



Ruabon Landfill Site
Routine Environmental Monitoring Data Submission
August 2015

Prepared by G.Forrest
28th September 2015



Sunday, 27 September 2015

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

Dear Ms Langstaff,

Data Submission August 2015

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

Compliance Advisor, North Wales

APPENDIX 1

Field Logs

Field log report

Ruabon

04-August-2015

Equipment 01 Calibration Due	13/09/2015
Equipment 01 Last Calibration	02/07/2015
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	16:00
Time ON	08:50
Weather	Overcast

Issued By:

Signed By :

Name :

Field log report

Ruabon

13-August-2015

Equipment 01 Calibration Due	25/10/2015
Equipment 01 Last Calibration	25/04/2015
Equipment 01 Last Calibration	02/04/2015
Equipment 01 Serial No.	GA10333
Equipment 01 Serial No.	GEM2000Plus + GM11653
Equipment 01 Type	GA2000+
Personnel 01	A Lowe
Personnel 01	INF00880 Ian.Jones
Time OFF	12:04
Time OFF	10:55
Time ON	08:07
Time ON	07:15
Weather	Overcast
Weather	Low cloud

Issued By:

Signed By :

Name :

Field log report

Ruabon

17-August-2015

Equipment 01 Last Calibration	08/04/2015
Equipment 01 Serial No.	GEM2000Plus + GM10338
Personnel 01	INF00925 alan.parry
Time OFF	14:19
Time ON	09:03
Weather	Clear

Issued By:

Signed By :

Name :

Field log report

Ruabon

19-August-2015

Equipment 01 Last Calibration	02/04/2015
Equipment 01 Serial No.	GEM2000Plus + GM11653
Personnel 01	INF00880 Ian.Jones
Time OFF	12:19
Time ON	08:09
Weather	Wet

Issued By:

Signed By :

Name :

Field log report

Ruabon

20-August-2015

Equipment 01 Serial No.	79281-10
Equipment 01 Type	Geotechnical Atex Dip Meter
Personnel 01	S Williams
Time OFF	12:45
Time ON	10:30
Weather	o/c, warm

Issued By:

Signed By :

Name :

Field log report

Ruabon

21-August-2015

Equipment 01 Calibration Due	13/09/2015
Equipment 01 Last Calibration	12/03/2015
Equipment 01 Last Calibration	08/04/2015
Equipment 01 Serial No.	GEM2000Plus + GM10338
Equipment 01 Serial No.	G501869
Equipment 01 Type	GA5000
Personnel 01	L Terrace
Personnel 01	INF00925 Alan.Parry
Time OFF	11:04
Time OFF	13:45
Time ON	08:45
Time ON	08:29
Weather	Clear
Weather	Raining

Issued By:

Signed By :

Name :

Field log report

Ruabon

24-August-2015

Equipment 01 Last Calibration	08/04/2015
Equipment 01 Serial No.	GEM2000Plus + GM10338
Personnel 01	INF00925 Alan.Parry
Time OFF	13:45
Time ON	08:44
Weather	Wet

Issued By:

Signed By :

Name :

Field log report

Ruabon

26-August-2015

Equipment 01 Last Calibration	08/04/2015
Equipment 01 Serial No.	GEM2000Plus + GM10338
Personnel 01	INF00925 Alan.Parry
Time OFF	10:23
Time ON	08:15
Weather	Wet

Issued By:

Signed By :

Name :

Field log report

Ruabon

27-August-2015

Equipment 01 Last Calibration	08/04/2015
Equipment 01 Serial No.	GEM2000Plus + GM10338
Personnel 01	INF00925 alan.parry
Time OFF	20:11
Time ON	09:46
Weather	Wet

Issued By:

Signed By :

Name :

Field log report

Ruabon

28-August-2015

Equipment 01 Calibration Due	13/09/2015
Equipment 01 Last Calibration	12/03/2015
Equipment 01 Serial No.	G501869
Equipment 01 Type	GA5000
Personnel 01	L Terrace
Time OFF	12:00
Time ON	08:50
Weather	Overcast

Issued By:

Signed By :

Name :

APPENDIX 2

Perimeter Borehole Gas Data

Ruabon Perimeter Borehole Gas & Water Level Data - August 2015



From : 04/08/2015
To : 28/08/2015

04/08/2015

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	998	0	3.4	3.28	0	13.8	-0.46	11.71
RUBH0007	997	11	6.4	4.29	0	0.6	-0.09	38.67
RUBH0008	997	0	1.4	6.27	0	19.2	-0.07	42.38
RUBH0009	997	0	2.1	5.01	0	19	-0.1	7.5
RUBH0010	997	0	0.7	5.17	0	19.9	-0.1	36.14
RUBH0013	995	0	0.2	2.28	0	20.1	-0.09	34.63
RUBH0014	995	0	2.7	3.88	0	18	-0.02	10.72
RUBH0015	996	0	0.3	6.04	0	19.8	-0.05	41.58
RUBH0016	996	0	0.1	10.72	0	20.3	-0.09	47.14
RUBH001A	998	0	0.5	4.85	0	20.2	-0.05	12.77
RUBH001B	998	0	0.8	5.2	0	19.6	-0.05	6.38
RUBH002A	998	0	0.1	5.16	0	20.8	-0.05	6.48
RUBH002B	997	0	0.1	5.21	0	20.8	-0.5	11.71
RUBH003A	998	0	0.5	5.8	0	20.4	-0.09	13.08
RUBH003B	998	0	0.1	5.73	0	20.8	0.28	6.37
RUBH004A	997	0	1.4	6.12	0	19.3	-0.05	9.58
RUBH004B	997	0	2.3	6.05	0	18.8	-0.09	6.33
RUBH011A	995	0	0.9	2.6	0	19.7	-0.09	12.79
RUBH011P	996	0	0.1	3.76	0	20.3	-0.15	14.42
RUBH012A	995	0	1.8	4.17	0	19.2	-0.05	5.37
RUGBH001	997	0	3.3	6.05	0	18.4	-0.14	6.05
RUGBH002	997	0	0.5	3.8	0	20.3	-0.1	7
RUGBH003	998	0	0.1	4.05	0	20.5	-0.1	4.9
RUGBH004	997	0	0.2	4.05	0	20.4	-0.09	21.89
RUGBH005	998	0	0.1	4.09	0	20.2	-0.05	6.31
RUGBH006	995	0	3.2	3.54	0	17.2	-0.02	6.88
RUGBH007	995	0	0.1	1.54	0	20.2	-0.07	2.94
RUGBH008	995	0	0.3	1.52	0	20	-0.07	6.17
RUGBH009	996	0	0.2	2.15	0	20.1	-0.03	8.23
RUGBH010	995	0	0.2	1.1	0	20.2	-0.05	3.95
RUGBH02A	996	0	0.5	1.36	0	20.3	-0.02	1.4
RUGP0001	999	0.7	0.2		0	19.7	-0.05	
RUGP0002	998	0	2.1		0	17.5	-0.05	
RUGP0003	998	0	0.1		0	20	-0.07	
RUGP0004	998	0	2.8		0	19.3	-0.07	
RUGP0008	998	0	1.4		0	19.9	-0.09	
RUGP0009	998	0	1.2		0	20.3	-0.1	
RUGP0010	998	0	2.1		0	19.3	-0.05	
RUGP0011	998	0	1.6		0	20.1	-0.05	
RUGP0012	998	0	0.7		0	20.5	-0.09	
RUGP0013	998	0	0.4		0	20.3	-0.12	
RUGP0014	996	0	4.6		0	17.7	-0.07	
RUGP0015	997	0	5.4		0	12.4	-0.12	
RUGP0016	995	0	1.4		0	19.3	-0.74	
RUGP0018	996	0	0.2		0	20	-0.14	
RUGP0019	996	0	0.1		0	20.1	-0.05	
RUGP0020	995	0	0.1		0	20.2	-0.22	
RUGP0021	995	0	0.8		0	19.7	-0.05	
RUGP00A1	998	0	0.1		0	20.2	-0.09	

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Ruabon Perimeter Borehole Gas & Water Level Data - August 2015



From : 04/08/2015
To : 28/08/2015

04/08/2015

	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	0.5		0	19.3	-0.22	
RUGP00A3	998	0	0.1		0	20.2	-0.1	
RUGP00B1	998	0	0.1		0	20.1	-0.09	
RUGP00B2	997	5.7	4.8		0	7.9	-0.1	
RUGP00B3	998	0	0.1		0	20.2	-0.22	
RUGP00C1	998	0	0.1		0	20.4	-0.12	
RUGP00C2	997	0	0.1		0	18	-0.17	
RUGP00C3	997	0	0.1		0	20.3	-0.26	
RUGP00D1	998	0	0.1		0	20.4	-0.1	
RUGP00D2	997	0	0.1		0	20.4	-0.07	
RUGP00D3	998	0	0.1		0	20.4	-0.1	
RUGP00E1	998	0	0.1		0	20.5	-0.15	
RUGP00E2	997	0	0.1		0	20.5	-0.31	
RUGP00E3	997	0	0.1		0	20.5	-0.1	
RUGP00F1	997	0	0.1		0	19.9	-0.07	
RUGP00F2	997	0	0.1		0	20.2	-0.28	
RUGP00F3	997	0	0.1		0	20.5	0	
RUWB001A	998	0	0.1	2.96	0	20.7	-0.09	48.9
RUWB001B	998	0	0.7	4.49	0	20.4	-0.03	7.87
RUWB002A	997	0	0.2	4.92	0	19	-0.07	21.37
RUWB002B	997	0	2.2	6.04	0	18.7	-0.02	10.46
RUWB002C	997	0	3.6	6.31	0	17.8	-0.02	8.05
RUWB002D	996	0	0.1	6.22	0	20.7	-0.12	21.65
RUWB003A	995	0	0.4	9.06	0	17.8	-0.09	10.7
RUWB003B	995	0	0.3	1.35	0	18.8	-0.15	7.56
RUWB004A	996	0	0.3	3.14	0	17.9	-0.07	48.83
RUWB004B	996	0	3.2	1.76	0	15.9	0	8.54
RUWB005A	997	0	0.1	3.29	0	20.2	-0.03	25.31
RUWB005B	998	0	0.5	5.77	0	20	-0.07	8.4

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Ruabon Perimeter Borehole Gas & Water Level Data - August 2015



From : 04/08/2015

To : 28/08/2015

13/08/2015

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)
RUBH0006	1007	0.6	4	0	4.7	0.11
RUBH0007	1006	9.5	6.2	0	0.3	0.15
RUBH0008	1007	0	1.5	0	19.5	0.09
RUBH0009	1007	0	1.4	0	19.8	0.09
RUBH0010	1006	0	0.1	0	20.8	0.1
RUBH0013	1005	0	0.9	0	20	0.08
RUBH0014	1005	0	3.2	0	16.8	0.85
RUBH0015	1006	0	0.3	0	20	0.1
RUBH0016	1005	0	0.1	0	20.7	0.1
RUBH001A	1006	0	0.5	0	20.4	0.28
RUBH001B	1006	0	0.9	0	19.3	0.11
RUBH002A	1006	0	0	0	20.9	0.11
RUBH002B	1006	0	0.1	0	20.8	0.13
RUBH003A	1006	0	0.5	0	20	0.11
RUBH003B	1006	0	0.1	0	20.8	0.11
RUBH004A	1006	0	1.3	0	19.4	0.21
RUBH004B	1006	0	2.5	0	18.3	0.13
RUBH011A	1005	0	1.2	0	20	0.09
RUBH011P	1005	0	0	0	20.8	0.1
RUBH012A	1005	0	1.6	0	19.8	0.11
RUGBH001	1006	0	2.7	0	19.2	0.13
RUGBH002	1006	0	2.8	0	18.1	0.13
RUGBH003	1007	0	0.1	0	20.6	0.12
RUGBH004	1007	0	0.3	0	20.6	0.12
RUGBH005	1007	0	3.2	0	17.8	0.09
RUGBH006	1007	0.5	1.3	0	18.9	0.13
RUGBH007	1005	0	0	0	20.7	0.08
RUGBH008	1005	0	0.4	0	20.5	0.05
RUGBH009	1006	0	0.1	0	20.7	0.02
RUGBH010	1007	0	0.4	0	20.7	0.02
RUGBH02A	1007	0	0.7	0	19.9	0.12
RUGP0001	1006	4.4	1.4	0	16.8	0.12
RUGP0002	1006	0	2.8	0	17.8	0.11
RUGP0003	1006	0	0.1	0	20.6	0.13
RUGP0004	1006	0	2.3	0	19.5	0.11
RUGP0008	1006	0	1.3	0	19.8	0.09
RUGP0009	1006	0	1.1	0	19.7	0.11
RUGP0010	1006	0	1.7	0	19.4	0.11
RUGP0011	1006	0	1.5	0	19.8	0.11
RUGP0012	1006	0	0.7	0	20.1	0.13
RUGP0013	1006	0	0.4	0	20.5	0.12
RUGP0014	1006	0	4.2	0	18.1	0.11
RUGP0015	1005	0	5.1	0	14.1	0.11
RUGP0016	1006	0	1.6	0	19.6	0.06
RUGP0018	1007	0	0.1	0	20.7	0.03
RUGP0019	1005	0	0	0	20.7	0
RUGP0020	1005	0	0	0	20.7	0.06
RUGP0021	1005	0	0.8	0	20.2	0.07
RUGP00A1	1007	0	0	0	20.6	0.12

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Ruabon Perimeter Borehole Gas & Water Level Data - August 2015



From : 04/08/2015

To : 28/08/2015

13/08/2015

	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)
RUGP00A2	1007	0.1	0.2	0	19.9	0.12
RUGP00A3	1007	0	0	0	20.4	0.11
RUGP00B1	1007	0	0	0	20.6	0.12
RUGP00B2	1007	6.2	5.1	0	6.7	0.11
RUGP00B3	1007	0	0	0	20.7	0.12
RUGP00C1	1007	0	0	0	20.7	0.11
RUGP00C2	1007	0	0	0	16	0.11
RUGP00C3	1007	0	0	0	20.7	-1.39
RUGP00D1	1007	0	0	0	20.7	0.13
RUGP00D2	1007	0	0	0	20.7	0.11
RUGP00D3	1007	0	0	0	20.7	0.12
RUGP00E1	1007	0	0	0	20.7	0.15
RUGP00E2	1007	0	0	0	20.7	0.12
RUGP00E3	1007	0	0	0	20.5	0.12
RUGP00F1	1006	0	0	0	20.4	0.09
RUGP00F2	1006	0	0	0	20.4	0.04
RUGP00F3	1006	0	0	0	20.7	0.12
RUWB001A	1006	0	0.1	0	20.6	0.12
RUWB001B	1006	0	1	0	19.8	0.11
RUWB002A	1006	0	0.1	0	20.2	0.12
RUWB002B	1006	0	0.9	0	20.2	0.13
RUWB002C	1006	0	0.1	0	21	0.11
RUWB002D	1006	0	0.1	0	21	0.12
RUWB003A	1005	0	0.3	0	17.7	0.09
RUWB003B	1005	0	0.2	0	19	0.04
RUWB004A	1006	0	0.2	0	19.4	0.14
RUWB004B	1006	0	2.9	0	16.8	0.03
RUWB005A	1008	0	0	0	20.8	0
RUWB005B	1008	0	0.4	0	20.5	0.01

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Ruabon Perimeter Borehole Gas & Water Level Data - August 2015



From : 04/08/2015

To : 28/08/2015

21/08/2015

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)
RUBH0006	1004	0	2.2	0	17.3	-0.05
RUBH0007	1004	9.2	6.6	0	0.7	-0.33
RUBH0008	1004	0	1.7	0	19	-0.14
RUBH0009	1004	0	2.1	0	19	-0.09
RUBH0010	1004	0	0.6	0	19.9	-0.09
RUBH0013	1002	0	1.1	0	19.4	-0.12
RUBH0014	1002	0	3.3	0	15.5	0.34
RUBH0015	1003	0	0.4	0	19.6	-0.1
RUBH0016	1003	0	0.1	0	20.3	-0.17
RUBH001A	1005	0	0.5	0	20	-0.03
RUBH001B	1004	0	1	0	19	0
RUBH002A	1004	0	0.1	0	20.4	-0.03
RUBH002B	1003	0	0.1	0	20.4	-0.14
RUBH003A	1004	0	0.6	0	19.7	-0.05
RUBH003B	1004	0	0.1	0	20.5	-0.21
RUBH004A	1004	0	1.4	0	19.1	-0.98
RUBH004B	1004	0	2.9	0	17.4	0.65
RUBH011A	1002	0	1.3	0	19.3	-0.12
RUBH011P	1002	0	0.1	0	20.3	0.22
RUBH012A	1002	0	1.8	0	19.3	-0.12
RUGBH001	1004	0	2.7	0	18.7	-0.15
RUGBH002	1004	0	1.9	0	18.5	0
RUGBH003	1004	0	0.1	0	20.3	-0.17
RUGBH004	1004	0	0.2	0	20.3	-0.12
RUGBH005	1004	0	0.2	0	20	-0.1
RUGBH006	1004	0	3.1	0	17.7	-0.15
RUGBH007	1002	0	0.1	0	20.4	-0.09
RUGBH008	1002	0	0.4	0	20.3	-0.12
RUGBH009	1002	0	0.1	0	20.4	-0.07
RUGBH010	1002	0	0.5	0	20.2	-0.07
RUGBH02A	1004	0	0.5	0	20	-0.09
RUGP0001	1005	3.6	1.4	0	17	-0.05
RUGP0002	1005	0	3.4	0	17.1	-0.09
RUGP0003	1005	0	0.3	0	19.9	-0.4
RUGP0004	1005	0	2.4	0	18.8	-0.07
RUGP0008	1004	0	1.6	0	19	-0.09
RUGP0009	1004	0	1.5	0	19.1	-0.09
RUGP0010	1005	0	2.2	0	18.7	-0.1
RUGP0011	1004	0	1.5	0	19.3	-0.1
RUGP0012	1005	0	0.9	0	19.7	-0.07
RUGP0013	1004	0	0.9	0	19.7	-0.09
RUGP0014	1004	0	4.1	0	17.9	-0.09
RUGP0015	1002	0	4.8	0	14	-0.14
RUGP0016	1002	0	1.9	0	19	2.32
RUGP0018	1003	0	0.1	0	20.3	0.14
RUGP0019	1002	0	0.1	0	20.3	5.85
RUGP0020	1001	0	0.1	0	20.6	-0.03
RUGP0021	1002	0	0.8	0	19.7	-0.07
RUGP00A1	1005	0	0.1	0	20	-6.21

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Ruabon Perimeter Borehole Gas & Water Level Data - August 2015



From : 04/08/2015
To : 28/08/2015

21/08/2015

	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)
RUGP00A2	1004	0	0.4	0	19.4	0
RUGP00A3	1004	0	0.1	0	17.9	0.02
RUGP00B1	1004	0	0.1	0	19.6	-0.1
RUGP00B2	1004	6.9	6.1	0	5.7	1.2
RUGP00B3	1004	0	0.1	0	20	2.62
RUGP00C1	1004	0	0.1	0	20.3	-0.17
RUGP00C2	1004	0	0.1	0	16.9	-0.12
RUGP00C3	1004	0	0.1	0	20.1	-0.6
RUGP00D1	1004	0	0.1	0	19.8	-0.07
RUGP00D2	1004	0	0.1	0	20.1	-2.86
RUGP00D3	1004	0	0.1	0	20.3	0.95
RUGP00E1	1004	0	0.1	0	20.3	-0.07
RUGP00E2	1004	0	0.1	0	20.3	-0.09
RUGP00E3	1004	0	0.1	0	20	-0.03
RUGP00F1	1005	0	0.1	0	20.3	-0.15
RUGP00F2	1003	0	0.1	0	19.6	-0.24
RUGP00F3	1003	0	0.2	0	20.1	-0.22
RUWB001A	1004	0	0.1	0	20	-0.15
RUWB001B	1004	0	1.9	0	18.7	-0.05
RUWB002A	1004	0	0.1	0	19.8	-0.17
RUWB002B	1004	0	1.8	0	19.2	0.22
RUWB002C	1004	0	0.6	0	20	-0.05
RUWB002D	1004	0	0.1	0	20.4	-0.12
RUWB003A	1002	0	0.4	0	17.4	-0.05
RUWB003B	1002	0	0.4	0	16.9	0.03
RUWB004A	1002	0	0.3	0	17.9	4.63
RUWB004B	1002	0	3	0	17.3	-0.12
RUWB005A	1006	0	0.1	0	19.8	-0.07
RUWB005B	1003	0	0.1	0	20.3	-0.15

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Ruabon Perimeter Borehole Gas & Water Level Data - August 2015



From : 04/08/2015

To : 28/08/2015

28/08/2015

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)
RUBH0006	1002	1	4.2	0	3.5	0.09
RUBH0007	1002	8.5	6.9	0	0.6	-0.12
RUBH0008	1002	0	1.7	0	19.2	-0.19
RUBH0009	1002	0	1.2	0	20	-0.1
RUBH0010	1001	0	0.5	0	20.5	-0.15
RUBH0013	999	0	1.6	0	19.6	-0.12
RUBH0014	1000	0	2.9	0	15.7	-0.05
RUBH0015	1001	0	0.5	0	19.8	-0.14
RUBH0016	1001	0	0.1	0	20.8	-0.12
RUBH001A	1002	0	0.6	0	20.2	-0.14
RUBH001B	1002	0	0.3	0	20.4	-0.1
RUBH002A	1001	0	0.1	0	20.8	-0.12
RUBH002B	1001	0	0.1	0	20.7	0.46
RUBH003A	1002	0	0.6	0	20.3	-0.14
RUBH003B	1001	0	0.1	0	20.8	-0.1
RUBH004A	1002	0	1.3	0	19.6	0
RUBH004B	1002	0	3.3	0	17.2	-0.33
RUBH011A	1000	0	1.3	0	20.1	-0.1
RUBH011P	1000	0	0.1	0	20.8	-0.17
RUBH012A	1000	0	1.8	0	19.4	-0.1
RUGBH001	1002	0	2.5	0	19.3	0.05
RUGBH002	1002	0	1.9	0	18.8	-0.14
RUGBH003	1001	0	0.1	0	20.9	-0.19
RUGBH004	1002	0	0.1	0	20.8	0.02
RUGBH005	1002	0	0.1	0	20.7	-0.12
RUGBH006	1002	0	3.3	0	18.2	-0.14
RUGBH007	1000	0	0.1	0	20.8	-0.17
RUGBH008	1000	0	0.4	0	20.3	-0.1
RUGBH009	992	0	0.1	0	20.9	-0.15
RUGBH010	1001	0	0.2	0	20.8	-0.09
RUGBH02A	1002	0	0.5	0	20.6	-0.09
RUGP0001	1000	19.2	3.2	0	12.5	-0.05
RUGP0002	1002	0	4.7	0	16.2	-0.17
RUGP0003	1002	0	0.4	0	20.1	-22.21
RUGP0004	1001	0	2.4	0	19.3	-0.1
RUGP0008	1002	0	1.5	0	19.7	-0.07
RUGP0009	1001	0	1.3	0	20.1	-0.1
RUGP0010	1002	0	2.1	0	19.3	-0.19
RUGP0011	1002	0	1.7	0	19.7	-0.12
RUGP0012	1002	0	1	0	20	0.05
RUGP0013	1002	0	0.5	0	20.5	-0.12
RUGP0014	1002	0	4.1	0	18.3	-0.19
RUGP0015	1001	0	3.3	0	16	-0.14
RUGP0016	999	0	1.2	0	20	-0.24
RUGP0018	1001	0	0.1	0	20.8	-0.07
RUGP0019	1000	0	0.1	0	20.7	-0.15
RUGP0020	1000	0	0.1	0	20.7	-0.12
RUGP0021	1000	0	0.9	0	19.6	-0.09
RUGP00A1	1002	0	0.1	0	20.7	-0.03

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Ruabon Perimeter Borehole Gas & Water Level Data - August 2015



From : 04/08/2015

To : 28/08/2015

28/08/2015

	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)
RUGP00A2	1002	0	0.1	0	20.6	-0.53
RUGP00A3	1002	0	0.1	0	20.4	-0.09
RUGP00B1	1002	0	0.1	0	20	-0.12
RUGP00B2	1002	2.6	3.5	0	12.9	-0.12
RUGP00B3	1002	0	0.1	0	20.7	-0.15
RUGP00C1	1001	0	0.1	0	20.8	-0.09
RUGP00C2	1002	0	0.1	0	19.1	-0.15
RUGP00C3	1002	0	0.1	0	20.7	-0.26
RUGP00D1	1002	0	0.1	0	20.8	-0.07
RUGP00D2	1002	0	0.1	0	20.8	0.03
RUGP00D3	1002	0	0.1	0	20.8	-0.05
RUGP00E1	1002	0	0.1	0	20.8	-0.19
RUGP00E2	1001	0	0.1	0	20.7	-0.03
RUGP00E3	1002	0	0.1	0	20.8	-0.09
RUGP00F1	1002	0	0.1	0	20.1	-0.05
RUGP00F2	1002	0	0.1	0	20.9	-0.14
RUGP00F3	1001	0	0.3	0	20.6	-0.14
RUWB001A	1002	0	0.1	0	20.4	-0.07
RUWB001B	1001	0	1.4	0	19.5	-0.12
RUWB002A	1002	0	0.2	0	20.3	-0.07
RUWB002B	1002	0	0.9	0	20.3	0.05
RUWB002C	1002	0	0.6	0	20.6	-0.03
RUWB002D	1001	0	0.1	0	20.8	-0.14
RUWB003A	1000	0	0.4	0	17.4	-0.14
RUWB003B	1000	0	0.5	0	15.6	-0.38
RUWB004A	1000	0	0.2	0	17.8	0.1
RUWB004B	1000	0	3.2	0	17.4	-0.05
RUWB005A	1002	0	0.1	0	20.9	-0.07
RUWB005B	1002	0	0.4	0	20.6	-0.22

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APPENDIX 3

Landfill Gas Field Extraction and Balancing Data

RUABON LANDFILL GAS EXTRACTION AND BALANCING DATA - AUGUST 2015

Well ID	Date/Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Rel Press (mb)	Atm Press (mb)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
RUAW0008	13/08/2015 08:27	21.7	18	0.2	60.1	-0.82	1006	0	0	0	0
RUAW0055	13/08/2015 08:29	15.7	21.8	0.3	62.2	-0.79	1006	0	0	10	10
RUAW0063	13/08/2015 08:31	2.6	17.7	0	79.7	-0.78	1006	0	0	0	0
RUAW0044	13/08/2015 08:33	54.9	30.3	0.7	14.1	-3.62	1006	0	0	10	10
RUAW0007	13/08/2015 08:36	35.9	19.8	0.3	44	-1.28	1005	0	0	10	10
RUALMP4a	13/08/2015 08:38	49.7	16.9	0.6	32.8	-57.85	1005	0	0	0	0
RUAMW004	13/08/2015 08:41	9.1	20.1	0.2	70.6	-1.26	1005	0	0	0	0
RUAW0062	13/08/2015 08:43	18.3	19	2.8	59.9	-2.85	1005	0	0	0	0
RUAMW07R	13/08/2015 08:46	36.1	25.1	1.1	37.7	-2.51	1005	0	0	10	10
RUAW0043	13/08/2015 08:49	31.6	24.1	1	43.3	-18	1005	0	0	10	10
RUAW0013	13/08/2015 08:51	30.5	26.5	0.9	42.1	-0.72	1005	0	0	10	10
RUAW0014	13/08/2015 08:54	43.3	22.5	6.1	28.1	-60.58	1005	0	0	10	0
RUAW0014	13/08/2015 08:57	45.6	23.7	5.3	25.4	-60.66	1005	0	0	0	0
RUAW0015	13/08/2015 08:59	33.9	26.4	0.2	39.5	-3.74	1004	0	0	10	10
RUAW0045	13/08/2015 09:01	18.4	21.7	0.2	59.7	-30.86	1004	0	0	10	10
RUAMW08R	13/08/2015 09:03	40.4	24.3	0.1	35.2	-1.02	1004	0	0	0	0
RUAW0046	13/08/2015 09:06	52.1	26.8	0.1	21	-0.78	1004	0	0	0	0
RUAW0047	13/08/2015 09:09	64.1	29.7	1	5.2	-0.14	1004	0	0	0	0
RUAW0064	13/08/2015 09:12	64.7	32.6	0.1	2.6	-0.12	1003	0	0	10	10
RUAW0017	13/08/2015 09:15	65.8	32.2	0	2	0	1003	0	0	0	0
RUAW0018	13/08/2015 09:18	56.2	26.3	1.5	16	-8.17	1003	0	0	10	10
RUAW0019	13/08/2015 09:22	61.6	31.7	0.1	6.6	-0.27	1003	0	0	10	10
RUAW026R	13/08/2015 11:32	15.5	18.3	0.7	65.5	-6.76	1004	0	0	20	20
RUALCM10	13/08/2015 11:35	47.4	27.8	2.3	22.5	-50.81	1004	0	0	10	10
RUAW0024	13/08/2015 11:39	43.8	30.2	1.3	24.7	-51.53	1003	0	0	40	40
RUARW037	13/08/2015 11:43	0.1	2.7	19.7	77.5	-53.78	1004	0	0	50	50
RUARW038	13/08/2015 11:45	41	18.9	7.1	33	-0.08	1005	0	0	0	0

Well ID	Date/Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Rel Press (mb)	Atm Press (mb)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
RUARW039	13/08/2015 11:50	79.3	26.3	0.2	0	45.72	1004	0	0	0	0
RUARW040	13/08/2015 11:53	23.2	19.1	0.3	57.4	-53.28	1004	0	0	10	10
RUAW0024	17/08/2015 13:24	43.2	30.7	1.4	24.7	-38.1	1004	3	45	40	40
RUALCM10	17/08/2015 13:29	48.8	30.8	1.8	18.6	-46.27	1005	4	1	20	20
RUAP1411	17/08/2015 13:32	0	0	20.3	79.7	-2.44	1005	0	1	1	1
RUAW030R	17/08/2015 13:35	11	8.2	14.8	66	-6.89	1005	0	4	1	1
RUAW030R	17/08/2015 13:36	11.3	8.4	14.6	65.7	-17.36	1005	0	4	1	1
RUAW033R	17/08/2015 13:37	0.9	0.7	19.8	78.6	-37.25	1005	0	1	0	0
RUARW039	17/08/2015 13:43	78.6	28.7	0.7	0	21.49	1006	0	1	0	10
RUARW039	17/08/2015 13:45	78.5	28.9	0	0	-5.9	1006	0	121	10	10
RUARW037	17/08/2015 13:56	0	0.4	20.3	79.3	-51.7	1005	4	0	50	1
RUARW037	17/08/2015 13:57	0	0.3	20.4	79.3	-50.22	1005	4	1	1	1
RUAP1406	17/08/2015 14:00	0	0.3	20.2	79.5	-1.57	1001	4	0	1	1
RUAP1407	17/08/2015 14:02	0	0.2	20.3	79.5	-1.45	1001	4	0	1	1
RUAP1408	17/08/2015 14:03	0	0.2	20.2	79.6	-1.55	1001	4	0	1	1
RUAP1409	17/08/2015 14:04	0	0.2	20.3	79.5	-1.47	1001	4	0	1	1
RUAP1410	17/08/2015 14:06	0	2.4	15.8	81.8	-1.55	1001	4	0	1	1
RUAW1404	19/08/2015 09:56	57.6	28.6	0.3	13.5	-1.13	999	4	3	10	10
RUAW0005	19/08/2015 09:59	29.8	20.8	0.9	48.5	-1.39	1000	0	0	0	0
RUAW0004	19/08/2015 09:59	22.3	19.6	0.1	58	-1.73	999	4	3	10	0
RUAW0004	19/08/2015 10:00	21.3	19.5	0	59.2	-0.4	999	4	3	0	0
RUAW0054	19/08/2015 10:04	0	7.4	13.1	79.5	-0.87	1001	0	0	0	0
RUAW0001	19/08/2015 10:05	25.8	23.3	0.2	50.7	-1.32	999	4	3	1	1
RUAW0002	19/08/2015 10:07	0	2	19.5	78.5	0.1	999	4	2	0	0
RUAW0003	19/08/2015 10:11	8.9	16.5	0.4	74.2	-1.66	999	4	2	1	1
RUAW0053	19/08/2015 10:14	2.4	11.6	5.4	80.6	0	999	4	2	0	0
RUALMP2a	19/08/2015 10:16	42.3	17.2	1.1	39.4	-7.24	998	4	2	1	1
RUAMW002	19/08/2015 10:16	40.7	19.6	0.2	39.5	-2.18	999	0	0	10	10
RUAW065R	19/08/2015 10:18	32.8	23.3	0	43.9	-2.82	998	4	3	5	0

Well ID	Date/Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Rel Press (mb)	Atm Press (mb)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
RUAW065R	19/08/2015 10:20	32.8	23.5	0	43.7	-2.18	998	4	3	0	0
RUAW011R	19/08/2015 10:22	14	7	15.2	63.8	-2.48	998	4	2	5	0
RUAMW005	19/08/2015 10:23	37.3	23.9	0.2	38.6	-4.48	999	0	0	10	10
RUAW011R	19/08/2015 10:23	23	11.6	11.8	53.6	-2.01	998	4	3	0	0
RUAW0061	19/08/2015 10:25	68.2	30.3	0	1.5	-1.54	999	0	0	0	10
RUAW0061	19/08/2015 10:26	64.8	30.7	0	4.5	-5.7	999	0	0	10	10
RUAMW006	19/08/2015 10:26	40.6	28.4	0.2	30.8	-11.02	998	4	2	10	10
RUAMW09R	19/08/2015 10:29	59.6	30.8	1.7	7.9	-0.83	999	0	0	0	10
RUAMW09R	19/08/2015 10:30	64	33.1	0.5	2.4	-1.92	999	0	0	10	10
RUAW1402	19/08/2015 10:33	35.1	30.4	0.2	34.3	-0.53	998	0	0	0	0
RUAW0060	19/08/2015 10:36	10.6	10.6	12.4	66.4	-0.4	998	0	0	0	0
RUAW1401	19/08/2015 10:39	36.6	28.5	0	34.9	-1.09	997	4	3	10	10
RUAW0048	19/08/2015 10:41	0.1	2.6	19.4	77.9	-51.39	996	4	2	10	0
RUAW0048	19/08/2015 10:42	0	1.4	20	78.6	-39.21	996	4	2	0	0
RUAW050R	19/08/2015 10:44	35.8	30.1	0.2	33.9	-0.62	997	4	2	1	1
RUAW0067	19/08/2015 10:45	38.3	29.5	0.3	31.9	-24.49	998	0	0	10	10
RUAW057R	19/08/2015 10:46	27.1	17.3	8.6	47	-0.6	997	4	2	0	0
RUAW0051	19/08/2015 10:48	63.2	38.1	0.1	0	-6.63	998	0	1	0	10
RUAW032R	19/08/2015 10:48	34.9	29.6	0.4	35.1	-42.68	998	4	3	10	10
RUAW0051	19/08/2015 10:49	62.1	38.8	0	0	-39.99	998	0	1	10	10
RUAW034R	19/08/2015 10:50	35.5	27.3	1	36.2	-7.92	998	4	3	5	5
RUAW0059	19/08/2015 10:52	36.9	22	7.1	34	-3.14	999	0	0	0	0
RUAW031R	19/08/2015 10:52	27.4	23.5	5	44.1	-10.08	998	4	3	1	1
RUAW0036	19/08/2015 10:54	18.5	21.6	2.2	57.7	-53.34	999	0	0	20	10
RUAW1403	19/08/2015 10:55	32.7	29.2	0.1	38	-2.37	998	4	3	1	1
RUAW0036	19/08/2015 10:56	13.5	20.1	2.6	63.8	-40.32	999	0	0	10	10
RUAMW003	19/08/2015 10:57	15.5	15.6	0.1	68.8	-0.21	999	0	0	0	0
RUAW0052	19/08/2015 10:58	27	11.5	11.7	49.8	-42.87	998	4	3	0	0
RUAW033R	19/08/2015 11:01	20.9	11.7	11.5	55.9	-68.18	998	4	2	1	1

Well ID	Date/Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Rel Press (mb)	Atm Press (mb)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
RUAW030R	19/08/2015 11:03	22.5	17.5	8.2	51.8	-57.83	999	4	2	1	1
RUAW0020	19/08/2015 12:14	52.4	30	0.3	17.3	-1.26	995	0	2	20	20
RUAW0021	19/08/2015 12:15	63.7	34.3	0.3	1.7	-16.22	998	0	0	10	10
RUAW0068	19/08/2015 12:17	68.8	31.2	0.5	0	-4.94	998	0	2	0	0
RUAW0022	19/08/2015 12:18	46.5	34.6	0	18.9	-4.25	996	0	2	20	20
RUAW0066	19/08/2015 12:19	34.9	30	0.3	34.8	-9.08	998	0	0	10	10
RUAW0023	19/08/2015 12:21	29.9	19.7	8.3	42.1	-51.22	996	0	2	50	10
RUAW0023	19/08/2015 12:23	30.4	22.3	7.3	40	-6.89	996	0	1	0	0
RUAW0024	19/08/2015 12:25	43.7	31.7	1.2	23.4	-48.6	997	0	2	40	40
RUAW025R	19/08/2015 12:28	47.3	30.9	0	21.8	-2.38	998	0	2	10	10
RUARW037	19/08/2015 12:33	7.2	5.6	17.1	70.1	-47.2	999	4	1	20	10
RUARW038	19/08/2015 12:34	0.1	1.6	20.5	77.8	-1.01	999	0	0	-	-
RUARW039	19/08/2015 12:37	69.3	27.9	0.9	1.9	-49.8	997	0	2	20	20
RUARW040	19/08/2015 12:39	21.5	20.4	0.8	57.3	-49.41	997	0	2	20	10
RUARW040	19/08/2015 12:41	21.5	20.6	0.7	57.2	-48.99	997	0	2	10	10
RUARW041	19/08/2015 12:42	0.1	1.3	20.5	78.1	-13.04	997	0	1	1	1
RUARW042	19/08/2015 12:44	9.4	17.7	1.6	71.3	-46.55	997	0	1	10	5
RUARW042	19/08/2015 12:46	9.3	18.7	1.5	70.5	-34.2	997	0	1	1	1
RUAW026R	19/08/2015 13:14	18.6	21.6	0.3	59.5	-5.3	997	4	1	1	1
RUALCM10	19/08/2015 13:16	49.6	30.6	1.5	18.3	-44.26	997	4	0	20	20
RUAW0027	19/08/2015 13:18	63.9	35.7	0.2	0.2	-48.32	996	4	1	10	10
RUAW056R	19/08/2015 13:21	59.9	41.1	0	0	-0.41	996	4	1	0	1
RUAW056R	19/08/2015 13:22	44.8	33.8	3.8	17.6	-8.01	996	4	1	0	0
RUAW0028	19/08/2015 13:25	58.1	41	0.2	0.7	-0.09	996	4	1	1	1
RUAW029R	19/08/2015 13:27	52	36	0.2	11.8	-3.57	996	4	1	10	10
RUAW0049	19/08/2015 13:30	55.2	31.2	2.3	11.3	-0.11	995	4	20	0	0
RUAW0024	21/08/2015 09:08	46	31.5	1	21.5	-39.74	999	4	3	40	40
RUAW025R	21/08/2015 09:12	4	3.8	17.5	74.7	-2.38	1000	4	2	1	1
RUAW026R	21/08/2015 09:19	13.1	17.1	2.3	67.5	-11.28	999	4	2	1	1

Well ID	Date/Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Rel Press (mb)	Atm Press (mb)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
RUAW030R	21/08/2015 09:24	12.7	8.7	14.4	64.2	-31.42	1000	4	2	1	1
RUAW033R	21/08/2015 09:27	0.4	1.4	20	78.2	-21.27	1000	4	1	1	1
RUARW037	21/08/2015 09:35	0	1.4	19.9	78.7	-44.77	998	4	1	1	1
RUAW0024	24/08/2015 08:58	46.8	33	0.9	19.3	-38.11	985	4	54	40	40
RUAW025R	24/08/2015 09:02	64.3	31.9	1	2.8	-1.46	985	4	90	1	10
RUAW030R	24/08/2015 09:12	42.9	14.7	7.9	34.5	-31.68	986	4	3	10	10
RUAW033R	24/08/2015 09:16	72.7	28.3	0.6	0	-3.87	986	4	6	10	10
RUARW037	24/08/2015 09:22	44.7	30.7	1.1	23.5	-41.44	986	4	14	40	40
RUAW1401	26/08/2015 09:47	64.9	34.4	0.3	0.4	-5.29	982	4	2	10	20
RUAW1401	26/08/2015 09:48	63.8	35.7	0	0.5	-6.69	982	4	1	20	20
RUAW1402	26/08/2015 09:50	63.7	35.4	0.1	0.8	-0.29	982	4	2	1	5
RUAW1402	26/08/2015 09:52	57.7	34.9	0	7.4	-3.94	982	4	1	10	10
RUAW1405	26/08/2015 09:56	41.3	25.5	0	33.2	-2.77	982	4	1	10	10
RUAW0035	26/08/2015 10:09	29.5	25.7	1.7	43.1	-35.04	983	4	1	5	5
RUARW037	26/08/2015 10:17	45.3	29.2	0.5	25	-41.5	984	4	0	50	50
RUAW025R	26/08/2015 10:21	16.1	22.9	0	61	-14.76	983	4	3	55	5
RUALM10	26/08/2015 10:23	56.3	33.4	0	10.3	-40.88	984	4	2	40	40
RUAW026R	26/08/2015 10:25	22.6	22.1	0	55.3	-5.64	983	4	2	5	5
RUAW030R	26/08/2015 10:27	39.1	30.6	0.8	29.5	-41.91	984	4	2	10	10
RUAW033R	26/08/2015 10:30	36	27.9	0.4	35.7	-56.06	984	4	2	10	10
RUAW034R	26/08/2015 10:33	36.4	27.1	0.5	36	-8.3	983	4	2	5	5
RUAW0012	26/08/2015 12:02	63.9	35.6	0	0.5	-7.19	985	0	0	1	1
RUAW0016	26/08/2015 12:08	3.2	11.8	0	85	0.04	985	0	0	0	0
RUAW0024	27/08/2015 09:59	51.5	30.9	1	16.6	-43.69	987	4	4	40	50
RUAW0024	27/08/2015 10:01	51.4	33	0.4	15.2	-45.9	987	4	4	50	50
RUAW025R	27/08/2015 10:57	14.9	20.4	0.5	64.2	-16.18	833	4	5	5	5
RUAW026R	27/08/2015 11:02	22	18.7	2.5	56.8	-3.09	989	4	4	5	5
RUAW030R	27/08/2015 11:06	7.5	5.2	16.5	70.8	-46.44	989	0	3	5	5
RUAW033R	27/08/2015 11:12	2.1	1.8	19	77.1	-25.36	989	0	2	5	5
RUARW037	27/08/2015 11:23	45.1	29.8	0.5	24.6	-32.88	989	4	2	50	50

APPENDIX 4

Leachate Level Data

Ruabon Leachate Level Data - August 2015



From : 20/08/2015

To : 20/08/2015

20/08/2015

Sample Point	Depth of Liq (m)	Dip to Water (m)	TD (m)	Water Level (mAOD)
LMP006R	1.01	18.91	19.03	112.41
LMP007R	1.06	17.73	18.98	111.86
LMP008R	1.91	20.56	21.94	111.91
LMP009R	1.35	21.63	21.67	111.65
RUGW00M1	1.06	13.11	14.62	111.51
RUGW00M3	1.45	11.44	11.84	113.70
RUGW00M5	0.68	20.64	21.07	111.18
RUGW00M10	1.83	25.67	26.48	97.83
RUGWM4r	0.36	17.47	17.55	110.44
RULMP2r	0.72	15.49	15.93	110.72

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APPENDIX 5

Groundwater Quality Data

Ruabon Groundwater Quality & Level Data - August 2015



From : 04/08/2015

To : 04/08/2015

04/08/2015

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	345	0.2	<2.0	135	<0.0001	11	<5	760	750	<0.001
RUWB002A	140	1.6	<2.0	79	<0.0001	456	12	1810	1760	<0.001
RUWB002B	296	0.6	<2.9	75	<0.0001	133	5	1010	1040	<0.001
RUWB002C	949	0.7	<2.9	180	<0.0001	368	17	2780	2730	<0.001
RUWB002D	324	0.13	<2.0	13	<0.0001	27	<5	779	800	<0.001
RUWB003A	371	1.1	<2.0	7	<0.0001	23	<5	760	740	<0.001
RUWB004A	534	0.5	<2.0	3	<0.0001	21	5	1080	1090	<0.001
RUWB005A	418	0.9	5.1	2	<0.0001	36	33	1230	1210	<0.001
RUWB005B	155	0.5	<2.0	49	<0.0001	73	8	553	560	<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	2.28	0.12	4	9	0.512	0.002	<0.001	7	6.97
RUWB002A	<0.001	4.92	0.09	27	44	0.317	0.006	<0.001	7.1	7.3
RUWB002B	<0.001	6.04	0.11	10	15	0.116	0.01	<0.001	7.4	7.5
RUWB002C	0.002	6.31	0.15	15	19	1.841	0.037	<0.001	7	6.98
RUWB002D	<0.001	6.22	0.03	8	3	0.015	0.001	<0.001	7.8	7.87
RUWB003A	<0.001	9.06	<0.01	13	14	0.115	0.001	<0.001	7.6	7.63
RUWB004A	<0.001	3.14	0.37	9	<1	0.005	0.002	<0.001	9.1	9.15
RUWB005A	<0.001	3.29	0.18	4	<1	0.004	<0.001	<0.001	10	9.9
RUWB005B	<0.001	5.77	0.07	16	13	0.06	0.002	<0.001	7.4	8.07

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	21	338	34.63	2.3	<0.2	49	13	<0.002
RUWB002A	170	283	21.37	3.3	<0.2	<3	12.5	<0.002
RUWB002B	100	72	10.46	2.8	<0.2	<3	12.2	<0.002
RUWB002C	425	3548	8.05	7	0.8	45	12.8	<0.002
RUWB002D	160	13	21.65	1.9	<0.2	37	13.5	0.003
RUWB003A	135	78	10.7	1.6	<0.2	<3	12.5	<0.002
RUWB004A	250	68	48.83	2.2	<0.2	11	12.2	<0.002
RUWB005A	270	61	25.31	0.62	<0.2	250	12.9	<0.002
RUWB005B	26	32	8.4	2.8	<0.2	4	12.7	<0.002

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APPENDIX 6

Surface Water Quality Data

Ruabon Surface Water Quality Data - August 2015



From : 04/08/2015

To : 04/08/2015

04/08/2015

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)	pH (Lab)	pH(Fld)	S.Solids (mg/l)
RUWP004A	0.3	<2.0	56	35	974	1040	6	7	7.08	41

Sample Point	WtrTemp (Deg C)
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RUWP004A	13.2
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APPENDIX 7

Leachate Quality Data

Ruabon Leachate Quality Data - August 2015



From : 04/08/2015

To : 04/08/2015

04/08/2015

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)
RULT0001	8000	1130	128	84	<0.001	2790	2675	20500	18640	0.129

Sample Point	Cu(D) (mg/l)	Fe(D) (mg/l)	IonicBal (%)	Mg(D) (mg/l)	Mn(D) (mg/l)	Ni(D) (mg/l)	Nitrate (N:mg/l)	Pb(D) (mg/l)	pH (Lab)	pH(Fld)
RULT0001	1.088	5.71	-4.6	109	0.156	0.498	<0.2	0.038	7.6	7.46

Sample Point	K(D) (mg/l)	Na(D) (mg/l)	T.Anions (meq/l)	T.Cations (meq/l)	TOC (mg/l)	TON (mg/l)	Total S(D) SO ₄ :mg/l	WtrTemp (Deg C)	Zn(D) (mg/l)
RULT0001	847	2400	241	220	920	<0.2	129	18.6	1.847

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