



Sunday, 22 March 2015

Ms Amanda Langstaff,
Natural Resources Wales,
Chester Road,
Buckley,
Flintshire.
CH7 3AJ

Dear Ms Langstaff,

Data Submission February 2015

Please find enclosed the monthly data submission for routine environmental monitoring undertaken at our Ruabon Landfill Site during February 2015.

We trust this is satisfactory, please do not hesitate to contact us should you require further clarification.

**Yours sincerely,
for FCC ENVIRONMENT**

Geoff Forrest

Environment Manager, North Wales



Ruabon Landfill Site

Routine Environmental Monitoring Data Submission

February 2015

Prepared by G.Forrest
28th February 2015

APPENDIX 1

Field Logs

Field log report

Ruabon

03-February-2015

Equipment 01 Calibration Due	21/02/2015
Equipment 01 Last Calibration	07/01/2015
Equipment 01 Serial No.	LT1
Equipment 01 Type	Hannah Instruments HI98130
Equipment 02 Last Calibration	N/A
Equipment 02 Serial No.	30858
Equipment 02 Type	Dip Meter, In Situ Rugged Level tape 200
Personnel 01	L.Terrace
Time OFF	15:45
Time ON	09:40
Weather	Sunny

Issued By:

Signed By :

Name :

Field log report

Ruabon

13-February-2015

Equipment 01 Calibration Due	17/03/2015
Equipment 01 Last Calibration	17/09/2014
Equipment 01 Serial No.	G501416
Equipment 01 Type	GA5000
Personnel 01	A Lowe
Time OFF	12:00
Time ON	08:30
Weather	Cloud/Light Rain

Issued By:

Signed By :

Name :

Field log report

Ruabon

19-February-2015

Equipment 01 Calibration Due	21/02/2015
Equipment 01 Last Calibration	20/08/2014
Equipment 01 Serial No.	G501869
Equipment 01 Type	GA5000
Personnel 01	L Terrace
Time OFF	15:30
Time ON	12:00
Weather	Overcast

Issued By:

Signed By :

Name :

Field log report

Ruabon

25-February-2015

Equipment 01 Calibration Due	30/03/2015
Equipment 01 Last Calibration	30/09/2014
Equipment 01 Serial No.	GA11581
Equipment 01 Type	GA2000+
Personnel 01	L Terrace
Time OFF	15:00
Time ON	12:00
Weather	Light Rain

Issued By:

Signed By :

Name :

Field log report

Ruabon

27-February-2015

Equipment 01 Serial No.	79281-10
Equipment 01 Type	Geotechnical Atex Dip Meter
Time OFF	11:20
Time ON	09:30
Weather	sun, cold

Issued By:

Signed By :

Name :

APPENDIX 2

Perimeter Borehole Gas Data

Ruabon Perimeter Borehole Gas & Level Data - February 2015



From : 03/02/2015
To : 25/02/2015

03/02/2015

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	Dip to Water (m)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)	TD (m)
RUBH0006	997	3.8	2.2	1.22	0	10.2	-0.48	11.72
RUBH0007	997	6.1	2.8	2.38	0	6.5	-0.55	38.67
RUBH0008	996	0	1	0.73	0	20.4	-0.48	42.37
RUBH0009	996	0	0.7	1.59	0	20.4	-0.36	7.49
RUBH0010	996	0	0.3	2	0	20.4	-0.38	36.15
RUBH0013	995	0	0.1	0.86	0	20.5	-0.41	34.63
RUBH0014	995	0	1.2	20.9	0	20.1	1.68	10.72
RUBH0015	995	0	0.1	6	0	20.4	-0.41	41.7
RUBH0016	996	0	0.3	10.25	0	20.3	-0.47	47.13
RUBH001A	996	0	0.2	4.78	0	19.6	-0.4	12.8
RUBH001B	996	0	1.2	4.9	0	18.4	-0.47	6.38
RUBH002A	996	0	0.1	5.06	0	19.9	-0.45	6.49
RUBH002B	996	0	0.2	5.12	0	19.9	-5.05	11.72
RUBH003A	997	0	0.5	5.44	0	19.8	-4.51	13.09
RUBH003B	996	0	0.1	5.26	0	20.3	-0.57	6.37
RUBH004A	996	0	1.8	5.03	0	19.1	-0.78	11.04
RUBH004B	996	0	1.4	5.09	0	20.2	-0.43	6.33
RUBH011A	995	0	0.6	1.4	0	20.2	-0.38	12.78
RUBH011P	995	0	0.1	2.66	0	20.4	-0.43	14.42
RUBH012A	995	0	0.4	0.06	0	20.1	-0.31	5.35
RUGBH001	996	0	4.7	6.05	0	16.6	-0.35	6.05
RUGBH002	997	0	0.6	1.76	0	20.6	-0.45	7.01
RUGBH003	997	0	0.5	1.93	0	20.4	-0.36	4.9
RUGBH004	997	0	0.2	1.96	0	20.4	-0.43	21.9
RUGBH005	997	0	0.1	2.17	0	20.6	-0.47	6.33
RUGBH006	997	0	1.2	0.74	0	20.1	-0.43	6.94
RUGBH007	994	0	0.2	0.38	0	20.7	-0.33	2.95
RUGBH008	995	0	0.6	0.78	0	20.2	-0.5	6.18
RUGBH009	995	0	0.3	0.9	0	20.6	-0.4	8.23
RUGBH010	995	0	0.2	0.51	0	20.7	-0.38	3.95
RUGBH02A	996	0	0.1	1.13	0	20.7	-0.43	1.4
RUGP0001	995	0	0.1		0	19.2	-6.74	
RUGP0002	996	0	1.1		0	18.5	-0.14	
RUGP0003	996	0	0.2		0	19.2	2.25	
RUGP0004	996	0	4.1		0	15.5	-0.43	
RUGP0008	996	0	0.3		0	19.6	-0.33	
RUGP0009	996	0	6.7		0	4.4	-0.43	
RUGP0010	997	0	1.3		0	19	-0.41	
RUGP0011	997	0	1.7		0	18.9	-0.43	
RUGP0012	996	0	0.2		0	20.3	-0.47	
RUGP0013	997	0	0.5		0	20	-0.45	
RUGP0014	996	0	3.8		0	17.9	-0.41	
RUGP0015	995	0	0.2		0	20.7	-0.52	
RUGP0016	995	0	0.9		0	20.1	-0.33	
RUGP0018	996	0	0.1		0	20.7	-0.36	
RUGP0019	995	0	0.1		0	20.5	-0.41	
RUGP0020	994	0	0.1		0	20.6	-0.45	
RUGP0021	994	0	1.2		0	18.2	-0.38	
RUGP00A1	997	0	0.1		0	20.6	-0.43	

Issued By:

Ruabon Perimeter Borehole Gas & Level Data - February 2015



From : 03/02/2015

To : 25/02/2015

03/02/2015

	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	Dip to Water (m)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)	TD (m)
RUGP00A2	997	0	0.1		0	20.6	-0.24	
RUGP00A3	997	0	0.1		0	20.7	-0.59	
RUGP00B1	997	0	0.1		0	20.2	-0.38	
RUGP00B2	997	0	0.2		0	20.3	-0.54	
RUGP00B3	997	0	0.1		0	20.6	-0.36	
RUGP00C1	997	0	0.1		0	20.4	-0.45	
RUGP00C2	996	0	0.1		0	19.7	-0.47	
RUGP00C3	997	0	0.1		0	20.6	-1.33	
RUGP00D1	997	0	0.1		0	20.6	-0.43	
RUGP00D2	996	0	0.1		0	20.5	-0.05	
RUGP00D3	997	0	0.1		0	18.9	-9.11	
RUGP00E1	997	0	0.1		0	20.6	-0.43	
RUGP00E2	997	0	0.1		0	20.6	0.19	
RUGP00E3	997	0	0.1		0	20.5	-0.17	
RUGP00F1	997	0	0.1		0	20.5	-0.38	
RUGP00F2	996	0	0.1		0	20.3	-0.35	
RUGP00F3	996	0	0.1		0	20.5	-0.36	
RUWB001A	997	0	0.2	2.77	0	16.6	-0.36	48.87
RUWB001B	997	0	1.4	4.05	0	18	-0.43	7.88
RUWB002A	997	0	0.2	4.93	0	20.6	-0.36	21.36
RUWB002B	997	0	0.6	5.94	0	20.6	-0.36	10.45
RUWB002C	996	0	3.9	6.14	0	18	-0.4	8.01
RUWB002D	997	0	0.2	5.87	0	20.3	-0.45	21.66
RUWB003A	994	0	0.6	8.87	0	14.3	-12.72	10.69
RUWB003B	994	0	0.1	0.23	0	16.5	-0.41	7.55
RUWB004A	995	0	0.2	3.07	0	18.7	-0.36	48.83
RUWB004B	995	0	0.5	0.77	0	15.3	-9.61	8.54
RUWB005A	996	0	0.1	2.71	0	20.7	-0.35	25.37
RUWB005B	997	0	0.5	1.32	0	20.6	-0.5	8.38

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Ruabon Perimeter Borehole Gas & Level Data - February 2015



From : 03/02/2015
To : 25/02/2015

13/02/2015

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)
RUBH0005	987	0.7	0.4	0	20.5	-0.12
RUBH0006	985	0.1	1.6	0	16.7	0
RUBH0007	986	8.2	3.7	0	0.8	-0.07
RUBH0008	986	0	1	0	20.8	-0.02
RUBH0009	984	0	1.1	0	20.7	-0.03
RUBH0013	984	0	0.9	0	20.8	-0.17
RUBH0014	983	0	2.5	0	19.4	0.48
RUBH0015	984	0	0.1	0	21	-0.05
RUBH0016	984	0	0.4	0	20.9	-0.03
RUBH001A	984	0	0.3	0	20.9	-0.09
RUBH001B	983	0	1.4	0	19.3	0
RUBH002A	982	4.4	5.1	0	0.7	0.14
RUBH002B	985	0	0.2	0	20.9	0.24
RUBH003A	984	0	0.5	0	20.4	-6.79
RUBH003B	984	0	0.4	0	20.2	0.21
RUBH004A	985	0	1.7	0	19.2	3.33
RUBH004B	985	0	1.7	0	19.8	-0.03
RUBH011A	984	0	0.8	0	20.8	-0.05
RUBH011P	984	0	0.1	0	21.1	-0.17
RUBH012A	983	0	0.2	0	21	-0.05
RUGBH001	985	0	4.4	0	16.6	0.05
RUGBH002	984	0	0.7	0	20.8	0.22
RUGBH003	987	0	0.8	0	20.1	-0.6
RUGBH004	987	0	0.3	0	20.6	0
RUGBH006	979	0	1.8	0	20.3	2.61
RUGBH007	984	0	0.3	0	21	-0.05
RUGBH008	982	0	0.8	0	20.5	-0.1
RUGBH009	984	0	0.1	0	21.2	-0.02
RUGBH010	984	0	1.2	0	20.6	-0.12
RUGBH02A	985	0	0.1	0	20.9	-0.1
RUGP0001	983	7.5	0.7	0	19.2	0.1
RUGP0002	982	0	1.1	0	20.2	-0.09
RUGP0003	984	0	0.2	0	20.6	0.19
RUGP0004	982	0	3.5	0	17.2	0.07
RUGP0008	985	0	0.3	0	20.7	0.02
RUGP0009	984	0	6.9	0	5.7	0.02
RUGP0010	984	0	1.8	0	19.2	0.03
RUGP0011	984	0	1.5	0	19.7	0.07
RUGP0012	984	0	0.2	0	20.9	0.31
RUGP0013	985	0	0.8	0	20	-0.03
RUGP0014	985	0	3.3	0	17.7	0.03
RUGP0015	987	0	0.3	0	20.9	-10.36
RUGP0016	985	0	1.8	0	19.3	-0.14
RUGP0018	986	0	0.1	0	21.1	0.34
RUGP0019	985	0	0.1	0	20.9	-0.17
RUGP0020	985	0	0.1	0	21	0.05
RUGP0021	984	0	0.7	0	20.1	-0.03
RUGP00A1	987	0	0.1	0	20.9	-0.1
RUGP00A2	986	0	0.1	0	20.9	-0.05

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Ruabon Perimeter Borehole Gas & Level Data - February 2015



From : 03/02/2015
To : 25/02/2015

13/02/2015

	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)
RUGP00A3	986	0	0.1	0	14.4	-3.54
RUGP00B1	987	0	0.1	0	20.9	-0.07
RUGP00B2	986	0	0.2	0	20.7	0.33
RUGP00B3	985	0	0.1	0	20.9	0.4
RUGP00C1	984	0	0.1	0	20.7	0.4
RUGP00C2	984	0	0.1	0	19.1	0.31
RUGP00C3	986	0	0.1	0	20.4	-3.99
RUGP00D1	986	0	0.1	0	20.8	0
RUGP00D2	985	0	0.1	0	20.8	-0.1
RUGP00D3	984	0	0.1	0	18.4	0.29
RUGP00E1	986	0	0.1	0	20.8	-0.03
RUGP00E2	985	0	0.1	0	20.9	0.15
RUGP00E3	985	0	0.1	0	21	-0.05
RUGP00F1	985	0	0.1	0	20.8	-0.03
RUGP00F2	985	0	0.1	0	20.7	-0.05
RUGP00F3	984	0	0.1	0	20.8	0.05
RUWB001A	984	0	0.3	0	16.1	0.79
RUWB001B	985	0	2.2	0	18.2	-0.1
RUWB002A	985	0	0.2	0	19.9	-0.02
RUWB002B	985	0	3.3	0	18.4	0.02
RUWB002C	985	0	3.3	0	18.6	-0.05
RUWB002D	985	0	0.2	0	20.9	0
RUWB003A	985	0	0.6	0	14.9	0.03
RUWB003B	985	0	0.2	0	17.9	-0.12
RUWB004A	985	0	0.2	0	19.8	12.39
RUWB004B	985	0	0.4	0	18.5	-0.02
RUWB005A	986	0	0.1	0	20.9	-0.05
RUWB005B	986	0	0.5	0	20.7	-0.02

Issued By:

Ruabon Perimeter Borehole Gas & Level Data - February 2015



From : 03/02/2015

To : 25/02/2015

19/02/2015

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)
RUBH0006	1001	1.1	2.1	0	11.4	-0.33
RUBH0007	1000	8.8	3.8	0	1.2	-0.45
RUBH0008	1000	0	0.5	0	19.8	-0.54
RUBH0009	998	0	0.6	0	19.9	-0.47
RUBH0010	998	0	0.7	0	19.8	-0.48
RUBH0013	997	0	1.2	0	19.6	-0.45
RUBH0014	997	0	2	0	18.6	-0.8
RUBH0015	998	0	0.1	0	20.1	-0.47
RUBH0016	997	0	0.3	0	20	-0.41
RUBH001A	1000	0	0.3	0	19.5	-0.52
RUBH001B	1000	0	1.4	0	18	-0.45
RUBH002A	1000	2.6	5.3	0	0.7	-0.5
RUBH002B	1000	0	0.2	0	19.4	-0.41
RUBH003A	1000	0	0.5	0	19.3	-0.47
RUBH003B	1000	0	0.1	0	19.9	-0.54
RUBH004A	1000	0	1.6	0	18.4	-0.5
RUBH004B	1000	0	1.6	0	19	-0.55
RUBH011A	997	0	0.8	0	19.9	-0.41
RUBH011P	997	0	0.1	0	20.1	-0.64
RUBH012A	997	0	2.1	0	10	-0.52
RUGBH001	1000	0	4.5	0	16.1	-0.6
RUGBH002	1000	0	0.5	0	19.9	-0.62
RUGBH003	1001	0	0.3	0	19.9	-0.45
RUGBH004	1001	0	0.2	0	19.9	-0.52
RUGBH005	1001	0	0.1	0	19.9	-0.48
RUGBH006	1000	0	1.2	0	19.4	-0.52
RUGBH007	997	0	0.2	0	19.8	-0.48
RUGBH008	997	0	0.8	0	19.5	-0.5
RUGBH009	997	0	0.3	0	19.8	-0.47
RUGBH010	997	0	1	0	19.6	-0.57
RUGBH02A	1001	0	0.1	0	20	-0.5
RUGP0001	1000	1.3	0.3	0	19.1	-0.67
RUGP0002	1000	0	0.9	0	19.1	-0.4
RUGP0003	1000	0	0.2	0	19.3	-5.57
RUGP0004	1000	0	3.4	0	17.4	-0.45
RUGP0008	1000	0	0.3	0	19.3	2.02
RUGP0009	1000	0	7.9	0	5.9	-0.35
RUGP0010	1000	0	2.8	0	17.7	-0.52
RUGP0011	1000	0	1.5	0	18.7	-0.38
RUGP0012	1000	0	0.1	0	19.8	-0.55
RUGP0013	1000	0	0.7	0	19.5	-0.36
RUGP0014	1000	0	3.5	0	16.8	-0.74
RUGP0015	998	0	0.2	0	19.8	-0.5
RUGP0016	997	0	1.8	0	18.3	-0.45
RUGP0018	998	0	0.1	0	20	-0.4
RUGP0019	997	0	0.1	0	19.9	-0.47
RUGP0020	997	0	0.1	0	19.8	-0.38
RUGP0021	997	0	1.3	0	17.7	0.38
RUGP00A1	1000	0	0.1	0	19.9	-0.64

Issued By:

Ruabon Perimeter Borehole Gas & Level Data - February 2015



From : 03/02/2015
To : 25/02/2015

19/02/2015

	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)
RUGP00A2	1001	0	0.1	0	19.7	-0.47
RUGP00A3	1001	0	0.1	0	19	-0.16
RUGP00B1	1001	0	0.1	0	19.7	-0.14
RUGP00B2	1000	0	0.2	0	19.1	-0.54
RUGP00B3	1001	0	0.1	0	19.9	-0.59
RUGP00C1	1001	0	0.1	0	19.8	1.56
RUGP00C2	1000	0	0.1	0	19.4	-0.5
RUGP00C3	1000	0	0.1	0	19.9	-0.12
RUGP00D1	1001	0	0.1	0	20	-0.71
RUGP00D2	1001	0	0.1	0	19.9	0.1
RUGP00D3	1001	0	0.1	0	18.1	5.44
RUGP00E1	1000	0	0.1	0	19.8	-0.38
RUGP00E2	1001	0	0.1	0	20	-0.38
RUGP00E3	1000	0	0.1	0	19.9	-0.45
RUGP00F1	1001	0	0.1	0	20	-0.36
RUGP00F2	1000	0	0.1	0	19.5	-0.31
RUGP00F3	1000	0	0.1	0	19.9	-0.31
RUWB001A	1000	0	0.3	0	15.8	-0.86
RUWB001B	1000	0	0.4	0	19.1	-0.54
RUWB002A	1000	0	0.2	0	18.9	-0.41
RUWB002B	1000	0	1.7	0	19.2	-0.67
RUWB002C	1000	0	2.4	0	18.4	-0.52
RUWB002D	1000	0	0.2	0	19.8	-0.24
RUWB003A	997	0	0.6	0	14	1.42
RUWB003B	997	0	0.1	0	17.2	-4.32
RUWB004A	997	0	0.2	0	18.1	-2.52
RUWB004B	997	0	0.4	0	17.7	-0.35
RUWB005A	999	0	0.1	0	20.1	-0.48
RUWB005B	999	0	0.5	0	19.7	-0.47

Issued By:

Ruabon Perimeter Borehole Gas & Level Data - February 2015



From : 03/02/2015

To : 25/02/2015

25/02/2015

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)
RUBH0006	1000	5.2	2.4	0	10.1	0.35
RUBH0007	1000	12.2	3.9	0	0.1	0.32
RUBH0008	1000	0	2.2	0	19.3	0.81
RUBH0009	999	0	0.6	0	20.6	0.24
RUBH0010	999	0	0.4	0	20.4	0.25
RUBH0013	997	0	0.5	0	20.5	0.24
RUBH0014	997	0	2.2	0	19.1	1.86
RUBH0015	999	0	0	0	17.1	0.23
RUBH0016	999	0	0.2	0	20.7	0.25
RUBH001A	1000	0	0.2	0	20.6	0.1
RUBH001B	1000	0	0.5	0	20.1	0.03
RUBH002A	1000	0	0	0	20.8	0.17
RUBH002B	1000	0	0.1	0	20.8	-5.07
RUBH003A	1000	0	0.2	0	20.6	0.16
RUBH003B	1000	0	0	0	20.9	0.14
RUBH004A	1000	0	1.6	0	19.2	-1.36
RUBH004B	1000	0	1.1	0	20.2	0.17
RUBH011A	998	0	0.5	0	20.8	0.24
RUBH011P	998	0	0	0	20.9	0.26
RUBH012A	998	0	0.7	0	20.2	0.14
RUGBH001	1000	0	4.5	0	16.5	0.28
RUGBH002	1000	0	1.4	0	19.8	0.75
RUGBH003	1000	0	1.1	0	19.1	0.18
RUGBH004	1000	0	0.2	0	20.6	-0.19
RUGBH005	1000	0	0.1	0	20.8	0.26
RUGBH006	999	0	1.8	0	20	2.2
RUGBH007	997	0	0.2	0	20.8	0.24
RUGBH008	997	0	0.7	0	20.5	0.25
RUGBH009	998	0	0.4	0	20.4	0.95
RUGBH010	998	0	1	0	20.5	0.18
RUGBH02A	1000	0	0.1	0	20.9	0.15
RUGP0001	1000	11.9	1.3	0	15.8	-0.28
RUGP0002	1000	0	1	0	20.5	0.28
RUGP0003	1000	0	0.1	0	20.4	-1.67
RUGP0004	1000	0	3	0	18.6	0.08
RUGP0008	1000	0	0.3	0	20.2	0.2
RUGP0009	1000	0	8.8	0	5.2	0.2
RUGP0010	1000	0	1.7	0	19.7	0.15
RUGP0011	1000	0	1.6	0	19.2	0.16
RUGP0012	1000	0	0.1	0	20.9	0.56
RUGP0013	1000	0	0.5	0	20.7	0.19
RUGP0014	1000	0	3.6	0	17.3	0.15
RUGP0015	999	0	0.1	0	20.8	0.13
RUGP0016	997	0	1.7	0	19.2	0.18
RUGP0018	999	0	0	0	20.9	6.81
RUGP0019	998	0	0	0	20.8	0.5
RUGP0020	997	0	0	0	20.9	0.79
RUGP0021	997	0	1.3	0	18.3	1.63
RUGP00A1	1000	0	0	0	20.9	0.28

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Ruabon Perimeter Borehole Gas & Level Data - February 2015



From : 03/02/2015
To : 25/02/2015

25/02/2015

	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)
RUGP00A2	1000	0	0	0	20.6	0.3
RUGP00A3	1000	0	0	0	20.8	2.05
RUGP00B1	1000	0	0	0	20.4	-5.28
RUGP00B2	1000	0	0.1	0	19.6	-0.76
RUGP00B3	1000	0	0	0	20.9	0.25
RUGP00C1	1000	0	0	0	20.4	0.2
RUGP00C2	1000	0	0	0	18.5	0.29
RUGP00C3	1000	0	0.3	0	20.6	0.17
RUGP00D1	1000	0	0	0	20.6	0.18
RUGP00D2	1000	0	0	0	20.8	0.19
RUGP00D3	1000	0	0	0	16.8	-11.99
RUGP00E1	1000	0	0	0	20.9	0.1
RUGP00E2	1000	0	0	0	20.9	0.18
RUGP00E3	1000	0	0	0	20.9	0.17
RUGP00F1	1000	0	0	0	20.8	0.51
RUGP00F2	1000	0	0	0	20.2	0.13
RUGP00F3	1000	0	0	0	20.1	2.2
RUWB001A	1000	0	0.3	0	15.8	-2.48
RUWB001B	1000	0	0.2	0	20.7	0.74
RUWB002A	1000	0	0.1	0	19.3	0.18
RUWB002B	1000	0	1.1	0	20.2	0.6
RUWB002C	1000	0	2.6	0	18.9	0.2
RUWB002D	1000	0	0.2	0	20.6	0.18
RUWB003A	997	0	0.5	0	13.9	-14.79
RUWB003B	997	0	0	0	18.9	0.68
RUWB004A	998	0	0.1	0	18.2	-8.17
RUWB004B	998	0	0.4	0	17.6	-0.08
RUWB005A	999	0	0	0	20.8	0.89
RUWB005B	1000	0	0.4	0	20.7	0.03

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APPENDIX 3

Landfill Gas Field Extraction and Balancing Data

Ruabon Landfill Gas Extraction and Balancing Data - February 2015

Well ID	Date/Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mbar)	CO (ppm)	H2S (ppm)	CH4 + CO2 (%)	Original Valve (%)	Depart Valve (%)
RUAW0001	06/02/2015 09:26	29.2	23.7	2.4	44.7	-3.99	1017	0	0	52.9	5	5
RUAW0002	06/02/2015 09:29	6.2	17.8	1	75	-4.29	1018	0	0	24	0	0
RUAMW001	06/02/2015 09:32	22.9	15.5	6.5	55.1	-4.29	1019	0	0	38.4	0	0
RUAW0003	06/02/2015 09:34	42.2	16.8	0.4	40.6	-4.03	1019	0	0	59	1	1
RUAW0053	06/02/2015 09:36	3.6	17.2	0.9	78.3	-5.25	1018	0	0	20.8	0	0
RUAMW002	06/02/2015 09:39	28	20.6	0	51.4	-7.87	1018	0	0	48.6	0	0
RUAW065R	06/02/2015 09:42	32.6	24.8	0	42.6	-10.07	1018	0	0	57.4	10	10
RUAW011R	06/02/2015 09:45	42.2	28.3	0.7	28.8	-10.97	1018	0	0	70.5	10	10
RUAW011R	06/02/2015 09:45	42.2	28.3	0.7	28.8	-10.97	1018	0	0	70.5	10	10
RUAMW005	06/02/2015 09:48	36.3	26.1	0.2	37.4	-17.61	1018	0	0	62.4	20	20
RUAW0061	06/02/2015 09:50	27	27.4	0	45.6	-8.95	1018	0	0	54.4	5	0
RUAW0061	06/02/2015 09:51	27	27.6	0	45.4	-8.93	1018	0	0	54.6	1	1
RUAMW006	06/02/2015 09:54	50.2	31.6	0.1	18.1	-15.77	1018	0	0	81.8	10	10
RUAMW09R	06/02/2015 09:56	45.3	31.6	0	23.1	-8.9	1019	0	0	76.9	10	10
RUAMW09R	06/02/2015 09:56	45.3	31.6	0	23.1	-8.9	1019	0	0	76.9	10	10
RUAW0060	06/02/2015 10:00	3.9	16.6	7.8	71.7	-9.02	1019	0	0	20.5	10	0
RUAW0060	06/02/2015 10:01	4	16.6	7.8	71.6	-2.12	1019	0	0	20.6	0	0
RUAW0048	06/02/2015 10:04	21.5	21.6	10.9	46	-0.38	1018	0	0	43.1	0	0
RUAW050R	06/02/2015 10:07	27.5	26.8	4.3	41.4	-5.3	1018	1	0	54.3	5	0
RUAW050R	06/02/2015 10:09	27.6	27.2	4.2	41	-5.15	1018	1	0	54.8	0	0
RUAW0067	06/02/2015 10:12	22.2	26.3	1.3	50.2	-33.26	1020	0	0	48.5	10	0
RUAW0067	06/02/2015 10:13	21.8	26.1	1.6	50.5	-30.92	1020	0	0	47.9	0	0
RUAW057R	06/02/2015 10:17	40	31.3	2.5	26.2	-45.59	1019	0	0	71.3	20	20
RUAW0051	06/02/2015 10:21	49.6	42.5	0.8	7.1	-0.24	1018	3	0	92.1	1	1
RUAW032R	06/02/2015 10:24	52.1	36	0.3	11.6	-51.59	1020	0	0	88.1	20	20
RUAW031R	06/02/2015 10:26	41.7	32.3	0.6	25.4	-44.93	1019	0	0	74	10	10
RUAW034R	06/02/2015 10:29	44	30.5	1.9	23.6	-44.4	1019	0	0	74.5	20	20

Well ID	Date/Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mbar)	CO (ppm)	H2S (ppm)	CH4 + CO2 (%)	Original Valve (%)	Depart Valve (%)
RUAW034R	06/02/2015 10:29	44	30.5	1.9	23.6	-44.4	1019	0	0	74.5	20	20
RUAW0036	06/02/2015 10:32	56.6	33.1	1.6	8.7	-54	1019	0	0	89.7	10	10
RUAW0059	06/02/2015 10:35	65	34	0	1	0.41	1019	0	0	99	0	0
RUAMW003	06/02/2015 10:37	14.5	14.9	9.4	61.2	-34.48	1020	0	0	29.4	10	0
RUAMW003	06/02/2015 10:39	14.7	14.7	9.3	61.3	-31.56	1020	0	0	29.4	0	0
RUAW0052	06/02/2015 10:41	20.4	9.7	14.7	55.2	-44.48	1020	0	0	30.1	5	0
RUAW0052	06/02/2015 10:42	18.8	9	15.1	57.1	-42.52	1020	0	0	27.8	0	0
RUAW0035	06/02/2015 10:49	47.1	32	0	20.9	-4.89	1021	0	0	79.1	1	1
RUAW033R	06/02/2015 10:51	67.6	30.7	0	1.7	-45.9	1021	0	0	98.3	100	100
RUAW030R	06/02/2015 10:53	71.8	26.1	0.2	1.9	-49.2	1021	0	0	97.9	100	100
RUAW026R	06/02/2015 10:58	62.4	34	0	3.6	-46.22	1019	0	0	96.4	50	50
RUAW026R	06/02/2015 11:01	56.8	34.1	0	9.1	-44.86	1021	0	0	90.9	100	100
RUAW0024	06/02/2015 11:04	57.4	35.1	0	7.5	-50.1	1019	0	0	92.5	70	70
RUAW0024	06/02/2015 11:04	57.4	35.1	0	7.5	-50.1	1019	0	0	92.5	70	70
RUAW0027	06/02/2015 11:08	54.2	16.2	0.6	29	152.85	1020	0	0	70.4	0	10
RUAW0027	06/02/2015 11:10	54.9	16.4	0.1	28.6	-45.03	1020	0	0	71.3	10	10
RUAW056R	06/02/2015 11:12	9.5	8	17.5	65	-22.28	1019	0	0	17.5	10	0
RUAW056R	06/02/2015 11:13	9.5	7.8	17.7	65	-21.14	1019	0	0	17.3	0	0
RUAW0028	06/02/2015 11:15	19.2	26.5	9.5	44.8	-11.6	1019	3	0	45.7	0	0
RUAW0028	06/02/2015 11:15	19.2	26.5	9.5	44.8	-11.6	1019	3	0	45.7	0	0
RUARW037	06/02/2015 11:20	65.1	31.1	1	2.8	-51.7	1021	0	0	96.2	100	100
RUARW038	06/02/2015 11:23	62.9	30.4	0.9	5.8	-46.88	1022	0	0	93.3	10	20
RUARW038	06/02/2015 11:25	62.8	30.7	0.8	5.7	-50.08	1022	0	0	93.5	20	20
RUARW039	06/02/2015 11:27	69.8	28.3	0.2	1.7	-45.14	1021	0	0	98.1	1	1
RUARW040	06/02/2015 11:29	66.8	28.5	1	3.7	-64.42	1021	0	0	95.3	1	1
RUARW041	06/02/2015 11:33	69.8	28.1	0.3	1.8	-7.33	1014	0	0	97.9	5	10
RUARW041	06/02/2015 11:33	69.8	28.1	0.3	1.8	-7.33	1014	0	0	97.9	5	10
RUARW041	06/02/2015 11:35	68.9	29	0	2.1	-13.86	1014	0	0	97.9	10	10
RUARW042	06/02/2015 11:37	68.6	29.9	0	1.5	-48.36	1022	0	0	98.5	10	10

Well ID	Date/Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mbar)	CO (ppm)	H2S (ppm)	CH4 + CO2 (%)	Original Valve (%)	Depart Valve (%)
RUAW0005	06/02/2015 11:45	49.3	26.9	0.2	23.6	-7.14	1019	0	0	76.2	5	5
RUAW0004	06/02/2015 11:46	11.4	20.5	1.8	66.3	-5.87	1020	0	0	31.9	0	0
RUAW0004	06/02/2015 11:46	11.4	20.5	1.8	66.3	-5.87	1020	0	0	31.9	0	0
RUAW025R	11/02/2015 12:31	41.7	24.6	1.4	32.3	-23.65	1008	1	2	66.3	100	100
RUAW0027	11/02/2015 12:35	1.3	3.4	20.9	73.7	-43.66	1007	0	1	4.7	10	0
RUAW0027	11/02/2015 12:36	3.1	3	20.9	72.9	-40.61	1007	0	1	6.1	0	0
RUAW056R	11/02/2015 12:43	52	36.3	2.1	9.6	-11.72	1006	0	1	88.3	5	5
RUAW0028	11/02/2015 12:45	20	28.4	8.9	42.7	-4.25	1006	2	1	48.4	0	0
RUAW0024	11/02/2015 12:51	62.4	32.2	0.9	4.5	-37.08	1007	0	1	94.6	80	80
RUAW0023	11/02/2015 13:12	62.6	31.5	1.1	4.8	-39.99	1006	0	1	94.1	20	20
RUAW0008	20/02/2015 09:17	14	19.7	0	66.3	-0.46	989	0	0	33.7	1	1
RUAW0055	20/02/2015 09:19	8.8	19.4	2.3	69.5	-0.41	991	0	0	28.2	1	1
RUAW0063	20/02/2015 09:21	0.1	15.5	0.8	83.6	-0.53	990	0	0	15.6	0	0
RUAMW07R	20/02/2015 09:23	18.7	21.6	0	59.7	-0.71	990	0	0	40.3	0	0
RUAW0062	20/02/2015 09:26	28.7	24.9	0	46.4	-2.86	989	0	0	53.6	1	1
RUAMW07R	20/02/2015 09:28	35.1	28.3	0.1	36.5	-6.94	989	0	0	63.4	5	5
RUAW0004	20/02/2015 09:31	16.7	22.6	0.5	60.2	-0.09	990	0	0	39.3	0	0
RUAW0044	20/02/2015 09:33	16.7	17.4	6.9	59	-22.66	990	0	0	34.1	5	1
RUAW0044	20/02/2015 09:35	16.6	17.3	7	59.1	-21.59	990	0	0	33.9	1	1
RUAW0043	20/02/2015 09:38	28.2	24.9	0.2	46.7	-52.82	991	0	0	53.1	5	5
RUAW0013	20/02/2015 09:43	20.2	15.8	9.1	54.9	-19.73	991	0	0	36	5	1
RUAW0013	20/02/2015 09:45	19.7	15.7	9.3	55.3	-16.41	991	0	0	35.4	1	1
RUAW0014	20/02/2015 09:49	32.4	24.5	0.2	42.9	-33.41	991	0	0	56.9	1	1
RUAW0015	20/02/2015 09:52	64.5	32.8	0	2.7	-0.53	992	0	0	97.3	1	10
RUAW0015	20/02/2015 09:53	64.4	32.9	0	2.7	-31.47	992	0	0	97.3	10	10
RUAW0045	20/02/2015 09:55	9	20.2	1.7	69.1	-9.52	990	0	0	29.2	10	0
RUAW0045	20/02/2015 09:57	8.9	20	0	71.1	-2.86	990	0	0	28.9	0	0
RUAMW08R	20/02/2015 09:59	39.3	26.3	0.3	34.1	-3.89	990	0	0	65.6	5	5
RUAW0046	20/02/2015 10:02	25.8	25.3	0	48.9	-1.5	990	0	0	51.1	5	0

Well ID	Date/Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mbar)	CO (ppm)	H2S (ppm)	CH4 + CO2 (%)	Original Valve (%)	Depart Valve (%)
RUAW0046	20/02/2015 10:04	25.9	25.5	0	48.6	-1.62	990	0	0	51.4	0	0
RUAW0016	20/02/2015 10:06	2	6.3	12.1	79.6	-0.36	990	0	0	8.3	0	0
RUAW0017	20/02/2015 10:10	23.1	22.7	0.7	53.5	-1.08	990	0	0	45.8	10	0
RUAW0017	20/02/2015 10:11	22.5	26.1	0	51.4	-1.12	990	0	0	48.6	0	0
RUAW0064	20/02/2015 10:14	62.1	35.7	0	2.2	-0.53	989	0	0	97.8	5	10
RUAW0064	20/02/2015 10:15	61.5	36.3	0	2.2	-1.12	989	0	0	97.8	10	10
RUAW0047	20/02/2015 10:18	74.4	26.5	0	0	121.73	989	0	0	100.9	0	5
RUAW0047	20/02/2015 10:20	74.5	26.5	0	0	32.85	989	0	0	101	5	5
RUAW0018	20/02/2015 10:23	50.3	29.5	0.3	19.9	-55.24	990	0	0	79.8	10	10
RUAW0019	20/02/2015 10:26	39.4	30.2	0	30.4	-7.33	991	0	0	69.6	10	10
RUAW0020	20/02/2015 10:29	20.1	24.6	0.4	54.9	-2.57	988	0	0	44.7	0	0
RUAW0021	20/02/2015 10:32	45	30.8	0.3	23.9	-17.34	990	0	0	75.8	20	20
RUAW0068	20/02/2015 10:34	47	26.1	5.3	21.6	-26.36	990	0	0	73.1	0	0
RUAW0022	20/02/2015 10:38	41.4	31	0.1	27.5	-15.51	988	0	0	72.4	20	20
RUAW0066	20/02/2015 10:41	44.4	34.7	0	20.9	-13.15	989	0	0	79.1	10	10
RUAW0023	20/02/2015 10:43	55.3	35.9	0.1	8.7	-28.7	990	0	0	91.2	20	30
RUAW0023	20/02/2015 10:44	55.1	36.7	0	8.2	-33.79	990	0	0	91.8	30	30
RUAW0049	20/02/2015 10:49	0.8	4.8	20.6	73.8	-0.22	988	0	0	5.6	0	0
RUAW029R	20/02/2015 10:51	44.9	32.4	0.8	21.9	-12.12	989	0	0	77.3	10	10
RUAW0028	20/02/2015 10:53	19.8	27	9.4	43.8	21.47	991	1	0	46.8	0	0
RUAW056R	20/02/2015 10:55	13.3	11.8	16.5	58.4	-8.04	990	0	0	25.1	10	0
RUAW056R	20/02/2015 10:57	12.9	10.4	17.1	59.6	-7.14	990	0	0	23.3	0	0
RUAW0027	20/02/2015 10:59	37.8	21.5	0.7	40	55.78	991	0	0	59.3	0	5
RUAW0027	20/02/2015 11:00	41.6	24.5	0	33.9	-9.9	991	0	0	66.1	5	5
RUAW0024	20/02/2015 11:04	59.3	36	0	4.7	-39.34	992	0	0	95.3	60	70
RUAW0024	20/02/2015 11:06	59	36.3	0	4.7	-32.61	992	0	0	95.3	70	70
RUARW038	20/02/2015 14:01	25.5	8.9	14.5	51.1	-41.35	990	0	0	34.4	20	10
RUARW038	20/02/2015 14:03	25	12.6	13.5	48.9	-41.64	990	0	0	37.6	10	10
RUARW037	20/02/2015 14:06	67.3	31.3	0.5	0.9	-32.69	991	0	0	98.6	100	100

Well ID	Date/Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mbar)	CO (ppm)	H2S (ppm)	CH4 + CO2 (%)	Original Valve (%)	Depart Valve (%)
RUAW0007	25/02/2015 12:14	25.8	22.4	0	51.8	-8.61	999	0	0	48.2	0	0
RUAMW004	25/02/2015 12:16	17.2	22.4	0.3	60.1	-9.38	998	0	0	39.6	0	0
RUAW0054	25/02/2015 12:21	0	8.9	8.9	82.2	-6.58	1000	0	0	8.9	0	0
RUAW0054	25/02/2015 12:21	0	8.9	8.9	82.2	-6.58	1000	0	0	8.9	0	0
RUARW038	25/02/2015 12:38	71.7	29.5	0	0	27.23	999	0	0	101.2	1	10
RUARW038	25/02/2015 12:38	71.7	29.5	0	0	27.23	999	0	0	101.2	1	10
RUARW038	25/02/2015 12:40	71.4	29.4	0	0	-26.86	999	0	0	100.8	10	10
RUARW037	25/02/2015 12:47	68.4	32.6	0	0	-29.23	1001	0	0	101	100	100
RUAW0024	25/02/2015 13:00	63.6	36.7	0	0	-29.87	999	0	0	100.3	70	70
RUAW0012	25/02/2015 14:01	69.4	32.5	0	0	-0.22	999	0	0	101.9	1	5
RUAW0012	25/02/2015 14:03	68.6	33	0	0	-27.3	999	0	0	101.6	10	10
RUAP1406	26/02/2015 11:17	10.4	2.8	17.4	69.4	10.23	994	0	0	13.2	0	1
RUAP1406	26/02/2015 11:26	14.8	3.6	15.9	65.7	-6.39	994	2	0	18.4	1	1
RUAP1407	26/02/2015 11:31	1.2	1.6	19.8	77.4	-0.4	994	3	0	2.8	0	1
RUAP1407	26/02/2015 11:33	1.2	1.5	19.8	77.5	-0.48	994	4	0	2.7	1	1
RUAP1408	26/02/2015 11:35	0	0.6	20.9	77.4	-0.46	994	0	0	0.6	0	1
RUAP1408	26/02/2015 11:38	0	0.4	20.9	77.6	-0.57	994	0	0	0.4	1	1
RUAP1409	26/02/2015 11:40	0	0.4	20.9	77.5	-7.18	994	0	0	0.4	0	0
RUAP1410	26/02/2015 11:42	0	0.4	20.9	77.5	-6.35	994	0	0	0.4	0	0
RUAP1411	26/02/2015 11:43	0	0.3	20.9	77.6	-6.68	994	0	0	0.3	0	0

APPENDIX 4

Leachate Level Data

Ruabon Leachate Level Data - February 2015



From : 27/02/2015

To : 27/02/2015

27/02/2015

Sample Point	Depth of Liq (m)	Dip to Water (m)	TD (m)	Water Level (mAOD)
LMP006R	1.31	18.61	19.03	112.71
LMP007R	1.42	17.37	18.98	112.22
LMP008R	1.63	20.84	21.94	111.63
LMP009R	1.76	21.22	21.67	112.06
RUGW00M1	0.40	13.77	14.62	110.85
RUGW00M3	1.43	11.46	11.84	113.68
RUGW00M5	0.65	20.67	21.07	111.15
RUGW00M10	1.30	27.31	27.59	97.30
RUGWM4r	1.63	16.2	17.55	111.71
RULMP2r	1.59	14.62	15.93	111.59

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APPENDIX 5

Groundwater Quality Data

Ruabon Groundwater Levels and Quality Data - February 2015



From : 03/02/2015

To : 03/02/2015

03/02/2015

Sample Point	Alk (CaCO ₃ :m g/l)	Amm-N (N:mg/l)	BOD (mg/l)	Ca(D) (mg/l)	Cd(D) (mg/l)	Chloride (mg/l)	COD (mg/l)	Cond (uS / cm)	Cond(Fld) (uS / cm)	Cr(D) (mg/l)
RUBH0013	318	0.2	<2.0	140	<0.0001	10	13	673	720	0.002
RUWB002A	293	1.8	3.6	135	<0.0001	390	7	1670	1850	0.002
RUWB002B	327	0.5	<3.6	87	<0.0001	169	10	1050	1200	0.002
RUWB002C	951	2.6	<2.0	200	<0.0001	347	21	2550	2610	0.006
RUWB002D	300	0.3	<2.0	15	<0.0001	26	6	655	670	0.001
RUWB003A	370	1.3	<3.6	8	<0.0001	23	<5	680	730	0.002
RUWB004A	520	0.4	<2.9	4	<0.0001	20	<5	956	1020	0.003
RUWB005A	366	0.8	5.4	2	<0.0001	37	7	1110	1160	0.002
RUWB005B	211	0.09	<2.0	115	<0.0001	59	<5	670	720	0.001

Sample Point	Cu(D) (mg/l)	Dip to Water (m)	Fe(D) (mg/l)	K(D) (mg/l)	Mg(D) (mg/l)	Mn(D) (mg/l)	Ni(D) (mg/l)	Pb(D) (mg/l)	pH (Lab)	pH(Fld)
RUBH0013	<0.001	0.86	0.13	4	11	0.445	0.002	<0.001	7.3	7.04
RUWB002A	<0.001	4.93	0.14	27	52	0.338	0.006	<0.001	7.5	7.35
RUWB002B	<0.001	5.94	0.1	10	17	0.15	0.014	<0.001	7.7	7.48
RUWB002C	<0.001	6.14	0.16	13	20	2.94	0.037	<0.001	7.1	6.75
RUWB002D	<0.001	5.87	0.03	8	4	0.047	<0.001	<0.001	8	7.58
RUWB003A	<0.001	8.87	<0.01	14	14	0.199	<0.001	<0.001	7.9	7.63
RUWB004A	<0.001	3.07	0.17	10	<1	0.006	0.001	<0.001	9	9.04
RUWB005A	<0.001	2.71	0.18	4	<1	0.004	<0.001	<0.001	9.9	9.86
RUWB005B	<0.001	1.32	0.16	16	19	0.095	0.001	<0.001	8	7.99

Sample Point	Na(D) (mg/l)	S.Solids (mg/l)	TD (m)	TOC (mg/l)	TON (mg/l)	Total S(D) SO ₄ :mg/l	WtrTemp (Deg C)	Zn(D) (mg/l)
RUBH0013	29	536	34.63	5.1	<0.2	66	8.1	0.002
RUWB002A	155	408	21.36	2.6	<0.2	18	8.7	<0.002
RUWB002B	135	74	10.45	3.6	<0.2	<3	8	<0.002
RUWB002C	432	1484	8.01	7.2	<0.2	42	8.9	0.013
RUWB002D	160	26	21.66	1.8	<0.2	37	8.6	<0.002
RUWB003A	150	121	10.69	1.5	<0.2	<3	9	0.004
RUWB004A	285	52	48.83	1.8	<0.2	8	8	<0.002
RUWB005A	330	74	25.37	0.4	<0.2	305	8.7	<0.002
RUWB005B	20	43	8.38	4	<0.2	74	8.9	<0.002

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APPENDIX 6

Surface Water Quality Data

Ruabon Surface Water Quality Data - February 2015



From : 03/02/2015

To : 03/02/2015

03/02/2015

Sample Point	Amm-N (N:mg/l)	BOD (mg/l)	Chloride (mg/l)	COD (mg/l)	Cond (uS / cm)	Cond(Fld) (uS / cm)	DO(Lab) (mg/l)
RUWP004A	2.2	3.5	41	23	685	770	8.2

Sample Point	pH (Lab)	pH(Fld)	S.Solids (mg/l)	WtrTemp (Deg C)
RUWP004A	7.8	7.01	11	2.1

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APPENDIX 7

Leachate Quality Data

Ruabon Leachate Quality Data - February 2015



From : 03/02/2015

To : 03/02/2015

03/02/2015

Sample Point	Alk (CaCO3:m g/l)	Amm-N (N:mg/l)	BOD (mg/l)	Ca(D) (mg/l)	Cd(D) (mg/l)	Chloride (mg/l)	COD (mg/l)	Cond (uS / cm)	Cond(Fld) (uS / cm)	Cr(D) (mg/l)
RULT0001	6900	742	185	108	<0.001	2120	3150	19000	16900	0.109

Sample Point	Cu(D) (mg/l)	Fe(D) (mg/l)	IonicBal (%)	K(D) (mg/l)	Mg(D) (mg/l)	Mn(D) (mg/l)	Ni(D) (mg/l)	Pb(D) (mg/l)	pH (Lab)	pH(Fld)
RULT0001	0.01	7.9	-5.1	684	101	0.262	0.167	<0.01	8.2	7.34

Sample Point	Na(D) (mg/l)	T.Anions (meq/l)	T.Cations (meq/l)	TOC (mg/l)	TON (mg/l)	Total S(D) SO4:mg/l	WtrTemp (Deg C)	Zn(D) (mg/l)
RULT0001	2200	200	180	16	0.8	89	4.6	0.077

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