



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

Dear Mr Ross,

Pen-y-Bont Quarter 1 January 2021 to March 2021 Environmental Report

Please find enclosed the report for routine environmental monitoring undertaken at our Pen-y-Bont (Chirk) Landfill Site between January 2021 and March 2021.

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

**Yours sincerely,
For FCC ENVIRONMENT**

A handwritten signature in black ink, appearing to be 'Leon Terrace', written over a horizontal line.

**Leon Terrace
Compliance Advisor, North Wales and Cheshire**



PEN-Y-BONT LANDFILL SITE

PPC PERMIT GP3830BG

QUARTERLY ENVIRONMENTAL MONITORING REPORT

January 2021 to March 2021

**FCC Environment,
Pen-Y-Bont Landfill Site,
Pentre,
LL11 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/V008 (issued on 05/12/19), detailing the results of environmental monitoring undertaken in the first quarter of the year between January 2021 and March 2021 at Pen-y-Bont (Chirk) Landfill Site.

Following from the issue of the new permit on 5th December 2019, with reduced monitoring requirements, the new updated monitoring schedule was due to be implemented in March 2020 to reflect these changes to the sampling regime. This has seen much of the monthly sampling now reduced to quarterly (GW's and SW's) and six monthly (LC's).

2.0 Landfill Gas Migration

Landfill gas monitoring has been undertaken on a monthly basis throughout the review period in accordance with Table S3.5 of the site Permit. All data collected is attached within this report.

There was a single trigger breach of the methane limit of 1% recorded during the review period. This occurred in Borehole T10 which is known to occasionally be affected by the neighbouring borehole T11. Borehole T10 showed CH₄ at 6.3% in February 2021, with borehole T11 showing a reading of 75.2% on the same monitoring round. Please note that borehole T11's methane content is known not to be of landfill origin. We will continue to monitor trends of Methane and CO₂ in all boreholes for early signs of gas migration developing. All other boreholes remained clear of methane throughout the review period.

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

3.0 Water Quality

Water quality is currently 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, WP4 & WP5 (adjacent to the site) along the river. The three lagoons were also added to the monitoring regime in November 2019. All the data for these is available at the end of the report. Monitoring reductions will reduce the number of groundwater sampling points from the current 27, down to 13. The changes to the monitoring reductions will be fully implemented this year.

3.1 Groundwater Quality

Groundwater samples were taken throughout the monitoring period in accordance with Tables S3.4 and S3.10 and results of the monitoring are attached with this report. 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.

In this review period, there were no breaches of the groundwater limits detected from the sampling round carried out in February 2021. We will continue to review all laboratory data for the determinands tested for signs of any increasing trends.

Whenever possible, all groundwater sampling is undertaken consistently on the same day by an Enitial technician, however this is not always practicable and some samples may be taken on a second day of monitoring.

3.2 Surface Water Quality

Surface water sampling was carried out in accordance with Table S3.9 and S3.3 of the site permit during the review period.

There were no elevated concentrations of the determinands tested for from the samples collected that would suggest any impact from the landfilling operations with Ammonium levels consistently below 1.0mg/l and Dissolved Oxygen maintaining healthy concentrations.

3.3 Surface Water Discharge Quality

Surface water emissions sampling was scheduled for surface water discharge points WP4 'Discharge to Grass Plots' and WP5 'Discharge to River Dee'. There has been no discharge through these two locations during this review period.

4.0 Leachate Monitoring

4.1 Leachate Quality

Leachate sampling has been carried out in accordance with the revised Table S3.8 of the latest Permit variation site Permit with leachate sampling now reduced to 6 monthly. Leachate sampling was last completed in November 2020. The next samples are due to be taken in May 2021 and again in November 2021.

Leachate Levels

Leachate levels are monitored on a monthly basis in accordance with the revised Table S3.1, of the recently issued Permit variation GP3830BG/V008. FCC have additionally been taking interim leachate dips which are supplied to NRW via email communication, the interim leachate levels obtained in-house have also been included in this report.

5.0 Landfill Gas Management

Monitoring of the landfill gas extraction system has been completed in accordance with the requirements of Tables S3.2 and S3.7 of the site Permit.

5.1 Flare/Gas Engine Emissions

Annual monitoring of the flare and gas engine emissions for 2020 was carried out in September 2020 in accordance with the IPPC permit. This information was included in the annual report for 2020.

In Waste Gas Quality

In waste gas quality monitoring was completed in accordance with Table S3.7 of the site Permit during the review period.

There were a total of 319 gas readings obtained over the Q1 period. The readings being taken from gas wells, strategic points, leachate chambers and the site gas compound.

Oxygen concentrations in excess of 5% were recorded on 100 occasions, however, most of these readings were from gas wells with their extraction valves closed or having been closed down following field balancing.

There were 3 readings of CO in excess of 100ppm recorded at W113 during this review period, this well is currently under investigation and is being bag sampled, with the results being shared with NRW.

Assessments of air ingress into the system and any other 'Gas Operating Parameter' Breaches are communicated to FCC by our gas contractor, Infinis, on a regular basis and subsequent remediation works are carried out in accordance with the requirements of Table S3.7 of the site Permit.

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

Field log report

Pen-Y-Bont



Chirk Field Logs Report Q1 January-March 2021

08-January-2021

Equipment 01 Last Calibration	24/09/2020
Equipment 01 Serial No.	GA5000 + G503850
Personnel 01	INF01454 Tim.Prosser
Time OFF	12:55
Time ON	10:33
Weather	Sleet

Field log report

Pen-Y-Bont



Chirk Field Logs Report Q1 January-March 2021

11-January-2021

Equipment 01 Calibration Due	26/04/2021
Equipment 01 Last Calibration	26/10/2020
Equipment 01 Serial No.	GA12649
Equipment 01 Type	GA2000
Equipment 02 Serial No.	81115-17
Equipment 02 Type	ATEX Leachate Dip Tape
Ground Conditions	Waterlogged
Personnel 01	D.Beeston
Time OFF	11:30
Time ON	07:45
Weather	Overcast

Field log report

Pen-Y-Bont



Chirk Field Logs Report Q1 January-March 2021

14-January-2021

Equipment 01 Last Calibration	24/09/2020
Equipment 01 Serial No.	GA5000 + G503850
Personnel 01	INF01454 Tim.Prosser
Time OFF	12:05
Time ON	12:05
Weather	Showers

Field log report

Pen-Y-Bont



Chirk Field Logs Report Q1 January-March 2021

01-February-2021

Equipment 01 Calibration Due	26/04/2021
Equipment 01 Last Calibration	26/10/2020
Equipment 01 Serial No.	GA12649
Equipment 01 Type	GA2000
Equipment 02 Serial No.	21115-17
Equipment 02 Type	ATEX Leachate Dip Tape
Ground Conditions	Waterlogged
Personnel 01	D Beeston
Time OFF	12:30
Time ON	08:00
Weather	Overcast

Field log report



Pen-Y-Bont

Chirk Field Logs Report Q1 January-March 2021

02-February-2021

Equipment 01 Serial No.	EP43
Equipment 01 Type	GW Dip Tape
Equipment 02 Serial No.	21115-17
Equipment 02 Type	ATEX Leachate Dip Tape
Ground Conditions	Waterlogged
Personnel 01	D Beeston, J Crawford
Time OFF	14:30
Time ON	08:00
Weather	Overcast

Field log report

Pen-Y-Bont



Chirk Field Logs Report Q1 January-March 2021

04-February-2021

Equipment 01 Last Calibration	24/09/2020
Equipment 01 Serial No.	GA5000 + G503850
Personnel 01	INF01454 Tim.Prosser
Time OFF	14:42
Time ON	09:54
Weather	Overcast

Field log report

Pen-Y-Bont



Chirk Field Logs Report Q1 January-March 2021

11-February-2021

Equipment 01 Last Calibration	23/11/2020
Equipment 01 Serial No.	GA5000 + G503843
Personnel 01	INF01623 isobelle.raynor
Time OFF	14:25
Time ON	09:10
Weather	Cold

Field log report

Pen-Y-Bont



Chirk Field Logs Report Q1 January-March 2021

25-February-2021

Personnel 01	Socotec Lab
Time OFF	00:00
Time ON	00:00
Weather	Unknown

Field log report

Pen-Y-Bont



Chirk Field Logs Report Q1 January-March 2021

04-March-2021

Equipment 01 Last Calibration	19/11/2020
Equipment 01 Serial No.	GA5000 + G503837
Personnel 01	INF01454 Tim.Prosser
Time OFF	14:57
Time ON	09:01
Weather	Overcast

Field log report

Pen-Y-Bont



Chirk Field Logs Report Q1 January-March 2021

10-March-2021

Equipment 01 Last Calibration	25/11/2020
Equipment 01 Serial No.	GA5000 + G500906
Personnel 01	INF01584 Ian.Jones
Time OFF	12:56
Time ON	08:22
Weather	Overcast

Field log report

Pen-Y-Bont



Chirk Field Logs Report Q1 January-March 2021

17-March-2021

Equipment 01 Calibration Due	26/04/2021
Equipment 01 Last Calibration	26/10/2020
Equipment 01 Serial No.	GA12649
Equipment 01 Type	GA2000
Equipment 02 Serial No.	81115-17
Equipment 02 Type	ATEX Leachate Dip Tape
Ground Conditions	Waterlogged
Personnel 01	D.Beeston
Time OFF	10:30
Time ON	08:00
Weather	Sunny

Field log report

Pen-Y-Bont



Chirk Field Logs Report Q1 January-March 2021

23-March-2021

Equipment 01 Last Calibration	19/11/2020
Equipment 01 Serial No.	GA5000 + G503837
Personnel 01	INF01454 Tim.Prosser
Time OFF	15:31
Time ON	10:27
Weather	Overcast

Chirk Borehole Gas Report Q1 January-March 2021



From : 11/01/2021

To : 17/03/2021

11/01/2021

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	Gas Flow (l/hr)	H2S (ppm)	O2 (%v/v)
PBGB00G1	1008	0	0	1	0	0	18.6
PBGB00G2	1009	0	0	3.1	0	0	13.8
PBGB00G3	1010	0	0	2.8	4.7	0	16.2
PBGB00G4	1010	0	0	0.6	0.2	0	19.6
PBGB00G5	1009	0	0	0.3	0	0	19.3
PBGB00G6	1010	0	0	0.4	0	0	19.7
PBGB00G7	1010	0	0	2.8	0	0	16.3
PBGB00G8	1008	0	0	4.6	0	0	9.5
PBGB00G9	1008	0	0	2.5	0	0	13.9
PBGB00G10	1008	0	0	0.8	0	0	18.5
PBGB00G11	1007	0	0	3	0	0	0.8
PBGB00G12	1007	0	0	2.2	0	0	13.3
PBGB00G13	1007	0	0	2.6	0	0	12.1
PBGB00G14	1007	0	0	1	0	0	18.2
PBGB00G15	1008	0	0	3.5	0	0	15.4
PBGB00G16	1008	0	0	2.1	0	0	17.2
PBGB00G17	1009	0	0	4.1	0	0	15.4

Sample Point	Rel Press (mBar)
PBGB00G1	0
PBGB00G2	0
PBGB00G3	8.19
PBGB00G4	0.4
PBGB00G5	-0.09
PBGB00G6	-0.03
PBGB00G7	-0.13
PBGB00G8	0.17
PBGB00G9	0.18
PBGB00G10	0.17
PBGB00G11	0.26
PBGB00G12	0.09
PBGB00G13	0.08
PBGB00G14	-0.01
PBGB00G15	0
PBGB00G16	-0.1
PBGB00G17	-0.02

Issued By:

Chirk Borehole Gas Report Q1 January-March 2021



From : 11/01/2021

To : 17/03/2021

01/02/2021

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	Gas Flow (l/hr)	H2S (ppm)	O2 (%v/v)
PBGB00G1	994	0	0	1.3	0	0	19
PBGB00G2	994	0	0	1.4	0	0	19
PBGB00G3	994	0	0	2.7	7.6	0	16.4
PBGB00G4	994	0	0	0.4	0	0	20.5
PBGB00G5	994	0	0	0.1	0.1	0	20.7
PBGB00G6	994	0	0	0.5	0	0	20.4
PBGB00G7	995	0	0	1.9	0	0	17.3
PBGB00G8	992	0	0	4.9	0	0	10.6
PBGB00G9	992	0	0	2	-0.1	0	15
PBGB00G10	992	0	0	2.2	-0.5	0	14.2
PBGB00G11	990	0	0	2.8	0	0	0.5
PBGB00G12	990	0	0	2.2	11.8	0	11.4
PBGB00G13	991	0	0	2	0	0	11.4
PBGB00G14	991	0	0	1.5	0	0	17.6
PBGB00G15	991	0	0	1.9	0	0	16.3
PBGB00G16	991	0	0	1.7	0	0	18.1
PBGB00G17	991	0	0	2	0	0	19.3
PBT00001	995	0	0	0.1	0	0	20.5
PBT00002	997	0	0	0.1	0	0	20.5
PBT00003	997	0	0	0	0.1	0	20.5
PBT00004	997	0	0	0.1	0	0	20.5
PBT00005	998	0	0	0	0	0	20.6
PBT00006	998	0	0	0.1	0	0	20.6
PBT00007	998	0	0	1.8	0	0	18.9
PBT00008	998	0	0	0.1	0	0	20.5
PBT00009	998	0	0	6.1	5.8	0	17.2
PBT00010	998	6.3	0	10.7	2.6	0	0.9
PBT00011	997	75.2	0	8.6	3.8	1	1.3
PBT00012	997	0	0	0	0	0	20.1
PBT00013	997	0	0	0	0	0	19.9

Issued By:

From : 11/01/2021

To : 17/03/2021

01/02/2021

Sample Point	Rel Press (mBar)
PBGB00G1	0.04
PBGB00G2	0.05
PBGB00G3	16.09
PBGB00G4	-0.04
PBGB00G5	0.34
PBGB00G6	0.03
PBGB00G7	0.01
PBGB00G8	0.09
PBGB00G9	-0.08
PBGB00G10	-0.89
PBGB00G11	0.01
PBGB00G12	26.27
PBGB00G13	0.08
PBGB00G14	0.1
PBGB00G15	0.09
PBGB00G16	0.05
PBGB00G17	0.11
PBT00001	0.18
PBT00002	0
PBT00003	0.01
PBT00004	0
PBT00005	0
PBT00006	0.02
PBT00007	0.07
PBT00008	0.03
PBT00009	9.57
PBT00010	3.55
PBT00011	5.94
PBT00012	-0.02
PBT00013	0

Issued By:

Chirk Borehole Gas Report Q1 January-March 2021



From : 11/01/2021

To : 17/03/2021

17/03/2021

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	Gas Flow (l/hr)	H2S (ppm)	O2 (%v/v)
PBGB00G1	1027	0	0	1.3	0	0	18.5
PBGB00G2	1028	0	0	2.1	0	0	18.4
PBGB00G3	1028	0	0	2.7	0.2	0	15.2
PBGB00G4	1028	0	0	0.1	0	0	20.2
PBGB00G5	1028	0	0	0.1	-0.1	0	20.1
PBGB00G6	1029	0	0	0.4	0	0	20
PBGB00G7	1028	0	0	0	0	0	20.2
PBGB00G8	1029	0	0	4.7	0	0	13.2
PBGB00G9	1029	0	0	2	0	0	14.5
PBGB00G10	1028	0	0	0.4	0	0	18.4
PBGB00G11	1027	0	0	2.4	0	0	2
PBGB00G12	1027	0	0	2	-4.3	0	12
PBGB00G13	1026	0	0	1.8	0	0	13.9
PBGB00G14	1026	0	0	0.3	0	0	19.5
PBGB00G15	1027	0	0	2	0.2	0	14.3
PBGB00G16	1027	0	0	1.6	-10	0	17.5
PBGB00G17	1027	0	0	0.7	0	0	19.6

Sample Point	Rel Press (mBar)
PBGB00G1	-0.02
PBGB00G2	-0.01
PBGB00G3	0.56
PBGB00G4	-0.02
PBGB00G5	0
PBGB00G6	0.01
PBGB00G7	-0.01
PBGB00G8	0
PBGB00G9	0.02
PBGB00G10	0.04
PBGB00G11	0.05
PBGB00G12	-6.38
PBGB00G13	0.16
PBGB00G14	0.03
PBGB00G15	0.12
PBGB00G16	-23.17
PBGB00G17	-0.01

Issued By:

From : 08/01/2021

To : 23/03/2021

08/01/2021

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	Engine Output (Kwh)	FlareTemp (Deg C)	Flow (m3/hr)
CHILW06R	1012	35.6	2	32.8			
CHILW4AR	1011	57.9	3	43.4			
CHIR0041	1010	33.2	5	34			
CHIR0072	1010	59.7	5	38.9			
CHIR0073	1012	59.1	5	41.8			
CHIR0081	1012	0.8	0	13.8			
CHIR0091	1012	48.3	5	39.3			
CHIR0093	1010	50.2	5	40.3			
CHISITE1		41	5	33.9	750		
CHIW0066	1011	30.3	23	30.5			
CHIW0067	1011	10.9	3	21			
CHIW0068	1011	35.2	4	33.2			
CHIW0082	1013	28.4	1	27.5			
CHIW0083	1012	48.3	4	37.7			
CHIW0089	1011	49.4	5	38.9			
CHIW0094	1010	0.3	0	2.4			
CHIW0097	1014	0.3	0	1.4			
CHIW0098	1013	24.3	3	25.4			
CHIW0099	1013	45.9	2	34.2			
CHIW0100	1013	56.5	5	38.2			
CHIW0101	1012	29.8	2	30.3			
CHIW0102	1011	0.3	1	0.9			
CHIW0103	1011	26.9	13	28.5			
CHIW0110	1006	59.6	5	41.5			
CHIW0111	1010	15.8	19	9.3			
CHIW0113	1009	1.9	165	9.9			
CHIW0115	1011	57.2	6	44.4			
CHIW0116	1010	0.6	5	1.5			
CHIW0117	1011	1.2	18	2.8			
CHIW0118	1011	32.6	22	33.8			
CHIW0123	1010	27.9	6	32.4			
CHIW0124	1010	25.7	4	31.3			
CHIW1604	1010	45.8	10	41.4			
CHIW1605	1011	37.3	4	34.4			
CHIW1606	1010	36.3	9	36.1			
CHIW1609	1011	60	7	41.4			
CHIW1611	1012	38.1	5	32.4			
GW48	1011	27.1	4	33.4			
GW57	1010	0.3	1	0.9			
GW88	1010	43.2	2	35.6			
LM04B	1011	55.5	4	46.2			
LM07B	1013	46.3	2	34.6			
PYBFLARE		0.4		3.8		0	0

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Chirk LFGX & Balancing Report Q1 January-March 2021



From : 08/01/2021

To : 23/03/2021

08/01/2021

Sample Point	Flow (scmh)	H2S (ppm)	LFG-Bal (%)	O2 (%v/v)	Rel Press (mBar)	Valve Adj	Valve Position
CHILW06R		0	25.1	6.5	1.57	0	0
CHILW4AR		0	0	0.2	-58.96	5	5
CHIR0041		0	32.8	0	-36.85	25	25
CHIR0072		0	1	0.4	-80.41	20	220
CHIR0073		2	0	0	-4.99	5	5
CHIR0081		1	80.6	4.8	-2.22	0	0
CHIR0091		0	12.4	0	-65.29	20	20
CHIR0093		5	9.5	0	-16.24	20	20
CHISITE1	460	1	27.2	0.8	-81.1		
CHIW0066		0	39.2	0	-21.94	5	5
CHIW0067		0	66	2.1	-10.08	0	0
CHIW0068		0	31.1	0.5	-23.71	10	10
CHIW0082		1	44.1	0	-3.73	5	5
CHIW0083		1	14	0	-2.43	5	5
CHIW0089		0	11.7	0	-80.31	30	30
CHIW0094		0	77.5	19.8	-0.21	0	0
CHIW0097		0	77.5	20.8	0.55	0	0
CHIW0098		0	47.9	2.4	-3.48	5	5
CHIW0099		2	19.9	0	-8.34	10	10
CHIW0100		2	4.5	0.8	-3.29	5	5
CHIW0101		0	39.9	0	-8.17	5	5
CHIW0102		0	77.1	20.9	-2.34	0	0
CHIW0103		1	44.6	0	-7.72	10	10
CHIW0110		0	0	0	-80.66	50	50
CHIW0111		0	59.2	15.7	-0.45	0	0
CHIW0113		0	71.4	16.8	0.09	0	0
CHIW0115		2	0	0	-5.39	30	30
CHIW0116		0	76.4	20.9	-0.69	0	0
CHIW0117		0	75.2	20.8	-2.79	0	0
CHIW0118		0	33.2	0.4	-54.81	20	20
CHIW0123		8	39.7	0	-0.69	5	5
CHIW0124		28	43	0	-3.66	5	5
CHIW1604		33	12.8	0	-1.12	5	5
CHIW1605		0	27.4	0.9	-19.08	10	10
CHIW1606		30	27.6	0	-1.31	10	10
CHIW1609		1	0	0	-0.38	5	5
CHIW1611		2	29	0.5	-51.75	20	20
GW48		0	39.5	0	-66.03	100	100
GW57		0	76.9	20.9	-5.3	0	0
GW88		0	21.2	0	-11.06	20	20
LM04B		0	0	0.1	-9.55	5	5
LM07B		0	15.1	4	-79.23	5	55
PYBFLARE			76.1	19.7	-0.33		

Issued By:

Chirk LFGX & Balancing Report Q1 January-March 2021



From : 08/01/2021

To : 23/03/2021

14/01/2021

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	Engine Output (Kwh)	Flow (scmh)	H2S (ppm)
CHILW5BR	1007	58	3	43.2			1
CHIP0111	1007	6.2	0	5			0
CHIR0010	1007	7.3	1	8.5			0
CHIR0037	1005	15.7	11	23.5			0
CHIR0043	1007	54.8	4	45.3			1
CHIR0055	1006	48.3	2	36.8			1
CHIR0069	1008	47.1	2	37.3			1
CHIR0070	1007	45.1	1	35.5			0
CHIR0074	1007	49.9	4	42.2			0
CHIR0079	1008	51.7	0	32.8			1
CHIR0080	1008	19.6	0	5.5			0
CHIR252R	1009	59.9	2	39.9			3
CHISITE1		40.2	4	32.4	700	461	1
CHIW0064	1008	52	2	38.5			0
CHIW0065	1006	35.5	0	32.9			1
CHIW0078	1000	44.3	0	25.6			0
CHIW0084	1009	47	0	28.7			1
CHIW0104	1009	0.3	0	1.9			0
CHIW0105	1008	64.9	2	35.5			5
CHIW0106	1008	1.9	0	5.8			1
CHIW0107	1010	0.2	0	2.1			0
CHIW0108	1010	0.3	0	0.9			0
CHIW0109	1010	0.3	0	2.2			0
CHIW0112	1007	54.5	4	41.6			1
CHIW0120	1008	56	3	44.5			18
CHIW0121	1008	55.8	3	44.7			63
CHIW0125	1008	22.6	3	28.1			3
CHIW0126	1007	20.3	5	27.4			1
CHIW0127	1006	34.1	3	34.7			53
CHIW0128	1004	40	5	34.4			1
CHIW1601	1007	35.3	4	34.1			0
CHIW1602	1007	33.3	2	33			3
CHIW1603	1008	18	8	27.4			1
CHIW1608	1006	32.4	2	33.5			5
CHIW1610	1006	35.9	2	31.7			12
CHIW1612	1009	11.4	2	11.9			0
GW44	1006	33.4	3	32.9			1
GW56	1004	45.1	2	35.3			3
LC005A	1007	24.8	0	18			1
LC01B	1008	20	5	27			0
PBLFGXGW01	1010	60.8	2	34.7			0
PBLFGXGW03	1010	60.4	2	36.3			0
PBLFGXGW07	1009	56.7	2	36.5			0
PBLFGXGW18	1009	43.8	3	34.4			0
PBLFGXGW28	1009	0.2	0	1.6			0
PBLFGXGW29	1010	0.3	0	2.4			0
PBLFGXGW30	1009	44.8	3	32.1			0

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Chirk LFGX & Balancing Report Q1 January-March 2021



From : 08/01/2021

To : 23/03/2021

14/01/2021

Sample Point	LFG-Bal (%)	O2 (%v/v)	Rel Press (mBar)	Valve Adj	Valve Position
CHILW5BR	0	0	-6.52	20	5
CHIP0111	71.4	17.4	-42.53	0	0
CHIR0010	68.5	15.7	-11.23	0	0
CHIR0037	53.9	6.9	-3.8	0	0
CHIR0043	0	0	-72.5	30	30
CHIR0055	14.9	0	-76.42	30	30
CHIR0069	15.1	0.5	-54.3	30	30
CHIR0070	19.4	0	-74.05	30	30
CHIR0074	7	0.9	-74.29	30	30
CHIR0079	15.1	0.4	-35.67	30	30
CHIR0080	61.1	13.8	-5.02	0	0
CHIR252R	0.2	0	-6.38	10	10
CHISITE1	27.6	0.7	-82.93		
CHIW0064	9.5	0	-6.76	5	5
CHIW0065	31.6	0	-35.58	20	20
CHIW0078	30	7.9	-78.28	0	10
CHIW0084	24.3	0	-7.95	5	5
CHIW0104	76.6	20.9	-8.31	0	0
CHIW0105	0	0	-4.85	5	5
CHIW0106	74.9	17.4	-2.1	0	0
CHIW0107	76.8	20.9	-0.21	0	0
CHIW0108	77.4	20.9	0.14	0	0
CHIW0109	76.4	20.9	0.24	0	0
CHIW0112	3.3	0.6	-76.6	30	30
CHIW0120	0	0	-0.55	5	5
CHIW0121	0	0	-12.34	5	5
CHIW0125	49.3	0	-3.34	5	5
CHIW0126	52.2	0.1	-2.41	5	5
CHIW0127	31.2	0	-3.01	20	20
CHIW0128	25.2	0.4	-0.33	5	5
CHIW1601	30	0.6	-2.67	20	20
CHIW1602	33.7	0	-2.55	20	20
CHIW1603	54.6	0	-4.09	5	5
CHIW1608	34.1	0	-12.65	30	30
CHIW1610	30.6	1.8	-3.89	20	20
CHIW1612	60.9	15.8	0.03	0	0
GW44	33.7	0	-23.91	20	20
GW56	19.6	0	-6.31	20	20
LC005A	49.8	13.8	-74.77	0	5
LC01B	47.5	5.5	0.34	0	0
PBLFGXGW01	4.5	0	-69.21	5	5
PBLFGXGW03	2.5	0.8	-15.12	5	5
PBLFGXGW07	6.8	0	-20.18	5	5
PBLFGXGW18	21.8	0	-23.19	5	5
PBLFGXGW28	76.8	20.9	-13.8	0	0
PBLFGXGW29	76	20.9	-0.46	0	0
PBLFGXGW30	23	0.1	-32.96	30	30

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From : 08/01/2021

To : 23/03/2021

04/02/2021

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	Engine Output (Kwh)	Flow (scmh)	H2S (ppm)
CHILMP01	1000	62.4	1	27.9			0
CHILW5BR	1000	58	3	43.1			0
CHIP0111	1002	8.2	0	6.8			0
CHIR0037	997	16.5	3	22			0
CHIR0041	997	32.9	3	32.9			0
CHIR0043	999	55.1	5	44.9			0
CHIR0055	998	48.1	1	37.4			0
CHIR0069	1000	55.9	2	41.2			0
CHIR0070	1000	47.4	1	36.3			0
CHIR0074	1000	50.7	5	43			0
CHIR0079	1001	59.6	1	36.4			0
CHIR0080	1001	43.5	0	5.6			0
CHIR252R	999	54.3	2	38.6			0
CHISITE1		38.8	4	33	790	510	1
CHIW0064	998	45.6	2	37.1			1
CHIW0065	998	34.1	2	33.1			0
CHIW0066	996	29.3	6	29.9			0
CHIW0078	1001	65.5	1	33.3			0
CHIW0084	1000	36.4	1	28.9			1
CHIW0103	998	13.3	1	21.1			0
CHIW0105	998	26.3	1	23			0
CHIW0106	1000	0.4	0	2.8			0
CHIW0107	1000	0.1	0	1.1			0
CHIW0108	1000	0.1	0	0.7			0
CHIW0109	1000	0.1	0	1.7			0
CHIW0112	1000	54.1	4	42.2			0
CHIW0116	997	8.2	2	7.4			0
CHIW0117	996	3	46	6.2			0
CHIW0118	998	32.3	19	33.4			0
CHIW0120	999	35.4	4	31.8			0
CHIW0121	999	34.5	4	33.1			0
CHIW0123	998	25.6	3	30.5			0
CHIW0124	998	23.8	2	29.8			1
CHIW0125	998	17.6	5	26.6			0
CHIW0126	997	15.9	4	25.8			0
CHIW0127	999	34.1	5	35.1			10
CHIW0128	997	32.9	7	34.5			0
CHIW1601	998	31.3	5	33.9			1
CHIW1603	998	20.4	11	28			1
CHIW1604	998	31.3	5	34.5			5
CHIW1608	999	29.2	4	32.5			0
CHIW1609	1001	35.6	5	35.7			0
CHIW1610	999	27.8	2	22.7			1
CHIW1611	999	38.4	5	30.8			1
CHIW1612	999	12.1	2	12.1			0
GW44	997	36.3	4	33.9			0
GW56	999	28.4	2	30.3			0
GW57	998	0.1	0	1.4			0
LC005A	1000	55.5	2	43.5			0
LC01B	997	7.5	0	15.8			0

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Chirk LFGX & Balancing Report Q1 January-March 2021



From : 08/01/2021

To : 23/03/2021

04/02/2021

Sample Point	LFG-Bal (%)	O2 (%v/v)	Rel Press (mBar)	Valve Adj	Valve Position
CHILMP01	11.1	0.5	-72.11	5	5
CHILW5BR	0	0	6.5	15	15
CHIP0111	68.8	16.2	-72.57	0	0
CHIR0037	55.7	5.8	-0.95	0	0
CHIR0041	34.2	0	-36.85	20	20
CHIR0043	0	0	-67.15	30	30
CHIR0055	14.5	0	-70.59	30	30
CHIR0069	2.9	0	-54.64	20	20
CHIR0070	16.3	0	-68.44	10	10
CHIR0074	6	0.3	-71.11	30	30
CHIR0079	4.7	0	-42.98	25	25
CHIR0080	49.6	1.3	-8.29	5	5
CHIR252R	7.1	0	-5.99	5	5
CHISITE1	27.9	1	-82.45		
CHIW0064	17.3	0	-8.46	10	10
CHIW0065	32.8	0	-35.2	20	2
CHIW0066	40.8	0	-24.22	10	10
CHIW0078	1.5	0.4	-72.88	5	5
CHIW0084	34.7	0	-8.55	10	10
CHIW0103	65.6	0	-9.86	0	0
CHIW0105	47.5	4.3	-8.14	0	5
CHIW0106	76.8	20	-3.68	0	0
CHIW0107	77.8	20.9	0.41	0	0
CHIW0108	77.8	20.9	0.36	0	0
CHIW0109	77.2	20.9	0.05	0	0
CHIW0112	3.1	0.6	-67.24	5	5
CHIW0116	67.6	18.1	-71.47	0	5
CHIW0117	72.9	17.9	-60.37	0	0
CHIW0118	34	0.3	-55.95	10	10
CHIW0120	32.3	0.5	-29.71	10	10
CHIW0121	31	1.4	-20.54	20	20
CHIW0123	43.9	0	-1.93	5	5
CHIW0124	46.4	0	-3.51	5	5
CHIW0125	55.8	0	-2.34	5	5
CHIW0126	58.1	0.2	-1.62	5	5
CHIW0127	30.8	0	-2.82	5	5
CHIW0128	31.7	0.9	-2.67	5	5
CHIW1601	34.8	0	-1.82	10	10
CHIW1603	51.6	0	-3.68	10	10
CHIW1604	34.2	0	-2.37	5	5
CHIW1608	38.3	0	-11.85	5	5
CHIW1609	26.8	1.9	-6.3	1	10
CHIW1610	41.6	8.5	-4.13	0	10
CHIW1611	30.1	0.7	-52.03	10	10
CHIW1612	60.9	14.9	0.5	0	0
GW44	29.8	0	-23.78	20	20
GW56	41.3	0	-8.64	5	5
GW57	77	20.9	-5.23	0	0
LC005A	4.6	1.1	-61.09	5	5
LC01B	69.7	8.6	-81.28	0	5

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Chirk LFGX & Balancing Report Q1 January-March 2021



From : 08/01/2021

To : 23/03/2021

11/02/2021

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	Engine Output (Kwh)	FlareTemp (Deg C)	Flow (m3/hr)
CHILW06R	1019	1.9	0	4.8			
CHILW4AR	1017	8.5	0	12.6			
CHIR0010	1018	2.7	1	14			
CHIR0072	1018	57.1	4	37.2			
CHIR0073	1020	47.3	2	35.6			
CHIR0081	1018	1.5	0	14.2			
CHIR0091	1019	43.8	3	37.2			
CHIR0093	1018	46.2	2	36.8			
CHISITE1		34.7	4	30.6	711		
CHIW0067	1017	11.3	0	11.1			
CHIW0068	1020	34.2	2	27.3			
CHIW0082	1019	23.4	1	24.7			
CHIW0083	1019	33.6	2	30.1			
CHIW0089	1016	45.2	2	34.5			
CHIW0094	1020	0	0	1.9			
CHIW0097	1019	0	0	3.3			
CHIW0098	1019	27.5	1	27.7			
CHIW0099	1020	37.7	1	31.4			
CHIW0100	1019	40.9	2	29.5			
CHIW0101	1019	28.5	0	28.1			
CHIW0102	1020	0	0	2.6			
CHIW0104	1018	0	0	1.2			
CHIW0110	1019	52.3	4	38.3			
CHIW0111	1017	16.6	15	13.7			
CHIW0113	1018	1.6	42	14.4			
CHIW1602	1013	6.2	3	11.9			
CHIW1605	1018	31.3	3	31.2			
CHIW1606	1018	29.8	5	29.5			
CHIW1609	1020	37.6	10	27.9			
GW44	1017	34.3	3	26.2			
GW48	1018	21.2	3	27.1			
GW88	1020	36.9	1	28.5			
LM04B	1018	63.2	3	34.7			
LM07B	1019	56.5	1	38.2			
PBLFGXGW01	1020	53.9	1	28.6			
PBLFGXGW03	1020	59.2	1	31.7			
PBLFGXGW07	1020	56.6	1	30.8			
PBLFGXGW18	1018	42.3	2	28.4			
PBLFGXGW28	1020	1.4	0	10.6			
PBLFGXGW29	1020	0	0	2.5			
PBLFGXGW30	1021	47.8	1	29.2			
PYBFLARE		34.8		30.2		0	0

Issued By:

From : 08/01/2021

To : 23/03/2021

11/02/2021

Sample Point	Flow (scmh)	H2S (ppm)	LFG-Bal (%)	O2 (%v/v)	Rel Press (mBar)	Valve Adj	Valve Position
CHILW06R		0	72.5	20.8	-24.09	0	0
CHILW4AR		0	61.7	17.2	-71.68	0	0
CHIR0010		0	71.4	11.9	-7.49	0	0
CHIR0072		0	4.8	0.9	-71.84	20	20
CHIR0073		0	15.1	2	-4.02	5	5
CHIR0081		0	83.6	0.7	-4.44	0	0
CHIR0091		1	18.9	0.1	-62.15	10	10
CHIR0093		0	16.9	0.1	-17.96	10	10
CHISITE1	513	1	33.8	1.7	-75.93		
CHIW0067		0	65.2	12.4	-7.1	0	0
CHIW0068		0	37.2	1.3	-24.15	10	10
CHIW0082		0	51.5	0.4	-3.77	5	5
CHIW0083		0	34.9	1.4	-1.9	5	5
CHIW0089		0	18.8	1.5	-72.83	5	5
CHIW0094		0	76.7	20.9	0.44	20	0
CHIW0097		0	75.2	20.9	-2.38	0	0
CHIW0098		1	43.3	1.5	-2.63	5	5
CHIW0099		0	30.7	0.2	-8.41	5	5
CHIW0100		0	24.1	5.5	-4.48	0	0
CHIW0101		0	42.4	1	-8.85	5	5
CHIW0102		0	75.5	20.9	-1.59	0	0
CHIW0104		0	76.8	20.9	-9.98	0	0
CHIW0110		0	8.2	1.2	-71.45	30	30
CHIW0111		0	55.2	14.5	-72.9	0	0
CHIW0113		0	66.2	17.8	-28.75	0	0
CHIW1602		0	67.8	14.1	-1.45	0	0
CHIW1605		1	35.7	1.8	-18.31	5	5
CHIW1606		1	40.2	0.5	-0.49	10	10
CHIW1609		0	30.2	4.3	-0.28	0	0
GW44		0	38.3	1.2	-21.87	5	5
GW48		2	51.5	0.2	-70.38	5	5
GW88		0	33	1.6	-11.49	5	5
LM04B		1	0.8	1.3	-60.88	5	5
LM07B		0	4.4	0.9	-71.67	5	50
PBLFGXGW01		0	15.1	2.4	-68.14	5	5
PBLFGXGW03		0	7.3	1.8	-17.82	5	5
PBLFGXGW07		0	11.9	0.7	-21.75	10	10
PBLFGXGW18		0	28.1	1.2	-23.3	10	10
PBLFGXGW28		0	70.1	17.9	-12.99	0	0
PBLFGXGW29		0	75.4	20.9	-16.43	0	0
PBLFGXGW30		0	22.3	0.7	-37.31	10	10
PYBFLARE			33.6	1.4	189.04		

Issued By:

Chirk LFGX & Balancing Report Q1 January-March 2021



From : 08/01/2021

To : 23/03/2021

25/02/2021

Sample Point	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)
CHIW0113	2	110	5	1	18

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From : 08/01/2021

To : 23/03/2021

04/03/2021

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	Engine Output (Kwh)	FlareTemp (Deg C)	Flow (m3/hr)
CHILW06R	1018	3.3	0	3.5			
CHILW4AR	1017	1.8	0	1.4			
CHILW5BR	1017	54.2	2	37.4			
CHIP0111	1018	18.3	2	14.2			
CHIR0010	1017	5.7	2	4.6			
CHIR0037	1015	17.2	10	22.3			
CHIR0041	1015	32.4	4	32.4			
CHIR0043	1015	54.9	5	45.2			
CHIR0055	1017	45.4	2	36.8			
CHIR0069	1017	54.4	2	40.4			
CHIR0070	1010	46.2	2	35.4			
CHIR0072	1017	59.1	4	39.4			
CHIR0073	1018	54.6	3	40.2			
CHIR0074	1016	47.5	4	41.5			
CHIR0079	1017	44	1	30.8			
CHIR0080	1017	7.1	0	3.9			
CHIR0081	1018	2.6	1	17.8			
CHIR0091	1017	45.9	3	38			
CHIR0093	1018	45.3	3	38.2			
CHISITE1		37.7	4	32.1	780		
CHIW0065	1016	31.9	3	32.1			
CHIW0066	1017	26.7	4	27.9			
CHIW0067	1018	10.7	1	19.6			
CHIW0068	1018	34	3	32.9			
CHIW0078	1018	27.7	1	7.3			
CHIW0082	1018	20.3	1	23.9			
CHIW0083	1018	37.4	3	32.3			
CHIW0089	1018	49	4	39.2			
CHIW0094	1018	0.1	1	2.2			
CHIW0097	1019	0.1	0	1.6			
CHIW0098	1019	31.3	3	27.2			
CHIW0099	1019	41.5	2	31.5			
CHIW0100	1019	59.1	3	38.7			
CHIW0101	1019	29	1	27.8			
CHIW0102	1018	0.1	0	0.9			
CHIW0103	1017	6	1	19.4			
CHIW0104	1018	0.1	0	1.4			
CHIW0110	1017	57.6	4	41.8			
CHIW0111	1015	8.6	1	5.8			
CHIW0112	1016	55.2	7	45.7			
CHIW0113	1017	1.7	158	8.6			
CHIW0115	1017	57	4	43.7			
CHIW0116	1015	3.9	0	5.9			
CHIW0117	1014	0.6	7	2.3			
CHIW0118	1016	33.6	30	32.9			
CHIW0123	1014	26.5	2	28.1			
CHIW0124	1015	23.4	3	29.2			
CHIW0125	1016	18.7	3	26.5			
CHIW0126	1016	15.1	7	25.3			
CHIW0127	1016	31.3	3	32.5			

Issued By:

Chirk LFGX & Balancing Report Q1 January-March 2021



From : 08/01/2021

To : 23/03/2021

04/03/2021

	AtPress (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	Engine Output (Kwh)	FlareTemp (Deg C)	Flow (m3/hr)
CHIW0128	1016	18.3	1	25.3			
CHIW1601	1016	31	4	31.5			
CHIW1602	1015	19.4	3	18.8			
CHIW1603	1016	14.2	5	21.6			
CHIW1605	1017	35.1	3	31.8			
CHIW1608	1015	27.9	3	31			
CHIW1609	1017	58.4	4	42.4			
CHIW1610	1016	2.2	1	2.6			
CHIW1611	1018	38	5	31.7			
GW44	1016	33.6	3	32.1			
GW48	1017	31.2	2	29.9			
GW57	1016	0.2	0	1.1			
GW88	1018	37.7	1	32.9			
LC005A	1016	43.7	1	32.3			
LC01B	1016	8.1	4	23.1			
LM04B	1016	57.1	2	43.2			
LM07B	1018	49.7	1	37.7			
PYBFLARE		0.4		6.4		0	0

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From : 08/01/2021

To : 23/03/2021

04/03/2021

Sample Point	Flow (scmh)	H2S (ppm)	LFG-Bal (%)	O2 (%v/v)	Rel Press (mBar)	Valve Adj	Valve Position
CHILW06R		0	74.1	20.8	-67.39	0	5
CHILW4AR		0	77	20.9	-4.48	0	5
CHILW5BR		0	6.9	1.5	-75.54	20	20
CHIP0111		0	56.3	11.2	-87.31	0	0
CHIR0010		0	71.8	17.9	-10.61	0	0
CHIR0037		0	56.1	4.4	-0.73	0	0
CHIR0041		0	35.2	0	-34.75	20	20
CHIR0043		0	0	0	-70.85	30	30
CHIR0055		0	17.8	0	-72.73	75	75
CHIR0069		0	5.2	0	-72.63	75	75
CHIR0070		0	18.4	0	-69.43	1	30
CHIR0072		0	1.5	0	-76.99	75	75
CHIR0073		0	5	0.2	-3.27	30	30
CHIR0074		0	11	0	-72.86	50	50
CHIR0079		0	24.4	0.8	-46.52	0	0
CHIR0080		0	70.6	18.7	-57.8	0	5
CHIR0081		0	79.6	0	-3.6	0	0
CHIR0091		0	16.1	0	-64.15	50	50
CHIR0093		2	16.5	0	-16.91	20	20
CHISITE1	465	1	31.5	1.3	-78.06		
CHIW0065		0	36	0	-33.14	20	20
CHIW0066		0	45.4	0	-22.5	20	20
CHIW0067		0	66.7	3	-9.85	0	0
CHIW0068		0	33.1	0	-24.31	10	10
CHIW0078		0	64.1	18	-74.41	0	5
CHIW0082		0	55.8	0	-3.72	0	0
CHIW0083		1	30.3	0	-0.69	30	30
CHIW0089		0	11.8	0	-75.9	75	75
CHIW0094		0	77.6	20.1	-0.43	0	0
CHIW0097		0	78.6	19.7	-0.1	0	0
CHIW0098		0	40	1.5	-2.92	5	5
CHIW0099		0	27	0	-8.38	10	10
CHIW0100		2	29.6	6.8	-4.48	5	5
CHIW0101		0	42.8	0.4	-8.51	10	10
CHIW0102		0	77.4	20.9	-2.32	0	0
CHIW0103		0	74.6	0	-8.64	0	0
CHIW0104		0	77.5	20.9	-16.27	0	0
CHIW0110		0	0.6	0	-76.44	75	75
CHIW0111		0	71.5	19.7	-76.27	0	100
CHIW0112		1	2.3	0.3	-53.09	5	5
CHIW0113		1	73	16.7	-0.99	0	0
CHIW0115		0	0	0	-5.92	75	75
CHIW0116		0	71.7	18.5	-80.97	0	0
CHIW0117		0	76.8	20.3	-85.39	0	0
CHIW0118		0	33.3	0.2	-52	30	30
CHIW0123		0	45	0.4	-1.09	5	5
CHIW0124		3	47.4	0	-3.74	5	5
CHIW0125		9	54.8	0	-1.14	5	5
CHIW0126		0	59.4	0.2	-1.71	5	5
CHIW0127		30	36.2	0	-3.03	1	55

Issued By:

From : 08/01/2021

To : 23/03/2021

04/03/2021

	Flow (scmh)	H2S (ppm)	LFG-Bal (%)	O2 (%v/v)	Rel Press (mBar)	Valve Adj	Valve Position
CHI0128		0	55.9	0.5	-1.78	5	5
CHI01601		0	36.9	0.6	-0.87	5	5
CHI01602		0	50.4	11.4	-0.55	0	5
CHI01603		3	66.1	6	-2.94	0	10
CHI01605		0	32	1.1	-18.5	20	20
CHI01608		0	41.1	0	-11.99	20	20
CHI01609		0	0	0	-5.9	5	5
CHI01610		0	75	20.2	-1.14	0	0
CHI01611		1	29.9	0.4	-48.89	20	20
GW44		1	34.3	0	-21.44	20	20
GW48		0	38.9	0	-77.7	100	100
GW57		0	77.8	20.9	-5.12	0	0
GW88		0	29.4	0	-11.01	20	20
LC005A		0	19.2	4.8	-0.43	0	0
LC01B		0	62.9	5.9	0.66	0	0
LM04B		0	0	0	-64.9	10	10
LM07B		0	10.2	2.4	-76.37	5	5
PYBFLARE			74.3	18.9	-0.12		

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Chirk LFGX & Balancing Report Q1 January-March 2021



From : 08/01/2021

To : 23/03/2021

10/03/2021

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	Engine Output (Kwh)	FlareTemp (Deg C)	Flow (m3/hr)
CHILMP01	992	4.7	2	2.7			
CHIR252R	992	61.9	5	39.6			
CHISITE1		43.8	9	33.4	660		
CHIW0064	992	53.9	4	37.9			
CHIW0084	992	27.4	2	25.9			
CHIW0105	992	68.7	4	34.1			
CHIW0106	993	7.6	2	5.4			
CHIW0107	992	0.5	2	1.9			
CHIW0108	992	0.2	2	0.7			
CHIW0109	991	1.6	3	1.4			
CHIW0120	991	41.9	6	31.7			
CHIW0121	992	55.2	7	41.9			
CHIW1604	990	50.4	19	41.3			
CHIW1606	989	43.1	21	36.9			
CHIW1612	992	53.2	8	42.1			
GW56	986	40.4	4	31.9			
PBLFGXGW01	993	59.9	3	33.3			
PBLFGXGW03	994	63.6	4	36.8			
PBLFGXGW07	994	59.5	3	35.4			
PBLFGXGW18	993	42.4	4	33.3			
PBLFGXGW28	994	53.1	5	36.7			
PBLFGXGW29	994	62.8	3	39.2			
PBLFGXGW30	994	48.7	5	32			
PYBFLARE		43		33.3		0	0

Issued By:

From : 08/01/2021

To : 23/03/2021

10/03/2021

Sample Point	Flow (scmh)	H2S (ppm)	LFG-Bal (%)	O2 (%v/v)	Rel Press (mBar)	Valve Adj	Valve Position
CHILMP01	426	0	77	20.9	-57.22	0	10
CHIR252R		8	0	0.2	-0.03	10	10
CHISITE1		2	22.5	0.9	-61.73		
CHIW0064		8	7.9	0.3	-4.03	10	10
CHIW0084		1	46.7	0	-5.18	10	10
CHIW0105		7	0	0.2	-14.3	10	10
CHIW0106		4	76.5	12.7	-7.21	10	10
CHIW0107		0	78.7	20.8	-10.72	10	10
CHIW0108		0	77.9	20.9	-5.49	10	10
CHIW0109		2	79.7	20.9	-7.62	10	10
CHIW0120		21	26	0.4	-23.78	20	20
CHIW0121		46	2.8	0.1	-2.27	20	20
CHIW1604		79	7.8	0.5	-1.72	10	10
CHIW1606		7	19.5	0.5	-0.81	20	20
CHIW1612		5	4.1	8.5	-1.62	10	10
GW56		10	27.5	0.2	-1.46	10	10
PBLFGXGW01		1	6.4	0.4	-51.62	10	10
PBLFGXGW03		2	0	0.2	-3.82	2	2
PBLFGXGW07		4	4.8	0.3	-10.1	2	2
PBLFGXGW18		1	24	0.3	-11.6	10	10
PBLFGXGW28		0	8.2	6.9	-7.57	10	10
PBLFGXGW29		1	0	0.2	-4.15	10	10
PBLFGXGW30		1	19	0.3	-27.19	10	10
PYBFLARE			22.8	0.9	187.91		

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Chirk LFGX & Balancing Report Q1 January-March 2021



From : 08/01/2021

To : 23/03/2021

23/03/2021

Sample Point	AtPress (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	H2S (ppm)	LFG-Bal (%)	O2 (%v/v)
CHIW0113	1008	19.4	58	19.6	2	50.1	10.9

Sample Point	Rel Press (mBar)	Valve Adj	Valve Position
CHIW0113	-52.94	0	0

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Chirk Leachate Levels Report Q1 January-March 2021



From : 11/01/2021

To : 17/03/2021

11/01/2021

Sample Point	Dip to Water (m)	TD (m)	Water Level (mAOD)
LC0003	5.32		64.98
LM04B	49.77		41.89
LM05B	47.49		40.14
LM07B	37.75		40.37
PBLC001D	52.5		45.18
PBLC004B	48.91	48.91	42.68
PBLC5B	46.8	46.8	41.58
PBLM6B	39.63		44.78

Chirk Leachate Levels Report Q1 January-March 2021



From : 11/01/2021

To : 17/03/2021

02/02/2021

Sample Point	Dip to Water (m)	Water Level (mAOD)
LC0003	5.41	64.89
LM04B	47.97	43.69
LM05B	48.37	39.26
LM07B	35.99	42.13
PBLC001D	42.42	55.26
PBLC004B	47.84	43.75
PBLC5B	46.44	41.9400
PBLM6B	39.07	45.34

Chirk Leachate Levels Report Q1 January-March 2021



From : 11/01/2021

To : 17/03/2021

17/03/2021

Sample Point	Dip to Water (m)	Water Level (mAOD)
LC0003	5.49	64.81
LM04B	43.79	47.87
LM05B	39.55	48.08
LM07B	38.55	39.57
PBLC001D	52.24	45.44
PBLC004B	42.65	48.94
PBLC5B	38.75	49.63
PBLM6B	39.73	44.68

Chirk Q1 Interim Leachate Levels Report.

These levels have been taken in-house and are submitted to NRW on a weekly basis, as required by the action plan currently in place.

Chirk January Leachate Levels (mAOD)				
Date		Site	Chamber ID	Water level mAOD
08/01/2020		Pen-Y-Bont	PBLC001D	56.63
08/01/2020		Pen-Y-Bont	PBLC004B	45.14
08/01/2020		Pen-Y-Bont	PBLM004B	44.24
08/01/2020		Pen-Y-Bont	PBLC005B	43.78
08/01/2020		Pen-Y-Bont	PBLM005B	39.43
08/01/2020		Pen-Y-Bont	PBLM006B	44.58
08/01/2020		Pen-Y-Bont	PBLM007B	39.32
Chirk January Leachate Levels (mAOD)				
Date		Site	Chamber ID	Water level mAOD
11/01/2021		Pen-Y-Bont	PBLC001D	45.18
11/01/2021		Pen-Y-Bont	PBLC004B	42.68
11/01/2021		Pen-Y-Bont	PBLM004B	41.89
11/01/2021		Pen-Y-Bont	PBLC005B	41.58
11/01/2021		Pen-Y-Bont	PBLM005B	40.14
11/01/2021		Pen-Y-Bont	PBLM006B	44.78
11/01/2021		Pen-Y-Bont	PBLM007B	40.37

Chirk January 2021 Leachate Levels (mAOD)

Date		Site	Chamber ID	Water level mAOD	
18/01/2021		Pen-Y-Bont	PBLC001D	48.68	x
18/01/2021		Pen-Y-Bont	PBLC004B	42.66	
18/01/2021		Pen-Y-Bont	PBLM004B	42.06	
18/01/2021		Pen-Y-Bont	PBLC005B	41.86	
18/01/2021		Pen-Y-Bont	PBLM005B	40.17	
18/01/2021		Pen-Y-Bont	PBLM006B	44.68	x
18/01/2021		Pen-Y-Bont	PBLM007B	39.52	

Chirk January 2021 Leachate Levels (mAOD)

Date		Site	Chamber ID	Water level mAOD	
22/01/2021		Pen-Y-Bont	PBLC001D	53.61	x
22/01/2021		Pen-Y-Bont	PBLC004B	42.66	
22/01/2021		Pen-Y-Bont	PBLM004B	42.06	
22/01/2021		Pen-Y-Bont	PBLC005B	41.9	
22/01/2021		Pen-Y-Bont	PBLM005B	40.27	
22/01/2021		Pen-Y-Bont	PBLM006B	45.01	x
22/01/2021		Pen-Y-Bont	PBLM007B	40.62	

Chirk January 2021 Leachate Levels (mAOD)

Date		Site	Chamber ID	Water level mAOD	
29/01/2021		Pen-Y-Bont	PBLC001D	48.83	x
29/01/2021		Pen-Y-Bont	PBLC004B	42.66	
29/01/2021		Pen-Y-Bont	PBLM004B	42.06	
29/01/2021		Pen-Y-Bont	PBLC005B	41.93	
29/01/2021		Pen-Y-Bont	PBLM005B	40.19	
29/01/2021		Pen-Y-Bont	PBLM006B	45.26	x
29/01/2021		Pen-Y-Bont	PBLM007B	39.99	

Chirk February 2021 Leachate Levels (mAOD)

Date		Site	Chamber ID	Water level mAOD	
02/02/2021		Pen-Y-Bont	PBLC001D	55.26	x
02/02/2021		Pen-Y-Bont	PBLC004B	43.75	x
02/02/2021		Pen-Y-Bont	PBLM004B	43.69	x
02/02/2021		Pen-Y-Bont	PBLC005B	41.94	
02/02/2021		Pen-Y-Bont	PBLM005B	39.26	
02/02/2021		Pen-Y-Bont	PBLM006B	45.34	x
02/02/2021		Pen-Y-Bont	PBLM007B	42.13	

Chirk February 2021 Leachate Levels (mAOD)

Date		Site	Chamber ID	Water level mAOD	
05/02/2021		Pen-Y-Bont	PBLC001D	47.14	x
05/02/2021		Pen-Y-Bont	PBLC004B	42.64	
05/02/2021		Pen-Y-Bont	PBLM004B	42.53	
05/02/2021		Pen-Y-Bont	PBLC005B	42.02	
05/02/2021		Pen-Y-Bont	PBLM005B	39.39	
05/02/2021		Pen-Y-Bont	PBLM006B	44.81	x
05/02/2021		Pen-Y-Bont	PBLM007B	39.44	

Chirk February 2021 Leachate Levels (mAOD)

Date	Field Dip	Site	Chamber ID	Water level mAOD	
11/02/2021	52	Pen-Y-Bont	PBLC001D	45.24	x
11/02/2021	48.95	Pen-Y-Bont	PBLC004B	42.64	
11/02/2021	49.14	Pen-Y-Bont	PBLM004B	42.52	
11/02/2021	46.3	Pen-Y-Bont	PBLC005B	42.08	
11/02/2021	47.93	Pen-Y-Bont	PBLM005B	39.7	
11/02/2021	39.73	Pen-Y-Bont	PBLM006B	44.68	x
11/02/2021	38.1	Pen-Y-Bont	PBLM007B	40.02	

Chirk February 2021 Leachate Levels (mAOD)

Date	Chamber ID	Site	Field dip	Water level mAOD	
18/02/2021	PBLC001D	Pen-Y-Bont	54.87	42.37	
18/02/2021	PBLC004B	Pen-Y-Bont	48.95	42.64	
18/02/2021	PBLM004B	Pen-Y-Bont	49.38	42.28	
18/02/2021	PBLC005B	Pen-Y-Bont	46.15	42.23	
18/02/2021	PBLM005B	Pen-Y-Bont	47.5	40.13	
18/02/2021	PBLM006B	Pen-Y-Bont	39.6	44.81	x
18/02/2021	PBLM007B	Pen-Y-Bont	38.2	39.92	

Chirk February 2021 Leachate Levels (mAOD)

Date	Chamber ID	Site	Field dip	Water level mAOD	
26/02/2021	PBLC001D	Pen-Y-Bont	47.9	49.34	x
26/02/2021	PBLC004B	Pen-Y-Bont	48.9	42.69	
26/02/2021	PBLM004B	Pen-Y-Bont	49.62	42.04	
26/02/2021	PBLC005B	Pen-Y-Bont	46.2	42.18	
26/02/2021	PBLM005B	Pen-Y-Bont	47.45	40.18	
26/02/2021	PBLM006B	Pen-Y-Bont	39.85	44.56	x
26/02/2021	PBLM007B	Pen-Y-Bont	38	40.12	

Chirk March 2021 Leachate Levels (mAOD)

Date	Chamber ID	Site	Field dip	Water level mAOD	
12/03/2021	PBLC001D	Pen-Y-Bont	53.96	43.28	x
12/03/2021	PBLC004B	Pen-Y-Bont	43.83	47.76	x
12/03/2021	PBLM004B	Pen-Y-Bont	44.44	47.22	x
12/03/2021	PBLC005B	Pen-Y-Bont	40.06	48.32	x
12/03/2021	PBLM005B	Pen-Y-Bont	40.5	47.13	x
12/03/2021	PBLM006B	Pen-Y-Bont	39.22	45.19	x
12/03/2021	PBLM007B	Pen-Y-Bont	39.2	38.92	

Chirk March 2021 Leachate Levels (mAOD)

Date	Chamber ID	Site	Field dip	Water level mAOD	
17/03/2021	PBLC001D	Pen-Y-Bont	52.24	45	x
17/03/2021	PBLC004B	Pen-Y-Bont	42.65	48.94	x
17/03/2021	PBLM004B	Pen-Y-Bont	43.79	47.87	x
17/03/2021	PBLC005B	Pen-Y-Bont	38.75	49.63	x
17/03/2021	PBLM005B	Pen-Y-Bont	39.55	48.08	x
17/03/2021	PBLM006B	Pen-Y-Bont	39.73	44.68	x
17/03/2021	PBLM007B	Pen-Y-Bont	38.4	39.57	

Chirk March 2021 Leachate Levels (mAOD)				
Date	Chamber ID	Site	Field dip	Water level mAOD
19/03/2021	PBLC001D	Pen-Y-Bont	52.24	45
19/03/2021	PBLC004B	Pen-Y-Bont	42.46	49.13
19/03/2021	PBLM004E	Pen-Y-Bont	43	48.66
19/03/2021	PBLC005B	Pen-Y-Bont	38.5	49.88
19/03/2021	PBLM005E	Pen-Y-Bont	38.7	48.93
19/03/2021	PBLM006E	Pen-Y-Bont	39.7	44.71
19/03/2021	PBLM007E	Pen-Y-Bont	38.55	39.57
Chirk March 2021 Leachate Levels (mAOD)				
Date	Chamber ID	Site	Field dip	Water level mAOD
26/03/2021	PBLC001D	Pen-Y-Bont	52.73	44.51
26/03/2021	PBLC004B	Pen-Y-Bont	48.4	43.19
26/03/2021	PBLM004E	Pen-Y-Bont	48.25	43.41
26/03/2021	PBLC005B	Pen-Y-Bont	46	42.38
26/03/2021	PBLM005E	Pen-Y-Bont	47.44	40.19
26/03/2021	PBLM006E	Pen-Y-Bont	43.1	41.31
26/03/2021	PBLM007E	Pen-Y-Bont	38.6	39.52
Chirk March 2021 Leachate Levels (mAOD)				
Date	Chamber ID	Site	Field dip	Water level mAOD
31/03/2021	PBLC001D	Pen-Y-Bont	53.58	43.66
31/03/2021	PBLC004B	Pen-Y-Bont	48.93	42.66
31/03/2021	PBLM004E	Pen-Y-Bont	49.52	42.14
31/03/2021	PBLC005B	Pen-Y-Bont	46.03	42.35
31/03/2021	PBLM005E	Pen-Y-Bont	47.4	40.23
31/03/2021	PBLM006E	Pen-Y-Bont	43.6	40.81
31/03/2021	PBLM007E	Pen-Y-Bont	38.55	39.57

Chirk Groundwater Levels Report Q1 January-March 2021



From : 01/02/2021

To : 02/02/2021

01/02/2021

Sample Point	Dip to Water (m)	TD (m)	Water Level (mAOD)
PBBH0002	2.46	8.41	74.59
PBBH0005	6.2	19.97	47.70
PBBH0008	11.92	57.38	72.44
PBBH0009	15.2	39.85	62.76
PBBH0010	21.27	36.98	52.97
PBBH0011	2.31	18.21	52.97
PBBH0013	0.71	15.83	52.14
PBT00001	1.17	4.09	55.31
PBT00002	1.62	1.85	53.38
PBT00003	1.63	4.34	53.78
PBT00012	0.9	3.85	52.10
PBT00013	0.98	4.75	52.92

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Chirk Groundwater Levels Report Q1 January-March 2021



From : 01/02/2021

To : 02/02/2021

02/02/2021

Sample Point	Dip to Water (m)	TD (m)	Water Level (mAOD)
PBBH0001	12.95	27.78	62.45
PBBH0003	7.33	16.25	47.67
PBBH0004	0.46	20.1	54.18
PBBH0007	19.99	38.5	55.20
PBBH0012	0.03	16.87	54.06
PBBH0014	12.05	35.56	60.46
PBBH003A	6.58	20.47	48.42
PBT00004	1.22	4.16	54.08
PBT00005	1.05	5.25	54.05
PBT00006	1.04	5.94	53.86
PBT00007	0.65	5.07	54.15
PBT00008	0.3	4.49	54.39
PBT00009	1.17	4.55	53.58
PBT00010	3.69	6.6	54.25
PBT00011	7.12	10.57	53.00

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Chirk Groundwater Quality Report Q1 January-March 2021



From : 01/02/2021

To : 02/02/2021

01/02/2021

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)
PBBH0002	0.01	<1	19	5	889	751	6.3
PBBH0005	0.08	<1	36	<5	764	735	3
PBBH0008	0.09	<1	19	<5	659	917	3.7
PBBH0009	0.02	<1	19	6	1010	838	7.7
PBBH0010	0.02	1.2	19	9	1090	895	7.6
PBBH0011	0.02	<1	24	10	1150	952	7.5
PBBH0013	0.8	<1	98	17	2630	2310	4.2
PBT00001	0.02	<1	35	13	774	9	7.4
PBT00003	0.02	1.5	8	8	766	708	6.6
PBT00012	0.02	<1.3	41	14	1150	1110	6.4
PBT00013	1.1	<1.3	50	8	1660	1521	2.9

Sample Point	pH (Lab)	pH(Fld)	S.Solids (mg/l)	WtrTemp (Deg C)
PBBH0002	7.6	7.5	<5	9
PBBH0005	7.7	7.9	<5	9.6
PBBH0008	7.8	7.8	9	8.9
PBBH0009	7.5	7.8	21	10.7
PBBH0010	7.4	7.6	32	9.8
PBBH0011	7.4	8	12	7.1
PBBH0013	7.4	7.7	13	9.5
PBT00001	7.6	7.6	34	6
PBT00003	7.3	7.6	143	6.2
PBT00012	7	7.4	10	6.7
PBT00013	7	7.1	51	7.8

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Chirk Groundwater Quality Report Q1 January-March 2021



From : 01/02/2021

To : 02/02/2021

02/02/2021

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)
PBBH0001	0.01	<1	6	5	370	366	8.9
PBBH0003	0.06	<1	42	6	891	765	3.5
PBBH0004	0.9	1.1	122	11	1510	1230	3.9
PBBH0007	0.16	1	63	12	1080	992	0.3
PBBH0012	1.2	<1.3	406	19	6770	4450	2.9
PBBH0014	0.2	2.5	76	13	1670	1460	4.2
PBBH003A	0.13	1.9	51	7	1010	974	1.2
PBT00004	3.2	<1.3	28	13	969	920	7.9
PBT00005	0.02	<1	19	11	869	728	7.6
PBT00006	0.01	<1.3	17	12	959	786	8.4
PBT00007	0.02	<1.3	20	11	480	457	8.4
PBT00008	0.11	<1	35	23	1460	1187	4.5
PBT00009	2.1	<1.3	30	18	1330	1081	3.8
PBT00010	0.3	<1.3	20	7	1570	1219	2.8
PBT00011	0.9	10.1	101	16	1380	1112	3.3

Sample Point	pH (Lab)	pH(Fld)	S.Solids (mg/l)	WtrTemp (Deg C)
PBBH0001	7.1	7.6	82	11.3
PBBH0003	8.4	8.4	18	9.4
PBBH0004	7.8	7.5	36	7.7
PBBH0007	7.8	7.9	<5	10.9
PBBH0012	7.4	7.1	1200	10.4
PBBH0014	7.4	7.3	81	10
PBBH003A	8.4	8	12	9.1
PBT00004	7.4	7.1	43	6.1
PBT00005	7.6	7.9	11	7.8
PBT00006	7.5	7.7	10	7.4
PBT00007	6.8	7.1	13	6.4
PBT00008	7.4	8.4	31	8
PBT00009	7.4	7.4	20	8.4
PBT00010	6.4	6.8	26	9.9
PBT00011	7.1	6.7	65	11.4

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Chirk Surface Water Quality Report Q1 January-March 2021



From : 02/02/2021

To : 02/02/2021

02/02/2021

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)
PBLagoon1	0.06	<1.3	4	14	563	578	11.1
PBLagoon2	0.04	1.8	6	17	530	565	9.8
PBLagoon3	0.02	2.8	8	17	856	807	10.4
PBWP0001	0.03	<1.3	13	11	111	124	10.9
PBWP0002	0.02	<1.3	13	10	116	128	11.1
PBWP0003	0.02	<1.3	12	9	110	113	11.3

Sample Point	pH (Lab)	pH(Fld)	S.Solids (mg/l)	WtrTemp (Deg C)
PBLagoon1	7.9	7.4	6	4.3
PBLagoon2	7.6	8.3	<5	4.5
PBLagoon3	7.9	7.6	<5	5.7
PBWP0001	7.1	8.9	<5	4.6
PBWP0002	6.9	8	<5	7.2
PBWP0003	6.9	8.5	10	6.6

There was no discharge from sampling locations WP4 and WP5 during this review period.

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