3.3	3.0
10308	BH27 2.50-3.00	Sandy CLAY (CL), dark grey	2/08/2007	Nil	Nil	3.4	3.0
10309	BH27 3.00-3.50	SAND (SP), grey-brown	2/08/2007	Nil	Nil	3.5	3.2
10310	BH27 3.50-4.00	SAND (SP), dark grey-brown	2/08/2007	Nil	Nil	3.6	3.3
10311	BH27 4.00-4.50	SAND (SP), dark grey-brown	2/08/2007	Nil	Nil	3.7	3.5
10312	BH27 4.50-5.00	SAND (SP), dark grey-brown	2/08/2007	Nil	Nil	3.7	3.4
103	BH27 5.00-5.50	SAND (SP), dark grey-brown	2/08/2007	Nil	Nil	3.9	3.5

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Sam No.	Client I.D.	Soil Type (truncated description)	Date Sampled	Reaction to Peroxide	Reaction to HCl	pH _F 1:5 suspension in 1 molar NaCl	pH _{FOX} 1:5 suspension in 1 molar NaCl
10287	BH25 0.00-0.50	Silty SAND (SM), grey-brown	2/08/2007	Nil	Nil	3.7	3.5
10288	BH25 0.50-1.00	SAND (SP), grey-brown	2/08/2007	Nil	Nil	3.4	3.1
10289	BH25 1.00-1.50	SAND (SP), grey-brown	2/08/2007	Nil	Nil	3.7	3.3
10290	BH25 1.50-2.00	SAND (SP), dark grey-brown	2/08/2007	Slight	Nil	3.9	3.3
10291	BH25 2.50-3.00	SAND (SP), dark grey-brown	2/08/2007	Slight	Nil	3.4	3.2
10292	BH25 3.50-4.00	SAND (SP), dark grey-brown	2/08/2007	Moderate	Nil	4.0	3.0
10293	BH25 4.50-5.00	SAND (SP), dark grey-brown	2/08/2007	Slight	Nil	4.3	3.5
10294	BH25 5.50-6.00	SAND (SP), dark grey-brown	2/08/2007	Slight	Nil	4.7	3.7
10295	BH26 0.00-0.50	Sandy CLAY (CL), dark grey-brown	2/08/2007	Nil	Nil	3.9	3.3
10296	BH26 0.50-1.00	SAND (SP), grey-brown	2/08/2007	Nil	Nil	3.9	3.4
10297	BH26 1.00-1.50	SAND (SP), grey-brown	2/08/2007	Moderate	Nil	4.1	2.8
10298	BH26 1.50-2.00	SAND (SP), grey-brown	2/08/2007	Moderate	Nil	4.2	2.9
10299	BH26 2.50-3.00	SAND (SP), grey-brown	2/08/2007	Moderate	Nil	4.5	2.8
10300	BH26 3.50-4.00	SAND (SP), grey-brown	2/08/2007	Moderate	Nil	4.5	2.8
10301	BH26 4.50-5.00	SAND (SP), grey-brown	2/08/2007	Moderate	Nil	4.5	2.8
10302	BH26 5.50-6.00	SAND (SP), grey-brown	2/08/2007	Slight	Nil	4.8	3.6
10303	BH27 0.00-0.50	SAND (SP), grey-brown	2/08/2007	Nil	Nil	3.7	3.4
10304	BH27 0.50-1.00	SAND (SP), dark grey-brown	2/08/2007	Slight	Nil	3.5	3.0
10305	BH27 1.00-1.50	Sandy CLAY (CL), dark grey	2/08/2007	Nil	Nil	3.1	2.9
10306	BH27 1.50-2.00	Sandy CLAY (CL), dark grey	2/08/2007	Nil	Nil	3.2	3.0
10307	BH27 2.00-2.50	Sandy CLAY (CL), dark grey	2/08/2007	Nil	Nil	3.3	3.0
10308	BH27 2.50-3.00	Sandy CLAY (CL), dark grey	2/08/2007	Nil	Nil	3.4	3.0
10309	BH27 3.00-3.50	SAND (SP), grey-brown	2/08/2007	Nil	Nil	3.5	3.2
10310	BH27 3.50-4.00	SAND (SP), dark grey-brown	2/08/2007	Nil	Nil	3.6	3.3
10311	BH27 4.00-4.50	SAND (SP), dark grey-brown	2/08/2007	Nil	Nil	3.7	3.5
10312	BH27 4.50-5.00	SAND (SP), dark grey-brown	2/08/2007	Nil	Nil	3.7	3.4
10313	BH27 5.00-5.50	SAND (SP), dark grey-brown	2/08/2007	Nil	Nil	3.9	3.5

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Provisional Test Results

Job. No. : GSM1523

Issued: 6/8/07, 12:15 PM

Project : GJ0638, for Gilbert & Sutherland

Sam No.	Client I.D.	Soil Type (truncated description)	Date Sampled	Reaction to Peroxide	Reaction to HCl	pHf 1:5 suspension in 1 molar NaCl	pHfox 1:5 suspension in 1 molar NaCl
10287	BH25 0.00-0.50	Silty SAND (SM), grey-brown	2/08/2007	Nil	Nil	3.7	3.5
10288	BH25 0.50-1.00	SAND (SP), grey-brown	2/08/2007	Nil	Nil	3.4	3.1
10289	BH25 1.00-1.50	SAND (SP), grey-brown	2/08/2007	Nil	Nil	3.7	3.3
10290	BH25 1.50-2.00	SAND (SP), dark grey-brown	2/08/2007	Slight	Nil	3.9	3.3
10291	BH25 2.50-3.00	SAND (SP), dark grey-brown	2/08/2007	Slight	Nil	3.4	3.2
10292	BH25 3.50-4.00	SAND (SP), dark grey-brown	2/08/2007	Moderate	Nil	4.0	3.0
10293	BH25 4.50-5.00	SAND (SP), dark grey-brown	2/08/2007	Slight	Nil	4.3	3.5
10294	BH25 5.50-6.00	SAND (SP), dark grey-brown	2/08/2007	Slight	Nil	4.7	3.7
10295	BH26 0.00-0.50	Sandy CLAY (CL), dark grey-brown	2/08/2007	Nil	Nil	3.9	3.3
10296	BH26 0.50-1.00	SAND (SP), grey-brown	2/08/2007	Nil	Nil	3.9	3.4
10297	BH26 1.00-1.50	SAND (SP), grey-brown	2/08/2007	Moderate	Nil	4.1	2.8
10298	BH26 1.50-2.00	SAND (SP), grey-brown	2/08/2007	Moderate	Nil	4.2	2.9
10299	BH26 2.50-3.00	SAND (SP), grey-brown	2/08/2007	Moderate	Nil	4.5	2.8
10300	BH26 3.50-4.00	SAND (SP), grey-brown	2/08/2007	Moderate	Nil	4.5	2.8
10301	BH26 4.50-5.00	SAND (SP), grey-brown	2/08/2007	Moderate	Nil	4.5	2.8
10302	BH26 5.50-6.00	SAND (SP), grey-brown	2/08/2007	Slight	Nil	4.8	3.6
10303	BH27 0.00-0.50	SAND (SP), grey-brown	2/08/2007	Nil	Nil	3.7	3.4
10304	BH27 0.50-1.00	SAND (SP), dark grey-brown	2/08/2007	Slight	Nil	3.5	3.0
10305	BH27 1.00-1.50	Sandy CLAY (CL), dark grey	2/08/2007	Nil	Nil	3.1	2.9
10306	BH27 1.50-2.00	Sandy CLAY (CL), dark grey	2/08/2007	Nil	Nil	3.2	3.0
10307	BH27 2.00-2.50	Sandy CLAY (CL), dark grey	2/08/2007	Nil	Nil	3.3	3.0
10308	BH27 2.50-3.00	Sandy CLAY (CL), dark grey	2/08/2007	Nil	Nil	3.4	3.0
10309	BH27 3.00-3.50	SAND (SP), grey-brown	2/08/2007	Nil	Nil	3.5	3.2
10310	BH27 3.50-4.00	SAND (SP), dark grey-brown	2/08/2007	Nil	Nil	3.6	3.3
10311	BH27 4.00-4.50	SAND (SP), dark grey-brown	2/08/2007	Nil	Nil	3.7	3.5
10312	BH27 4.50-5.00	SAND (SP), dark grey-brown	2/08/2007	Nil	Nil	3.7	3.4
10313	BH27 5.00-5.50	SAND (SP), dark grey-brown	2/08/2007	Nil	Nil	3.9	3.5

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Job. No. : GSM1523

Issued: 6/8/07, 11:12 AM

Project : GJ0638, for Gilbert & Sutherland

Sam No.	Client I.D.	Soil Type (truncated description)	Date Sampled	Reaction to Peroxide	Reaction to HCl	pH _F 1:5 suspension in 1 molar NaCl	pH _{OX} 1:5 suspension in 1 molar NaCl
10272	BH22 0.00-0.50	CLAY (CL), dark grey	1/08/2007	Moderate	Nil	4.1	3.2
10273	BH22 0.50-1.00	SAND (SP), grey-brown	1/08/2007	Slight	Nil	4.2	3.4
10274	BH22 1.00-1.50	SAND (SP), grey-brown	1/08/2007	Slight	Nil	4.2	3.4
10275	BH22 1.50-2.00	SAND (SP), grey-brown	1/08/2007	Slight	Nil	4.3	3.0
10276	BH22 2.50-3.00	SAND (SP), grey-brown	1/08/2007	Slight	Nil	4.9	3.6
10277	BH22 3.50-4.00	SAND (SP), dark grey-grey	1/08/2007	Moderate	Nil	4.7	3.1
10278	BH22 4.00-4.50	SAND (SP), grey-brown	1/08/2007	Slight	Nil	5.1	4.0
10279	BH23 0.00-0.50	Sandy CLAY (CL), dark grey-grey	1/08/2007	Slight	Nil	3.8	3.1
10280	BH23 0.50-1.00	SAND (SP), grey-brown	1/08/2007	Slight	Nil	3.8	3.0
10281	BH23 1.00-1.50	SAND (SP), grey-brown	1/08/2007	Moderate	Nil	4.2	2.8
10282	BH23 2.50-3.00	SAND (SP), grey-brown	1/08/2007	Slight	Nil	4.7	3.6
10283	BH23 3.50-4.00	SAND (SP), dark grey-grey	1/08/2007	Slight	Nil	5.3	4.4
10284	BH23 4.50-5.00	SAND (SP), dark grey-grey	1/08/2007	Slight	Nil	4.9	3.5
10285	BH23 5.50-6.00	SAND (SP), dark grey-grey	1/08/2007	Moderate	Nil	5.0	4.3
10262	TS09 0.00-0.50	Clayey SAND (SC), dark grey-grey	1/08/2007	Slight	Nil	3.9	3.1
10263	TS09 0.50-1.00	SAND (SP), grey	1/08/2007	Strong	Nil	3.8	2.2
10264	TS09 1.00-1.50	SAND (SP), grey	1/08/2007	Strong	Nil	3.9	2.3
10265	TS09 1.50-2.00	Sandy CLAY (CL), dark grey-grey	1/08/2007	Strong	Nil	4.0	2.2
10266	TS09 2.00-2.50	Sandy CLAY (CL), dark grey-grey	1/08/2007	Strong	Nil	4.6	2.2
10267	TS09 2.50-3.00	Sandy CLAY (CL), dark grey-grey	1/08/2007	Strong	Nil	4.9	2.2
10268	TS09 3.00-3.50	Sandy CLAY (CL), dark grey-grey	1/08/2007	Strong	Nil	4.9	2.2
10269	TS09 3.50-4.00	SAND (SP), dark grey-grey	1/08/2007	Strong	Nil	4.8	2.2
10270	TS09 5.00-5.50	SAND (SP), dark grey	1/08/2007	Strong	Nil	5.2	3.3
10271	TS09 5.50-6.00	SAND (SP), grey	1/08/2007	Strong	Nil	4.8	2.6

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Provisional Test Results

Job. No. : GSM1523

Issued: 7/8/07, 10:27 AM

Project : GJ0638, for Gilbert & Sutherland

Sam No.	Client I.D.	Soil Type (truncated description)	Date Sampled	Reaction to Peroxide	Reaction to HCl	pH _F 1:5 suspension in 1 molar NaCl	pH _{ox} 1:5 suspension in 1 molar NaCl
10315	BH28 0.00-0.50	Silty SAND (SM), grey-dark grey	3/08/2007	Slight	Nil	3.9	3.6
10316	BH28 0.50-1.00	SAND (SP), light grey-brown	3/08/2007	Nil	Nil	3.9	3.7
10317	BH28 1.00-1.50	SAND (SP), light grey-brown	3/08/2007	Nil	Nil	4.0	3.9
10318	BH28 1.50-2.00	SAND (SP), light grey	3/08/2007	Nil	Nil	4.3	3.9
10319	BH28 2.00-2.50	SAND (SP), light grey	3/08/2007	Nil	Nil	4.7	4.2
10320	BH28 3.00-3.50	SAND (SP), grey-light grey	3/08/2007	Nil	Nil	4.6	4.3
10321	BH28 3.50-4.00	SAND (SP), dark grey-brown	3/08/2007	Nil	Nil	3.7	3.4
10322	BH28 4.00-4.58	SAND (SP), dark grey-brown	3/08/2007	Nil	Nil	3.8	3.5
10323	BH28 4.50-5.00	SAND (SP), dark grey-brown	3/08/2007	Nil	Nil	4.0	3.6
10324	BH28 5.00-5.50	SAND (SP), dark grey-brown	3/08/2007	Nil	Nil	4.1	3.8
10325	BH28 5.50-6.00	SAND (SP), dark grey-brown	3/08/2007	Nil	Nil	4.2	3.9
10326	BH29 0.00-0.50	Silty SAND (SM), dark grey & grey-brown	3/08/2007	Slight	Nil	3.3	3.2
10327	BH29 0.50-1.00	SAND (SP), grey	3/08/2007	Slight	Nil	4.0	3.9
10328	BH29 1.00-1.50	SAND (SP), grey-brown	3/08/2007	Nil	Nil	3.7	3.6
10329	BH29 1.50-2.00	SAND (SP), light grey	3/08/2007	Nil	Nil	4.6	4.2
10330	BH29 2.00-2.50	SAND (SP), light grey	3/08/2007	Nil	Nil	4.5	4.2
10331	BH29 2.50-3.00	SAND (SP), light grey	3/08/2007	Nil	Nil	4.3	4.1
10332	BH29 3.00-3.50	SAND (SP), grey-brown	3/08/2007	Nil	Nil	3.9	3.8
10333	BH29 3.50-4.00	SAND (SP), dark grey-brown	3/08/2007	Nil	Nil	4.0	3.9
10334	BH29 4.00-4.50	SAND (SP), dark grey-brown	3/08/2007	Nil	Nil	3.7	3.4
10335	BH29 4.50-5.00	SAND (SP), dark grey-brown	3/08/2007	Nil	Nil	3.9	3.5
10336	BH29 5.00-5.50	SAND (SP), dark grey-brown	3/08/2007	Nil	Nil	4.0	3.7
10337	BH29 5.50-6.00	SAND (SP), dark grey-brown	3/08/2007	Nil	Nil	4.0	3.7

9 Appendix 3 – Laboratory analysis certificates

ANALYTICAL REPORT

PAGE 1 of 18

CONTACT: MR N SUTHERLAND
CLIENT: GILBERT & SUTHERLAND PTY LTD
ADDRESS: P O BOX 857
ROBINA QLD 4226

LABORATORY: ENV BRISBANE
BATCH NUMBER: EB13231
SUB BATCH: 0
No. OF SAMPLES: 179
DATE RECEIVED: 23/02/98
DATE COMPLETED: 16/03/98

ORDER No.: NARUI COC 04840-851

SAMPLE TYPE: SOIL

PROJECT:

SAMPLE NUMBER	ELEMENT UNIT METHOD L.O.R.	pH (H2O2)	Ca(A) %	Ca(KCl) %	Ca(Perox) %	Mg(A) %	Mg(KCl) %
		EA-002 0.1	EA-022 0.02	EA-022 0.02	EA-022 0.02	EA-022 0.02	EA-022 0.02
BH1	0.5-1.9	3.5	<0.02	<0.02	<0.02	<0.02	<0.02
BH1	2.1-2.3	3.1	<0.02	<0.02	<0.02	<0.02	<0.02
BH1	2.6-2.8	3.5	<0.02	<0.02	<0.02	<0.02	<0.02
BH1	3.8-4.0	3.1	0.02	<0.02	0.02	<0.02	<0.02
BH2	0.5-1	2.4	<0.02	<0.02	<0.02	<0.02	<0.02
BH2	1.25-1.5	1.8	<0.02	<0.02	<0.02	<0.02	<0.02
BH2	2.2-2.4	1.4	<0.02	<0.02	<0.02	<0.02	<0.02
BH2	3.5-4.5	1.4	<0.02	<0.02	<0.02	<0.02	<0.02
BH3	0.5-1	2.5	<0.02	<0.02	<0.02	<0.02	<0.02
BH3	1.6-2.0	2.4	<0.02	<0.02	<0.02	<0.02	<0.02
BH3	2.0-2.3	2.5	<0.02	<0.02	<0.02	<0.02	<0.02
BH3	3-3.2	2.6	<0.02	<0.02	<0.02	<0.02	<0.02
BH4	0.6-1.05	2.4	<0.02	<0.02	<0.02	<0.02	<0.02
BH4	1.05-1.3	2.8	<0.02	<0.02	<0.02	<0.02	<0.02
BH4	2-3	2.1	<0.02	<0.02	<0.02	<0.02	<0.02
BH5	0.7-0.9	2.9	<0.02	<0.02	<0.02	<0.02	<0.02
BH5	1.6-1.8	2.9	<0.02	<0.02	<0.02	<0.02	<0.02
BH5	2.6-2.9	2.3	<0.02	<0.02	<0.02	<0.02	<0.02
BH5	4-4.5	2.2	<0.02	<0.02	<0.02	<0.02	<0.02
BH6	1-1.6	3.1	<0.02	<0.02	<0.02	<0.02	<0.02
BH6	1.6-1.85	3.1	<0.02	<0.02	<0.02	<0.02	<0.02
BH6	1.85-3.6	2.7	<0.02	<0.02	<0.02	<0.02	<0.02
BH6	3.6-3.9	2.0	<0.02	0.04	0.04	0.02	0.02
BH6	3.9-5.8	2.8	<0.02	<0.02	<0.02	<0.02	<0.02
BH7	0.5-0.8	3.0	<0.02	<0.02	<0.02	<0.02	<0.02
BH7	0.9-1.2	2.9	<0.02	<0.02	<0.02	<0.02	<0.02
BH7	1.2-1.6	2.8	<0.02	<0.02	<0.02	<0.02	<0.02
BH7	2-2.4	2.7	<0.02	<0.02	<0.02	<0.02	<0.02
BH7	2.4-2.6	2.8	<0.02	<0.02	<0.02	<0.02	<0.02
BH8	0-0.5	2.9	<0.02	<0.02	<0.02	<0.02	<0.02

COMMENTS:

POCAS as per method of Ahern et al. Results expressed as mole H+/tonne. POCAS Analysis: NATA registration does not cover performance of this service.

This is the Final Report which supersedes any preliminary reports with this batch number.

• Results apply to sample(s) as submitted by client.

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Private
All pages of this report
have been checked and
approved for release.