



Tuesday, 28 April 2015

Mr Stuart Ross,
Natural Resources Wales,
Chester Road,
Buckley,
Flintshire
CH7 3AJ

Dear Mr Ross,

Pen-Y-Bont Quarter 1 Environmental Report for 2015

Please find enclosed the report for routine environmental monitoring undertaken at our Pen-Y-Bont Landfill Site between 1st January and 31st March 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**



PEN-Y-BONT LANDFILL SITE

PPC PERMIT GP3830BG

QUARTERLY ENVIRONMENTAL MONITORING REPORT

1st January – 31st March 2015

28th April 2015

**FCC Environment,
Pen-Y-Bont Landfill Site,
Pentre,
LL1 5AR.**

1.0 Introduction

This report has been produced in accordance with the requirements of the PPC permit (GP3830BG) and subsequent variation notices PP3032LN (issued on the 27th June 2007) and GP3830BG/V007 (issued on 04/11/14), detailing the results of environmental monitoring undertaken in the first quarter of the year between the 1st January and 31st March 2015 at Pen-Y-Bont Landfill Site.

2.0 Landfill Gas Migration

Landfill gas monitoring has been undertaken on a monthly basis throughout the review period in accordance with Table S4.5 of the site Permit. All data collected is attached with this report.

There were five trigger breaches of the methane limit of 1% recorded (in two boreholes) during the review period.

Methane was detected at 2.1% in borehole G11 in January and subsequently at 1.9% and 2.2% in February and March. Methane was also found in borehole T10 in February at 4.8% and 3.9% in March. Throughout the period in which methane has been detected in these 2 boreholes they have been monitored at an increased weekly basis to assess trends. At the time of writing this report the most recent weekly readings recorded in both boreholes showed a much reduced concentration of 1.1% methane. We will continue to monitor trends in these 2 boreholes in the coming months.

A reassessment of the use of Carbon Dioxide as an indicator of landfill gas migration (with reference to the 2011 ICoP) has now been included in a variation of the site Permit (GP3830BG/V007) issued on 4th November 2014. Trigger levels for Carbon Dioxide have now been discontinued and replaced by action limits from November 2014 onwards.

Schedule 6 notifications of any methane breaches will continue to be submitted to Natural Resources Wales within 24 hours of monitoring taking place.

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3.0 Water Quality

Water quality is scheduled to be analysed at 27 groundwater monitoring boreholes, the discharge points to the River Dee and Grass Plots and at three clearly defined surface water monitoring locations, WP1 (upstream), WP2 (downstream) and WP3 (adjacent to the site) along the river.

3.1 Groundwater Quality

Groundwater samples were taken throughout the monitoring period in accordance with Tables S4.4 and S4.10 and results of the monitoring are attached with this report. Monthly sample suites were analysed during January and March with a quarterly suite of laboratory tests performed on samples collected during February.

Additional boreholes required by Improvement Condition 1.4.1.1 were added to the monitoring schedule in March 2007, with trigger levels applied to them in 2010, in accordance with Improvement Condition 1.4.1.2.

There was one breach of the ammoniacal nitrogen trigger limit during the reporting period. The breach was in groundwater borehole BH7 with an NH₃N concentration of 4.9mg/l (limit 1.3mg/l) sampled on 21st January.

Borehole BH7 is on the verge of the haul road right opposite where vehicles exit the landfill area (prior to reaching the wheelwash) and it is possible that lightly contaminated/muddy waters may be washing into the area of the borehole.

The location of this borehole is also close to a large pile of spoil containing carbonaceous material with borehole BH14 located nearby which was previously tested for TPH due to elevated levels being detected.

A schedule 6 notification was raised for this event and closed out when the analysis data for the sample taken in February returned a reading of 0.4mg/l, suggesting a laboratory error with the January sample.

It's likely the January result was 'a factor of 10 out', with a reading of 4.9mg/l compared to 0.4mg/l in February?

We will continue to review all laboratory data for the determinands tested for signs of any increasing trends in any of them.

Whenever possible groundwater sampling is all undertaken consistently and on the same day by our own in-house technician, however this is not always practical and some samples may be taken on a second day of monitoring.

Note: The Hydrogeological Risk Assessment is due to be submitted in May.

3.2 Surface Water Quality

Surface water sampling was carried out in accordance with Table S4.9 of the site permit during the review period. There are currently no trigger limits specified for surface water sampling points.

There were no elevated concentrations of the determinands tested for from the samples collected that would suggest any impact from the landfilling operations.

3.3 Surface Water Discharge Quality

Surface water emissions sampling was scheduled to be carried out the surface water discharge points, WP4 'Discharge to Grass Plots' and WP5 'Discharge to River Dee'. There was no discharge through these points during the review period.

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4.0 Leachate Monitoring

4.1 Leachate Quality

Leachate sampling has been carried out in accordance with the revised Table S4.8 of the latest Permit variation site Permit with leachate sampling reduced to quarterly, as previously agreed in writing with NRW in April 2013.

Leachate sampling therefore took place in February during the first quarter with results attached to this report.

Note: The Hydrogeological Risk Assessment is due to be submitted in May.

4.2 Leachate Levels

Leachate levels are monitored on a monthly basis in accordance with the revised Table S4.1, of the recently issued (04/11/14) Permit variation GP3830BG/V007. However, leachate level monitoring at this frequency was agreed in writing with NRW in April 2013.

There were no leachate level breaches in this reporting period.

The leachate pumping system repairs and maintenance plus the tankered export of leachate continue to be closely managed at the site in order to maintain full compliance.

Leachate level data for quarter 1 of 2015 is attached with this report.

5.0 Landfill Gas Management

Monitoring of the landfill gas extraction system has been completed in accordance with the requirements of Tables S4.2 and S4.7 of the site Permit.

5.1 Flare/Gas Engine Emissions

Annual monitoring of the flare and gas engine emissions for 2014 were carried out in the final quarter of the year in accordance with the IPPC permit. The results were submitted to Natural Resources Wales in the Annual Monitoring Report in March 2015.

5.2 In Waste Gas Quality

In waste gas quality monitoring was completed in accordance with Table S4.7 of the site Permit during the review period.

There was a total of 441 gas well readings obtained with increased field balancing taking place in order to prevent the escape of fugitive odours from the uncapped, operational areas of the site.

Oxygen concentrations in excess of 5% were recorded on 73 occasions, however, 47 of these readings were from gas wells with their extraction valves closed or closed following field balancing. The remaining 26 were mostly 'cracked' open for 'environmental control' to prevent the release of fugitive emissions.

Total Carbon Dioxide and Methane concentrations of less than 80% were recorded on 121 occasions with 57 of these results recorded from wells with closed extraction valves or wells which had their valve positions closed down or switched off completely, post field balancing. Of the remaining 64 wells, 29 were 'cracked' open for 'environmental control' to prevent the release of fugitive emissions.

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There were no Carbon Monoxide values recorded in excess of 100ppm during this reporting period.

Assessments of air ingress into the system and any other 'Gas Operating Parameter' breaches are communicated to FCC by our gas contractors on a regular basis and subsequent remediations are carried out in accordance with the requirements of Table S4.7 of the site Permit.

A full set of gas field balancing data has been appended at the end of this report.

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APPENDIX 1

Field Logs

Field log report

Pen-Y-Bont

06-January-2015

Equipment 01 Last Calibration	30/10/2014
Equipment 01 Serial No.	GEM2000Plus + GM10338
Personnel 01	INF00307 alan.parry
Time OFF	11:46
Time ON	08:58
Weather	Wet

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

09-January-2015

Equipment 01 Calibration Due	21/02/2015
Equipment 01 Last Calibration	20/08/2014
Equipment 01 Last Calibration	30/10/2014
Equipment 01 Serial No.	G501869
Equipment 01 Serial No.	GEM2000Plus + GM10338
Equipment 01 Type	GA5000
Personnel 01	L Terrace
Personnel 01	INF00307 Alan.Parry
Time OFF	15:20
Time OFF	12:15
Time ON	08:50
Time ON	08:50
Weather	Cold
Weather	Overcast

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

14-January-2015

Equipment 01 Last Calibration	30/10/2014
Equipment 01 Serial No.	GEM2000Plus + GM10338
Personnel 01	INF00307 alan.parry
Time OFF	14:17
Time ON	08:57
Weather	Cold

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

16-January-2015

Equipment 01 Last Calibration	24/09/2014
Equipment 01 Serial No.	GA5000 + G500863
Personnel 01	INF00307 alan.parry
Time OFF	15:52
Time ON	12:57
Weather	Cold

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

20-January-2015

Equipment 01 Last Calibration	24/09/2014
Equipment 01 Serial No.	GA5000 + G500863
Personnel 01	INF00307 Alan.Parry
Time OFF	15:18
Time ON	10:29
Weather	Cold

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

21-January-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	16:20
Time ON	09:30
Weather	Raining

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

23-January-2015

Equipment 01 Last Calibration	24/09/2014
Equipment 01 Serial No.	GA5000 + G500863
Personnel 01	INF00307 alan.parry
Time OFF	15:06
Time ON	09:17
Weather	Cold

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

27-January-2015

Equipment 01 Last Calibration	24/09/2014
Equipment 01 Serial No.	GA5000 + G500863
Personnel 01	INF00307 Alan.Parry
Time OFF	14:56
Time ON	14:56
Weather	Cold

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

28-January-2015

Equipment 01 Last Calibration	24/09/2014
Equipment 01 Serial No.	GA5000 + G500863
Personnel 01	INF00307 alan.parry
Time OFF	15:12
Time ON	13:52
Weather	Clear

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

30-January-2015

Equipment 01 Last Calibration	24/09/2014
Equipment 01 Serial No.	GA5000 + G500863
Equipment 01 Serial No.	72/62-08
Equipment 01 Type	Geotechnical Atex Dip Meter
Personnel 01	INF00925 alan.parry
Time OFF	09:45
Time OFF	13:00
Time ON	11:30
Time ON	09:39
Weather	Wet
Weather	o/c, cold

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

05-February-2015

Equipment 01 Last Calibration	24/09/2014
Equipment 01 Serial No.	GA5000 + G500863
Personnel 01	INF00925 alan.parry
Time OFF	13:41
Time ON	09:04
Weather	Clear

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

06-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	13:00
Time ON	09:15
Weather	Sunny

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

10-February-2015

Equipment 01 Last Calibration	24/09/2014
Equipment 01 Serial No.	GA5000 + G500863
Personnel 01	INF00925 alan.parry
Time OFF	15:02
Time ON	09:43
Weather	Cold

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

12-February-2015

Equipment 01 Last Calibration	24/09/2014
Equipment 01 Serial No.	GA5000 + G500863
Personnel 01	INF00925 alan.parry
Time OFF	11:29
Time ON	10:08
Weather	Cold

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

18-February-2015

Equipment 01 Last Calibration	24/09/2014
Equipment 01 Last Calibration	05/02/2015
Equipment 01 Serial No.	LT1
Equipment 01 Serial No.	GA5000 + G500863
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
Personnel 01	INF00925 alan.parry
Time OFF	15:46
Time OFF	16:45
Time ON	10:00
Time ON	10:53
Weather	Cold
Weather	Overcast

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

24-February-2015

Equipment 01 Last Calibration	24/09/2014
Equipment 01 Serial No.	GA5000 + G500863
Personnel 01	INF00925 Alan.Parry
Time OFF	14:40
Time ON	10:16
Weather	Clear

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

25-February-2015

Equipment 01 Last Calibration	24/09/2014
Equipment 01 Serial No.	GA5000 + G500863
Personnel 01	INF00925 alan.parry
Time OFF	15:24
Time ON	09:24
Weather	Wet

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

26-February-2015

Equipment 01 Serial No.	72/62-08
Equipment 01 Type	Geotechnical Atex Dip Meter
Time OFF	16:05
Time ON	14:15
Weather	o/c, showers

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

03-March-2015

Equipment 01 Last Calibration	24/09/2014
Equipment 01 Serial No.	GA5000 + G500863
Personnel 01	INF00925 Alan.Parry
Time OFF	12:19
Time ON	08:24
Weather	Wet

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

05-March-2015

Equipment 01 Last Calibration	24/09/2014
Equipment 01 Serial No.	GA5000 + G500863
Personnel 01	INF00925 alan.parry
Time OFF	15:02
Time ON	10:12
Weather	Cold

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

06-March-2015

Equipment 01 Calibration Due	30/03/2015
Equipment 01 Last Calibration	30/03/2015
Equipment 01 Serial No.	GA11581
Equipment 01 Type	GA2000+
Personnel 01	L Terrace
Time OFF	10:50
Time ON	08:30
Weather	Sunny

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

11-March-2015

Equipment 01 Last Calibration	24/09/2014
Equipment 01 Serial No.	GA5000 + G500863
Personnel 01	INF00925 alan.parry
Time OFF	15:09
Time ON	09:54
Weather	Wet

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

17-March-2015

Equipment 01 Last Calibration	05/03/2015
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	17:00
Time ON	09:10
Weather	Overcast

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

19-March-2015

Equipment 01 Last Calibration	31/03/2015
Equipment 01 Serial No.	GA5000 + G500863
Personnel 01	INF00925 alan.parry
Time OFF	14:20
Time ON	10:55
Weather	Clear

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

27-March-2015

Equipment 01 Last Calibration	23/02/2015
Equipment 01 Serial No.	GA5000 + G501011
Equipment 01 Serial No.	72/62-08
Equipment 01 Type	Geotechnical Atex Dip Meter
Personnel 01	G Forrest
Personnel 01	INF00925 Alan.Parry
Time OFF	15:03
Time OFF	15:20
Time ON	14:30
Time ON	08:36
Weather	Wet
Weather	o/c, warm

Issued By:

Signed By :

Name :

Field log report

Pen-Y-Bont

31-March-2015

Equipment 01 Last Calibration	23/02/2015
Equipment 01 Serial No.	GA5000 + G501011
Personnel 01	INF00925 Alan.Parry
Time OFF	09:01
Time ON	09:01
Weather	Wet

Issued By:

Signed By :

Name :

APPENDIX 2

Perimeter Borehole Gas Data

Pen-Y-Bont Perimeter Borehole Gas Data - January to March 2015



From : 09/01/2015

To : 06/03/2015

09/01/2015

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)
PBGB00G1	1009	0	1.6	0	18.9	-0.12
PBGB00G2	1009	0	3.4	0	14.4	-0.02
PBGB00G3	1009	0	2.6	0	13.7	13.34
PBGB00G4	1009	0	1.8	0	17.5	-0.1
PBGB00G5	1009	0	1.3	0	19.2	-0.02
PBGB00G6	1009	0	0.5	0	20	-0.1
PBGB00G7	1011	0	0.1	0	20.3	-0.05
PBGB00G8	1008	0	3	0	16.4	-0.05
PBGB00G9	1006	0	2.3	0	16.3	-0.05
PBGB00G10	1006	0	0.7	0	19.9	-0.12
PBGB00G11	1006	2.1	4.1	0	0.8	0.07
PBGB00G12	1007	0	2.8	0	17.4	-0.33
PBGB00G13	1007	0	3.7	0	9.6	0.14
PBGB00G14	1007	0	0.9	0	19.1	0.03
PBGB00G15	1007	0	2.2	0	17.9	-0.02
PBGB00G16	1008	0	1.4	0	17.8	-0.31
PBGB00G17	1009	0	1.6	0	19.3	-0.09
PBT00001	1011	0	2.2	0	16.8	16.63
PBT00002	1011	0	0.2	0	20.1	0.02
PBT00003	1011	0	1.4	0	19.6	2.78
PBT00004	1011	0	1.2	0	18.9	0
PBT00005	1011	0	0.9	0	18.9	-0.16
PBT00006	1011	0	1.9	0	17.8	-0.02
PBT00007	1011	0	1.3	0	18.8	0
PBT00008	1011	0	4.3	0	16.9	3.54
PBT00009	1011	0	4.7	0	17.4	-0.02
PBT00010	1011	0.6	12.7	0	0.4	-0.16
PBT00012	1010	0	1.4	0	18.6	-6.01
PBT00013	1011	0	7.5	0	17.2	-0.07

Issued By:

Pen-Y-Bont Perimeter Borehole Gas Data - January to March 2015



From : 09/01/2015

To : 06/03/2015

06/02/2015

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)
PBGB00G1	1025	0	2	0	19.1	-0.45
PBGB00G2	1025	0	1.6	0	17.9	-0.41
PBGB00G3	1026	0	2.4	0	13.8	-0.29
PBGB00G4	1025	0	1	0	20.3	-0.38
PBGB00G5	1026	0	1	0	20	-0.43
PBGB00G6	1026	0	1.1	0	20.3	-0.5
PBGB00G7	1029	0	1.5	0	19	-0.41
PBGB00G8	1026	0	2.5	0	17.5	-0.43
PBGB00G9	1024	0	1.8	0	17.2	-0.38
PBGB00G10	1024	0	0.8	0	19.7	-0.4
PBGB00G11	1024	1.9	3.8	0	0.4	-0.21
PBGB00G12	1024	0	1.7	0	16.9	-0.4
PBGB00G13	1024	0	3.5	0	12.4	-0.52
PBGB00G14	1024	0	1.6	0	17.2	-0.47
PBGB00G15	1024	0	3	0	16.5	-0.43
PBGB00G16	1025	0	1	0	18.7	-2.35
PBGB00G17	1025	0	3.9	0	16.6	-0.43
PBT00001	1028	0	1.6	0	17.6	7.66
PBT00002	1029	0	0.2	0	20.4	-0.43
PBT00003	1029	0	0.2	0	20.3	-0.48
PBT00004	1029	0	0.9	0	19.6	-0.4
PBT00005	1028	0	1	0	19.2	-0.26
PBT00006	1029	0	1.5	0	18.9	-0.36
PBT00007	1029	0	2.2	0	17.8	-0.41
PBT00008	1028	0	3.8	0	13.9	-0.74
PBT00009	1028	0	4	0	17.9	-0.73
PBT00010	1028	4.8	12	0	0.6	-0.38
PBT00012	1028	0	0.6	0	19.2	-0.38
PBT00013	1028	0	6.8	0	17.6	-0.4

Issued By:

Pen-Y-Bont Perimeter Borehole Gas Data - January to March 2015



From : 09/01/2015

To : 06/03/2015

06/03/2015

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Rel Press (mBar)
PBGB00G1	1020	0	1.5	0	19.1	0.1
PBGB00G2	1020	0	1.4	0	19.3	0.29
PBGB00G3	1021	0	2.5	0	12.4	1.56
PBGB00G4	1021	0	1.3	0	19.5	0.81
PBGB00G5	1021	0	0.9	0	19.8	0.17
PBGB00G6	1021	0	0.4	0	20.4	0.12
PBGB00G7	1024	0	0.1	0	20.3	0.1
PBGB00G8	1019	0	2.3	0	17.3	0.11
PBGB00G9	1018	0	1.9	0	15.9	0.1
PBGB0G10	1018	0	0.9	0	19.8	0.57
PBGB0G11	1018	2.2	3.4	0	0.3	0.37
PBGB0G12	1019	0	1.7	0	17	1.28
PBGB0G13	1019	0	3.2	0	10.2	0.35
PBGB0G14	1019	0	0.4	0	20	0.11
PBGB0G15	1019	0	2.8	0	16.2	0.2
PBGB0G16	1019	0	1.1	0	18.2	2.39
PBGB0G17	1020	0	2.4	0	18.2	0.17
PBT00001	1024	0	1.9	0	18	30.02
PBT00002	1024	0	0	0	20.5	0.24
PBT00003	1024	0	0.1	0	20.4	0.29
PBT00004	1024	0	0.6	0	19.6	0.25
PBT00005	1024	0	0.7	0	19.4	0.24
PBT00006	1024	0	1.2	0	18.9	0.77
PBT00007	1024	0	1.9	0	18.4	0.81
PBT00008	1024	0	0.2	0	19.9	0.53
PBT00009	1024	0	3	0	18.6	0.87
PBT00010	1023	3.9	10.7	0	0.3	0.24
PBT00012	1023	0	0.7	0	19.5	0.45
PBT00013	1024	0	5.4	0	18.3	0.25

Issued By:

APPENDIX 3

Landfill Gas Field Extraction and Balancing Data

Pen-Y-Bont Landfill Gas Extraction & Balancing Data - January to March 2015

Well ID	Date & Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mb)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
CHIW0082	06/01/2015 09:47	62.1	36.2	0.3	1.4	6.03	1008	3	1	10	20
CHIW0082	06/01/2015 09:50	61.8	36.7	0	1.5	2.89	1008	4	1	20	20
CHIW0083	06/01/2015 09:52	61.3	39.4	0	0	10.96	1008	6	36	0	10
CHIW0083	06/01/2015 09:55	60.7	41.2	0	0	9.3	1008	6	44	10	10
CHIW0088	06/01/2015 09:57	58	44.7	0	0	1.41	1008	6	41	10	20
CHIW0088	06/01/2015 10:00	57.8	44.7	0	0	-6.51	1008	6	47	20	20
CHIW0089	06/01/2015 10:02	58.9	42.8	0	0	-46.11	1008	7	42	20	30
CHIW0089	06/01/2015 10:04	58.3	42.6	0.1	0	-48.17	1008	6	45	30	30
CHIR0071	06/01/2015 10:07	59.6	43.3	0	0	-73.61	1008	5	76	30	20
CHIR0071	06/01/2015 10:10	59.7	43.2	0	0	-58.03	1008	5	82	20	20
CHIW0090	06/01/2015 10:13	58.5	44.3	0	0	-69.41	1008	5	63	30	20
CHIW0090	06/01/2015 10:15	58.6	44.1	0	0	-59.71	1008	5	83	20	20
CHIR0070	06/01/2015 10:18	52	39.5	0.7	7.8	-72.14	1008	6	34	30	20
CHIR0070	06/01/2015 10:20	49.7	39	0.8	10.5	-59.46	1008	6	25	20	20
CHIR0069	06/01/2015 10:22	58.2	42.9	0	0	-57.81	1007	6	55	20	20
CHIR0055	06/01/2015 10:25	59.8	42.3	0	0	-58.85	1008	4	17	20	20
CHIW0119	06/01/2015 10:28	59.4	43	0	0	-43.79	1008	5	46	30	30
CHIW0086	06/01/2015 10:30	59	43.4	0	0	-57.88	1008	7	142	20	20
CHIR0074	06/01/2015 10:33	57.6	44.8	0	0	-50.71	1008	6	65	20	20
CHIW0112	06/01/2015 10:36	47.4	39.6	0	13	-12.48	1007	10	76	20	20
CHIW0111	06/01/2015 10:41	55.3	42.4	0	2.3	-35.31	1007	18	24	30	30
CHIW0110	06/01/2015 10:44	56.1	43.5	0	0.4	-66.12	1008	15	32	30	20
CHIW0110	06/01/2015 10:46	56.9	43.6	0	0	-36.8	1008	12	38	20	20
CHIW0075	06/01/2015 10:48	1.3	5.3	19.3	74.1	-2.51	1008	5	1	0	0
CHIW0114	06/01/2015 10:51	38	35.6	0.6	25.8	-19.51	1007	30	10	30	10
CHIW0114	06/01/2015 10:53	41.4	37	0.4	21.2	-11.06	1007	23	15	10	10
CHIW0113	06/01/2015 10:55	59.8	43.6	0	0	-29.82	1007	9	103	30	30

Well ID	Date & Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mb)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
CHIW0076	06/01/2015 10:57	55.8	42.4	0	1.8	-67.02	1008	7	75	30	20
CHIW0076	06/01/2015 10:59	55.3	42.4	0	2.3	-45.9	1008	6	113	20	20
CHIW0115	06/01/2015 11:01	40.8	35	0	24.2	-23.01	1008	6	117	30	30
CHIW0117	06/01/2015 11:04	59.3	43.5	0	0	-35.06	1008	7	65	30	30
CHIR0041	06/01/2015 11:07	51.5	39.1	0	9.4	-38.23	1008	7	50	40	40
CHIW0118	06/01/2015 11:09	56.7	42.4	0	0.9	-28.61	1008	9	57	30	3
CHIW0081	06/01/2015 11:20	63.2	39.4	0.2	0	-69.23	1009	4	5	30	10
CHIW0081	06/01/2015 11:23	62.9	39.7	0	0	-57.26	1009	5	11	10	10
CHILRIS1	09/01/2015 13:44	3.1	3	19.4	74.5	-0.39	1003	2	0	1	1
CHILRIS2	09/01/2015 13:46	19.8	15.2	12.9	52.1	-1.28	1003	3	0	1	1
CHIW0007	09/01/2015 13:53	51.7	35.6	0	12.7	-5.55	1002	3	0	10	15
CHIW0007	09/01/2015 13:55	51.6	35	0	13.4	-6.25	1002	2	0	155	15
CHIW0029	09/01/2015 13:57	49.3	37.8	0	12.9	-5.19	1001	3	1	15	15
CHIW0003	09/01/2015 13:59	60.2	37.7	0.2	1.9	-5.17	1001	5	0	10	20
CHIW0003	09/01/2015 14:01	60.4	38.2	0	1.4	-9.2	1001	5	0	20	20
CHIW0028	09/01/2015 14:02	52.1	39.2	0	8.7	-1.99	1000	4	1	5	10
CHIW0028	09/01/2015 14:03	51.9	39.4	0	8.7	-8.4	1000	4	1	20	2
CHIW0001	09/01/2015 14:07	59.8	37.3	0	2.9	-5.08	1001	3	0	10	201
CHIW0001	09/01/2015 14:09	59.7	37.7	0	2.6	-9.25	1001	3	0	20	20
CHIW0105	09/01/2015 14:12	62.3	39.4	0.4	0	1.54	1000	4	3	5	10
CHIW0105	09/01/2015 14:14	61.5	40.3	0	0	-5.89	1000	5	5	20	20
CHIW0106	09/01/2015 14:16	56.1	40.8	0	3.1	-7.21	1000	3	24	10	10
CHIW0085	09/01/2015 14:18	58.3	43.1	0.1	0	-7.63	1000	8	59	10	10
CHIW025R	09/01/2015 14:20	60.1	41.7	0.2	0	-8.49	1000	3	6	10	20
CHIW025R	09/01/2015 14:21	59.6	42.2	0	0	-13.55	1000	4	9	20	20
CHIW0119	09/01/2015 14:23	59.5	42.7	0	0	-33.44	1000	7	36	20	20
CHIW0086	09/01/2015 14:25	59.7	43.1	0.5	0	-45.51	1000	8	92	20	20
CHIR0072	14/01/2015 09:47	57.8	41.7	0.1	0.4	-58.17	993	11	1	20	20
CHIW0110	14/01/2015 09:49	56.7	43.7	0	0	-17.63	994	25	1	20	30

Well ID	Date & Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mb)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
CHIW0110	14/01/2015 09:51	56	44.4	0	0	-25.35	994	22	0	30	30
CHIW0111	14/01/2015 09:53	56.5	42.3	0	1.2	-26.43	993	0	0	20	30
CHIW0111	14/01/2015 09:54	56.2	42.8	0	1	-34.66	993	0	0	30	30
CHILW4AR	14/01/2015 09:55	11.4	19.7	5.3	63.6	-120.07	993	0	0	-	-
CHILWM4B	14/01/2015 09:57	5.5	16.8	10.3	67.4	3.43	993	0	0	-	-
CHIW0113	14/01/2015 10:00	58.6	41.7	0	0	-31.06	993	7	0	20	30
CHIW0113	14/01/2015 10:04	57.1	43.3	0	0	-32.73	993	6	0	30	30
CHIW0114	14/01/2015 10:06	57.5	43.1	0.2	0	-8.16	993	25	1	10	20
CHIW0114	14/01/2015 10:08	56.1	44.5	0	0	-10.28	993	37	1	30	30
CHIW0087	14/01/2015 10:10	58.6	42.3	0.2	0	-15.85	993	0	3	20	30
CHIW0087	14/01/2015 10:12	57	43.8	0	0	-26.63	993	0	7	30	30
CHIR0077	14/01/2015 10:14	57.5	43.4	0	0	-57.14	993	0	0	30	30
CHIW0116	14/01/2015 10:15	18.4	26.4	8.7	46.5	-0.68	993	0	0	10	10
CHIW0021	14/01/2015 10:16	18.7	26.4	9.8	45.1	-0.12	993	0	0	-	-
CHIW0065	14/01/2015 10:20	19.1	16.3	13.5	51.1	-25.98	993	0	0	5	5
CHIW0039	14/01/2015 10:23	28.8	26.7	9.1	35.4	-18.57	993	35	1	20	0
CHIW0039	14/01/2015 10:24	28.7	27	9	35.3	-17.93	993	26	1	0	0
CHILC01B	14/01/2015 10:36	28.5	26.9	9	35.6	-42.9	993	0	0	-	-
CHIW0086	14/01/2015 10:40	59.3	42.3	0.3	0	-57.84	993	0	22	20	20
CHIW0119	14/01/2015 10:43	58.3	43.7	0	0	-56.93	994	0	68	20	20
CHIR0074	14/01/2015 10:45	57.5	43.6	0.4	0	-55.08	994	0	22	20	20
CHIW0066	14/01/2015 10:47	55	40.1	0.9	4	-30.29	994	0	0	20	30
CHIW0066	14/01/2015 10:48	54.5	40.7	0.7	4.1	-35.26	994	0	0	30	30
CHIW0092	14/01/2015 10:51	42	33.9	0.4	23.7	-14.3	995	0	1	30	30
CHIP0110	14/01/2015 13:54	1.1	3.9	11.6	83.4	-43.81	994	0	0	1	1
CHIW0109	14/01/2015 13:56	30.1	31.8	0.8	37.3	-6.8	993	0	93	5	5
CHIW0108	14/01/2015 13:59	0.4	0.1	20.7	78.8	-1.96	993	0	0	1	1
CHIW0108	14/01/2015 14:06	31.8	26.1	7	35.1	-6.92	993	0	2	1	1
CHIW0066	14/01/2015 14:17	47.4	39.2	1.3	12.1	-18.92	992	76	53	0	0

Well ID	Date & Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mb)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
CHIW0094	16/01/2015 13:05	0.6	0.6	20.9	77.4	-2.96	996	0	0	0	0
CHIW0095	16/01/2015 13:07	57.8	38.4	0	3.8	-0.19	997	34	3	0	5
CHIW0095	16/01/2015 13:09	57.8	41.6	0	0.6	-0.36	997	0	0	5	5
CHIW0096	16/01/2015 13:11	58.5	36.1	0	5.4	-0.19	997	0	0	0	5
CHIW0096	16/01/2015 13:13	61.8	35.6	0.2	2.4	-9.3	997	0	0	5	5
CHIW0098	16/01/2015 13:22	59.8	40.3	0	0	-5.18	995	1	0	10	10
CHIW0097	16/01/2015 13:24	67.6	32.7	0	0	0.26	998	0	0	0	5
CHIW0097	16/01/2015 13:26	63.8	36.9	0	0	-16.22	998	0	0	5	5
CHIW0099	16/01/2015 13:42	60.8	40	0	0	-7.94	997	0	0	10	20
CHIW0099	16/01/2015 13:44	58.6	41.9	0	0	-9.78	997	0	0	20	20
CHIW0100	16/01/2015 13:46	59.3	41	0	0	-12.77	997	0	0	20	30
CHIW0100	16/01/2015 13:48	59	41.3	0	0	-14.81	997	0	0	30	30
CHIW0101	16/01/2015 13:49	1.5	11.1	19.7	67.7	-	997	0	0	-	-
CHIW0101	16/01/2015 13:52	57.1	43.4	0	0	-7.44	997	0	0	20	20
CHIW0102	16/01/2015 13:55	0	5.1	20.9	73.3	-8.38	995	0	0	0	0
CHIW0048	16/01/2015 13:57	52	40.5	0.5	7	-15.65	996	11	0	10	10
CHIW0103	16/01/2015 14:00	43.8	33.6	0	22.6	-18.08	996	0	0	10	10
CHIW0104	16/01/2015 14:02	53	36.4	0	10.6	-22.72	996	0	0	20	20
CHIP0112	20/01/2015 10:50	62.5	38.7	0	0	-34.71	1000	0	0	10	10
CHILMP02	20/01/2015 10:53	10.9	9.8	16.1	63.2	-4.85	995	0	0	1	1
CHIW0111	20/01/2015 10:55	62.4	37.1	0.1	0.4	-40.4	1000	0	0	10	10
CHIW0078	20/01/2015 10:58	43.7	37	0	19.3	-59.46	1000	0	3	20	20
CHIW0018	20/01/2015 11:05	52	41.3	0	6.7	-32.4	999	0	0	10	10
CHIWA10R	20/01/2015 11:14	55.9	44.1	0	0	-20.09	1000	6	0	5	5
CHIW0057	20/01/2015 11:16	49.1	42	0	8.9	-23.77	998	4	3	10	10
CHIW0067	20/01/2015 11:20	27.2	29.2	1.8	41.8	-7.94	1000	0	0	0	0
CHIW0068	20/01/2015 11:22	55.6	42.9	0	1.5	-3.74	1000	1	0	10	10
CHIW0093	20/01/2015 11:30	52.1	42.9	0	5	-6.65	998	0	11	20	20
CHIW0091	20/01/2015 11:34	55.1	44	0	0.9	-59.05	999	0	0	20	20

Well ID	Date & Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mb)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
CHILW07B	20/01/2015 11:36	13.7	32.4	6.1	47.8	-11.07	1000	7	0	0	0
CHIW0073	20/01/2015 11:39	59.5	41.7	0	0	-10.26	999	0	0	10	10
CHILW06R	20/01/2015 11:44	57.2	43.4	0.2	0	-0.31	999	0	0	1	1
CHIW0079	20/01/2015 11:51	56.9	43.5	0	0	-67.14	998	0	0	20	20
CHIW0080	20/01/2015 11:54	55.6	45.3	0	0	-82.7	999	1	4	10	10
CHIW0081	20/01/2015 11:57	59.6	41.4	0	0	-49.46	1000	0	0	20	20
CHIW0107	20/01/2015 13:40	34.2	27.2	6.7	31.9	-6.25	998	0	0	1	1
CHIW0084	20/01/2015 13:43	37	36.7	0	26.3	-47.22	998	0	0	10	10
CHILMP01	20/01/2015 13:44	62.7	38.5	0.4	0	-4.18	998	0	0	10	10
CHILW05A	20/01/2015 13:45	5.7	16.3	10.4	67.6	-0.4	998	0	0	0	0
CHILW5BR	20/01/2015 13:52	4.1	7.4	19.4	69.1	-0.31	999	0	0	0	0
CHIW0030	23/01/2015 12:34	59.1	38.1	0	2.8	-24.22	1011	0	0	10	10
CHIR0040	23/01/2015 13:11	63.7	34.2	2.3	0	-0.67	1009	0	0	10	10
CHIR0037	23/01/2015 13:14	58.4	41.6	0	0	-0.21	1007	3	0	20	20
CHIW02AR	23/01/2015 13:16	12.9	14.4	16.3	56.4	-0.38	1008	0	0	0	0
CHIW0112	23/01/2015 13:20	57.3	42.2	0	0.5	-5.42	1007	14	0	10	20
CHIW0111	23/01/2015 13:25	54.6	40.9	0	4.5	-39.7	1008	1	0	30	30
CHIW0075	23/01/2015 13:28	1.3	10.7	18.1	69.9	-0.48	1009	6	0	0	0
CHIW0113	23/01/2015 13:31	58.3	41.2	0	0.5	-40.13	1009	6	70	20	20
CHIW0076	23/01/2015 13:33	50.7	40.6	0	8.7	-42.07	1008	3	9	20	20
CHIW0115	23/01/2015 13:35	37.6	35	0	27.4	-15.13	1008	0	28	10	10
CHIR0041	23/01/2015 13:37	46.8	38.6	0	14.6	-38.03	1007	3	9	20	20
CHIR0074	23/01/2015 13:43	55.9	42.8	0.1	1.2	-52.8	1008	0	0	20	20
CHIR0055	23/01/2015 13:50	54.2	38.5	0.9	6.4	-40.21	1009	0	0	20	20
CHIW0092	23/01/2015 13:51	31.7	29.4	0.3	38.6	-17.28	1008	0	0	20	10
CHIW0092	23/01/2015 13:53	32.7	30.8	0	36.5	-14.77	1008	0	0	10	10
CHIW0111	27/01/2015 10:00	53.3	40.6	0	6.1	-42.9	1016	7	4	20	30
CHIW0111	27/01/2015 10:03	53	41.3	0	5.7	-49.87	1016	6	3	30	30
CHIW0112	27/01/2015 10:07	42.1	38.2	0	19.7	-17.99	1017	4	2	30	30

Well ID	Date & Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mb)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
CHIR0074	27/01/2015 10:09	54.4	45.1	0	0.5	-56.09	1016	2	9	20	20
CHIW0086	27/01/2015 10:12	56.6	42.6	0	0.8	-60.51	1017	2	2	10	10
CHIW0119	27/01/2015 10:16	55.5	42.2	0	2.3	-59.99	1017	0	1	20	20
CHIR0055	27/01/2015 10:21	53.3	41.4	0	5.3	-59.24	1017	2	0	30	30
CHIW0092	27/01/2015 10:23	39.6	32.6	0	27.8	-6.47	1018	1	0	20	20
CHIP0111	27/01/2015 14:56	65.1	34.9	0	0	-13.77	1015	2	0	5	5
CHIW0118	28/01/2015 10:01	56.4	42.7	0	0.9	-23.38	989	6	0	20	30
CHIW0118	28/01/2015 10:02	55.9	43.4	0	0.7	-32.38	989	5	1	30	30
CHIW0117	28/01/2015 10:13	57.7	43.2	0	0	-28.46	990	2	0	20	30
CHIW0117	28/01/2015 10:14	56.9	44.2	0	0	-29.94	990	4	7	30	30
CHIR0041	28/01/2015 10:17	51.9	42.1	0	6	-24.41	991	3	5	20	20
CHIW0115	28/01/2015 10:19	55.1	42.3	0	2.6	-6.03	990	2	0	10	20
CHIW0115	28/01/2015 10:21	54.1	42.1	0	3.8	-10.97	990	3	7	30	30
CHIW0114	28/01/2015 10:24	52.4	42.2	0	5.4	-7.25	991	10	0	10	10
CHIR0040	28/01/2015 11:02	60.1	41.7	0.8	0	-20.61	988	0	3	10	10
CHIW0116	28/01/2015 11:06	56.3	44	0	0	-18.35	988	2	0	20	20
CHIW0083	28/01/2015 13:49	55.1	38	0.1	6.8	-12.81	991	0	0	20	30
CHIW0083	28/01/2015 13:52	54.2	39.4	0	6.4	-14.81	991	0	0	30	30
CHIW0083	28/01/2015 13:52	54.2	39.4	0	6.4	-14.81	991	0	0	30	30
CHIW0073	28/01/2015 13:57	55.5	44.7	0	0	-16.85	990	2	5	10	10
CHIW0091	28/01/2015 14:01	57.8	42.8	0	0	-30.04	992	1	0	10	10
CHIW0101	28/01/2015 14:06	46.8	38.9	0	14.3	-10.57	992	0	0	20	20
CHIW0100	28/01/2015 14:08	54.5	40.3	0	5.2	-13.74	992	0	0	20	20
CHIW0099	28/01/2015 14:14	60.4	40.4	0	0	-10.93	992	0	0	10	20
CHIW0099	28/01/2015 14:14	60.4	40.4	0	0	-10.93	992	0	0	10	20
CHIW0099	28/01/2015 14:17	60	40.9	0	0	-11.59	992	0	0	10	10
CHIW0098	28/01/2015 14:20	56.4	40.4	0	3.2	-7.23	993	0	0	10	10
CHIW0082	05/02/2015 09:17	52.1	37.4	0.2	10.3	-25.74	1019	0	0	20	30
CHIW0094	05/02/2015 09:24	16.7	19.1	9.8	54.4	-16.3	1018	0	0	10	0

Well ID	Date & Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mb)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
CHIW0094	05/02/2015 09:26	18.4	21.6	8.4	51.6	-16.41	1018	0	0	0	0
CHIW0094	05/02/2015 09:26	18.4	21.6	8.4	51.6	-16.41	1018	0	0	0	0
CHIW0096	05/02/2015 09:31	0	2.8	19.6	77.6	-7.26	1020	0	0	0	0
CHIW0097	05/02/2015 09:36	13.4	9	15.4	62.2	-13.5	1020	0	0	0	0
CHIW0099	05/02/2015 09:44	58	38.7	0	3.3	-21.62	1020	0	0	20	30
CHIW0102	05/02/2015 09:57	0	1.5	20.9	77.3	-7.56	1019	0	0	0	0
CHIW0048	05/02/2015 10:01	14.9	17.3	11.9	55.9	-11.52	1018	10	0	10	0
CHIW0048	05/02/2015 10:02	11.2	11.9	14.4	62.5	-14.32	1018	6	0	0	0
CHIW0103	05/02/2015 12:11	22.5	25.5	0.2	51.8	-12.45	1018	1	0	10	0
CHIWA10R	05/02/2015 12:16	53.6	40.6	0.3	5.5	-26.53	1019	12	0	10	10
CHIW0007	05/02/2015 12:24	38.4	30.2	1.3	30.1	-29.89	1020	0	0	10	10
CHIW0029	05/02/2015 12:26	54.4	38.5	0.3	6.8	-38.42	1019	0	0	10	10
CHIW0029	05/02/2015 12:26	54.4	38.5	0.3	6.8	-38.42	1019	0	0	10	10
CHIW0028	05/02/2015 12:28	33.1	32.9	1.8	32.2	-36.62	1020	6	0	10	10
CHIW0028	05/02/2015 12:28	33.1	32.9	1.8	32.2	-36.62	1020	6	0	10	10
CHIW0003	05/02/2015 12:30	47.8	35.8	0	16.4	-46.58	1019	1	0	10	10
CHIW0003	05/02/2015 12:30	47.8	35.8	0	16.4	-46.58	1019	1	0	10	10
CHIW0001	05/02/2015 12:35	43.5	36.3	0	20.2	-39.27	1020	1	0	10	10
CHIW0065	05/02/2015 13:07	57.4	40.8	0	1.8	-7.59	1018	2	0	10	10
CHIW0107	05/02/2015 13:18	29.8	23	7.2	40	-6.25	1020	0	0	1	1
CHIW0107	05/02/2015 13:18	29.8	23	7.2	40	-6.25	1020	0	0	1	1
CHIW0084	05/02/2015 13:21	60.2	39.9	0	0	-12.39	1019	1	4	10	20
CHIW0084	05/02/2015 13:22	60.2	40.3	0	0	-41.85	1019	1	0	20	20
CHILMP01	05/02/2015 13:24	43	28.9	4.6	23.5	-3.39	1018	2	0	1	1
CHIW0108	05/02/2015 13:26	0.1	3.5	20.1	76.3	-0.79	1018	0	0	1	1
CHIW0109	05/02/2015 13:28	9.2	15.2	7.7	67.9	-2.58	1018	10	0	10	10
CHIP0110	05/02/2015 13:34	2.3	4.2	20.1	73.4	-78.54	1019	0	0	20	1
CHIP0110	05/02/2015 13:36	3.5	3.7	19.8	73	-73.37	1019	0	0	1	1
CHIP0110	05/02/2015 13:36	3.5	3.7	19.8	73	-73.37	1019	0	0	1	1

Well ID	Date & Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mb)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
CHIP0111	05/02/2015 13:41	62.1	37.9	0	0	-33.98	1020	0	0	20	30
CHIP0111	05/02/2015 13:41	62.1	37.9	0	0	-33.98	1020	0	0	20	30
CHIP0111	05/02/2015 13:44	62.3	38	0	0	-37.77	1020	0	0	30	30
CHILMP02	05/02/2015 13:54	8.9	10.9	16.1	64.1	-0.48	1019	0	0	1	1
CHIP0112	05/02/2015 13:57	62.7	35.9	0	1.4	-15.96	1019	0	0	20	20
CHILW05A	10/02/2015 09:43	69.8	33	0	0	-15.8	1023	0	0	10	10
CHILW5BR	10/02/2015 09:46	64.4	39.1	0	0	-2.36	1022	2	3	5	5
CHIR0072	10/02/2015 09:49	58.1	45.7	0	0	-54.02	1023	13	328	20	20
CHIW0110	10/02/2015 09:51	60.4	45.6	0	0	-28.85	1023	19	374	50	50
CHILW06R	10/02/2015 09:56	64.6	39.3	0	0	-9.33	1022	6	177	5	5
CHIW0111	10/02/2015 09:58	57.6	43.7	0	0	-48.03	1022	16	244	50	50
CHILW4AR	10/02/2015 10:02	69.7	33.8	0	0	-7.61	1023	9	65	5	5
CHILWM4B	10/02/2015 10:05	61.9	42.4	0	0	-10.73	1022	9	0	10	10
CHIW0113	10/02/2015 10:07	59.8	45.1	0	0	-40.13	1022	18	622	20	20
CHIW0114	10/02/2015 10:10	42.1	39.5	0	18.4	-13.72	1022	27	202	20	20
CHIW0117	10/02/2015 10:16	57.2	44	0	0	-47.15	1022	11	661	20	20
CHIW0021	10/02/2015 10:23	60.1	45	0	0	-63.04	1021	12	267	20	20
CHIW0116	10/02/2015 10:25	59.8	44.9	0.3	0	-41.06	1022	11	481	20	20
CHIW0087	10/02/2015 10:27	58.4	45.6	0	0	-49.1	1022	13	605	20	20
CHIR0077	10/02/2015 10:29	60	45.2	0	0	-51.68	1022	12	804	30	30
CHIW02AR	10/02/2015 10:31	4.9	4.4	19	71.7	-7.18	1023	7	17	0	0
CHIR0037	10/02/2015 10:33	60.8	44.6	0	0	-19.47	1021	13	259	20	20
CHIR0040	10/02/2015 10:35	54.5	42.7	0.5	2.3	-34.14	1021	8	317	20	20
CHIW0039	10/02/2015 10:37	58.2	45.3	0.8	0	-0.19	1021	10	274	1	1
CHIW0109	10/02/2015 10:58	49.9	38.4	0.7	11	-3.27	1023	9	34	10	10
CHIW0108	10/02/2015 12:36	0	0.2	19.5	80.3	-	1022	0	0	-	-
CHIW0082	10/02/2015 13:01	48.6	38.7	0	12.7	-31.06	1021	4	47	50	50
CHIW0073	10/02/2015 13:06	57.8	45.8	0	0	-47.94	1022	11	521	10	10
CHILW07B	10/02/2015 13:09	59.6	42.6	0	0	67.48	1022	7	4	10	10

Well ID	Date & Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mb)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
CHIW0091	10/02/2015 13:11	59	44.7	0	0	-29.2	1021	9	190	10	10
CHIW0101	10/02/2015 13:17	51.1	40.4	0.5	8	-5.66	1022	6	2	10	10
CHIW0081	10/02/2015 14:33	62.1	40.2	0	0	-48.25	1020	3	197	20	20
CHIW0090	10/02/2015 14:35	58.8	44.4	0	0	-24.17	1022	10	975	10	10
CHIR0071	10/02/2015 14:38	62.9	43.4	0	0	-31.21	1021	11	505	20	20
CHIR0069	10/02/2015 14:42	58.8	43.7	0	0	-56.04	1022	8	293	10	10
CHIR0055	10/02/2015 14:44	58.7	42.7	0	0	-68.26	1022	6	305	10	10
CHIP0110	10/02/2015 14:50	0.4	0.7	20	78.9	-51.11	1022	3	5	0	0
CHIP0111	10/02/2015 14:54	64.8	37.8	0	0	-27.8	1022	5	16	10	10
CHILMP02	10/02/2015 14:56	2.7	6	18.3	73	-0.28	1022	4	4	1	1
CHIW0079	10/02/2015 14:58	59.4	42.4	0	0	-56.12	1022	6	151	20	20
CHIP0112	10/02/2015 15:00	63.7	37.4	0	0	-13.07	1022	5	18	10	10
CHIW0080	10/02/2015 15:02	59.6	44.6	0	0	-76.61	1022	7	466	10	10
CHIW0106	12/02/2015 10:08	59.4	36.8	0	3.8	-10.74	1010	0	0	10	20
CHIW0106	12/02/2015 10:08	59.4	36.8	0	3.8	-10.74	1010	0	0	10	20
CHIW0089	12/02/2015 10:20	53.6	37	1.2	8.2	-0.21	1008	2	0	1	1
CHIR0037	12/02/2015 10:29	58	43.7	0	0	-17.59	1007	2	0	20	20
CHIW0021	12/02/2015 10:41	57.3	44.4	0	0	-49.25	1008	0	0	30	30
CHIW0116	12/02/2015 10:44	57.3	44.6	0	0	-34.86	1009	1	5	30	40
CHIW0116	12/02/2015 10:44	57.3	44.6	0	0	-34.86	1009	1	5	30	40
CHIW0116	12/02/2015 10:46	56.7	45	0	0	-37.84	1009	0	15	40	40
CHIW0087	12/02/2015 10:49	55.9	45.6	0	0	-39.13	1009	2	0	20	30
CHIW0087	12/02/2015 10:50	55.5	45.9	0	0	-50.17	1009	2	3	30	30
CHIR0077	12/02/2015 10:53	57.3	44.2	0	0	-47.39	1009	0	0	40	40
CHIW0113	12/02/2015 11:05	56.9	44.4	0	0	-40.46	1008	2	0	20	30
CHIW0113	12/02/2015 11:05	56.9	44.4	0	0	-40.46	1008	2	0	20	30
CHIW0113	12/02/2015 11:07	56.3	45.3	0	0	-46.38	1008	2	0	30	30
CHIW0075	12/02/2015 11:13	2.3	13.2	16.9	67.6	-0.67	1009	8	0	0	0
CHIW0075	12/02/2015 11:13	2.3	13.2	16.9	67.6	-0.67	1009	8	0	0	0

Well ID	Date & Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mb)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
CHILW06R	12/02/2015 11:16	55.5	35.5	0.8	8.2	-68.02	1010	0	0	10	10
CHIW0110	12/02/2015 11:18	56	45.6	0	0	-46	1009	6	0	20	20
CHILW4AR	12/02/2015 11:23	60.5	40.9	0	0	-7.68	1008	0	0	10	10
CHIR0072	12/02/2015 11:29	57.9	43	0	0	-54.16	1009	2	0	10	10
CHIR0072	12/02/2015 11:29	57.9	43	0	0	-54.16	1009	2	0	10	10
CHILW5BR	12/02/2015 11:33	45.1	32.4	4	18.5	-71.01	1009	0	0	1	1
CHILW05A	12/02/2015 11:36	65.1	36.1	0	0	-73.68	1009	0	0	1	1
CHILRIS1	12/02/2015 13:56	17.8	11.6	13.9	56.7	-0.21	1008	0	0	1	1
CHILRIS2	12/02/2015 13:58	23.9	13.8	11.4	50.9	-0.17	1010	0	0	1	1
CHIW0079	12/02/2015 14:34	58	43.2	0	0	-58.38	1007	0	0	10	10
CHIW0080	12/02/2015 14:36	57.5	44.6	0	0	-74.01	1007	0	0	10	10
CHIR0071	12/02/2015 14:41	57	44.7	0	0	-32.11	1006	1	0	20	20
CHIW0090	12/02/2015 14:44	57.6	44	0	0	-22.64	1008	0	0	10	20
CHIW0090	12/02/2015 14:47	55	46.7	0	0	-33.4	1008	0	0	30	30
CHIW0089	12/02/2015 14:49	55.2	46.6	0	0	-44.16	1006	0	6	30	30
CHIW0088	12/02/2015 14:51	57.7	44.1	0	0	-8.4	1007	0	0	20	20
CHIW0081	12/02/2015 14:54	60.1	41.7	0	0	-48.12	1007	0	0	20	30
CHIW0081	12/02/2015 14:55	59.8	42.2	0	0	-57.96	1007	0	0	30	30
CHIW0083	12/02/2015 14:59	23.1	16.9	12.2	47.8	-12	1008	0	0	0	0
CHIW0085	18/02/2015 11:49	60.2	40.9	0	0	-0.19	1022	1	0	1	10
CHIW0085	18/02/2015 11:51	59.1	41.6	0	0	-6.92	1022	1	0	10	10
CHIW0056	18/02/2015 11:57	13	14.1	15.4	57.5	-5.75	1023	0	0	0	0
CHIW0064	18/02/2015 11:59	41.1	32.3	0.7	25.9	-9.66	1022	14	0	10	10
CHIW0039	18/02/2015 12:02	56.2	44	0	0	-10.83	1022	0	0	10	10
CHIW0065	18/02/2015 12:05	42.5	40.5	0	17	-38.25	1023	0	0	20	20
CHIR0040	18/02/2015 12:09	47.1	39.2	0	13.7	-34.79	1022	0	0	20	20
CHIR0037	18/02/2015 12:12	56.7	42.6	0	0.7	-27.03	1022	3	17	30	30
CHIW0081	18/02/2015 14:17	62.2	34.1	0.2	3.5	-53.94	1022	0	0	20	20
CHIW0090	18/02/2015 14:20	57.2	43.3	0	0	-60.87	1022	3	38	20	20

Well ID	Date & Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mb)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
CHIR0071	18/02/2015 14:23	58.2	42.1	0	0	-37.62	1023	3	0	20	30
CHIR0071	18/02/2015 14:25	57.6	42.8	0	0	-46.45	1023	2	0	30	30
CHIR0070	18/02/2015 14:27	55	39.5	0.1	5.4	-56.98	1022	0	3	30	20
CHIR0070	18/02/2015 14:30	53.7	40.9	0	5.4	-47.81	1022	1	5	20	20
CHIR0069	18/02/2015 14:33	52.9	39.6	0.1	7.4	-51.97	1023	3	0	20	20
CHIR0055	18/02/2015 14:38	51	37.8	0.9	10.3	-58.89	1022	1	0	30	20
CHIR0055	18/02/2015 14:41	49.1	38.3	1	11.6	-48.32	1022	1	0	20	1
CHIW0092	18/02/2015 14:43	45.9	35.8	0	18.3	-18.49	1022	0	0	20	20
CHIW0078	18/02/2015 14:45	48.7	36.5	0.1	14.7	-55.9	1022	0	0	20	20
CHIW0079	18/02/2015 14:47	57.2	40	0	2.8	-55.98	1022	0	0	30	20
CHIW0079	18/02/2015 14:49	56.6	41.4	0	2	-48.31	1022	0	0	20	20
CHIW0080	18/02/2015 14:51	57.4	42.8	0	0	-76.9	1022	0	0	30	20
CHIW0080	18/02/2015 14:54	57.2	43.6	0	0	-48.15	1022	0	0	10	10
CHIW0112	24/02/2015 10:30	39.9	36.7	0	23.4	-22.07	992	14	0	20	20
CHIW0086	24/02/2015 10:33	56	43.1	0.1	0.8	-65.38	991	0	0	30	20
CHIW0086	24/02/2015 10:35	55.5	43.5	0.2	0.8	-50.42	991	0	0	20	20
CHIW0119	24/02/2015 10:38	57.4	42.9	0	0	-59.86	992	0	0	20	10
CHIW0119	24/02/2015 10:41	57	43	0	0	-53.38	992	0	0	10	10
CHIW0018	24/02/2015 11:02	44	35.3	0.2	20.5	-35.43	994	0	0	10	10
CHIW0104	24/02/2015 11:05	36.4	33.4	0	30.2	-23.07	992	0	0	20	10
CHIW0104	24/02/2015 11:06	35.2	33.1	0	31.7	-21.62	992	0	0	20	20
CHIW0057	24/02/2015 11:09	38.2	37	0	24.8	-32.36	992	8	0	10	10
CHIW0066	24/02/2015 11:11	54.2	41.9	0.3	3.6	-19.94	993	0	0	5	5
CHIW0067	24/02/2015 11:14	2.2	8.6	18.4	70.8	-14.89	993	0	0	0	0
CHIW0068	24/02/2015 11:16	47.2	38.2	0.1	14.5	-12.02	994	4	0	10	10
CHIW0093	24/02/2015 11:19	50.2	42.3	0	7.5	-8.76	993	0	0	10	10
CHIW0100	24/02/2015 11:22	45.1	38.1	0	16.8	-23.45	994	0	0	20	20
CHIW0098	24/02/2015 11:25	46.3	36.3	0	17.4	-24.1	994	0	0	20	20
CHIW0095	24/02/2015 11:27	28.1	29.2	0.6	42.1	-19.45	995	5	0	10	0

Well ID	Date & Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mb)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
CHIW0095	24/02/2015 11:30	28.6	30.9	0	40.5	-19.07	995	2	0	0	0
CHIW0030	24/02/2015 13:38	56.8	37.7	0.2	5.3	-17.22	996	0	0	10	10
CHIW0105	24/02/2015 13:51	34.1	33.1	1.1	31.7	-11.24	995	0	0	5	5
CHIW0115	25/02/2015 09:47	36.1	34.1	0	29.8	-18.71	1002	1	0	20	20
CHIW0076	25/02/2015 09:49	48.8	40.4	0	10.8	-50.73	1002	4	0	20	20
CHIR0041	25/02/2015 09:52	46.1	38.4	0	15.5	-33.79	1003	0	0	20	20
CHIW0118	25/02/2015 09:54	48.4	39.3	0	12.3	-45.59	1002	4	0	10	10
CHILC01B	25/02/2015 09:59	2.7	14.9	16.3	66.1	-0.22	1004	0	0	0	0
CHIR0074	25/02/2015 10:21	61	38.1	0.6	0.3	-59.58	1005	1	0	10	10
CHIW0112	03/03/2015 09:17	47.9	39.2	0.1	12.8	-8.92	999	11	0	20	20
CHIR0072	03/03/2015 09:37	57.5	41.7	1.2	0	-52.56	1001	3	0	10	10
CHIW0110	03/03/2015 09:40	54.9	44.7	0	0.4	-52.16	1001	6	0	20	20
CHIW0111	03/03/2015 09:42	55.7	42.5	0	1.8	-44.11	1001	0	0	40	40
CHIW0113	03/03/2015 09:45	57.3	42.9	0	0	-57.72	1001	3	23	30	30
CHIW0114	03/03/2015 09:47	40.8	38.9	0	20.3	-6.44	1001	5	0	10	10
CHIW0115	03/03/2015 09:49	38.5	35	0.7	25.8	-15.53	1001	0	5	20	20
CHIW0076	03/03/2015 09:51	49.4	40.6	0	10	-50.72	1001	2	24	20	20
CHIW0117	03/03/2015 09:54	56	42	0	2	-49.79	1001	0	0	20	20
CHIR0041	03/03/2015 09:56	43.9	38.5	0	17.6	-38.8	1000	1	15	20	20
CHIW0118	03/03/2015 09:58	47	39.1	0	13.9	-50.42	1000	7	0	30	30
CHIW0021	03/03/2015 10:00	55.5	42.1	0.4	2	-76.57	1000	0	0	30	20
CHIW0021	03/03/2015 10:03	55.4	43.3	0	1.3	-49.79	1000	0	0	20	20
CHIR0040	03/03/2015 10:05	50.8	40.9	0	8.3	-32.85	1001	0	0	20	30
CHIR0040	03/03/2015 10:07	51.1	40.9	0	8	-41.83	1001	0	0	30	30
CHIR0037	03/03/2015 10:13	55.5	41.1	0.8	2.6	-37.06	1001	2	8	30	50
CHIR0037	03/03/2015 10:15	55.9	42	0.2	1.9	-46.57	1001	2	3	50	50
CHIW02AR	03/03/2015 10:18	7.4	8.4	19	65.2	-2.72	1001	0	0	0	0
CHIW0116	03/03/2015 10:21	55.3	42.6	0	2.1	-48.84	1000	1	0	30	30
CHIW0087	03/03/2015 10:24	49.5	42.1	0	8.4	-56.86	1001	2	0	40	30

Well ID	Date & Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mb)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
CHIW0087	03/03/2015 10:26	49.3	42.3	0	8.4	-49.6	1001	2	0	30	30
CHIR0077	03/03/2015 10:28	57.3	43.2	0	0	-47.75	1001	1	0	40	40
CHIR0074	03/03/2015 10:31	56.2	44.2	0	0	-50.17	1001	1	2	20	20
CHIW0086	03/03/2015 10:33	58.3	41.9	0.5	0	-47.38	1001	2	0	20	20
CHIW0119	03/03/2015 10:35	58.8	41.9	0	0	-17.78	1003	1	0	20	30
CHIW0119	03/03/2015 10:37	57.9	42.3	0	0	-22.26	1003	1	0	30	30
CHIW0084	03/03/2015 10:41	59	40.1	0	0.9	-45.24	1002	0	0	20	30
CHIW0084	03/03/2015 10:43	58.2	40.8	0	1	-49.77	1002	0	0	30	30
CHIW0085	03/03/2015 10:46	47.5	41.2	0	11.3	-6.87	1003	1	0	20	20
CHIW0056	03/03/2015 10:49	57.4	40.1	0.2	2.3	-10.66	1001	0	0	10	20
CHIW0056	03/03/2015 10:51	58	42.3	0	0	-22.72	1001	4	0	20	20
CHIW0039	03/03/2015 10:53	55.7	44.8	0	0	-46.77	1001	0	0	10	10
CHIW0064	03/03/2015 10:55	44.1	38.4	0.8	16.7	-12.38	1002	0	0	10	10
CHIW0065	03/03/2015 10:58	49.9	40.8	0	9.3	-29.39	1001	0	0	30	40
CHIW0065	03/03/2015 10:59	49.7	41.6	0	8.7	-33.31	1001	0	0	30	30
CHIW0109	05/03/2015 10:43	18.4	25.6	1.1	54.9	-14.19	1025	1	0	5	5
CHIW0108	05/03/2015 10:44	0	2.1	20.4	77.5	-1.36	1027	0	0	1	0
CHIW0108	05/03/2015 10:46	0	1.1	20.9	78	-0.95	1027	0	0	0	0
CHILMP01	05/03/2015 10:48	63.9	37.1	0	0	-12.14	1026	0	0	10	10
CHIW0107	05/03/2015 10:49	22.5	21	10.3	46.2	-3.01	1026	0	0	1	1
CHIW0106	05/03/2015 10:52	43.8	41	0.3	14.9	-21.66	1027	0	0	20	20
CHIW0105	05/03/2015 10:54	14.7	31.2	0.1	54	-14.89	1028	0	0	10	0
CHIW0105	05/03/2015 10:55	14.5	32	0	53.5	-14.77	1028	0	0	0	0
CHIW0001	05/03/2015 11:00	38.3	33.8	1	26.9	-45.59	1027	0	0	10	10
CHIW0028	05/03/2015 11:04	17.2	21.6	8.4	52.8	-41.28	1027	4	0	10	0
CHIW0028	05/03/2015 11:06	9.5	15.3	10.6	64.6	-37.49	1027	2	0	0	0
CHIW0003	05/03/2015 11:12	43.1	34.1	0.6	22.2	-54.02	1026	0	0	10	10
CHIW0029	05/03/2015 11:13	41.2	35.4	0.5	22.9	-51.8	1026	0	0	10	10
CHIW0007	05/03/2015 11:16	35.1	28.7	2.5	33.7	-32.67	1027	0	0	10	5

Well ID	Date & Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mb)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
CHIW0007	05/03/2015 11:17	29.8	26.1	3.5	40.6	-30.97	1027	0	0	0	0
CHIW0030	05/03/2015 11:23	53.1	36.1	0.3	10.5	-31.69	1028	0	0	10	10
CHIW0018	05/03/2015 11:26	35.4	35.5	0	29.1	-30.04	1026	3	0	5	5
CHIWA10R	05/03/2015 11:28	52.5	40.6	0	6.9	-30.99	1025	5	0	5	5
CHIW0104	05/03/2015 11:31	31.7	32.1	0	36.2	-17.23	1026	0	0	20	10
CHIW0104	05/03/2015 11:32	31.7	32.1	0	36.2	-15.37	1026	0	0	10	10
CHIW0103	05/03/2015 11:34	15.7	25.7	0.3	58.3	-13.41	1026	0	0	0	0
CHIW0094	05/03/2015 13:18	6.8	8.2	15	70	-23.03	1027	0	0	0	0
CHIW0095	05/03/2015 13:20	23.6	18.2	10.7	47.5	-19.37	1029	0	0	0	0
CHIW0096	05/03/2015 13:22	0	1.4	20	78.6	-10.14	1030	0	0	0	0
CHIW0097	05/03/2015 13:25	1.7	2	19.9	76.4	-18.58	1029	0	0	0	0
CHIW0098	05/03/2015 13:42	43.8	31.9	0.3	24	-25.39	1031	0	0	20	20
CHIW0099	05/03/2015 13:44	53.7	37.2	0.8	8.3	-28.53	1029	0	0	30	30
CHIW0100	05/03/2015 13:46	32.6	33.3	0	34.1	-22.6	1030	0	0	20	10
CHIW0100	05/03/2015 13:48	34.5	34.9	0	30.6	-17.61	1030	0	0	10	10
CHIW0101	05/03/2015 13:51	34.2	35.6	0	30.2	-8.57	1029	0	0	10	10
CHIW0102	05/03/2015 13:53	0	1.2	20.9	76.6	-6.28	1029	0	0	0	0
CHIW0048	05/03/2015 13:55	0.3	3.7	20.9	74.5	-8.45	1026	0	0	0	0
CHIW0067	05/03/2015 13:57	13.6	12.2	11.8	62.4	-9.49	1026	0	0	0	0
CHIW0068	05/03/2015 14:00	44.1	37.6	0	18.3	-9.3	1027	5	0	10	10
CHIW0093	05/03/2015 14:02	44.5	38.9	0	16.6	-15.82	1027	3	0	10	10
CHIW0075	05/03/2015 14:04	4.7	20.3	14.1	60.9	0.43	1026	32	0	0	0
CHILW06R	05/03/2015 14:06	53.8	37.8	1.8	6.6	-77.11	1026	0	0	1	1
CHIW0110	05/03/2015 14:09	55.3	44.1	0	0.6	-55.71	1028	10	0	10	10
CHIW0091	05/03/2015 14:11	57.6	43.5	0	0	-22.28	1026	0	0	10	20
CHIW0091	05/03/2015 14:13	57.3	43.8	0	0	-23.81	1026	0	0	20	20
CHILW07B	05/03/2015 14:17	53.8	39.2	0.6	6.4	-47.12	1027	7	0	10	10
CHIW0073	05/03/2015 14:19	56.3	44.3	0	0	-68.38	1026	0	0	10	10
CHIW0083	05/03/2015 14:22	21.1	16	13.8	49.1	-19.78	1027	0	0	0	0

Well ID	Date & Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mb)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
CHIW0088	05/03/2015 14:24	57.3	43.7	0	0	-16.53	1026	2	3	10	20
CHIW0088	05/03/2015 14:26	56.3	44.9	0	0	-48.62	1026	2	14	20	20
CHIW0089	05/03/2015 14:29	55.1	44.8	0	0.1	-48.62	1027	3	0	10	10
CHIR0071	05/03/2015 14:31	58.1	43	0	0	-74.52	1028	3	0	20	10
CHIR0071	05/03/2015 14:32	58.1	42.9	0	0	-59.98	1028	3	0	10	10
CHIW0090	05/03/2015 14:35	58.3	43.4	0	0	-64.38	1027	3	46	20	10
CHIW0090	05/03/2015 14:37	58	43.9	0	0	-56.31	1027	2	39	10	10
CHILRIS1	11/03/2015 10:04	70.9	30.5	0.1	0	-0.46	1014	0	0	1	1
CHILRIS2	11/03/2015 10:06	24	16.8	11.6	47.6	-0.41	1016	0	0	1	1
CHIW0081	11/03/2015 13:34	63.8	36.9	1	0	-57.41	1013	0	0	10	10
CHIW0090	11/03/2015 13:37	58.2	43.2	0	0	31.49	1013	8	16	0	10
CHIW0090	11/03/2015 13:38	57.6	43.5	0	0	-5.15	1013	7	19	10	10
CHIR0071	11/03/2015 13:41	58.7	42.5	0	0	-8.93	1013	8	4	5	10
CHIR0071	11/03/2015 13:42	58.6	42.8	0	0	-36.86	1013	9	23	10	10
CHIR0070	11/03/2015 13:44	59.5	41.6	0.1	0	-34.67	1014	3	2	10	20
CHIR0070	11/03/2015 13:45	58.8	42.6	0	0	-49.29	1014	3	1	20	20
CHIR0069	11/03/2015 13:48	58	43.3	0	0	-32.52	1013	2	0	20	20
CHIR0055	11/03/2015 13:51	59.8	41.7	0	0	-37.65	1014	1	14	20	30
CHIR0055	11/03/2015 13:52	59.7	41.9	0	0	-42.42	1014	1	5	20	20
CHIW0092	11/03/2015 14:48	46.1	34.1	0.6	19.2	-21.4	1011	0	0	20	20
CHIP0110	11/03/2015 14:50	0.2	3.2	20.4	76.2	-0.15	1013	0	0	1	1
CHIW0078	11/03/2015 14:51	50.3	36.9	0.5	12.3	-60.41	1013	1	0	10	10
CHIP0111	11/03/2015 14:53	62	38.9	0	0	-27.73	1013	0	0	10	10
CHIW0079	11/03/2015 14:56	58.4	42.3	0	0	-42.59	1013	1	0	30	30
CHILMP02	11/03/2015 14:58	1.9	6.9	19.8	71.4	-8.76	1014	0	0	1	1
CHIP0112	11/03/2015 15:01	61.5	37.5	0.1	0.9	-11.6	1013	0	0	10	10
CHIW0080	11/03/2015 15:03	57.1	43.8	0	0	-62.9	1014	2	0	20	10
CHIW0080	11/03/2015 15:04	56.9	44	0	0	-59.53	1014	2	0	10	10
CHIW0082	19/03/2015 10:50	43	33.6	0.2	23.2	-35.74	1025	0	0	20	20

Well ID	Date & Time	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Press (mb)	CO (ppm)	H2S (ppm)	Original Valve (%)	Depart Valve (%)
CHIW0066	19/03/2015 11:02	54.6	39.7	0.1	5.6	-11.72	1026	1	0	10	10
CHIW0057	19/03/2015 11:04	43.2	34	0	22.8	-20.64	1026	6	0	10	10
CHIW0044	19/03/2015 11:06	3.3	16.2	12.8	67.7	-0.31	1026	0	0	0	0
CHILC01B	19/03/2015 11:54	68.1	33.1	0	0	-0.31	1023	0	0	10	10
CHILWM4B	19/03/2015 12:01	40.2	33.7	5.2	20.9	-62.77	1025	0	0	1	1
CHILW4AR	19/03/2015 12:03	64	37	0	0	-7.08	1026	0	0	10	10
CHILW5BR	19/03/2015 12:06	60.6	38.7	0.2	0.5	-48.27	1024	0	0	10	10
CHILW05A	19/03/2015 12:09	32.4	22.1	10.6	34.9	-69.89	1024	0	0	1	1

APPENDIX 4

Leachate Level Data

Pen-Y-Bont Leachate Level Data - January to March 2015



From : 30/01/2015
To : 27/03/2015

30/01/2015

Sample Point	Depth of Liq (m)	Dip to Water (m)	TD (m)	Water Level (mAOD)
LC0003	0.79	5.6	6.36	64.80
LC01B	0.98	50.22	51.12	41.62
LM04B	0.97	49.44	50.41	41.60
LM05B	0.92	49.55	50.35	41.50
LM07B	0.91	40.08	41.01	40.51
PBLC004B	0.92	49.48	50.38	41.74
PBLC5B	0.94	47.73	48.59	42.17
PBLM6B	0.93	47.01	47.92	41.40

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Pen-Y-Bont Leachate Level Data - January to March 2015



From : 30/01/2015
To : 27/03/2015

26/02/2015

Sample Point	Depth of Liq (m)	Dip to Water (m)	TD (m)	Water Level (mAOD)
LC0003	0.70	5.69	6.36	64.71
LC01B	0.93	50.27	51.12	41.57
LM04B	0.95	49.46	50.41	41.58
LM05B	0.90	49.57	50.35	41.48
LM07B	0.91	40.08	41.01	40.51
PBLC004B	0.91	49.49	50.38	41.73
PBLC5B	0.94	47.73	48.59	42.17
PBLM6B	0.98	46.96	47.92	41.45

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Pen-Y-Bont Leachate Level Data - January to March 2015



From : 30/01/2015

To : 27/03/2015

27/03/2015

Sample Point	Depth of Liq (m)	Dip to Water (m)	TD (m)	Water Level (mAOD)
LC0003	0.40	5.99	6.36	64.41
LC01B	0.93	50.27	51.06	41.57
LM04B	0.90	49.06	49.95	41.53
LM05B	0.88	50.22	51.07	41.46
LM07B	0.53	39.88	40.44	40.13
PBLC004B	0.83	48.49	49.31	41.65
PBLC5B	0.92	48.35	49.23	42.15
PBLM6B	0.90	45.79	46.7	41.37

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APPENDIX 5

Leachate Quality Data

Pen-Y-Bont Quarterly Leachate Quality Data - February 2015



From : 19/02/2015
To : 19/02/2015

19/02/2015

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)
LC0003	11400	1410	485	64	<0.001	704	1800	21500	19000	0.04
LC01B	19800	2070	2340	36	<0.001	2050	8000	29600	>20000	0.323
LM04B	23400	3870	38760	<100	<0.001	2450	26700	39900	>20000	0.652
LM05B	25000	3040	24450	<100	<0.001	2090	24500	35800	>20000	0.666
LM07B	21400	2430	7510	<100	<0.001	1790	16400	31000	>20000	0.57
PBLC004B	23200	3860	42750	<100	<0.001	2590	35800	39700	>20000	0.645
PBLC5B	25100	3530	18300	<100	<0.001	2310	23000	35700	>20000	0.668
PBLM6B	18100	2540	11900	<100	<0.001	1890	15700	30100	>20000	0.609

Sample Point	Cu(D) (mg/l)	Fe(D) (mg/l)	Hg (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)
LC0003	<0.01	1.01	<0.001	377	77	0.158	0.102	<0.01	7.8	7.72
LC01B	0.018	5.09	<0.001	1170	62	0.075	0.356	<0.01	8	7.5
LM04B	0.137	4.88	<0.001	1319	<100	0.075	0.377	0.111	8.3	8.32
LM05B	0.182	6.01	<0.001	1197	<100	0.046	0.396	0.244	8.4	7.78
LM07B	0.153	4.38	<0.001	983	<100	0.166	0.298	0.092	8.1	7.54
PBLC004B	0.127	5.01	<0.001	1365	<100	0.061	0.376	0.089	8.2	8.36
PBLC5B	0.224	5.8	<0.001	1162	<100	0.051	0.398	0.231	8.3	7.84
PBLM6B	0.499	4.39	<0.001	933	<100	0.179	0.336	0.094	8.2	7.9

Sample Point	Na(D) (mg/l)	TOC (mg/l)	TON (mg/l)	Total S(D) SO4:mg/l	WtrTemp (Deg C)	Zn(D) (mg/l)
LC0003	852	500	1.1	66	14.2	<0.02
LC01B	2750	2200	0.9	139	35.7	0.169
LM04B	3318	13000	<0.2	<300	10.7	0.187
LM05B	3063	6900	<0.2	<300	36.4	0.166
LM07B	2558	5200	<0.2	<300	33.9	0.175
PBLC004B	3434	12000	<0.2	<300	10.4	0.183
PBLC5B	2975	7100	<0.2	<300	34.3	0.458
PBLM6B	2444	5100	<0.2	<300	20.4	0.319

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APPENDIX 6

Groundwater Quality Data

Pen-Y-Bont Groundwater Quality Data - January to March 2015



From : 21/01/2015

To : 17/03/2015

21/01/2015

Sample Point	Amm-N (N:mg/l)	BOD (mg/l)	Chloride (mg/l)	COD (mg/l)	Cond (uS / cm)	Cond(Fld) (uS / cm)	Dip to Water (m)
PBBH0001	<0.01	<2.0	26	9	467	500	15.3
PBBH0002	0.16	<2.0	20	7	739	790	2.75
PBBH0003	0.3	<2.0	46	6	1120	1180	7.47
PBBH0004	0.5	<2.0	125	11	1420	1570	0.92
PBBH0005	0.2	<2.0	35	<5	754	810	6.56
PBBH0007	4.9	89.8	65	34	905	960	20.31
PBBH0008	0.13	3.4	20	10	700	730	13.93
PBBH0009	0.01	<2.0	21	7	1470	1580	22.1
PBBH0010	0.15	2.5	18	8	731	770	22.04
PBBH0011	0.11	<2.0	32	6	1130	1260	2.64
PBBH0012	2.9	4.2	372	17	5600	6440	0
PBBH0013	0.3	<2.0	149	21	2290	2510	1.03
PBBH0014	0.15	3.5	187	7	1740	1970	15.04
PBBH003A	0.3	2.1	58	5	1020	1120	6.77
PBT00001	0.01	<2.0	20	11	729	810	1.07
PBT00002	<0.01	<2.0	15	10	1250	1440	1.74
PBT00003	0.11	<2.0	43	11	1510	1620	2.02
PBT00004	<0.01	<2.0	20	7	1070	1200	1.7
PBT00005	<0.01	<2.0	45	8	1060	1200	1.6
PBT00006	0.01	<2.0	76	14	1430	1610	1.89
PBT00007	<0.01	<2.0	37	7	690	790	1.5
PBT00008	1.3	<2.0	57	23	1640	1870	0.88
PBT00009	1.2	<2.0	57	19	1410	1620	1.77
PBT00010	1.2	2.8	80	9	2370	2670	5.03
PBT00011	0.6	3.4	84	18	970	1110	7.25
PBT00012	0.14	<2.0	79	16	1490	1710	0.8
PBT00013	0.8	<2.0	72	12	1580	1850	1.06

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Pen-Y-Bont Groundwater Quality Data - January to March 2015



From : 21/01/2015

To : 17/03/2015

21/01/2015

Sample Point	DO(Lab) (mg/l)	pH (Lab)	pH(Fld)	TD (m)	Water Level (mAOD)	WtrTemp (Deg C)
PBBH0001	5.7	7.5	6.63	27.76	60.10	8.8
PBBH0002	4.4	7.4	7.26	8.33	74.30	8.1
PBBH0003	9.7	8.7	8.72	16.26	47.53	8.2
PBBH0004	4.5	7.7	7.45	20.1	53.72	8.5
PBBH0005	5	7.4	7.18	12.04	47.34	8.4
PBBH0007	3.8	7.7	8.31	38.27	54.88	9
PBBH0008	7.9	7.7	7.27	47.46	70.43	8.3
PBBH0009	7	7.4	6.97	39.73	55.86	9
PBBH0010	5.8	7.4	7.35	36.84	52.20	9.3
PBBH0011	4	7	6.95	18.06	52.64	8.3
PBBH0012	1.2	6.9	6.65	16.95	54.09	8.9
PBBH0013	4.7	7.2	7.34	15.85	51.82	8.5
PBBH0014	4.2	7.2	6.98	35.44	57.47	9.2
PBBH003A	2.5	8.4	8.43	20.4	48.23	8.1
PBT00001	7.6	7.3	7.09	3.9	55.41	6.6
PBT00002	5.8	7.2	7.08	4.05	53.26	7
PBT00003	6.1	7.1	6.84	5.02	53.39	6.8
PBT00004	7.8	7.4	7.56	3.99	53.60	6.8
PBT00005	7.5	7.6	7.25	5.16	53.50	7.3
PBT00006	7.3	7.1	6.89	5.68	53.01	7.5
PBT00007	6.1	7.2	7.22	4.86	53.30	7.4
PBT00008	5.2	7	7	4.4	53.81	7.9
PBT00009	4.8	7.2	6.78	4.45	52.98	8.1
PBT00010	4.4	6.6	6.53	6.32	52.91	9.3
PBT00011	3.8	6.8	6.78	10.45	52.87	8.6
PBT00012	4.8	6.7	6.83	3.73	52.20	7
PBT00013	4	6.9	6.69	4.68	52.84	7.7

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From : 21/01/2015

To : 17/03/2015

18/02/2015

Sample Point	Alk (CaCO ₃ :mg/l)	Amm-N (N:mg/l)	BOD (mg/l)	Ca(D) (mg/l)	Chloride (mg/l)	COD (mg/l)	Cr(D) (mg/l)
PBBH0001	156	<0.01	<2.0	65	28	<5	<0.001
PBBH0002	352	0.12	<2.0	105	21	<5	<0.001
PBBH0003	563	0.3	<2.0	2	49	<5	<0.001
PBBH0004	586	0.2	<2.0	35	119	6	<0.001
PBBH0005	374	0.2	<2.0	35	37	<5	<0.001
PBBH0007	420	0.4	<2.0	3	66	<5	<0.001
PBBH0008	356	0.13	<2.0	15	24	<5	<0.001
PBBH0009	327	<0.01	<2.0	195	25	<5	<0.001
PBBH0010	291	0.11	<2.0	44	20	<5	<0.001
PBBH0011	231	0.05	<2.0	130	31	<5	<0.001
PBBH0012	955	3.1	2.2	370	384	15	<0.001
PBBH0013	334	0.4	<2.0	155	136	12	<0.001
PBBH0014	484	0.13	<2.0	190	187	<5	<0.001
PBBH003A	528	0.22	<2.0	4	57	<5	<0.001
PBT00001	162	<0.01	<2.0	125	20	6	<0.001
PBT00002	134	<0.01	<2.0	220	15	<5	<0.001
PBT00003	280	0.19	<2.0	220	47	7	<0.001
PBT00004	120	<0.01	<2.0	150	40	<5	<0.001
PBT00005	356	<0.01	<2.0	215	52	7	<0.001
PBT00006	370	<0.01	<2.0	205	67	10	<0.001
PBT00007	216	<0.01	<2.0	120	38	7	<0.001
PBT00008	218	0.8	<2.0	265	56	19	<0.001
PBT00009	381	1.2	<2.0	260	58	22	<0.001
PBT00010	227	1	<2.0	335	82	<5	<0.001
PBT00011	316	1.1	9.2	53	80	32	<0.001
PBT00012	210	0.13	<2.0	275	82	13	<0.001
PBT00013	415	0.9	<2.0	235	72	13	<0.001

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Sample Point	Cond (uS / cm)	Cond(Fld) (uS / cm)	Dip to Water (m)	DO(Lab) (mg/l)	Mg(D) (mg/l)	Pb(D) (mg/l)	pH(Fld)
PBBH0001	476	500	15.18	7.9	10	<0.001	6.57
PBBH0002	748	820	2.66	5.8	22	<0.001	7.35
PBBH0003	1090	1200	7.8	5.1	<1	<0.001	8.79
PBBH0004	1440	1570	0.92	5.1	4	<0.001	7.46
PBBH0005	750	820	7	4.2	13	<0.001	7.28
PBBH0007	863	950	20.44	4	<1	<0.001	8.17
PBBH0008	700	760	14.05	4.4	3	<0.001	7.38
PBBH0009	1520	1630	22.7	7.4	48	<0.001	7.04
PBBH0010	647	750	22.62	4.1	11	<0.001	7.53
PBBH0011	1130	1290	2.83	4.8	24	<0.001	6.92
PBBH0012	6430	6440	0	0.5	89	<0.001	6.72
PBBH0013	2230	2390	1.2	5.6	17	<0.001	7.28
PBBH0014	1760	1890	14.84	3.6	41	<0.001	6.83
PBBH003A	1020	1130	7.11	0.5	<1	<0.001	8.54
PBT00001	689	770	1.32	6.6	13	<0.001	7.16
PBT00002	1540	1710	1.95	6.3	58	<0.001	7.16
PBT00003	1590	1750	2.36	5.2	39	<0.001	7.09
PBT00004	1020	1120	1.93	5.9	34	<0.001	7.6
PBT00005	1270	1440	1.71	7.6	30	<0.001	7.26
PBT00006	1250	1400	2.01	6	27	<0.001	6.8
PBT00007	774	850	1.61	6.8	12	<0.001	7.02
PBT00008	1600	1780	1.2	5.3	32	<0.001	7.04
PBT00009	1500	1640	2.02	3.8	34	<0.001	6.81
PBT00010	2340	2590	5.14	2.6	89	<0.001	6.52
PBT00011	943	1100	7.35	1.1	50	<0.001	6.81
PBT00012	1640	1810	0.89	4.2	39	<0.001	6.9
PBT00013	1750	1980	1.16	3.3	65	<0.001	6.81

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Sample Point	K(D) (mg/l)	pH (Lab)	TD (m)	TOC (mg/l)	TON (mg/l)	Total S(D) SO4:mg/l	TPH >C24-C40 (UG/L)
PBBH0001	6	6.9	27.76	2.5	5.8	41	
PBBH0002	7	7.2	8.33	2	<0.2	70	
PBBH0003	3	8.5	16.26	1.8	<0.2	32	
PBBH0004	6	7.6	20.1	4	0.5	64	
PBBH0005	6	7.3	12.04	0.93	<0.2	34	
PBBH0007	4	8.2	38.27	0.71	<0.2	<3	
PBBH0008	7	7.6	47.46	1.4	0.2	24	
PBBH0009	10	7.2	39.73	1.7	0.4	550	
PBBH0010	8	7.3	36.84	2.4	0.3	70	
PBBH0011	9	6.9	18.06	3.9	0.6	405	
PBBH0012	48	6.8	16.95	5.7	<0.2	2450	
PBBH0013	13	7.1	15.85	7.5	<0.2	750	
PBBH0014	7	7	35.44	3.3	<0.2	245	0.05
PBBH003A	3	8.5	20.4	2.2	<0.2	<3	
PBT00001	4	7.1	3.9	4.4	2	190	
PBT00002	10	7	4.05	4	<0.2	800	
PBT00003	9	6.9	5.02	5.5	0.2	610	
PBT00004	7	7	3.99	4.1	0.6	395	
PBT00005	5	7.3	5.16	4.1	4.4	340	
PBT00006	4	6.9	5.68	6.5	5.9	275	
PBT00007	5	6.8	4.86	2.3	1.8	155	
PBT00008	12	7	4.4	8.1	1.4	700	
PBT00009	6	7.7	4.45	7.2	<0.2	480	
PBT00010	28	6.7	6.32	2.1	<0.2	1160	
PBT00011	3	6.7	10.45	12	<0.2	97	
PBT00012	7	7.4	3.73	5.7	1.6	690	
PBT00013	10	7.3	4.68	4.3	<0.2	610	

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Sample Point	Water Level (mAOD)	WtrTemp (Deg C)
PBBH0001	60.22	10.7
PBBH0002	74.39	10
PBBH0003	47.20	9.7
PBBH0004	53.72	9.8
PBBH0005	46.90	10.1
PBBH0007	54.75	11.1
PBBH0008	70.31	10
PBBH0009	55.26	11.5
PBBH0010	51.62	10.2
PBBH0011	52.45	9.8
PBBH0012	54.09	10.6
PBBH0013	51.65	9.8
PBBH0014	57.67	10.9
PBBH003A	47.89	9.9
PBT00001	55.16	7.1
PBT00002	53.05	7.7
PBT00003	53.05	8.2
PBT00004	53.37	7.5
PBT00005	53.39	7.9
PBT00006	52.89	8.5
PBT00007	53.19	8
PBT00008	53.49	8.5
PBT00009	52.73	9.4
PBT00010	52.80	11.1
PBT00011	52.77	10.7
PBT00012	52.11	8.8
PBT00013	52.74	9

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Sample Point	Amm-N (N:mg/l)	BOD (mg/l)	Chloride (mg/l)	COD (mg/l)	Cond (uS / cm)	Cond(Fld) (uS / cm)	Dip to Water (m)
PBBH0001	0.05	<2.0	19	11	508	490	15.1
PBBH0002	0.01	<2.0	16	10	745	820	2.54
PBBH0003	0.3	<2.0	43	8	1200	1170	7.62
PBBH0004	0.18	<2.9	115	16	1540	1560	0.91
PBBH0005	0.2	<2.0	33	5	833	850	6.92
PBBH0007	0.4	<2.9	59	5	975	940	20.5
PBBH0008	0.19	6.1	16	6	770	740	14.14
PBBH0009	<0.01	<2.9	19	10	1350	1360	22.22
PBBH0010	0.03	<2.9	14	8	810	790	22.24
PBBH0011	0.03	<2.9	29	13	1260	1240	2.64
PBBH0012	3.1	3.9	388	22	6800	6430	0
PBBH0013	0.4	<2.9	119	18	2460	2440	1.32
PBBH0014	0.14	<2.9	171	11	1900	1910	14.89
PBBH003A	0.22	<2.9	54	10	1170	1130	7
PBT00001	<0.01	<2.9	18	13	800	810	1.39
PBT00002	<0.01	<2.0	14	13	1880	1880	1.56
PBT00003	0.07	<2.0	35	16	1660	1600	2.03
PBT00004	0.01	<2.0	20	9	1290	1290	1.64
PBT00005	<0.01	<2.0	50	10	1310	1430	1.58
PBT00006	<0.01	<3.6	78	17	1630	1610	1.89
PBT00007	0.03	<2.9	42	7	869	870	1.51
PBT00008	0.7	<2.0	59	23	1700	1720	0.66
PBT00009	1.5	<2.0	52	15	1580	1640	1.75
PBT00010	0.9	3.6	75	7	2570	2630	5.03
PBT00011	0.6	3.7	92	12	160	1280	7.25
PBT00012	0.18	<2.0	92	13	1950	1970	0.79
PBT00013	1	<2.9	67	12	1950	2000	1.07

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Pen-Y-Bont Groundwater Quality Data - January to March 2015



From : 21/01/2015
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Sample Point	DO(Lab) (mg/l)	pH (Lab)	pH(Fld)	TD (m)	Water Level (mAOD)	WtrTemp (Deg C)
PBBH0001	10.6	8	6.83	27.76	60.30	10.1
PBBH0002	6.1	7.9	7.36	8.33	74.51	10
PBBH0003	6.1	8.7	8.82	16.26	47.38	9.3
PBBH0004	4.2	8.5	7.49	20.1	53.73	9.4
PBBH0005	8.6	8.3	7.26	12.04	46.98	9.2
PBBH0007	4.3	8.5	8.26	38.27	54.69	10.3
PBBH0008	7.3	8.3	7.32	47.46	70.22	10.2
PBBH0009	8.2	7.7	7.03	39.73	55.74	11.5
PBBH0010	6.9	8.1	7.47	36.84	52.00	10.3
PBBH0011	5.9	7.8	7.18	18.06	52.64	9.5
PBBH0012	2.6	7.4	6.67	16.95	54.09	10
PBBH0013	5.3	8.1	7.45	15.85	51.53	9.1
PBBH0014	5.1	7.4	6.9	35.44	57.62	10.5
PBBH003A	1.9	8.6	8.58	20.4	48.00	9.4
PBT00001	9.6	7.8	7.24	3.9	55.09	6.9
PBT00002	6.2	7.8	7.25	4.05	53.44	7.4
PBT00003	8.2	8	7.19	5.02	53.38	7.4
PBT00004	7.7	7.7	7.51	3.99	53.66	7.2
PBT00005	11.5	7.7	7.3	5.16	53.52	7.4
PBT00006	6.7	7.9	6.93	5.68	53.01	7.6
PBT00007	5.7	7.8	7.1	4.86	53.29	7.6
PBT00008	6.9	7.9	7.16	4.4	54.03	7.8
PBT00009	5.1	7.4	6.76	4.45	53.00	8.2
PBT00010	6.1	7.2	6.55	6.32	52.91	10
PBT00011	5.4	7.4	6.81	10.45	52.87	10.1
PBT00012	5.6	7.5	6.76	3.73	52.21	7.4
PBT00013	4.6	7.5	6.7	4.68	52.83	8.2

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APPENDIX 7

Surface Water Quality Data

Pen-Y-Bont Surface Water Quality Data - January to March 2015



From : 21/01/2015

To : 17/03/2015

21/01/2015

Sample Point	Amm-N (N:mg/l)	Chloride (mg/l)	COD (mg/l)	Cond (uS / cm)	Cond(Fld) (uS / cm)	DO(Lab) (mg/l)	pH(Fld)
PBWP0001	0.02	16	12	138	800	12.1	7.64
PBWP0002	0.02	15	13	114	80	12.1	7.94
PBWP0003	0.02	14	10	113	100	12.2	8.1

Sample Point	pH (Lab)	S.Solids (mg/l)	WtrTemp (Deg C)
PBWP0001	7.6	<5	4.8
PBWP0002	7.5	<5	4.7
PBWP0003	7.4	<5	4.4

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Sample Point	Alk (CaCO3:mg/l)	Amm-N (N:mg/l)	Ca(D) (mg/l)	Cd(D) (mg/l)	Chloride (mg/l)	COD (mg/l)	Cr(D) (mg/l)
PBWP0001	24	<0.01	12	<0.0001	14	10	<0.001
PBWP0002	24	<0.01	13	<0.0001	14	8	<0.001
PBWP0003	24	<0.01	13	<0.0001	15	10	<0.001

Sample Point	Cond (uS / cm)	Cond(Fld) (uS / cm)	Cu(D) (mg/l)	DO(Lab) (mg/l)	Fe(D) (mg/l)	Mg(D) (mg/l)	Pb(D) (mg/l)
PBWP0001	121	80	<0.001	10.2	0.09	3	<0.001
PBWP0002	119	140	<0.001	11.4	0.1	3	<0.001
PBWP0003	119	150	<0.001	10.1	0.1	3	<0.001

Sample Point	K(D) (mg/l)	Mn(D) (mg/l)	Na(D) (mg/l)	Ni(D) (mg/l)	o-Phosphate (P:mg/l)	pH (Lab)	pH(Fld)
PBWP0001	<1	0.009	9	<0.001	<0.01	7.4	7.74
PBWP0002	<1	0.009	9	<0.001	<0.01	7.3	8.01
PBWP0003	<1	0.008	9	<0.001	<0.01	7.2	800

Sample Point	S.Solids (mg/l)	TOC (mg/l)	TON (mg/l)	Total S(D) SO4:mg/l	TPH-FTIR (mg/l)	WtrTemp (Deg C)	Zn(D) (mg/l)
PBWP0001	<5	3.6	1	9	<0.3	6	<0.002
PBWP0002	<5	3.7	1	8	<0.3	6.2	<0.002
PBWP0003	<5	3.8	1	8	<0.3	6.5	<0.002

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Sample Point	Amm-N (N:mg/l)	Chloride (mg/l)	COD (mg/l)	Cond (uS / cm)	Cond(Fld) (uS / cm)	DO(Lab) (mg/l)	pH(Fld)
PBWP0001	0.03	15	14	143	100	12.3	7.72
PBWP0002	0.04	15	10	137	80	12	7.87
PBWP0003	0.03	14	13	134	180	11.3	8.09

Sample Point	pH (Lab)	S.Solids (mg/l)	WtrTemp (Deg C)
PBWP0001	7.7	5	6.4
PBWP0002	7.7	<5	6
PBWP0003	7.5	<5	6.2

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