Comhairle Contae Dhún na nGall
Donegal County Council

ANNUAL ENVIRONMENTAL REPORT

For

BALLYNACARRICK LANDFILL SITE

Co. Donegal

Waste Licence Reference W0024-04

Reporting Period: January 2013 to December 2013

By

Donegal County Council

To

Environmental Protection Agency

May 2014

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1. INTRODUCTION & REPORTING PERIOD

1.1 This Annual Environmental Report (AER) has been prepared to meet the requirements of Condition 11.11 of Waste Licence W0024-4 for Ballynacarrick Landfill and includes the information listed in Schedule G of the Waste Licence.

1.2 Ballynacarrick Landfill Site operated from c.1980 until closure in July 2012. In 2000 Donegal County Council submitted an application to the Environmental Protection Agency for the continued operation of the landfill site, as required by the Waste Management (Licensing) Regulations, 1997. On the 7th of December 2000 the Environmental Protection Agency granted the Council a Waste Licence (registration number 24-1) for the facility, in accordance with the Third Schedule of the Waste Management Act, 1996.

1.3 An application to review the Waste Licence (ref. W0024-1) for Ballynacarrick Landfill Site was made to the Agency in November 2003. This review of the licence was completed in December 2004 and a new licence (ref. W0024-2) granted for an extension to the Site. The new licence was granted on 10th December, 2004, and was active from this date. In December 2007 an application was made to the Agency to review Licence W0024-2 in order to regularise tonnage. A Preliminary Decision for Licence W0024-3 was issued on 26th September 2008 and a Final Decision on 27th November 2008. During 2009 the Agency instigated a further review of all waste licences in Ireland. A Preliminary Decision for W0024-4 was issued to Donegal County Council on 19th October 2009. A Final Decision was granted on 24th March 2010. The site closed on 31st July 2012 due to the capacity of the facility being exhausted.

1.4 The site is located at Ballynacarrick, Ballintra, Co Donegal and occupies an area of approximately 9 hectares. The facility, as shown on Drawing no. IBR0125/051, is located in a rural setting and surrounding land use is agricultural. The site lies approximately 3km southeast of Ballintra and 7 km south of Laghey. The site is located in a low-lying position in an area of marginal hill land and is bounded by chain link fencing and a 2.0m high security fence. The current site layout is shown on Drawing no. IBL0125/054.

1.5 This report covers the period from January to December 2013.

2. WASTE ACTIVITIES CARRIED OUT AT THE FACILITY

2.1 The licensed waste disposal activities, in accordance with the Third Schedule of the Waste Management Act, 1996 to 2008 were restricted to those listed as follows

- **Class 5 - Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment.**
- **Class 6 - Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1. to 10 of this Schedule.**
- **Class 13 - Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.**.

2.2 Licensed waste recovery activities, in accordance with the Fourth Schedule of the Waste Management Act, 1996 to 2008 were restricted to those listed as follows:

- **Class 2 - Recycling or reclamation of organic substances, which are not used as solvents (including composting and other biological transformation processes).**
- **Class 3 - Recycling or reclamation of metals and metal compounds.**
- **Class 4 - Recycling or reclamation of other inorganic materials.**
- **Class 13 – Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.**

2.3 The maximum tonnage of individual waste types for disposal is listed in Schedule A of the Waste Licence with a total tonnage of 35,000 tonnes per annum.

2.4 Access to site is controlled by the Site Manager. All persons availing of the site must report to the site office at the time of entering and leaving the landfill site. Access is restricted to those times when staff are on duty and out of operating hours the site is secured to prevent unauthorised entry.

3. CALCULATED REMAINING CAPACITY OF THE FACILITY AND THE YEAR IN WHICH FINAL CAPACITY IS EXPECTED TO BE REACHED

3.1 The site was filled to capacity on 31st July 2012. The site closed on this date.

4. METHODS OF DEPOSITION OF WASTE

4.1 When the landfill was open waste was accepted between 08.30 to 17.00 hours Monday to Friday and 09.00 to 13.00 hours on Saturdays with the exception of Bank Holidays.

4.2 The landfill was filled in accordance with a series of filling plans as referenced in previous AER's

4.3 All waste loads were directed to the working face where the waste was infilled within a pre-designated area under the direction of the machine operator. The waste was inspected and, if acceptable for disposal, spread and compacted.

4.4 At the end of the working day the waste was covered to reduce the incidence of nuisance. Imported clay / subsoil was used to cover waste on a daily basis and an interim cover of depth not less than 150mm is applied at the end of each week.

5. REPORT ON RESTORATION OF COMPLETED CELLS / PHASES

5.1 During this period restoration of the final section of the site was completed. This area essentially covered the last working cell, Cell 2C and part of 2B (see Drg no. IBR0473/202) which shows the extent of the final area restored). This covered an area of approximately 14,500m^2. Final restoration works were completed in October 2013.

6. EMISSIONS FROM THE FACILITY (INCLUDING RESULTS SUMMARY AND INTERPRETATION OF ENVIRONMENTAL MONITORING)

6.1 This section considers emissions of mainly leachate or landfill gas from the Ballinacarrick facility into the environment. The monitoring data, the results of which are contained in Appendix A**,** has been reviewed, and leachate and gas emissions considered generally in terms of ammonia levels (mg/l) and methane levels (%v/v) respectively.

Monitoring locations referred to are shown on drg IBR0125/053.

6.2 Leachate Emissions

Levels of ammonia in both surface and groundwater downstream of the facility have been considered relative to baseline levels upstream of the landfill and relative to levels detected during the previous period.

6.2.1 To Groundwater

Groundwater is monitored at nine locations, GW1 is located up-gradient of the landfill, the other wells (GW2,4,5,6,7,8,9 & 10) are located around the perimeter of the landfill. Wells GW4 and GW5 are on the western boundary which is the down-gradient end of the facility. Those wells which surround the historic unlined waste body on the eastern side of the facility are proximate to unlined waste. Five of these perimeter wells were installed at the request of the Agency in September 2009 (GW6, GW7, GW8, GW9 and GW10 respectively).

Monitoring data for the period is contained in Appendix A.

Results this period continue to indicate that baseline (up-gradient) groundwater is consistently contaminated.

Levels downstream at some locations indicate that leachate is being released into the environment from the un-engineered part of the site but a number of wells are clear of contamination.

Levels of ammonia in groundwater are comparable to those detected during the last period.

6.2.2 To Surface Water

Surface water is monitored at four locations, one upstream and three downstream (SW2 & SW1, SW3 , SW4 respectively). All monitoring data is contained in Appendix A.

Results continue to indicate that baseline surface water upstream of the facility is slightly contaminated.

Levels downstream indicate that leachate is still being released from the un-engineered part of the site into downstream surface water. Levels by the end of the period were very low, especially for a partially unlined site with such small receiving waters.

6.2.3 Leachate Quality

Leachate results for 2013 are presented in Appendix A and some of the characteristic parameters of the raw leachate are listed in Table 6.1.

Raw leachate results have been compared to "Typical Leachate Composition of 30 Samples from UK/Irish Landfills accepting mainly Domestic Waste" (Landfill Operational Practices). Parameters are within the minimum and maximum concentrations stated and generally show similar levels to those detected during the last reporting period.

Table 6.1 Raw Leachate Concentrations 2013

	Ballynacarrick Landfill Site		From 30 samples from UK/Irish landfills accepting domestic waste Results in mg/l		
PARAMETER	**Min.Conc**	**Max.Conc**	**Min.Conc**	**Max.Conc**	**Mean**
Ammonia (mg/N)	6.45	237	<0.2	1700	491
BOD	1.86	150.8	4.5	>4800	>834
COD	97	388	<10	33,700	3078
Chloride (mg/l)	75	425	27	3410	1256
Iron (mg/l)	<0.02	<0.02	0.4	664	54.4
Potassium (mg/l)	14.3	14.3	2.7	1480	491
TON (mg/l N)	<0.1	38	/	/	/
Conductivity (µS/cm)	921	2580	503	19,200	7789
pH (pH units)	6.76	7.97	6.4	8.0	7.2

6.3 Gas Emissions

6.3.1 Gas Management Infrastructure

Gas emissions are managed by means of a gas collection network and a permanent flare that runs continuously. Gas is extracted across the site from an extensive network extensive network of wells and delivered to the flare. In addition there are four locations at which gas levels are monitored within the waste (at LG2, LG4, LG5 & LG6) and 10 perimeter monitoring wells (Labels LG8 to LG17) which determine whether gas is migrating off site or not. There is also a gas cut-off trench located along the north-eastern boundary near to the entrance gate.

6.3.2 Gas Wells in Waste

Gas levels within the waste body (all in the unlined part of the site) are monitored at locations LG2, LG4, LG5 & LG6 as shown on drawing no. IBR0125/053. The ranges of levels detected during the period are summarised in Table 6.2.

Table 6.2 Summary of Gas Levels in Waste

Parameter	2012		2013	
	Max	Min	Max	Min
Methane	87.1%	36.2%	77.9%	60.1%
Carbon Dioxide	36.6%	12.9%	36.6%	20.2%

6.3.3 Perimeter Gas Wells

Perimeter wells were installed during 2005. Nine wells were initially installed labelled LG8 – LG16 inclusive. As described above, a well was also installed at a later stage just outside the site boundary at LG17. All of these locations are shown on drawing no. IBR0125/053 – Monitoring Locations.

Results from these wells detected over the period are summarised in Table 6.3 as follows:

Table 6.3 Summary of Gas Levels in Perimeter Wells

Parameter	2013	
	Max	Min
Methane	0.1%	0%
Carbon Dioxide	7.4%	0%

Results show good levels of gas production which is being well contained by the flare.

6.4 Dust Monitoring

As the facility is now non-operational the dust monitoring programme is in abeyance until such time as site activity warrants it re-establishment.

7. FLOW DATA FOR WATER COURSE RECEIVING SURFACE WATER EMISSIONS

7.1 Condition 6.1 requires that the Council installs monitoring equipment and telemetry to monitor the surface water management system. As part of the on-going leachate infrastructure improvement works increased pumping capacity was introduced in 2011 to improve containment and eliminate sources of contamination draining into the surface water system. Under Condition 6.19 the Council requested (DCC letter of 12/10/09) that the requirement to install this equipment and telemetry be deferred until the need for it can be reviewed in the light of anticipated benefits to surface water quality accruing from the drainage improvement works. Improved surface water quality has been demonstrated over recent periods and the need for such infrastructure can now be reviewed.

8. ESTIMATED ANNUAL AND CUMULATIVE QUANTITIES OF LANDFILL GAS EMITTED FROM THE FACILITY

8.1 Modelling of waste inputs estimate the cumulative quantity of landfill gas emitted from the facility since 1980 at 70.4Mm^3. Current annual output is at a rate of c.450m^3/hour for the period totalling an estimated 3.9Mm^3 for 2013. See Appendix C for further details.

8.2 The modelling results using Gas Sim are presented in Appendix C.

9. VOLUME OF LEACHATE PRODUCED AND VOLUME OF LEACHATE TRANSPORTED / DISCHARGED OFF-SITE

9.1 The WBC (ref. Appendix B) indicates that 19,223m^3 of leachate should have been generated on this site given the recorded rainfall. As shown in Table 9.1 26,580m^3 of leachate was actually pumped, stored and tankered off-site to Letterkenny Wastewater Treatment Works. These figures show that the completion of the cap has significantly reduced both the amount of leachate generated and tankered. The estimated volume generated figure actually compares quite well with the actual volume tankered when the additional quantity of leachate collected in the groundwater chamber is taken into account.

Table 9.1 Leachate quantities removed from site during 2013

Month	Quantity of Leachate(m^3)
January	**3,216.8**
February	**3,444.2**
March	**1,405.8**
April	**892.8**
May	**2,188.4**
June	**1,575.8**
July	**1,749.9**
August	**2,662.5**
September	**1,834.3**
October	**1,889.8**
November	**3,075.1**
December	**2,644.7**
TOTAL (m^3)	**26,580.1**

10. ANNUAL WATER BALANCE CALCULATION AND INTERPRETATION

10.1 The annual water balance calculation is contained in Appendix B and discussed in the previous section.

11. WASTE MANAGEMENT RECORD

11.1 In accordance with Condition 5 of the Waste Licence only those wastes types and quantities listed in Schedule A shall be recovered or disposed of at the facility unless prior agreement of the Agency has been obtained. The maximum annual tonnage of individual waste categories for acceptance to the site is listed in Schedule A of the Waste Licence. The quantities of waste received at the facility between 1997 and 2012 are presented in Table 11.1. The site closed at the end of July 2012 as it had been filled to capacity. No waste has been received at the site since this time.

Table 11.1 Waste quantities accepted (tonnes)

Year	1997	1998	1999	2000	2001
Total	23,000	24,000	25,000	9,100	8,300
Year	2002	2003	2004	2005	2006
Total	17,189	16,872	37,746	36,141	32,908
Year	2007	2008	2009	2010	2011
Total	35,143	30,332	24,535	23,761#	16,170
Year	2012	2013			
Total	20,190	0			

- excludes 28,342 tonnes of repatriated waste imported from Northern Ireland under agreement of DEHLG and EPA.

12. WASTE RECOVERY REPORT

12.1 There was no waste recovery carried out on the site in the reporting period.

13. TOPOGRAPHICAL SURVEY

13.1 A site survey was submitted to the Agency in May 2013.

14. SLOPE STABILITY SURVEY

14.1 A slope stability survey was submitted to the Agency in May 2013.

15. RESOURCE CONSUMPTION SUMMARY

The consumption of electricity and fuel for the period is summarised as follows:

- Diesel consumption: 2,880 litres
- Electrical consumption: 92,200kwhrs.

16. COMPLAINTS SUMMARY

16.1 There were no complaints received during the reporting period.

17. SCHEDULE OF ENVIRONMENTAL OBJECTIVES AND TARGETS

Table 17.1 **Environmental Objectives and Targets**
Objective 1: Maintenance of infrastructure to contain leachate and gas emissions whilst optimising emissions management systems.
Reason: To comply with the conditions of the waste licence. To continue the containment of leachate and gas emissions by means of collection and treatment whilst minimising leachate generation and the need for haulage to a remote treatment facility with its associated secondary environmental impacts and costs.
Individual Targets: (a) Continue monitoring and maintenance programmes; (b) Optimise management of groundwater collection tank; (c) Investigate scope for bio-remediation solutions locally.
Timescales for individual targets: 1. Year end 2014.
Personnel Responsible for implementation of targets Executive Environmental Officer
Estimated cost and funding available to implements objectives Council's revenue budgets, anticipated costs in excess of €500k
Payback from Project Maintain containment of leachate and gas emissions whilst minimising secondary environmental impacts and financial cost associated with leachate haulage and remote treatment

18. ENVIRONMENTAL MANAGEMENT PROGRAMME – REPORT FOR PREVIOUS YEAR

Objective 1: **Restoration complete.**

19. ENVIRONMENTAL MANAGEMENT PROGRAMME – REPORT FOR CURRENT YEAR

19.1 Programme for 2013 outlined in Table 17.1.

20. POLLUTANT RELEASE TRANSFER REGISTER – REPORT FOR PREVIOUS YEAR

20.1 Not applicable.

21. POLLUTANT RELEASE TRANSFER REGISTER – PROPOSAL FOR CURRENT YEAR

21.1 Not applicable.

22. NOISE MONTORING SUMMARY REPORT

22.1 As the site is now non-operational the noise levels on the site are no longer being monitored. Should any activity be initiated that would have noise associated with it then the programme will be re-instated as appropriate.

23. METEOROLOGICAL DATA SUMMARY

23.1 Meteorological data is contained in Appendix B.

24. AMBIENT MONITORING SUMMARY, INCLUDING BIOLOGICAL ASSESSMENT

24.1 All results of the ambient monitoring are contained in Appendix A and these results have been summarised and discussed in Section 6 of this report.

24.2 A biological assessment was carried out in September. The report for the biological assessment is as follows:

- SW2 (upstream) could not be biologically assessed due to the nature of the water body bed;
- SW1 (downstream) could not be assessed because the sampling point is a lined lagoon that forms part of a piped system;
- SW3:- Kick sampling was carried out at this point over a two-minute period. The Q-Value recorded in July and August was Q2 (**Pollution Status**: moderate-seriously polluted; **Condition**: unsatisfactory);
- SW4 – no kick sampling was carried out due to the nature of the stream bed. The sediment had the appearance of a dark mud indicative of anaerobic conditions. Upstream of this point there is only a soil parent rock present therefore a survey could not be carried out, so a sample was taken further downstream at the next accessible point (500m further downstream from SW4). At this point the Q-Value recorded was Q3 (**Pollution Status**: moderate-slightly polluted; **Condition**: unsatisfactory).

25. CURRENT MONITORING LOCATION REFERENCE DRAWING

25.1 Drawing ref. IBR0125/053 shows the layout of all monitoring locations for the site.

26. TANK, PIPELINE AND BUND TESTING AND INSPECTION REPORT.

26.1 Integrity testing of the leachate storage tanks will be re-tested in Quarter 1, 2014. Results will be forwarded to the Agency under separate cover when available.

27. REPORTED INCIDENTS SUMMARY

27.1 There were no environmental incidents reported during the period.

28. ENERGY EFFICIENCY IMPLEMENTATION PROGRAMME

28.1 An Energy Audit Report was produced for the Council in 2007 and submitted to the Agency at that time. It concluded that there was limited scope for energy reduction on the site but that consideration should be given to:

(a) Harnessing energy from the flare in terms of energy generation and connection to the national grid;

(b) Improving metering and control systems;

(c) Changing electricity supplier.

29. ENERGY REVIEW AUDIT REPORT SUMMARY

29.1 After consideration of the scale of gas production required for cost effective electricity generation and grid connection the Council did not originally seek to generate electricity from from the flare because the operation was not sufficiently large scale. However, recently, the evolution of technology involved with harnessing power from landfill gas has improved the viability of small operations such as Ballynacarrick. The Council is currently investigating the business case for proceeding with such a project.

29.2 The control systems on the site have been continuously developed and upgraded since the time of the Energy Audit Report. Since 2011 additional meters have been added to the leachate control infrastructure on a continual basis to allow for improved management of that system. Furthermore a data collection project is on-going to analyse leachate flow data.

29.3 The Council moved from the ESB to Airtricity for its electricity supply during in November 2009. It changed supplier again early in 2012.

30. DEVELOPMENT INFRASTRUCTURE WORKS SUMMARY (COMPLETED PREVIOUS YEAR OF PREPARED FOR CURRENT YEAR)

Table 30.1 Development works undertaken during 2013

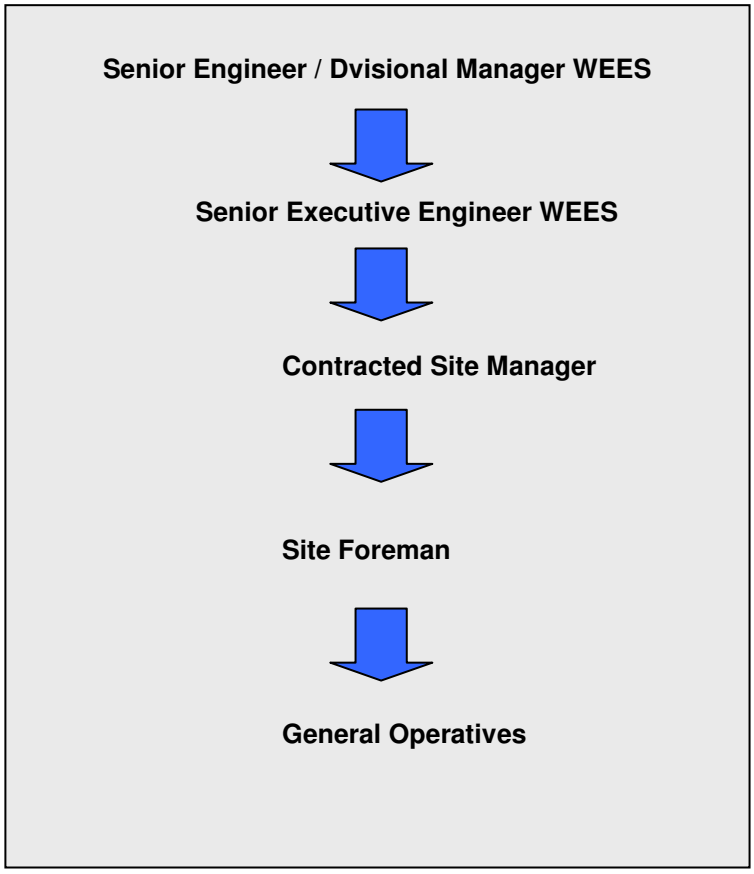
Project	Description and Date
Final restoration of Phase 2 Cells 2B & 2C	Completed by end 2013

Table 30.2 Development works proposed for 2014

Licence requirements	Timescale
No significant works planned as facility non-operational, on-going maintenance requirements will be met	Completion by end 2014

31. REPORT ON MANAGEMENT AND STAFFING STRUCTURE OF THE INSTALLATION/FACILITY

31.1 Management Structure at Ballynacarrick Landfill site is as follows. This is the present status and maybe subject to change at a later stage.



Responsibility is as follows:

Senior Engineer: Overall responsibility for the management of the landfill activity and the implementation of the waste licence.

Senior Executive Engineer: Responsible for the ongoing management of the facility as directed by the Senior Engineer

Site Manager: Responsible for the day to day management of the landfill as per licence requirements and as directed by Senior Executive Engineer or Senior Engineer.

Site Foreman: Carry out daily landfill operations as per operational and management procedures

General Operatives: Carry out daily landfill operations as per operational and management procedures under direction of site manager and foreman.

Scientific Officers: Carry out inspections, environmental monitoring, analysis and reporting in accordance with licence requirements.

32. REPORT ON PROGRAMME FOR PUBLIC INFORMATION

32.1 A public information programme is in place in accordance with Condition 2 of the Waste Licence to ensure that information regarding the environmental performance is available from Council Headquarters in Lifford at all reasonable times. Details of this are contained in the Environmental Management System Manual.

33. REPORT ON FINANCIAL PROVISION MADE UNDER THIS LICENCE

33.1 Donegal County Council is a Local Authority and is committed to provide for the proper management, development and restoration of Ballynacarrick Landfill Site.

34. STATEMENT ON COSTS OF LANDFILL

Ballynacarrick Landfill AER 2013	
Statement of Account	
EXPENDITURE	
Operational Expenses	**€412,422**
Loan Repayments	**€584,203**
Landfill Levy Paid	**€0**
TOTAL EXPENDITURE	**€996,625**
INCOME	
Landfill Charges Accrued (incl VAT)	**-€512,883**
BALANCE	**€1,509,508**

35. REVIEW OF ENVIRONMENTAL LIABILITIES

35.1 Efforts are made on a continuous basis to contain leachate and gas emissions by means of extraction systems and treatment of pollutants to protect the local environment. In terms of leachate containment, the number of locations from which leachate is pumped has been increased along with the capacity to convey and store leachate. Gas continues to be continuously collected and flared.

35.2 The Council does not specifically underwrite environmental risks but as a Local Authority is committed to provide for the proper environmental management of the site.

36. ANY AMENDMENTS TO CRAMP

36.1 The CRAMP for Ballynacarrick Landfill Site was submitted to the Agency for approval in April 2010. There have been no amendments to the Plan since this time.

37. DETAILED STATEMENT, WITH MASS BALANCE, OF CONSTRUCTION AND DEMOLITION WASTES AND COMPOST USED IN CONSTRUCTION

37.1 No such wastes are used in construction at this site.

38. STATEMENT OF COMPLIANCE OF FACILITY WITH ANY UPDATES OF THE RELEVANT WASTE MANAGEMENT PLAN

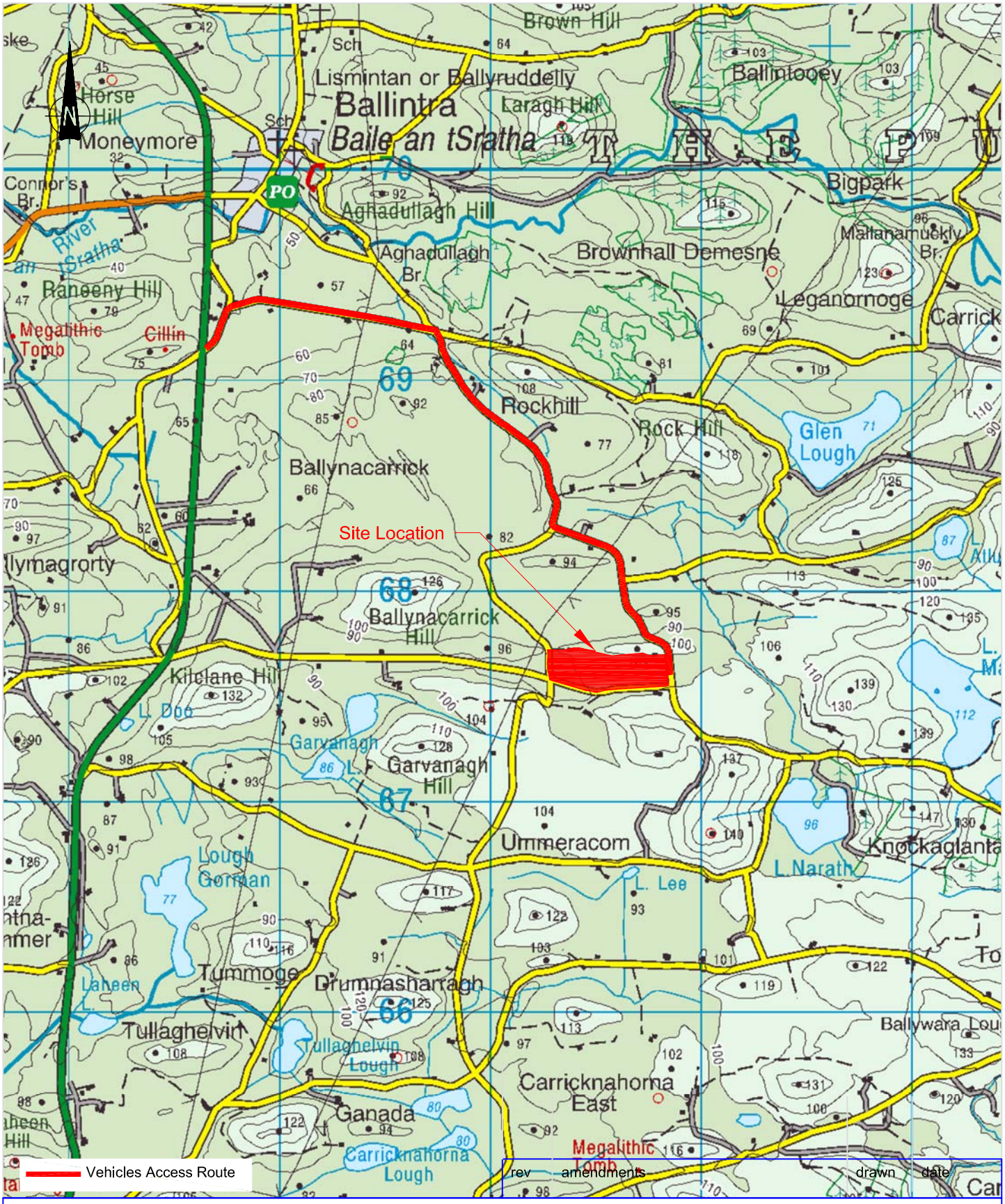
38.1 None applicable.

39. STATEMENT ON THE ACHIEVEMENT OF THE WASTE ACCEPTANCE AND TREATMENT OBLIGATIONS

39.1 Condition 8 of the Waste Licence requires that all waste accepted at the site has been subject to appropriate pre-treatment and that a reduction in BMW content to 47% by weight is achieved. When the facility was operational the Council submitted the following quarterly BMW returns. These reported the following as regards these criteria:-

Table 39.1 – Statement on Achievement of Waste Acceptance and Treatment Obligations

Return Date	% of Waste Pre-Treated	% BMW
October 2010	94.1%	60.9%
January 2011	96.6%	60.3%
April 2011	96.0%	57.4%
July 2011	80.2%	53.2%
October 2011	98.4%	57.5%
January 2012	96.8%	58.6%
April 2012	98.9%	59.3%
July 2012	99.3%	60.4%
October 2012	99.6%	59.8%



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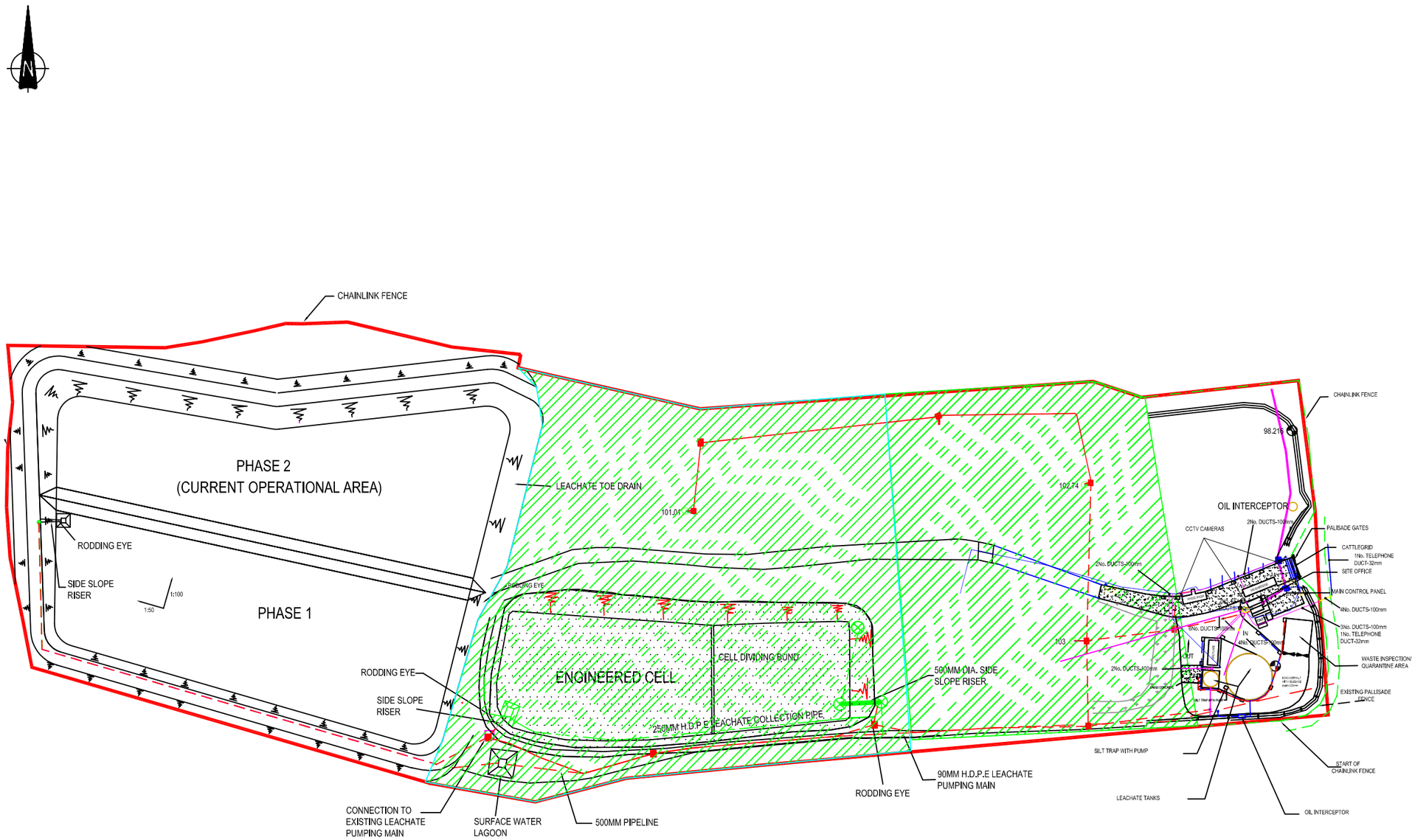
Drawing Number	Rev
IBR0125/051	A

Project	Title
Ballynacarrick Landfill Site	Ballynacarrick Landfill Site Location
Client	**Architect**
Donegal County Council	

Drawing Status	Sheet Size	Drawing Scale	Project Leader	Drawn By	Date	Initial Review
Prelim	A4	1:25,000	DD	AMB	Mar '11	AMcG



NOTES

1. Verifying Dimensions.
The contractor shall verify dimensions against such other drawings or site conditions as pertain to this part of the work.

2. Existing Services.
Any information concerning the location of existing services indicated on this drawing is intended for general guidance only. It shall be the responsibility of the contractor to determine and verify the exact horizontal and vertical alignment of all cables, pipes, etc. (both underground and overhead) before work commences.

3. Issue of Drawings.
Hard copies, dwf and pdf will form a controlled issue of the drawing. All other formats (dwg, dxf etc.) are deemed to be an uncontrolled issue and any work carried out based on these files is at the recipients own risk. RPS will not accept any responsibility for any errors arising from the use of these files, either by human error by the recipient, listing of un-dimensioned measurements, compatibility issues with the recipient's software, and any errors arising when these files are used to aid the recipients drawing production, or setting out on site.

5. DATUM:

ENGINEERED CELL

RESTORED AREA

CABLE DUCTS & CHAMBERS

3 PUMP NUMBER

MAIN ESB POWER LINE

CABLE DUCTS

ROAD LIGHTING CABLE DUCTS

rev	amendments	drawn date	checked date

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Client
DONEGAL COUNTY COUNCIL

Project
BALLYNACARRICK LANDFILL SITE

Title
Site Layout

Architect

Drawing Status	Sheet Size	Drawing Scale
Prelim	A3	1:2000

Drawing Number	Rev
IBR0125/054	0

Drawn By / Date		Checked By / Date		Approved By / Date	
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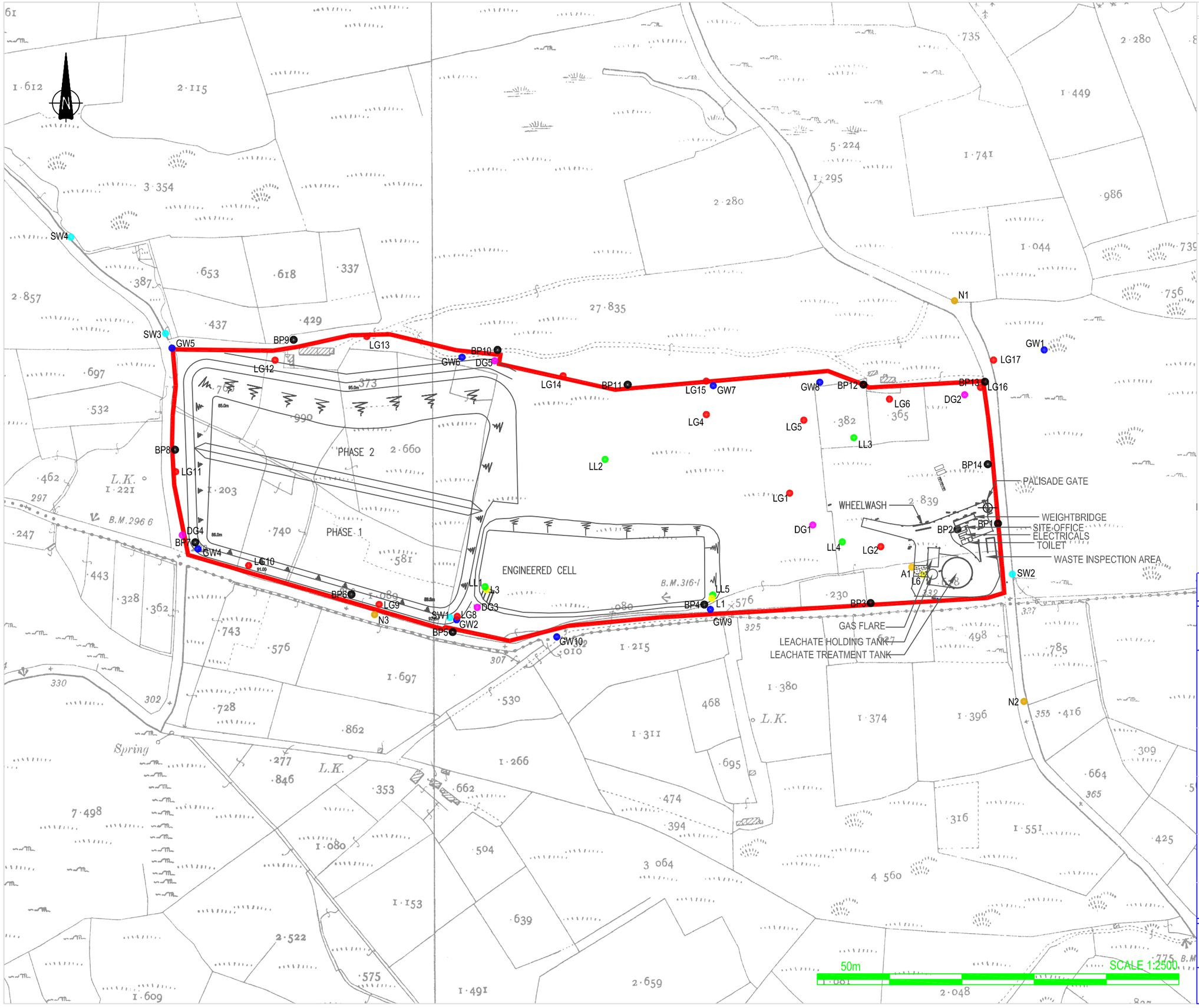

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4. DATUM:

5. KEYS

- SITE BOUNDARY
- LG1 — LANDFILL GAS MONITORING POINT
- DG1 — DUST MONITORING POINT
- N1 — NOISE MONITORING POINT
- SW1 — SURFACE WATER MONITORING POINT
- GW1 — GROUND WATER MONITORING POINT
- L1 — LEACHATE MONITORING POINT
- LL1 — LEACHATE LEVEL
- BP1 — BAIT POINT
- A1 — LANDFILL GAS FLARE

rev	amendments	drawn date	checked date

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Client: DONEGAL COUNTY COUNCIL

Project: BALLYNACARRICK LANDFILL SITE

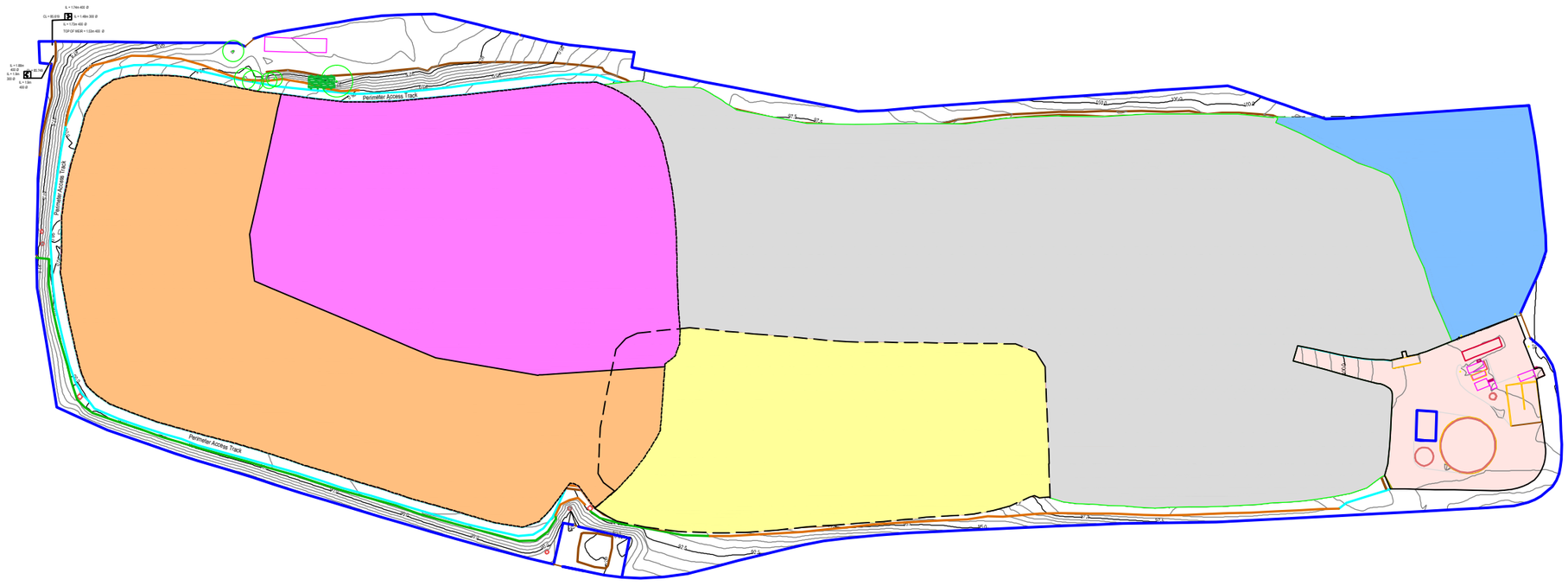
Title: Monitoring Locations

Architect:

Drawing Status	Sheet Size	Drawing Scale
Prelim	A3	AS SHOWN

Drawing Number	Rev
IBR0125/053	0

Drawn By / Date	Checked By / Date	Approved By / Date
AMB JAN '10	NR JAN '10	DD JAN '10



10m SCALE 1:2000

NOTES

1. Verifying Dimensions.
   The contractor shall verify dimensions against such other drawings or site conditions as pertain to this part of the work.

2. Existing Services.
   Any information concerning the location of existing services indicated on this drawing is intended for general guidance only. It shall be the responsibility of the contractor to determine and verify the exact horizontal and vertical alignment of all cables, pipes, etc. (both underground and overhead) before work commences.

3. Issue of Drawings.
   Hard copies, dwf and pdf will form a controlled issue of the drawing. All other formats (dwg, dxf etc.) are deemed to be an uncontrolled issue and any work carried out based on these files is at the recipients own risk. RPS will not accept any responsibility for any errors arising from the use of these files, either by human error by the recipient, listing of un-dimensioned measurements, compatibility issues with the recipient's software, and any errors arising when these files are used to aid the recipients drawing production, or setting out on site.

4. Elevation in metres to OS Datum Malin Head (Irish Grid)
   Survey undertaken on 11 February 2011by ORICA BQS.

5. Access to Councils authorised vehicles and staff to be maintained at all times in accordance with the specification

6. Keys

- Storage Area
- Site Infrastructures
- Original Site - Capped Old Unengineered Cell
- Original Site - Capped Engineered Cell
- Capped Engineered Extension to Site
- Extent of Original Site - Capped Engineered Cell

rev	amendments	drawn date	checked date

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Client
Donegal County Council

Project
Ballynacarrick Landfill Gas Utilisation

Title
Site Phases

Architect

Drawing Status	Sheet Size	Drawing Scale
Tender	A3	1:2,000

Drawing Number	Rev
IBR0473/202	0

Drawn By / Date		Checked By / Date		Approved By / Date	
AMB	Oct '13	DD	Oct '13	DD	Oct '13

APPENDIX A

MONITORING DATA

StationName	Sample Date	Ammonia (as N)	BOD	COD	Chloride	Conductivity @ 20°C	DO (Measurement)	pH	SS	Temp
SW1	08/03/2013	0.721	0.9	36	30	150	11.12	6.82	1	4
SW2	08/03/2013	0.328	0.66	35	AR	120	9.35	6.57	2	5.6
SW3	08/03/2013	9.62	1.11	30	AR	385	11.65	7.57	1	5.6
SW4	08/03/2013	7.86	1.05	30	AR	380	11.8	7.72	2	5.6
SW1	16/04/2013	0.288	1.4	31	26	162	10.92	7.73	6.4	10.3
SW2	16/04/2013	0.494	1.85	28	26	153	6.9	7.11	8	11.2
SW3	16/04/2013	11.3	1.33	28	44	410	10.06	7.86	1.2	10.2
SW4	16/04/2013	9.73	2.05	26	44	371	10.49	7.86	19	10.3
SW1	10/09/2013	0.2	0.07	66	32	123	10.07	6.83	2.8	13.2
SW2	10/09/2013	<0.04	1.88	103	24	113	5.91	6.57	38	13.1
SW3	10/09/2013	4	1.29	51	33	312	9.3	7.54	5.6	12.9
SW4	10/09/2013	3.1	3.08	48	35	281	9.43	7.49	2.6	13.1
SW2	11/12/2013	0.67	1.05	45	30	1653	7.87	6.82	32	10.3
SW3	11/12/2013	1.19	2.01	28	40	442	9.42	7.71	103	9.9

Station Name	Sample Date	Ammonia (as N)	Chloride	Conductivity @ 20°C	pH	Temp	TON	Iron
GW 1	25/02/2013	1.29	26	396	6.88	9.3	0.011	0.025
GW 2	25/02/2013	45	104	1081	6.87	9.4	0.26	0.021
GW 4	25/02/2013	<0.040	22	450	7.39	9.5	0.11	0.005
GW 5	25/02/2013	0.291	66	696	7.29	9.6	0.11	0.005
GW 7	25/02/2013	<0.040	33	393	6.91	9.8	0.11	0.011
GW 8	25/02/2013	<0.04	46	503	7.09	9.8	0.11	0.027
GW 9	25/02/2013	9.34	36	815	6.76	9.9	0.11	0.017
GW 10	25/02/2013	1.84	31	389	6.79	9.9	0.11	3.18
GW 1	17/04/2013	1.25	35	350	6.8	9.8	0.1	<0.019
GW 2	17/04/2013	25	88	890	6.86	10	1.1	0.032
GW 4	17/04/2013	0.11	28	504	7.42	9.5	0.02	<0.019
GW 5	17/04/2013	0.38	72	711	7.3	9.8	0.01	<0.019
GW 7	17/04/2013	0.19	38	488	6.88	9.8	0.01	<0.019
GW 8	17/04/2013	0.11	52	510	7.05	10	0.12	0.0224
GW 9	17/04/2013	4.6	38	835	6.74	10.4	0.27	<0.019
GW 10	17/04/2013	1.9	30	395	6.75	9.9	0.01	3.69
GW 1	30/09/2013	1.08	22	336	6.99	13.3	0.11	4.6
GW 2	30/09/2013	25.4	140	955	6.87	13.6	0.86	8.22
GW 4	30/09/2013	0.231	24	571	7.57	12.9	0.11	0.687
GW 5	30/09/2013	2.25	64	606	7.54	13.4	0.11	0.104
GW 6	30/09/2013	0.058	44	317	7.13	12.4	0.11	1.27
GW 7	30/09/2013	3.58	32	512	6.85	13	0.11	0.879
GW 8	30/09/2013	0.075	51	499	7.11	12.8	0.28	0.196
GW 9	30/09/2013	18.3	40	776	6.79	13.5	0.11	19.8
GW 10	30/09/2013	6.48	38	434	6.81	13.2	0.11	9.61
GW 1	11/12/2013	1.61	26	467	6.94	11.7	0.06	0.04
GW 2	11/12/2013	0	50	1446	7.1	11	3.08	0.04
GW 4	11/12/2013	0	21	825	7.45	10.2	0.04	0.17
GW 5	11/12/2013	0	57	889	7.11	10.9	0	0.04
GW 6	11/12/2013	0	44	612	6.88	11.2	0.04	0.07
GW 7	11/12/2013	0	34	635	6.8	11.3	0.03	0.03
GW 8	11/12/2013	38	115	681	6.76	10.8	0.02	0.11
GW 9	11/12/2013	4.95	35	944	6.8	11.4	0.3	1.14
GW 10	11/12/2013	4.17	39	518	6.63	11.7	0	7.87

Station Name	Sample Date	Ammonia (as N)	BOD	COD	Chloride	Conductivity @ 20℃	pH	Temperature	TON
L6 (Tank)	08/02/2013	70	12.93	126	255	1938	7.32	9	37.97
L8	08/02/2013	190	1.96	135	220	2130	7.34	7.4	NT
L 1	15/03/2013	119	23	145	240	1957	6.84	12.4	0.08
L 1	22/04/2013	97.8	1.86	102	145	1934	6.76	11.7	<0.1
L 6 (Tank)	22/04/2013	44.1	7.4	187	325	2580	7.69	11.7	9.92
L8	22/04/2013	6.45	4.34	47	220	921	7.31	12	3.68
L 1	10/09/2013	139	0.16	106	190	1851	6.97	14	0.18
L 6 (Tank)	10/09/2013	292	73.6	468	425	2850	7.97	14.2	376
L8	10/09/2013	24	1.8	53	75	987	7.81	15.6	1.71
L 1	11/12/2013	39.6	12.7	97	125	2540	6.9	11.1	0
L 6 (Tank)	11/12/2013	237	150.8	388	365	2540	7.58	11.4	3.02

Station Name	Sample Date	Atmospheric Pressure	Carbon Dioxide	Methane	Oxygen
LG2	27/02/2013	1029	31.4	67.8	0.1
LG4	27/02/2013	1029	25.8	70.1	0.1
LG5	27/02/2013	1029	22.6	67.2	0
LG6	27/02/2013	1029	27.9	67	0
LG2	04/04/2013	1003	29.9	70	0.1
LG4	04/04/2013	1003	26.6	73.1	0.3
LG5	04/04/2013	1003	22	77.9	0.1
LG6	04/04/2013	1003	23.6	76.2	0.2
LG2	23/08/2013	993	34.8	65.1	0.1
LG4	23/08/2013	993	25.9	73.8	0.1
LG5	23/08/2013	993	30	69.8	0.1
LG6	23/08/2013	993	25.1	71	0.2
LG2	09/12/2013	1008	36.6	63.5	0.3
LG4	09/12/2013	1008	27.2	68.1	0.2
LG5	09/12/2013	1008	24.2	66.1	3.1
LG6	09/12/2013	1008	20.2	60.1	3

Station Name	Sample Date	Ammonia (as N)	Cad-mium	Chro-mium	Copper	Cyanide	DO (Measure't)	Iron	Lead	Mag-nesium	Man-ganese	Mercury	Nickel	Ortho-phosphate	pH	Phenols	Pot-assium	Sulphate	TEMP	TON	Zinc
L8	08/02/2013	190	0.88	10.7	118	NT	NA	<0.019	1.12	15.4	147	<0.01	48.7	0.07	7.34	NA	14.3	138	7.4	3	4070
L6 (tank)	08/02/2013	70	<0.1	17.1	31.6	NT	NA	0.105	0.169	37.6	14.6	<0.01	22.9	0.27	7.32	NA	95.1	90.4	9	38	16.7
L1	15/03/2013	119	<0.1	16.4	3.34	NT	NA	0.0208	0.114	30.2	461	<0.01	25.4	0.034	6.84	NA	62	32.8	12.4	0.08	1900
SW1	08/03/2013	0.721	<0.1	11.1	1.87	NT	11.12	0.295	0.434	3.57	0.825	<0.01	NA	0.039	6.82	NA	<2.34	25.4	4	0.21	<0.41
SW2	08/03/2013	0.328	<0.1	11	2.04	NT	9.35	0.318	0.571	2.7	1.25	<0.01	NA	0.05	6.57	NA	<2.34	2.2	5.6	0.11	<0.41
SW3	08/03/2013	9.62	<0.1	11.1	2.19	NT	11.65	0.396	0.527	9.11	4.13	<0.01	NA	0.032	7.57	NA	6.74	71.6	5.6	0.22	0.41
SW4	08/03/2013	7.86	<0.1	11	2.12	NT	11.8	0.373	0.444	8.18	3	<0.01	NA	0.037	7.72	NA	6.36	51.3	5.6	0.21	<0.41
GW1	17/04/2013	1.25	<0.1	9.66	1.06	<0.05	NA	<0.019	0.078	4	0.204	<0.01	0.406	NA	6.8	<0.002	3.11	19	9.8	0.1	<0.41
GW2	17/04/2013	25	<0.1	7.21	1.3	<0.05	NA	0.032	0.218	25.5	682	<0.01	3.73	NA	6.86	<0.002	31.2	20.1	10	1.1	<0.41
GW4	17/04/2013	0.11	<0.1	11.1	1.87	<0.05	NA	<0.019	0.057	13.5	0.099	<0.01	1.24	NA	7.42	<0.002	<2.34	202	9.5	0.02	<0.41
GW5	17/04/2013	0.38	<0.1	11.5	1.77	<0.05	NA	<0.019	0.167	45.3	3.41	<0.01	0.946	NA	7.3	<0.02	3.48	<2	9.8	0.01	<0.41
GW 7	17/04/2013	0.19	<0.1	11.9	5.38	<0.05	NA	<0.019	0.058	10.6	2.38	<0.01	2.32	NA	6.88	<0.002	<2.34	5.9	9.8	0.01	<0.41
GW 8	17/04/2013	0.11	<0.1	13.3	9.96	<0.05	NA	0.0224	0.106	6.05	1.52	<0.01	4.24	NA	7.05	<0.002	9.05	17.5	10	0.12	0.462
GW 9	17/04/2013	4.6	0.1	<3	3.83	<0.05	NA	<0.019	0.053	7.96	127	<0.01	3.85	NA	6.74	<0.002	4.33	14.4	10.4	0.27	9.32
GW10	17/04/2013	1.9	<0.1	<3	1.53	<0.05	NA	3.69	0.752	10.1	148	0.0641	1.61	NA	6.75	<0.002	6.78	<2	9.9	0.01	4.06

VOLATILE ORGANIC COMPOUNDS		*Ballynacarrick Landfill Site Ballintra, Co.Donegal*	
Month:	**April**		
Location:	**GW1**		
Lab No:	**2429**		
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
	ug/l		ug/l
Dichlorodifluoromethane	<1	**1,2-Dibromoethane**	<1
Chloromethane	<1	**Tetrachloroethene**	<1
Vinyl Chloride	<1	**1,1,1,2-Tetrachloroethane**	<1
Bromomethane	<1	**Chlorobenzene**	<1
Chloroethane	<1	**Ethylbenzene**	<1
Trichlorofluoromethane	<1	**p/m-Xylene**	<1
trans-1,2-Dichloroethene	<1	**Bromoform**	<1
Dichloromethane	<3	**Styrene**	<1
Carbon disulphide	<1	**1,1,2,2-Tetrachloroethane**	<1
1,1-Dichloroethene	<1	**o-Xylene**	<1
1,1-Dichloroethane	<1	**1,2,3-Trichloropropane**	<1
tert-butyl methyl ether	<1	**Isopropylbenzene**	<1
cis-1,2-Dichloroethene	<1	**Bromobenzene**	<1
Bromochloromethane	<1	**2-Chlorotoluene**	<1
Chloroform	<1	**Propylbenzene**	<1
2,2-Dichloropropane	<1	**4-Chlorotoluene**	<1
1,2-Dichloroethane	<1	**1,2,4-Trimethylbenzene**	<1
1,1,1-Trichloroethane	<1	**4-Isopropyltoluene**	<1
1,1-Dichloropropene	<1	**1,3,5-Trimethylbenzene**	<1
Benzene	<1	**1,3-Dichlorobenzene**	<1
Carbontetrachloride	<1	**1,4-Dichlorobenzene**	<1
Dibromomethane	<1	**sec-Butylbenzene**	<1
1,2-Dichloropropane	<1	**tert-Butylbenzene**	<1
Bromodichloromethane	<1	**1,2-Dichlorobenzene**	<1
Trichloroethene	<1	**n-Butylbenzene**	<1
cis-1,3-Dichloropropene	<1	**1,2-Dibromo-3-chloropropane**	<1
trans-1,3-Dichloropropene	<1	**1,2,4-Trichlorobenzene**	<1
1,1,2-Trichloroethane	<1	**Naphthalene**	<1
Toluene	<1	**1,2,3-Trichlorobenzene**	<1
1,3-Dichloropropane	<1	**Hexachlorobutadiene**	<1
Dibromochloromethane	<1	**tert-Amyl methyl ether**	<1
		1,3,5-Trichlorobenzene	<1

VOLATILE ORGANIC COMPOUNDS		*Ballynacarrick Landfill Site Ballintra, Co.Donegal*	
Month:	**April**		
Location:	**GW2**		
Lab No:	**2430**		
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
	ug/l		ug/l
Dichlorodifluoromethane	<1	**1,2-Dibromoethane**	<1
Chloromethane	<1	**Tetrachloroethene**	<1
Vinyl Chloride	<1	**1,1,1,2-Tetrachloroethane**	<1
Bromomethane	<1	**Chlorobenzene**	<1
Chloroethane	<1	**Ethylbenzene**	<1
Trichlorofluoromethane	<1	**p/m-Xylene**	<1
trans-1,2-Dichloroethene	<1	**Bromoform**	<1
Dichloromethane	<3	**Styrene**	<1
Carbon disulphide	<1	**1,1,2,2-Tetrachloroethane**	<1
1,1-Dichloroethene	<1	**o-Xylene**	<1
1,1-Dichloroethane	<1	**1,2,3-Trichloropropane**	<1
tert-butyl methyl ether	<1	**Isopropylbenzene**	<1
cis-1,2-Dichloroethene	<1	**Bromobenzene**	<1
Bromochloromethane	<1	**2-Chlorotoluene**	<1
Chloroform	<1	**Propylbenzene**	<1
2,2-Dichloropropane	<1	**4-Chlorotoluene**	<1
1,2-Dichloroethane	<1	**1,2,4-Trimethylbenzene**	<1
1,1,1-Trichloroethane	<1	**4-Isopropyltoluene**	<1
1,1-Dichloropropene	<1	**1,3,5-Trimethylbenzene**	<1
Benzene	<1	**1,3-Dichlorobenzene**	<1
Carbontetrachloride	<1	**1,4-Dichlorobenzene**	<1
Dibromomethane	<1	**sec-Butylbenzene**	<1
1,2-Dichloropropane	<1	**tert-Butylbenzene**	<1
Bromodichloromethane	<1	**1,2-Dichlorobenzene**	<1
Trichloroethene	<1	**n-Butylbenzene**	<1
cis-1,3-Dichloropropene	<1	**1,2-Dibromo-3-chloropropane**	<1
trans-1,3-Dichloropropene	<1	**1,2,4-Trichlorobenzene**	<1
1,1,2-Trichloroethane	<1	**Naphthalene**	<1
Toluene	<1	**1,2,3-Trichlorobenzene**	<1
1,3-Dichloropropane	<1	**Hexachlorobutadiene**	<1
Dibromochloromethane	<1	**tert-Amyl methyl ether**	<1
		1,3,5-Trichlorobenzene	<1

VOLATILE ORGANIC COMPOUNDS		*Ballynacarrick Landfill Site Ballintra, Co.Donegal*	
Month:	**April**		
Location:	**GW4**		
Lab No:	**2431**		
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
	ug/l		ug/l
Dichlorodifluoromethane	<1	**1,2-Dibromoethane**	<1
Chloromethane	<1	**Tetrachloroethene**	<1
Vinyl Chloride	<1	**1,1,1,2-Tetrachloroethane**	<1
Bromomethane	<1	**Chlorobenzene**	<1
Chloroethane	<1	**Ethylbenzene**	<1
Trichlorofluoromethane	<1	**p/m-Xylene**	<1
trans-1,2-Dichloroethene	<1	**Bromoform**	<1
Dichloromethane	<3	**Styrene**	<1
Carbon disulphide	<1	**1,1,2,2-Tetrachloroethane**	<1
1,1-Dichloroethene	<1	**o-Xylene**	<1
1,1-Dichloroethane	<1	**1,2,3-Trichloropropane**	<1
tert-butyl methyl ether	<1	**Isopropylbenzene**	<1
cis-1,2-Dichloroethene	<1	**Bromobenzene**	<1
Bromochloromethane	<1	**2-Chlorotoluene**	<1
Chloroform	<1	**Propylbenzene**	<1
2,2-Dichloropropane	<1	**4-Chlorotoluene**	<1
1,2-Dichloroethane	<1	**1,2,4-Trimethylbenzene**	<1
1,1,1-Trichloroethane	<1	**4-Isopropyltoluene**	<1
1,1-Dichloropropene	<1	**1,3,5-Trimethylbenzene**	<1
Benzene	<1	**1,3-Dichlorobenzene**	<1
Carbontetrachloride	<1	**1,4-Dichlorobenzene**	<1
Dibromomethane	<1	**sec-Butylbenzene**	<1
1,2-Dichloropropane	<1	**tert-Butylbenzene**	<1
Bromodichloromethane	<1	**1,2-Dichlorobenzene**	<1
Trichloroethene	<1	**n-Butylbenzene**	<1
cis-1,3-Dichloropropene	<1	**1,2-Dibromo-3-chloropropane**	<1
trans-1,3-Dichloropropene	<1	**1,2,4-Trichlorobenzene**	<1
1,1,2-Trichloroethane	<1	**Naphthalene**	<1
Toluene	<1	**1,2,3-Trichlorobenzene**	<1
1,3-Dichloropropane	<1	**Hexachlorobutadiene**	<1
Dibromochloromethane	<1	**tert-Amyl methyl ether**	<1
		1,3,5-Trichlorobenzene	<1

VOLATILE ORGANIC COMPOUNDS		*Ballynacarrick Landfill Site Ballintra, Co.Donegal*	
Month:	**April**		
Location:	**GW5**		
Lab No:	**2432**		
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
	ug/l		ug/l
Dichlorodifluoromethane	<1	**1,2-Dibromoethane**	<1
Chloromethane	<1	**Tetrachloroethene**	<1
Vinyl Chloride	<1	**1,1,1,2-Tetrachloroethane**	<1
Bromomethane	<1	**Chlorobenzene**	<1
Chloroethane	<1	**Ethylbenzene**	<1
Trichlorofluoromethane	<1	**p/m-Xylene**	<1
trans-1,2-Dichloroethene	<1	**Bromoform**	<1
Dichloromethane	<3	**Styrene**	<1
Carbon disulphide	<1	**1,1,2,2-Tetrachloroethane**	<1
1,1-Dichloroethene	<1	**o-Xylene**	<1
1,1-Dichloroethane	<1	**1,2,3-Trichloropropane**	<1
tert-butyl methyl ether	<1	**Isopropylbenzene**	<1
cis-1,2-Dichloroethene	<1	**Bromobenzene**	<1
Bromochloromethane	<1	**2-Chlorotoluene**	<1
Chloroform	<1	**Propylbenzene**	<1
2,2-Dichloropropane	<1	**4-Chlorotoluene**	<1
1,2-Dichloroethane	<1	**1,2,4-Trimethylbenzene**	<1
1,1,1-Trichloroethane	<1	**4-Isopropyltoluene**	<1
1,1-Dichloropropene	<1	**1,3,5-Trimethylbenzene**	<1
Benzene	<1	**1,3-Dichlorobenzene**	<1
Carbontetrachloride	<1	**1,4-Dichlorobenzene**	<1
Dibromomethane	<1	**sec-Butylbenzene**	<1
1,2-Dichloropropane	<1	**tert-Butylbenzene**	<1
Bromodichloromethane	<1	**1,2-Dichlorobenzene**	<1
Trichloroethene	<1	**n-Butylbenzene**	<1
cis-1,3-Dichloropropene	<1	**1,2-Dibromo-3-chloropropane**	<1
trans-1,3-Dichloropropene	<1	**1,2,4-Trichlorobenzene**	<1
1,1,2-Trichloroethane	<1	**Naphthalene**	<1
Toluene	<1	**1,2,3-Trichlorobenzene**	<1
1,3-Dichloropropane	<1	**Hexachlorobutadiene**	<1
Dibromochloromethane	<1	**tert-Amyl methyl ether**	<1
		1,3,5-Trichlorobenzene	<1

VOLATILE ORGANIC COMPOUNDS		*Ballynacarrick Landfill Site Ballintra, Co.Donegal*	
Month:			
Location:	**GW6**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
	ug/l		ug/l
Dichlorodifluoromethane	<1	**1,2-Dibromoethane**	<1
Chloromethane	<1	**Tetrachloroethene**	<1
Vinyl Chloride	<1	**1,1,1,2-Tetrachloroethane**	<1
Bromomethane	<1	**Chlorobenzene**	<1
Chloroethane	<1	**Ethylbenzene**	<1
Trichlorofluoromethane	<1	**p/m-Xylene**	<1
trans-1,2-Dichloroethene	<1	**Bromoform**	<1
Dichloromethane	<3	**Styrene**	<1
Carbon disulphide	<1	**1,1,2,2-Tetrachloroethane**	<1
1,1-Dichloroethene	<1	**o-Xylene**	<1
1,1-Dichloroethane	<1	**1,2,3-Trichloropropane**	<1
tert-butyl methyl ether	<1	**Isopropylbenzene**	<1
cis-1,2-Dichloroethene	<1	**Bromobenzene**	<1
Bromochloromethane	<1	**2-Chlorotoluene**	<1
Chloroform	<1	**Propylbenzene**	<1
2,2-Dichloropropane	<1	**4-Chlorotoluene**	<1
1,2-Dichloroethane	<1	**1,2,4-Trimethylbenzene**	<1
1,1,1-Trichloroethane	<1	**4-Isopropyltoluene**	<1
1,1-Dichloropropene	<1	**1,3,5-Trimethylbenzene**	<1
Benzene	<1	**1,3-Dichlorobenzene**	<1
Carbontetrachloride	<1	**1,4-Dichlorobenzene**	<1
Dibromomethane	<1	**sec-Butylbenzene**	<1
1,2-Dichloropropane	<1	**tert-Butylbenzene**	<1
Bromodichloromethane	<1	**1,2-Dichlorobenzene**	<1
Trichloroethene	<1	**n-Butylbenzene**	<1
cis-1,3-Dichloropropene	<1	**1,2-Dibromo-3-chloropropane**	<1
trans-1,3-Dichloropropene	<1	**1,2,4-Trichlorobenzene**	<1
1,1,2-Trichloroethane	<1	**Naphthalene**	<1
Toluene	<1	**1,2,3-Trichlorobenzene**	<1
1,3-Dichloropropane	<1	**Hexachlorobutadiene**	<1
Dibromochloromethane	<1	**tert-Amyl methyl ether**	<1
		1,3,5-Trichlorobenzene	<1

VOLATILE ORGANIC COMPOUNDS		*Ballynacarrick Landfill Site Ballintra, Co.Donegal*	
Month:	**April**		
Location:	**GW7**		
Lab No:	**2433**		
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
	ug/l		ug/l
Dichlorodifluoromethane	<1	**1,2-Dibromoethane**	<1
Chloromethane	<1	**Tetrachloroethene**	<1
Vinyl Chloride	<1	**1,1,1,2-Tetrachloroethane**	<1
Bromomethane	<1	**Chlorobenzene**	<1
Chloroethane	<1	**Ethylbenzene**	<1
Trichlorofluoromethane	<1	**p/m-Xylene**	<1
trans-1,2-Dichloroethene	<1	**Bromoform**	<1
Dichloromethane	<3	**Styrene**	<1
Carbon disulphide	<1	**1,1,2,2-Tetrachloroethane**	<1
1,1-Dichloroethene	<1	**o-Xylene**	<1
1,1-Dichloroethane	<1	**1,2,3-Trichloropropane**	<1
tert-butyl methyl ether	<1	**Isopropylbenzene**	<1
cis-1,2-Dichloroethene	<1	**Bromobenzene**	<1
Bromochloromethane	<1	**2-Chlorotoluene**	<1
Chloroform	<1	**Propylbenzene**	<1
2,2-Dichloropropane	<1	**4-Chlorotoluene**	<1
1,2-Dichloroethane	<1	**1,2,4-Trimethylbenzene**	<1
1,1,1-Trichloroethane	<1	**4-Isopropyltoluene**	<1
1,1-Dichloropropene	<1	**1,3,5-Trimethylbenzene**	<1
Benzene	<1	**1,3-Dichlorobenzene**	<1
Carbontetrachloride	<1	**1,4-Dichlorobenzene**	<1
Dibromomethane	<1	**sec-Butylbenzene**	<1
1,2-Dichloropropane	<1	**tert-Butylbenzene**	<1
Bromodichloromethane	<1	**1,2-Dichlorobenzene**	<1
Trichloroethene	<1	**n-Butylbenzene**	<1
cis-1,3-Dichloropropene	<1	**1,2-Dibromo-3-chloropropane**	<1
trans-1,3-Dichloropropene	<1	**1,2,4-Trichlorobenzene**	<1
1,1,2-Trichloroethane	<1	**Naphthalene**	<1
Toluene	<1	**1,2,3-Trichlorobenzene**	<1
1,3-Dichloropropane	<1	**Hexachlorobutadiene**	<1
Dibromochloromethane	<1	**tert-Amyl methyl ether**	<1
		1,3,5-Trichlorobenzene	<1

VOLATILE ORGANIC COMPOUNDS		*Ballynacarrick Landfill Site Ballintra, Co.Donegal*	
Month:	**April**		
Location:	**GW8**		
Lab No:	**2434**		
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
	ug/l		ug/l
Dichlorodifluoromethane	<1	**1,2-Dibromoethane**	<1
Chloromethane	<1	**Tetrachloroethene**	<1
Vinyl Chloride	<1	**1,1,1,2-Tetrachloroethane**	<1
Bromomethane	<1	**Chlorobenzene**	<1
Chloroethane	<1	**Ethylbenzene**	<1
Trichlorofluoromethane	<1	**p/m-Xylene**	<1
trans-1,2-Dichloroethene	<1	**Bromoform**	<1
Dichloromethane	<3	**Styrene**	<1
Carbon disulphide	<1	**1,1,2,2-Tetrachloroethane**	<1
1,1-Dichloroethene	<1	**o-Xylene**	<1
1,1-Dichloroethane	<1	**1,2,3-Trichloropropane**	<1
tert-butyl methyl ether	<1	**Isopropylbenzene**	<1
cis-1,2-Dichloroethene	<1	**Bromobenzene**	<1
Bromochloromethane	<1	**2-Chlorotoluene**	<1
Chloroform	<1	**Propylbenzene**	<1
2,2-Dichloropropane	<1	**4-Chlorotoluene**	<1
1,2-Dichloroethane	<1	**1,2,4-Trimethylbenzene**	<1
1,1,1-Trichloroethane	<1	**4-Isopropyltoluene**	<1
1,1-Dichloropropene	<1	**1,3,5-Trimethylbenzene**	<1
Benzene	<1	**1,3-Dichlorobenzene**	<1
Carbontetrachloride	<1	**1,4-Dichlorobenzene**	<1
Dibromomethane	<1	**sec-Butylbenzene**	<1
1,2-Dichloropropane	<1	**tert-Butylbenzene**	<1
Bromodichloromethane	<1	**1,2-Dichlorobenzene**	<1
Trichloroethene	<1	**n-Butylbenzene**	<1
cis-1,3-Dichloropropene	<1	**1,2-Dibromo-3-chloropropane**	<1
trans-1,3-Dichloropropene	<1	**1,2,4-Trichlorobenzene**	<1
1,1,2-Trichloroethane	<1	**Naphthalene**	<1
Toluene	<1	**1,2,3-Trichlorobenzene**	<1
1,3-Dichloropropane	<1	**Hexachlorobutadiene**	<1
Dibromochloromethane	<1	**tert-Amyl methyl ether**	<1
		1,3,5-Trichlorobenzene	<1

VOLATILE ORGANIC COMPOUNDS		*Ballynacarrick Landfill Site Ballintra, Co.Donegal*	
Month:	**April**		
Location:	**GW9**		
Lab No:	**2435**		
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
	ug/l		ug/l
Dichlorodifluoromethane	<1	**1,2-Dibromoethane**	<1
Chloromethane	<1	**Tetrachloroethene**	<1
Vinyl Chloride	<1	**1,1,1,2-Tetrachloroethane**	<1
Bromomethane	<1	**Chlorobenzene**	<1
Chloroethane	<1	**Ethylbenzene**	<1
Trichlorofluoromethane	<1	**p/m-Xylene**	<1
trans-1,2-Dichloroethene	<1	**Bromoform**	<1
Dichloromethane	<3	**Styrene**	<1
Carbon disulphide	<1	**1,1,2,2-Tetrachloroethane**	<1
1,1-Dichloroethene	<1	**o-Xylene**	<1
1,1-Dichloroethane	<1	**1,2,3-Trichloropropane**	<1
tert-butyl methyl ether	<1	**Isopropylbenzene**	<1
cis-1,2-Dichloroethene	<1	**Bromobenzene**	<1
Bromochloromethane	<1	**2-Chlorotoluene**	<1
Chloroform	<1	**Propylbenzene**	<1
2,2-Dichloropropane	<1	**4-Chlorotoluene**	<1
1,2-Dichloroethane	<1	**1,2,4-Trimethylbenzene**	<1
1,1,1-Trichloroethane	<1	**4-Isopropyltoluene**	<1
1,1-Dichloropropene	<1	**1,3,5-Trimethylbenzene**	<1
Benzene	<1	**1,3-Dichlorobenzene**	<1
Carbontetrachloride	<1	**1,4-Dichlorobenzene**	<1
Dibromomethane	<1	**sec-Butylbenzene**	<1
1,2-Dichloropropane	<1	**tert-Butylbenzene**	<1
Bromodichloromethane	<1	**1,2-Dichlorobenzene**	<1
Trichloroethene	<1	**n-Butylbenzene**	<1
cis-1,3-Dichloropropene	<1	**1,2-Dibromo-3-chloropropane**	<1
trans-1,3-Dichloropropene	<1	**1,2,4-Trichlorobenzene**	<1
1,1,2-Trichloroethane	<1	**Naphthalene**	<1
Toluene	<1	**1,2,3-Trichlorobenzene**	<1
1,3-Dichloropropane	<1	**Hexachlorobutadiene**	<1
Dibromochloromethane	<1	**tert-Amyl methyl ether**	<1
		1,3,5-Trichlorobenzene	<1

VOLATILE ORGANIC COMPOUNDS		*Ballynacarrick Landfill Site Ballintra, Co.Donegal*	
Month:	**April**		
Location:	**GW10**		
Lab No:	**2436**		
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
	ug/l		ug/l
Dichlorodifluoromethane	<1	**1,2-Dibromoethane**	<1
Chloromethane	<1	**Tetrachloroethene**	<1
Vinyl Chloride	<1	**1,1,1,2-Tetrachloroethane**	<1
Bromomethane	<1	**Chlorobenzene**	<1
Chloroethane	<1	**Ethylbenzene**	<1
Trichlorofluoromethane	<1	**p/m-Xylene**	<1
trans-1,2-Dichloroethene	<1	**Bromoform**	<1
Dichloromethane	<3	**Styrene**	<1
Carbon disulphide	<1	**1,1,2,2-Tetrachloroethane**	<1
1,1-Dichloroethene	<1	**o-Xylene**	<1
1,1-Dichloroethane	<1	**1,2,3-Trichloropropane**	<1
tert-butyl methyl ether	<1	**Isopropylbenzene**	<1
cis-1,2-Dichloroethene	<1	**Bromobenzene**	<1
Bromochloromethane	<1	**2-Chlorotoluene**	<1
Chloroform	<1	**Propylbenzene**	<1
2,2-Dichloropropane	<1	**4-Chlorotoluene**	<1
1,2-Dichloroethane	<1	**1,2,4-Trimethylbenzene**	<1
1,1,1-Trichloroethane	<1	**4-Isopropyltoluene**	<1
1,1-Dichloropropene	<1	**1,3,5-Trimethylbenzene**	<1
Benzene	<1	**1,3-Dichlorobenzene**	<1
Carbontetrachloride	<1	**1,4-Dichlorobenzene**	<1
Dibromomethane	<1	**sec-Butylbenzene**	<1
1,2-Dichloropropane	<1	**tert-Butylbenzene**	<1
Bromodichloromethane	<1	**1,2-Dichlorobenzene**	<1
Trichloroethene	<1	**n-Butylbenzene**	<1
cis-1,3-Dichloropropene	<1	**1,2-Dibromo-3-chloropropane**	<1
trans-1,3-Dichloropropene	<1	**1,2,4-Trichlorobenzene**	<1
1,1,2-Trichloroethane	<1	**Naphthalene**	<1
Toluene	<1	**1,2,3-Trichlorobenzene**	<1
1,3-Dichloropropane	<1	**Hexachlorobutadiene**	<1
Dibromochloromethane	<1	**tert-Amyl methyl ether**	<1
		1,3,5-Trichlorobenzene	<1

SEMIVOLATILE ORGANIC COMPOUNDS		*Ballynacarrick Landfill Site Ballintra, Co.Donegal*	
Month:	**April**		
Location:	**GW1**		
Lab No:	**2429**		
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
	ug/L		**ug/l**
Phenol	<1.0	**Bis(2-ethylhexyl)phthalate**	<2.0
2-Chlorophenol	<1.0	**Dimethyl phthalate**	<1.0
2-Methylphenol	<1.0	**Di-n-butylphthalate**	<1.0
4-Methylphenol	<1.0	**Di-n-octylphthalate**	<5
2-Nitrophenol	<1.0	**Hexachlorobutadiene**	<1.0
4-Nitrophenol	<1.0	**Indeno(1,2,3-cd)pyrene**	<1.0
2,4-Dichlorophenol	<1.0	**2-Methylnaphthalene**	<1.0
2,4-Dimethylphenol	<1.0	**2-Nitroanaline**	<1.0
4-Chloro-3-methylphenol	<1.0	**3-Nitroaniline**	<1.0
2,4,6-Trichlorophenol	<1.0	**4-Nitroaniline**	<1.0
2,4,5-Trichlorophenol	<1.0	**2,4-Dinitrotoluene**	<1.0
Pentachlorophenol	<1.0	**2,6-Dinitrotoluene**	<1.0
1,3-Dichlorobenzene	<1.0	**N-nitrosodi-n-propylamine**	<1.0
1,4-Dichlorobenzene	<1.0	**Acenaphthylene**	<1.0
1,2-Dichlorobenzene	<1.0	**Acenaphtene**	<1.0
1,2,4-Trichlorobenzene	<1.0	**Anthracene**	<1.0
Nitrobenzene	<1.0	**Benzo(a)anthracene**	<1.0
Azobenzene	<1.0	**Benzo(b)fluoranthene**	<1.0
Hexachlorobenzene	<1.0	**Benzo(a)pyrene**	<1.0
Naphthalene	<1.0	**Benzo(g,h,i)perylene**	<1.0
Benzo(k)fluoranthrene	<1.0	**Chrysene**	<1.0
Carbazole	<1.0	**Dibenzo(a,h)anthracene**	<1.0
Bis(2-chloroethyl)ether	<1.0	**Fluroanthene**	<1.0
Butylbenzylphthalate	<1.0	**Fluorene**	<1.0
Bis(2-chloroethoxy)methane	<2	**Hexachloroethane**	<1.0
2-Chloronaphthalene	<1.0	**Isophorone**	<1.0
4-Chloroaniline	<1.0	**Hexachlorocyclopentadien**	<1.0
4-Chlorophenylphenylether	<1.0	**Phenanthrene**	<1.0
Dibenzofuran	<1.0	**Indole(1,2,3-cd)pyrene**	<1.0
Diethyl phthalate	<1.0	**Pyrene**	<1.0

SEMIVOLATILE ORGANIC COMPOUNDS		*Ballynacarrick Landfill Site Ballintra, Co.Donegal*	
Month:	**April**		
Location:	**GW2**		
Lab No:	**2430**		
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
	ug/L		**ug/l**
Phenol	<1.0	**Bis(2-ethylhexyl)phthalate**	<2.0
2-Chlorophenol	<1.0	**Dimethyl phthalate**	<1.0
2-Methylphenol	<1.0	**Di-n-butylphthalate**	<1.0
4-Methylphenol	<1.0	**Di-n-octylphthalate**	<5
2-Nitrophenol	<1.0	**Hexachlorobutadiene**	<1.0
4-Nitrophenol	<1.0	**Indeno(1,2,3-cd)pyrene**	<1.0
2,4-Dichlorophenol	<1.0	**2-Methylnaphthalene**	<1.0
2,4-Dimethylphenol	<1.0	**2-Nitroanaline**	<1.0
4-Chloro-3-methylphenol	<1.0	**3-Nitroaniline**	<1.0
2,4,6-Trichlorophenol	<1.0	**4-Nitroaniline**	<1.0
2,4,5-Trichlorophenol	<1.0	**2,4-Dinitrotoluene**	<1.0
Pentachlorophenol	<1.0	**2,6-Dinitrotoluene**	<1.0
1,3-Dichlorobenzene	<1.0	**N-nitrosodi-n-propylamine**	<1.0
1,4-Dichlorobenzene	<1.0	**Acenaphthylene**	<1.0
1,2-Dichlorobenzene	<1.0	**Acenaphtene**	<1.0
1,2,4-Trichlorobenzene	<1.0	**Anthracene**	<1.0
Nitrobenzene	<1.0	**Benzo(a)anthracene**	<1.0
Azobenzene	<1.0	**Benzo(b)fluoranthene**	<1.0
Hexachlorobenzene	<1.0	**Benzo(a)pyrene**	<1.0
Naphthalene	<1.0	**Benzo(g,h,i)perylene**	<1.0
Benzo(k)fluoranthrene	<1.0	**Chrysene**	<1.0
Carbazole	<1.0	**Dibenzo(a,h)anthracene**	<1.0
Bis(2-chloroethyl)ether	<1.0	**Fluroanthene**	<1.0
Butylbenzylphthalate	<1.0	**Fluorene**	<1.0
Bis(2-chloroethoxy)methane	<2	**Hexachloroethane**	<1.0
2-Chloronaphthalene	<1.0	**Isophorone**	<1.0
4-Chloroaniline	<1.0	**Hexachlorocyclopentadien**	<1.0
4-Chlorophenylphenylether	<1.0	**Phenanthrene**	<1.0
Dibenzofuran	<1.0	**Indole(1,2,3-cd)pyrene**	<1.0
Diethyl phthalate	<1.0	**Pyrene**	<1.0

SEMIVOLATILE ORGANIC COMPOUNDS		*Ballynacarrick Landfill Site Ballintra, Co.Donegal*	
Month:	**April**		
Location:	**GW4**		
Lab No:	**2431**		
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
	ug/L		**ug/l**
Phenol	<1.0	**Bis(2-ethylhexyl)phthalate**	<2.0
2-Chlorophenol	<1.0	**Dimethyl phthalate**	<1.0
2-Methylphenol	<1.0	**Di-n-butylphthalate**	<1.0
4-Methylphenol	<1.0	**Di-n-octylphthalate**	<5
2-Nitrophenol	<1.0	**Hexachlorobutadiene**	<1.0
4-Nitrophenol	<1.0	**Indeno(1,2,3-cd)pyrene**	<1.0
2,4-Dichlorophenol	<1.0	**2-Methylnaphthalene**	<1.0
2,4-Dimethylphenol	<1.0	**2-Nitroanaline**	<1.0
4-Chloro-3-methylphenol	<1.0	**3-Nitroaniline**	<1.0
2,4,6-Trichlorophenol	<1.0	**4-Nitroaniline**	<1.0
2,4,5-Trichlorophenol	<1.0	**2,4-Dinitrotoluene**	<1.0
Pentachlorophenol	<1.0	**2,6-Dinitrotoluene**	<1.0
1,3-Dichlorobenzene	<1.0	**N-nitrosodi-n-propylamine**	<1.0
1,4-Dichlorobenzene	<1.0	**Acenaphthylene**	<1.0
1,2-Dichlorobenzene	<1.0	**Acenaphtene**	<1.0
1,2,4-Trichlorobenzene	<1.0	**Anthracene**	<1.0
Nitrobenzene	<1.0	**Benzo(a)anthracene**	<1.0
Azobenzene	<1.0	**Benzo(b)fluoranthene**	<1.0
Hexachlorobenzene	<1.0	**Benzo(a)pyrene**	<1.0
Naphthalene	<1.0	**Benzo(g,h,i)perylene**	<1.0
Benzo(k)fluoranthrene	<1.0	**Chrysene**	<1.0
Carbazole	<1.0	**Dibenzo(a,h)anthracene**	<1.0
Bis(2-chloroethyl)ether	<1.0	**Fluroanthene**	<1.0
Butylbenzylphthalate	<1.0	**Fluorene**	<1.0
Bis(2-chloroethoxy)methane	<2	**Hexachloroethane**	<1.0
2-Chloronaphthalene	<1.0	**Isophorone**	<1.0
4-Chloroaniline	<1.0	**Hexachlorocyclopentadien**	<1.0
4-Chlorophenylphenylether	<1.0	**Phenanthrene**	<1.0
Dibenzofuran	<1.0	**Indole(1,2,3-cd)pyrene**	<1.0
Diethyl phthalate	<1.0	**Pyrene**	<1.0

SEMIVOLATILE ORGANIC COMPOUNDS		*Ballynacarrick Landfill Site Ballintra, Co.Donegal*	
Month:	**April**		
Location:	**GW5**		
Lab No:	**2432**		
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
	ug/L		**ug/l**
Phenol	<1.0	**Bis(2-ethylhexyl)phthalate**	<2.0
2-Chlorophenol	<1.0	**Dimethyl phthalate**	<1.0
2-Methylphenol	<1.0	**Di-n-butylphthalate**	<1.0
4-Methylphenol	<1.0	**Di-n-octylphthalate**	<5
2-Nitrophenol	<1.0	**Hexachlorobutadiene**	<1.0
4-Nitrophenol	<1.0	**Indeno(1,2,3-cd)pyrene**	<1.0
2,4-Dichlorophenol	<1.0	**2-Methylnaphthalene**	<1.0
2,4-Dimethylphenol	<1.0	**2-Nitroanaline**	<1.0
4-Chloro-3-methylphenol	<1.0	**3-Nitroaniline**	<1.0
2,4,6-Trichlorophenol	<1.0	**4-Nitroaniline**	<1.0
2,4,5-Trichlorophenol	<1.0	**2,4-Dinitrotoluene**	<1.0
Pentachlorophenol	<1.0	**2,6-Dinitrotoluene**	<1.0
1,3-Dichlorobenzene	<1.0	**N-nitrosodi-n-propylamine**	<1.0
1,4-Dichlorobenzene	<1.0	**Acenaphthylene**	<1.0
1,2-Dichlorobenzene	<1.0	**Acenaphtene**	<1.0
1,2,4-Trichlorobenzene	<1.0	**Anthracene**	<1.0
Nitrobenzene	<1.0	**Benzo(a)anthracene**	<1.0
Azobenzene	<1.0	**Benzo(b)fluoranthene**	<1.0
Hexachlorobenzene	<1.0	**Benzo(a)pyrene**	<1.0
Naphthalene	<1.0	**Benzo(g,h,i)perylene**	<1.0
Benzo(k)fluoranthrene	<1.0	**Chrysene**	<1.0
Carbazole	<1.0	**Dibenzo(a,h)anthracene**	<1.0
Bis(2-chloroethyl)ether	<1.0	**Fluroanthene**	<1.0
Butylbenzylphthalate	<1.0	**Fluorene**	<1.0
Bis(2-chloroethoxy)methane	<2	**Hexachloroethane**	<1.0
2-Chloronaphthalene	<1.0	**Isophorone**	<1.0
4-Chloroaniline	<1.0	**Hexachlorocyclopentadien**	<1.0
4-Chlorophenylphenylether	<1.0	**Phenanthrene**	<1.0
Dibenzofuran	<1.0	**Indole(1,2,3-cd)pyrene**	<1.0
Diethyl phthalate	<1.0	**Pyrene**	<1.0

SEMIVOLATILE ORGANIC COMPOUNDS		*Ballynacarrick Landfill Site Ballintra, Co.Donegal*	
Month:			
Location:	**GW6**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
	ug/L		**ug/l**
Phenol	<1.0	**Bis(2-ethylhexyl)phthalate**	<2.0
2-Chlorophenol	<1.0	**Dimethyl phthalate**	<1.0
2-Methylphenol	<1.0	**Di-n-butylphthalate**	<1.0
4-Methylphenol	<1.0	**Di-n-octylphthalate**	<5
2-Nitrophenol	<1.0	**Hexachlorobutadiene**	<1.0
4-Nitrophenol	<1.0	**Indeno(1,2,3-cd)pyrene**	<1.0
2,4-Dichlorophenol	<1.0	**2-Methylnaphthalene**	<1.0
2,4-Dimethylphenol	<1.0	**2-Nitroanaline**	<1.0
4-Chloro-3-methylphenol	<1.0	**3-Nitroaniline**	<1.0
2,4,6-Trichlorophenol	<1.0	**4-Nitroaniline**	<1.0
2,4,5-Trichlorophenol	<1.0	**2,4-Dinitrotoluene**	<1.0
Pentachlorophenol	<1.0	**2,6-Dinitrotoluene**	<1.0
1,3-Dichlorobenzene	<1.0	**N-nitrosodi-n-propylamine**	<1.0
1,4-Dichlorobenzene	<1.0	**Acenaphthylene**	<1.0
1,2-Dichlorobenzene	<1.0	**Acenaphtene**	<1.0
1,2,4-Trichlorobenzene	<1.0	**Anthracene**	<1.0
Nitrobenzene	<1.0	**Benzo(a)anthracene**	<1.0
Azobenzene	<1.0	**Benzo(b)fluoranthene**	<1.0
Hexachlorobenzene	<1.0	**Benzo(a)pyrene**	<1.0
Naphthalene	<1.0	**Benzo(g,h,i)perylene**	<1.0
Benzo(k)fluoranthrene	<1.0	**Chrysene**	<1.0
Carbazole	<1.0	**Dibenzo(a,h)anthracene**	<1.0
Bis(2-chloroethyl)ether	<1.0	**Fluroanthene**	<1.0
Butylbenzylphthalate	<1.0	**Fluorene**	<1.0
Bis(2-chloroethoxy)methane	<2	**Hexachloroethane**	<1.0
2-Chloronaphthalene	<1.0	**Isophorone**	<1.0
4-Chloroaniline	<1.0	**Hexachlorocyclopentadien**	<1.0
4-Chlorophenylphenylether	<1.0	**Phenanthrene**	<1.0
Dibenzofuran	<1.0	**Indole(1,2,3-cd)pyrene**	<1.0
Diethyl phthalate	<1.0	**Pyrene**	<1.0

SEMIVOLATILE ORGANIC COMPOUNDS		*Ballynacarrick Landfill Site Ballintra, Co.Donegal*	
Month:	**April**		
Location:	**GW7**		
Lab No:	**2433**		
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
	ug/L		**ug/l**
Phenol	<1.0	**Bis(2-ethylhexyl)phthalate**	<2.0
2-Chlorophenol	<1.0	**Dimethyl phthalate**	<1.0
2-Methylphenol	<1.0	**Di-n-butylphthalate**	<1.0
4-Methylphenol	<1.0	**Di-n-octylphthalate**	<5
2-Nitrophenol	<1.0	**Hexachlorobutadiene**	<1.0
4-Nitrophenol	<1.0	**Indeno(1,2,3-cd)pyrene**	<1.0
2,4-Dichlorophenol	<1.0	**2-Methylnaphthalene**	<1.0
2,4-Dimethylphenol	<1.0	**2-Nitroanaline**	<1.0
4-Chloro-3-methylphenol	<1.0	**3-Nitroaniline**	<1.0
2,4,6-Trichlorophenol	<1.0	**4-Nitroaniline**	<1.0
2,4,5-Trichlorophenol	<1.0	**2,4-Dinitrotoluene**	<1.0
Pentachlorophenol	<1.0	**2,6-Dinitrotoluene**	<1.0
1,3-Dichlorobenzene	<1.0	**N-nitrosodi-n-propylamine**	<1.0
1,4-Dichlorobenzene	<1.0	**Acenaphthylene**	<1.0
1,2-Dichlorobenzene	<1.0	**Acenaphtene**	<1.0
1,2,4-Trichlorobenzene	<1.0	**Anthracene**	<1.0
Nitrobenzene	<1.0	**Benzo(a)anthracene**	<1.0
Azobenzene	<1.0	**Benzo(b)fluoranthene**	<1.0
Hexachlorobenzene	<1.0	**Benzo(a)pyrene**	<1.0
Naphthalene	<1.0	**Benzo(g,h,i)perylene**	<1.0
Benzo(k)fluoranthrene	<1.0	**Chrysene**	<1.0
Carbazole	<1.0	**Dibenzo(a,h)anthracene**	<1.0
Bis(2-chloroethyl)ether	<1.0	**Fluroanthene**	<1.0
Butylbenzylphthalate	<1.0	**Fluorene**	<1.0
Bis(2-chloroethoxy)methane	<2	**Hexachloroethane**	<1.0
2-Chloronaphthalene	<1.0	**Isophorone**	<1.0
4-Chloroaniline	<1.0	**Hexachlorocyclopentadien**	<1.0
4-Chlorophenylphenylether	<1.0	**Phenanthrene**	<1.0
Dibenzofuran	<1.0	**Indole(1,2,3-cd)pyrene**	<1.0
Diethyl phthalate	<1.0	**Pyrene**	<1.0

SEMIVOLATILE ORGANIC COMPOUNDS		*Ballynacarrick Landfill Site Ballintra, Co.Donegal*	
Month:	**April**		
Location:	**GW8**		
Lab No:	**2434**		
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
	ug/L		**ug/l**
Phenol	<1.0	**Bis(2-ethylhexyl)phthalate**	<2.0
2-Chlorophenol	<1.0	**Dimethyl phthalate**	<1.0
2-Methylphenol	<1.0	**Di-n-butylphthalate**	<1.0
4-Methylphenol	<1.0	**Di-n-octylphthalate**	<5
2-Nitrophenol	<1.0	**Hexachlorobutadiene**	<1.0
4-Nitrophenol	<1.0	**Indeno(1,2,3-cd)pyrene**	<1.0
2,4-Dichlorophenol	<1.0	**2-Methylnaphthalene**	<1.0
2,4-Dimethylphenol	<1.0	**2-Nitroanaline**	<1.0
4-Chloro-3-methylphenol	<1.0	**3-Nitroaniline**	<1.0
2,4,6-Trichlorophenol	<1.0	**4-Nitroaniline**	<1.0
2,4,5-Trichlorophenol	<1.0	**2,4-Dinitrotoluene**	<1.0
Pentachlorophenol	<1.0	**2,6-Dinitrotoluene**	<1.0
1,3-Dichlorobenzene	<1.0	**N-nitrosodi-n-propylamine**	<1.0
1,4-Dichlorobenzene	<1.0	**Acenaphthylene**	<1.0
1,2-Dichlorobenzene	<1.0	**Acenaphtene**	<1.0
1,2,4-Trichlorobenzene	<1.0	**Anthracene**	<1.0
Nitrobenzene	<1.0	**Benzo(a)anthracene**	<1.0
Azobenzene	<1.0	**Benzo(b)fluoranthene**	<1.0
Hexachlorobenzene	<1.0	**Benzo(a)pyrene**	<1.0
Naphthalene	<1.0	**Benzo(g,h,i)perylene**	<1.0
Benzo(k)fluoranthrene	<1.0	**Chrysene**	<1.0
Carbazole	<1.0	**Dibenzo(a,h)anthracene**	<1.0
Bis(2-chloroethyl)ether	<1.0	**Fluroanthene**	<1.0
Butylbenzylphthalate	<1.0	**Fluorene**	<1.0
Bis(2-chloroethoxy)methane	<2	**Hexachloroethane**	<1.0
2-Chloronaphthalene	<1.0	**Isophorone**	<1.0
4-Chloroaniline	<1.0	**Hexachlorocyclopentadien**	<1.0
4-Chlorophenylphenylether	<1.0	**Phenanthrene**	<1.0
Dibenzofuran	<1.0	**Indole(1,2,3-cd)pyrene**	<1.0
Diethyl phthalate	<1.0	**Pyrene**	<1.0

SEMIVOLATILE ORGANIC COMPOUNDS		*Ballynacarrick Landfill Site Ballintra, Co.Donegal*	
Month:	**April**		
Location:	**GW9**		
Lab No:	**2435**		
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
	ug/L		**ug/l**
Phenol	<1.0	**Bis(2-ethylhexyl)phthalate**	<2.0
2-Chlorophenol	<1.0	**Dimethyl phthalate**	<1.0
2-Methylphenol	<1.0	**Di-n-butylphthalate**	<1.0
4-Methylphenol	<1.0	**Di-n-octylphthalate**	<5
2-Nitrophenol	<1.0	**Hexachlorobutadiene**	<1.0
4-Nitrophenol	<1.0	**Indeno(1,2,3-cd)pyrene**	<1.0
2,4-Dichlorophenol	<1.0	**2-Methylnaphthalene**	<1.0
2,4-Dimethylphenol	<1.0	**2-Nitroanaline**	<1.0
4-Chloro-3-methylphenol	<1.0	**3-Nitroaniline**	<1.0
2,4,6-Trichlorophenol	<1.0	**4-Nitroaniline**	<1.0
2,4,5-Trichlorophenol	<1.0	**2,4-Dinitrotoluene**	<1.0
Pentachlorophenol	<1.0	**2,6-Dinitrotoluene**	<1.0
1,3-Dichlorobenzene	<1.0	**N-nitrosodi-n-propylamine**	<1.0
1,4-Dichlorobenzene	<1.0	**Acenaphthylene**	<1.0
1,2-Dichlorobenzene	<1.0	**Acenaphtene**	<1.0
1,2,4-Trichlorobenzene	<1.0	**Anthracene**	<1.0
Nitrobenzene	<1.0	**Benzo(a)anthracene**	<1.0
Azobenzene	<1.0	**Benzo(b)fluoranthene**	<1.0
Hexachlorobenzene	<1.0	**Benzo(a)pyrene**	<1.0
Naphthalene	<1.0	**Benzo(g,h,i)perylene**	<1.0
Benzo(k)fluoranthrene	<1.0	**Chrysene**	<1.0
Carbazole	<1.0	**Dibenzo(a,h)anthracene**	<1.0
Bis(2-chloroethyl)ether	<1.0	**Fluroanthene**	<1.0
Butylbenzylphthalate	<1.0	**Fluorene**	<1.0
Bis(2-chloroethoxy)methane	<2	**Hexachloroethane**	<1.0
2-Chloronaphthalene	<1.0	**Isophorone**	<1.0
4-Chloroaniline	<1.0	**Hexachlorocyclopentadien**	<1.0
4-Chlorophenylphenylether	<1.0	**Phenanthrene**	<1.0
Dibenzofuran	<1.0	**Indole(1,2,3-cd)pyrene**	<1.0
Diethyl phthalate	<1.0	**Pyrene**	<1.0

SEMIVOLATILE ORGANIC COMPOUNDS		*Ballynacarrick Landfill Site Ballintra, Co.Donegal*	
Month:	**April**		
Location:	**GW10**		
Lab No:	**2436**		
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
	ug/L		**ug/l**
Phenol	<1.0	**Bis(2-ethylhexyl)phthalate**	<2.0
2-Chlorophenol	<1.0	**Dimethyl phthalate**	<1.0
2-Methylphenol	<1.0	**Di-n-butylphthalate**	<1.0
4-Methylphenol	<1.0	**Di-n-octylphthalate**	<5
2-Nitrophenol	<1.0	**Hexachlorobutadiene**	<1.0
4-Nitrophenol	<1.0	**Indeno(1,2,3-cd)pyrene**	<1.0
2,4-Dichlorophenol	<1.0	**2-Methylnaphthalene**	<1.0
2,4-Dimethylphenol	<1.0	**2-Nitroanaline**	<1.0
4-Chloro-3-methylphenol	<1.0	**3-Nitroaniline**	<1.0
2,4,6-Trichlorophenol	<1.0	**4-Nitroaniline**	<1.0
2,4,5-Trichlorophenol	<1.0	**2,4-Dinitrotoluene**	<1.0
Pentachlorophenol	<1.0	**2,6-Dinitrotoluene**	<1.0
1,3-Dichlorobenzene	<1.0	**N-nitrosodi-n-propylamine**	<1.0
1,4-Dichlorobenzene	<1.0	**Acenaphthylene**	<1.0
1,2-Dichlorobenzene	<1.0	**Acenaphtene**	<1.0
1,2,4-Trichlorobenzene	<1.0	**Anthracene**	<1.0
Nitrobenzene	<1.0	**Benzo(a)anthracene**	<1.0
Azobenzene	<1.0	**Benzo(b)fluoranthene**	<1.0
Hexachlorobenzene	<1.0	**Benzo(a)pyrene**	<1.0
Naphthalene	<1.0	**Benzo(g,h,i)perylene**	<1.0
Benzo(k)fluoranthrene	<1.0	**Chrysene**	<1.0
Carbazole	<1.0	**Dibenzo(a,h)anthracene**	<1.0
Bis(2-chloroethyl)ether	<1.0	**Fluroanthene**	<1.0
Butylbenzylphthalate	<1.0	**Fluorene**	<1.0
Bis(2-chloroethoxy)methane	<2	**Hexachloroethane**	<1.0
2-Chloronaphthalene	<1.0	**Isophorone**	<1.0
4-Chloroaniline	<1.0	**Hexachlorocyclopentadien**	<1.0
4-Chlorophenylphenylether	<1.0	**Phenanthrene**	<1.0
Dibenzofuran	<1.0	**Indole(1,2,3-cd)pyrene**	<1.0
Diethyl phthalate	<1.0	**Pyrene**	<1.0

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	04/01/2013	0	4.3	7.6	982
Ballynacarrick LFS	Gas Level	LG9	04/01/2013	0	0.1	21	982
Ballynacarrick LFS	Gas Level	LG10	04/01/2013	0	0.2	21	982
Ballynacarrick LFS	Gas Level	LG11	04/01/2013	0	0.2	21	982
Ballynacarrick LFS	Gas Level	LG12	04/01/2013	0	3.2	14.7	982
Ballynacarrick LFS	Gas Level	LG13	04/01/2013	0	3.4	20.2	982
Ballynacarrick LFS	Gas Level	LG14	04/01/2013	0	1.2	21	982
Ballynacarrick LFS	Gas Level	LG15	04/01/2013	0.1	3.6	0.5	982
Ballynacarrick LFS	Gas Level	LG16	04/01/2013	0	4.1	17.1	982
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	04/01/2013	0	4.2	3.1	982
Ballynacarrick LFS	Gas Level	Caravan	04/01/2013	0	0	20.9	982

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	09/01/2013	0	0.8	18.2	1007
Ballynacarrick LFS	Gas Level	LG9	09/01/2013	0.1	0.2	21	1007
Ballynacarrick LFS	Gas Level	LG10	09/01/2013	0	0.2	21	1007
Ballynacarrick LFS	Gas Level	LG11	09/01/2013	0	0.1	21	1007
Ballynacarrick LFS	Gas Level	LG12	09/01/2013	0	4.9	13.9	1007
Ballynacarrick LFS	Gas Level	LG13	09/01/2013	0	3.1	19.1	1007
Ballynacarrick LFS	Gas Level	LG14	09/01/2013	0	3.6	19.2	1007
Ballynacarrick LFS	Gas Level	LG15	09/01/2013	0.1	4.3	0.3	1007
Ballynacarrick LFS	Gas Level	LG16	09/01/2013	0	2.8	18.7	1007
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	09/01/2013	0.1	4.7	3.7	1007
Ballynacarrick LFS	Gas Level	Caravan	09/01/2013	0	0	20.8	1007

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	17/01/2013	0	0.3	21	997
Ballynacarrick LFS	Gas Level	LG9	17/01/2013	0	0.3	21	997
Ballynacarrick LFS	Gas Level	LG10	17/01/2013	0	0.2	21	997
Ballynacarrick LFS	Gas Level	LG11	17/01/2013	0	0.1	21	997
Ballynacarrick LFS	Gas Level	LG12	17/01/2013	0	4.9	13.3	997
Ballynacarrick LFS	Gas Level	LG13	17/01/2013	0	1.9	18.5	997
Ballynacarrick LFS	Gas Level	LG14	17/01/2013	0	4.5	14.5	997
Ballynacarrick LFS	Gas Level	LG15	17/01/2013	0	4.3	0.4	997
Ballynacarrick LFS	Gas Level	LG16	17/01/2013	0	1.2	21	997
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	17/01/2013	0	6.1	1.5	997
Ballynacarrick LFS	Gas Level	Caravan	17/01/2013	0	0	21	997

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	25/01/2013	0	4.2	7.5	982
Ballynacarrick LFS	Gas Level	LG9	25/01/2013	0	0.1	21	982
Ballynacarrick LFS	Gas Level	LG10	25/01/2013	0	0.2	21	982
Ballynacarrick LFS	Gas Level	LG11	25/01/2013	0	0.2	21	982
Ballynacarrick LFS	Gas Level	LG12	25/01/2013	0	4.8	14.4	982
Ballynacarrick LFS	Gas Level	LG13	25/01/2013	0	3.4	20.6	982
Ballynacarrick LFS	Gas Level	LG14	25/01/2013	0.1	1.3	21	982
Ballynacarrick LFS	Gas Level	LG15	25/01/2013	0.1	3.4	0.7	982
Ballynacarrick LFS	Gas Level	LG16	25/01/2013	0	5.1	16.8	982
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	25/01/2013	0	4.9	3.1	982
Ballynacarrick LFS	Gas Level	Caravan	25/01/2013	0	0	20.9	982

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	01/02/2013	0	3.9	6.9	1000
Ballynacarrick LFS	Gas Level	LG9	01/02/2013	0	0.3	20.1	1000
Ballynacarrick LFS	Gas Level	LG10	01/02/2013	0	0.2	21	1000
Ballynacarrick LFS	Gas Level	LG11	01/02/2013	0	0.2	21	1000
Ballynacarrick LFS	Gas Level	LG12	01/02/2013	0	6.1	17.1	1000
Ballynacarrick LFS	Gas Level	LG13	01/02/2013	0	3.5	21	1000
Ballynacarrick LFS	Gas Level	LG14	01/02/2013	0	1.4	21	1000
Ballynacarrick LFS	Gas Level	LG15	01/02/2013	0	4.2	0.6	1000
Ballynacarrick LFS	Gas Level	LG16	01/02/2013	0	6.3	18.7	1000
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	01/02/2013	0	4.9	1.6	1000
Ballynacarrick LFS	Gas Level	Caravan	01/02/2013	0	0	21	1000

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	08/02/2013	0	4.3	7.6	965
Ballynacarrick LFS	Gas Level	LG9	08/02/2013	0	0.1	20.4	965
Ballynacarrick LFS	Gas Level	LG10	08/02/2013	0	0.2	21	965
Ballynacarrick LFS	Gas Level	LG11	08/02/2013	0	0.2	21	965
Ballynacarrick LFS	Gas Level	LG12	08/02/2013	0	4.2	15.1	965
Ballynacarrick LFS	Gas Level	LG13	08/02/2013	0	2.9	20.2	965
Ballynacarrick LFS	Gas Level	LG14	08/02/2013	0.1	1.2	21	965
Ballynacarrick LFS	Gas Level	LG15	08/02/2013	0.1	2.9	1.2	965
Ballynacarrick LFS	Gas Level	LG16	08/02/2013	0	4.1	19.3	965
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	08/02/2013	0	5.4	2.8	965
Ballynacarrick LFS	Gas Level	Caravan	08/02/2013	0	0	20.1	965

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	14/02/2013	0	1.2	19.6	1000
Ballynacarrick LFS	Gas Level	LG9	14/02/2013	0	0.2	21	1000
Ballynacarrick LFS	Gas Level	LG10	14/02/2013	0	0.3	21	1000
Ballynacarrick LFS	Gas Level	LG11	14/02/2013	0	0.2	20.8	1000
Ballynacarrick LFS	Gas Level	LG12	14/02/2013	0	3.2	14.7	1000
Ballynacarrick LFS	Gas Level	LG13	14/02/2013	0	0.8	20.2	1000
Ballynacarrick LFS	Gas Level	LG14	14/02/2013	0	1.2	20.8	1000
Ballynacarrick LFS	Gas Level	LG15	14/02/2013	0.1	3.6	11.2	1000
Ballynacarrick LFS	Gas Level	LG16	14/02/2013	0	2.7	17.1	1000
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	14/02/2013	0	4.2	2.1	1000
Ballynacarrick LFS	Gas Level	Caravan	14/02/2013	0	0	20.9	1000

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	20/02/2013	0	0.6	20.7	1008
Ballynacarrick LFS	Gas Level	LG9	20/02/2013	0	0.2	20.9	1008
Ballynacarrick LFS	Gas Level	LG10	20/02/2013	0	0.2	21	1008
Ballynacarrick LFS	Gas Level	LG11	20/02/2013	0	0.1	21	1008
Ballynacarrick LFS	Gas Level	LG12	20/02/2013	0	3.9	15.5	1008
Ballynacarrick LFS	Gas Level	LG13	20/02/2013	0	0.3	21	1008
Ballynacarrick LFS	Gas Level	LG14	20/02/2013	0	1.7	17.5	1008
Ballynacarrick LFS	Gas Level	LG15	20/02/2013	0	2.6	10.2	1008
Ballynacarrick LFS	Gas Level	LG16	20/02/2013	0	0.3	21	1008
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	20/02/2013	0	6.1	1.6	1008
Ballynacarrick LFS	Gas Level	Caravan	20/02/2013	0	0.1	21	1008

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	01/03/2013	0	0.9	20.3	1007
Ballynacarrick LFS	Gas Level	LG9	01/03/2013	0	0.2	22.1	1007
Ballynacarrick LFS	Gas Level	LG10	01/03/2013	0	0.5	21	1007
Ballynacarrick LFS	Gas Level	LG11	01/03/2013	0	0.2	20.9	1007
Ballynacarrick LFS	Gas Level	LG12	01/03/2013	0	3.2	15.9	1007
Ballynacarrick LFS	Gas Level	LG13	01/03/2013	0	0.8	20.2	1007
Ballynacarrick LFS	Gas Level	LG14	01/03/2013	0	1.2	20.8	1007
Ballynacarrick LFS	Gas Level	LG15	01/03/2013	0.1	3.6	11.2	1007
Ballynacarrick LFS	Gas Level	LG16	01/03/2013	0	2.7	17.1	1007
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	01/03/2013	0	3.9	2.1	1007
Ballynacarrick LFS	Gas Level	Caravan	01/03/2013	0	0	19.8	1007

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	08/03/2013	0	6.4	8.7	1007
Ballynacarrick LFS	Gas Level	LG9	08/03/2013	0.1	0.2	21.2	1007
Ballynacarrick LFS	Gas Level	LG10	08/03/2013	0	0.2	21.2	1007
Ballynacarrick LFS	Gas Level	LG11	08/03/2013	0	0.1	21.3	1007
Ballynacarrick LFS	Gas Level	LG12	08/03/2013	0	4.9	13.9	1007
Ballynacarrick LFS	Gas Level	LG13	08/03/2013	0	3.4	19.1	1007
Ballynacarrick LFS	Gas Level	LG14	08/03/2013	0	0	21.1	1007
Ballynacarrick LFS	Gas Level	LG15	08/03/2013	0.1	4.3	0.3	1007
Ballynacarrick LFS	Gas Level	LG16	08/03/2013	0	3.8	16.7	1007
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	08/03/2013	0.1	3.6	2.9	1007
Ballynacarrick LFS	Gas Level	Caravan	08/03/2013	0	0	20.8	1007

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	15/03/2013	0	3.9	6.8	1004
Ballynacarrick LFS	Gas Level	LG9	15/03/2013	0	0.3	22.1	1004
Ballynacarrick LFS	Gas Level	LG10	15/03/2013	0	0.2	22	1004
Ballynacarrick LFS	Gas Level	LG11	15/03/2013	0	0.2	21.5	1004
Ballynacarrick LFS	Gas Level	LG12	15/03/2013	0	6.4	17.9	1004
Ballynacarrick LFS	Gas Level	LG13	15/03/2013	0	3.5	21.6	1004
Ballynacarrick LFS	Gas Level	LG14	15/03/2013	0	1.4	22.1	1004
Ballynacarrick LFS	Gas Level	LG15	15/03/2013	0.1	4.2	0.9	1004
Ballynacarrick LFS	Gas Level	LG16	15/03/2013	0	6.3	18.7	1004
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	15/03/2013	0	4.2	2.1	1004
Ballynacarrick LFS	Gas Level	Caravan	15/03/2013	0	0	21.1	1004

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	22/03/2013	0	0.7	19.2	989
Ballynacarrick LFS	Gas Level	LG9	22/03/2013	0.1	0.3	20.3	989
Ballynacarrick LFS	Gas Level	LG10	22/03/2013	0	0.2	21	989
Ballynacarrick LFS	Gas Level	LG11	22/03/2013	0	0.3	21	989
Ballynacarrick LFS	Gas Level	LG12	22/03/2013	0	4.6	12.9	989
Ballynacarrick LFS	Gas Level	LG13	22/03/2013	0	3.2	19.6	989
Ballynacarrick LFS	Gas Level	LG14	22/03/2013	0	2.9	18.5	989
Ballynacarrick LFS	Gas Level	LG15	22/03/2013	0.1	3.9	0.4	989
Ballynacarrick LFS	Gas Level	LG16	22/03/2013	0	2.5	18.2	989
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	22/03/2013	0.1	4.6	3.6	989
Ballynacarrick LFS	Gas Level	Caravan	22/03/2013	0	0	21	989

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	29/03/2013	0	4.3	7.6	1007
Ballynacarrick LFS	Gas Level	LG9	29/03/2013	0	0.1	21	1007
Ballynacarrick LFS	Gas Level	LG10	29/03/2013	0	0.3	20.9	1007
Ballynacarrick LFS	Gas Level	LG11	29/03/2013	0	0.2	21	1007
Ballynacarrick LFS	Gas Level	LG12	29/03/2013	0	5.1	14.6	1007
Ballynacarrick LFS	Gas Level	LG13	29/03/2013	0	3.4	20.2	1007
Ballynacarrick LFS	Gas Level	LG14	29/03/2013	0.1	1.3	21	1007
Ballynacarrick LFS	Gas Level	LG15	29/03/2013	0.1	3.6	0.5	1007
Ballynacarrick LFS	Gas Level	LG16	29/03/2013	0	4.6	17.1	1007
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	29/03/2013	0	5.2	3.1	1007
Ballynacarrick LFS	Gas Level	Caravan	29/03/2013	0	0	20.6	1007

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	06/04/2013	0	3.8	6.4	998
Ballynacarrick LFS	Gas Level	LG9	06/04/2013	0	0.3	21	998
Ballynacarrick LFS	Gas Level	LG10	06/04/2013	0	0.1	21	998
Ballynacarrick LFS	Gas Level	LG11	06/04/2013	0	0.2	21	998
Ballynacarrick LFS	Gas Level	LG12	06/04/2013	0	6.2	17.2	998
Ballynacarrick LFS	Gas Level	LG13	06/04/2013	0	3.9	21	998
Ballynacarrick LFS	Gas Level	LG14	06/04/2013	0	1.9	21	998
Ballynacarrick LFS	Gas Level	LG15	06/04/2013	0.1	4.3	0.8	998
Ballynacarrick LFS	Gas Level	LG16	06/04/2013	0	6.1	17.9	998
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	06/04/2013	0.1	3.9	2.1	998
Ballynacarrick LFS	Gas Level	Caravan	06/04/2013	0	0	21	998

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	11/04/2013	0	3.2	5.9	1019
Ballynacarrick LFS	Gas Level	LG9	11/04/2013	0	0.5	21	1019
Ballynacarrick LFS	Gas Level	LG10	11/04/2013	0	0.1	21	1019
Ballynacarrick LFS	Gas Level	LG11	11/04/2013	0	0.1	20.6	1019
Ballynacarrick LFS	Gas Level	LG12	11/04/2013	0	5.9	16.9	1019
Ballynacarrick LFS	Gas Level	LG13	11/04/2013	0	3.9	21	1019
Ballynacarrick LFS	Gas Level	LG14	11/04/2013	0	1.3	21	1019
Ballynacarrick LFS	Gas Level	LG15	11/04/2013	0.1	4	0.8	1019
Ballynacarrick LFS	Gas Level	LG16	11/04/2013	0	6.2	18.1	1019
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	11/04/2013	0	4.1	2	1019
Ballynacarrick LFS	Gas Level	Caravan	11/04/2013	0	0	21	1019

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	18/04/2013	0	6.4	8.7	1004
Ballynacarrick LFS	Gas Level	LG9	18/04/2013	0.1	0.2	21	1004
Ballynacarrick LFS	Gas Level	LG10	18/04/2013	0	0.2	21	1004
Ballynacarrick LFS	Gas Level	LG11	18/04/2013	0	0.1	21	1004
Ballynacarrick LFS	Gas Level	LG12	18/04/2013	0	4.3	13.9	1004
Ballynacarrick LFS	Gas Level	LG13	18/04/2013	0	3.4	19.1	1004
Ballynacarrick LFS	Gas Level	LG14	18/04/2013	0	0	21	1004
Ballynacarrick LFS	Gas Level	LG15	18/04/2013	0.1	4.3	0.3	1004
Ballynacarrick LFS	Gas Level	LG16	18/04/2013	0	3.8	18.9	1004
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	18/04/2013	0.1	5.7	3.7	1004
Ballynacarrick LFS	Gas Level	Caravan	18/04/2013	0	0	20.8	1004

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	23/04/2013	0	3.1	7.1	999
Ballynacarrick LFS	Gas Level	LG9	23/04/2013	0.1	0.4	21	999
Ballynacarrick LFS	Gas Level	LG10	23/04/2013	0	0.2	21	999
Ballynacarrick LFS	Gas Level	LG11	23/04/2013	0	0.1	21	999
Ballynacarrick LFS	Gas Level	LG12	23/04/2013	0	6.8	18.6	999
Ballynacarrick LFS	Gas Level	LG13	23/04/2013	0	3.2	21	999
Ballynacarrick LFS	Gas Level	LG14	23/04/2013	0	1.2	21	999
Ballynacarrick LFS	Gas Level	LG15	23/04/2013	0.1	3.9	1.1	999
Ballynacarrick LFS	Gas Level	LG16	23/04/2013	0	5.8	17.9	999
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	23/04/2013	0	4.6	1.9	999
Ballynacarrick LFS	Gas Level	Caravan	23/04/2013	0	0	20.8	999

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	29/04/2013	0	0.8	18.2	1007
Ballynacarrick LFS	Gas Level	LG9	29/04/2013	0	0.2	21	1007
Ballynacarrick LFS	Gas Level	LG10	29/04/2013	0	0.2	21	1007
Ballynacarrick LFS	Gas Level	LG11	29/04/2013	0	0.1	21	1007
Ballynacarrick LFS	Gas Level	LG12	29/04/2013	0	4.9	12.2	1007
Ballynacarrick LFS	Gas Level	LG13	29/04/2013	0	2.9	19.1	1007
Ballynacarrick LFS	Gas Level	LG14	29/04/2013	0	3.6	19.1	1007
Ballynacarrick LFS	Gas Level	LG15	29/04/2013	0	4.3	0.3	1007
Ballynacarrick LFS	Gas Level	LG16	29/04/2013	0	2.8	18.7	1007
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	29/04/2013	0.1	4.6	3.4	1007
Ballynacarrick LFS	Gas Level	Caravan	29/04/2013	0	0	20.7	1007

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	07/05/2013	0	4.3	7.6	989
Ballynacarrick LFS	Gas Level	LG9	07/05/2013	0	0.1	21	989
Ballynacarrick LFS	Gas Level	LG10	07/05/2013	0	0.2	21	989
Ballynacarrick LFS	Gas Level	LG11	07/05/2013	0	0.2	21	989
Ballynacarrick LFS	Gas Level	LG12	07/05/2013	0	5.1	14.7	989
Ballynacarrick LFS	Gas Level	LG13	07/05/2013	0	3.4	20.2	989
Ballynacarrick LFS	Gas Level	LG14	07/05/2013	0.1	1.2	21	989
Ballynacarrick LFS	Gas Level	LG15	07/05/2013	0.1	3.6	0.8	989
Ballynacarrick LFS	Gas Level	LG16	07/05/2013	0	4.9	17.1	989
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	07/05/2013	0	5.4	3.2	989
Ballynacarrick LFS	Gas Level	Caravan	07/05/2013	0	0	20.9	989

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	15/05/2013	0	3.9	5.9	1009
Ballynacarrick LFS	Gas Level	LG9	15/05/2013	0	0.3	21	1009
Ballynacarrick LFS	Gas Level	LG10	15/05/2013	0	0.1	21	1009
Ballynacarrick LFS	Gas Level	LG11	15/05/2013	0	0.2	21	1009
Ballynacarrick LFS	Gas Level	LG12	15/05/2013	0	5.6	17	1009
Ballynacarrick LFS	Gas Level	LG13	15/05/2013	0	3.1	21	1009
Ballynacarrick LFS	Gas Level	LG14	15/05/2013	0	1.6	21	1009
Ballynacarrick LFS	Gas Level	LG15	15/05/2013	0.1	4.9	1.1	1009
Ballynacarrick LFS	Gas Level	LG16	15/05/2013	0	5.9	18.6	1009
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	15/05/2013	0	3.6	2.1	1009
Ballynacarrick LFS	Gas Level	Caravan	15/05/2013	0	0	20.9	1009

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	21/05/2013	0	0.2	20.3	998
Ballynacarrick LFS	Gas Level	LG9	21/05/2013	0.1	0.5	20	998
Ballynacarrick LFS	Gas Level	LG10	21/05/2013	0	0.1	21	998
Ballynacarrick LFS	Gas Level	LG11	21/05/2013	0	0.2	21	998
Ballynacarrick LFS	Gas Level	LG12	21/05/2013	0	3.6	16.2	998
Ballynacarrick LFS	Gas Level	LG13	21/05/2013	0	0.7	19.8	998
Ballynacarrick LFS	Gas Level	LG14	21/05/2013	0.1	1.3	20.8	998
Ballynacarrick LFS	Gas Level	LG15	21/05/2013	0.1	3.1	11.2	998
Ballynacarrick LFS	Gas Level	LG16	21/05/2013	0	2.9	16.5	998
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	21/05/2013	0	3.1	20.1	998
Ballynacarrick LFS	Gas Level	Caravan	21/05/2013	0	0	20.8	998

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	30/05/2013	0	0.4	21	982
Ballynacarrick LFS	Gas Level	LG9	30/05/2013	0	0.2	21	982
Ballynacarrick LFS	Gas Level	LG10	30/05/2013	0	0.2	21	982
Ballynacarrick LFS	Gas Level	LG11	30/05/2013	0	0.1	21	982
Ballynacarrick LFS	Gas Level	LG12	30/05/2013	0	4.9	13.1	982
Ballynacarrick LFS	Gas Level	LG13	30/05/2013	0	1.9	18	982
Ballynacarrick LFS	Gas Level	LG14	30/05/2013	0	4.2	15.9	982
Ballynacarrick LFS	Gas Level	LG15	30/05/2013	0	4.3	0.4	982
Ballynacarrick LFS	Gas Level	LG16	30/05/2013	0	1.2	21	982
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	30/05/2013	0	5.9	1.5	982
Ballynacarrick LFS	Gas Level	Caravan	30/05/2013	0	0	21	982

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	06/06/2013	0	1.2	19.6	1018
Ballynacarrick LFS	Gas Level	LG9	06/06/2013	0	0.2	21	1018
Ballynacarrick LFS	Gas Level	LG10	06/06/2013	0	0.3	21	1018
Ballynacarrick LFS	Gas Level	LG11	06/06/2013	0	0.2	20.8	1018
Ballynacarrick LFS	Gas Level	LG12	06/06/2013	0	3.2	14.7	1018
Ballynacarrick LFS	Gas Level	LG13	06/06/2013	0	0.8	20.2	1018
Ballynacarrick LFS	Gas Level	LG14	06/06/2013	0	1.2	20.8	1018
Ballynacarrick LFS	Gas Level	LG15	06/06/2013	0.1	3.6	11.2	1018
Ballynacarrick LFS	Gas Level	LG16	06/06/2013	0	2.7	17.1	1018
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	06/06/2013	0	4.2	2.1	1018
Ballynacarrick LFS	Gas Level	Caravan	06/06/2013	0	0	20.9	1018

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	10/06/2013	0	0.2	20.3	999
Ballynacarrick LFS	Gas Level	LG9	10/06/2013	0	0.5	20	999
Ballynacarrick LFS	Gas Level	LG10	10/06/2013	0	0.1	20.5	999
Ballynacarrick LFS	Gas Level	LG11	10/06/2013	0	0.2	20.3	999
Ballynacarrick LFS	Gas Level	LG12	10/06/2013	0	3.2	16.1	999
Ballynacarrick LFS	Gas Level	LG13	10/06/2013	0	0.8	19.8	999
Ballynacarrick LFS	Gas Level	LG14	10/06/2013	0	1.3	20.8	999
Ballynacarrick LFS	Gas Level	LG15	10/06/2013	0.1	3.1	11.2	999
Ballynacarrick LFS	Gas Level	LG16	10/06/2013	0	2.9	16.6	999
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	10/06/2013	0	3.1	20.1	999
Ballynacarrick LFS	Gas Level	Caravan	10/06/2013	0	0	20.3	999

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	17/06/2013	0	3.8	15.3	986
Ballynacarrick LFS	Gas Level	LG9	17/06/2013	0	0.1	20.4	986
Ballynacarrick LFS	Gas Level	LG10	17/06/2013	0	0.2	20.8	986
Ballynacarrick LFS	Gas Level	LG11	17/06/2013	0	0.2	20.3	986
Ballynacarrick LFS	Gas Level	LG12	17/06/2013	0	4.2	16.8	986
Ballynacarrick LFS	Gas Level	LG13	17/06/2013	0	2.2	20.2	986
Ballynacarrick LFS	Gas Level	LG14	17/06/2013	0.1	1.9	20.6	986
Ballynacarrick LFS	Gas Level	LG15	17/06/2013	0.1	3.1	1.2	986
Ballynacarrick LFS	Gas Level	LG16	17/06/2013	0	3.8	19.5	986
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	17/06/2013	0	3.9	2.8	986
Ballynacarrick LFS	Gas Level	Caravan	17/06/2013	0	0	20.1	986

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	25/06/2013	0	0.9	20.3	1007
Ballynacarrick LFS	Gas Level	LG9	25/06/2013	0	0.4	20.1	1007
Ballynacarrick LFS	Gas Level	LG10	25/06/2013	0	0.2	21	1007
Ballynacarrick LFS	Gas Level	LG11	25/06/2013	0	0.6	20.2	1007
Ballynacarrick LFS	Gas Level	LG12	25/06/2013	0	3.2	15.9	1007
Ballynacarrick LFS	Gas Level	LG13	25/06/2013	0	0.9	20.1	1007
Ballynacarrick LFS	Gas Level	LG14	25/06/2013	0	1.9	19.3	1007
Ballynacarrick LFS	Gas Level	LG15	25/06/2013	0	2.9	10.2	1007
Ballynacarrick LFS	Gas Level	LG16	25/06/2013	0	2.7	17.6	1007
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	25/06/2013	0	3.1	2.1	1007
Ballynacarrick LFS	Gas Level	Caravan	25/06/2013	0	0	20.1	1007

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	03/07/2013	0	1.1	20	1000
Ballynacarrick LFS	Gas Level	LG9	03/07/2013	0	0.2	19.8	1000
Ballynacarrick LFS	Gas Level	LG10	03/07/2013	0	0.5	20.1	1000
Ballynacarrick LFS	Gas Level	LG11	03/07/2013	0	0.6	20.8	1000
Ballynacarrick LFS	Gas Level	LG12	03/07/2013	0	3.2	16.3	1000
Ballynacarrick LFS	Gas Level	LG13	03/07/2013	0	1.1	20.2	1000
Ballynacarrick LFS	Gas Level	LG14	03/07/2013	0.1	1.4	20.8	1000
Ballynacarrick LFS	Gas Level	LG15	03/07/2013	0.1	3.6	12.6	1000
Ballynacarrick LFS	Gas Level	LG16	03/07/2013	0	2.7	17.1	1000
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	03/07/2013	0	4.2	2.2	1000
Ballynacarrick LFS	Gas Level	Caravan	03/07/2013	0	0	20.8	1000

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	11/07/2013	0	3.9	16.2	986
Ballynacarrick LFS	Gas Level	LG9	11/07/2013	0	0.3	20.4	986
Ballynacarrick LFS	Gas Level	LG10	11/07/2013	0	0.1	20.1	986
Ballynacarrick LFS	Gas Level	LG11	11/07/2013	0	0.3	20.1	986
Ballynacarrick LFS	Gas Level	LG12	11/07/2013	0	3.9	16.8	986
Ballynacarrick LFS	Gas Level	LG13	11/07/2013	0	1.9	20.2	986
Ballynacarrick LFS	Gas Level	LG14	11/07/2013	0.1	2.1	19.9	986
Ballynacarrick LFS	Gas Level	LG15	11/07/2013	0.1	3.3	1.3	986
Ballynacarrick LFS	Gas Level	LG16	11/07/2013	0	2.9	19.5	986
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	11/07/2013	0	3.5	2.8	986
Ballynacarrick LFS	Gas Level	Caravan	11/07/2013	0	0	20.8	986

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	17/07/2013	0	3.3	8.7	1001
Ballynacarrick LFS	Gas Level	LG9	17/07/2013	0.1	0.2	20.6	1001
Ballynacarrick LFS	Gas Level	LG10	17/07/2013	0	0.2	21	1001
Ballynacarrick LFS	Gas Level	LG11	17/07/2013	0	0.1	20.6	1001
Ballynacarrick LFS	Gas Level	LG12	17/07/2013	0	3.9	12.9	1001
Ballynacarrick LFS	Gas Level	LG13	17/07/2013	0	3.3	19.8	1001
Ballynacarrick LFS	Gas Level	LG14	17/07/2013	0	0	20.8	1001
Ballynacarrick LFS	Gas Level	LG15	17/07/2013	0.1	4.2	0.4	1001
Ballynacarrick LFS	Gas Level	LG16	17/07/2013	0	3.6	16	1001
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	17/07/2013	0.1	4.6	3.6	1001
Ballynacarrick LFS	Gas Level	Caravan	17/07/2013	0	0	20.8	1001

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	25/07/2013	0	2.2	20.3	1007
Ballynacarrick LFS	Gas Level	LG9	25/07/2013	0.1	0.4	20.1	1007
Ballynacarrick LFS	Gas Level	LG10	25/07/2013	0	0.2	21	1007
Ballynacarrick LFS	Gas Level	LG11	25/07/2013	0	0.9	20.2	1007
Ballynacarrick LFS	Gas Level	LG12	25/07/2013	0	3.1	15.9	1007
Ballynacarrick LFS	Gas Level	LG13	25/07/2013	0	0.8	20.4	1007
Ballynacarrick LFS	Gas Level	LG14	25/07/2013	0	1.8	19.3	1007
Ballynacarrick LFS	Gas Level	LG15	25/07/2013	0.1	3.1	10.2	1007
Ballynacarrick LFS	Gas Level	LG16	25/07/2013	0	2.9	17.6	1007
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	25/07/2013	0	3.1	2.2	1007
Ballynacarrick LFS	Gas Level	Caravan	25/07/2013	0	0	20.6	1007

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	02/08/2013	0	3.8	15.3	986
Ballynacarrick LFS	Gas Level	LG9	02/08/2013	0	0.2	20.4	986
Ballynacarrick LFS	Gas Level	LG10	02/08/2013	0	0.1	20.8	986
Ballynacarrick LFS	Gas Level	LG11	02/08/2013	0	0.3	20.3	986
Ballynacarrick LFS	Gas Level	LG12	02/08/2013	0	3.6	16.8	986
Ballynacarrick LFS	Gas Level	LG13	02/08/2013	0	3.2	20.1	986
Ballynacarrick LFS	Gas Level	LG14	02/08/2013	0.1	1.9	20.6	986
Ballynacarrick LFS	Gas Level	LG15	02/08/2013	0.1	3	1.2	986
Ballynacarrick LFS	Gas Level	LG16	02/08/2013	0	3.3	20.1	986
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	02/08/2013	0	3.1	2.8	986
Ballynacarrick LFS	Gas Level	Caravan	02/08/2013	0	0	20.6	986

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	09/08/2013	0	3.2	19.2	982
Ballynacarrick LFS	Gas Level	LG9	09/08/2013	0	0.1	20.6	982
Ballynacarrick LFS	Gas Level	LG10	09/08/2013	0	0.2	20.8	982
Ballynacarrick LFS	Gas Level	LG11	09/08/2013	0	0.1	20.1	982
Ballynacarrick LFS	Gas Level	LG12	09/08/2013	0	3.2	13.1	982
Ballynacarrick LFS	Gas Level	LG13	09/08/2013	0	1.9	18	982
Ballynacarrick LFS	Gas Level	LG14	09/08/2013	0	4.2	15.9	982
Ballynacarrick LFS	Gas Level	LG15	09/08/2013	0	4.3	0.4	982
Ballynacarrick LFS	Gas Level	LG16	09/08/2013	0	1.2	20.6	982
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	09/08/2013	0	4.1	1.5	982
Ballynacarrick LFS	Gas Level	Caravan	09/08/2013	0	0	20.8	982

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	15/08/2013	0	1.2	19.6	1000
Ballynacarrick LFS	Gas Level	LG9	15/08/2013	0	0.2	21	1000
Ballynacarrick LFS	Gas Level	LG10	15/08/2013	0	0.3	21	1000
Ballynacarrick LFS	Gas Level	LG11	15/08/2013	0	0.2	20.8	1000
Ballynacarrick LFS	Gas Level	LG12	15/08/2013	0	3.2	14.3	1000
Ballynacarrick LFS	Gas Level	LG13	15/08/2013	0	0.8	20.1	1000
Ballynacarrick LFS	Gas Level	LG14	15/08/2013	0.1	1.2	20.8	1000
Ballynacarrick LFS	Gas Level	LG15	15/08/2013	0.1	3.6	1.2	1000
Ballynacarrick LFS	Gas Level	LG16	15/08/2013	0	2.7	17.1	1000
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	15/08/2013	0	4.2	2.1	1000
Ballynacarrick LFS	Gas Level	Caravan	15/08/2013	0	0	20.6	1000

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	22/08/2013	0	2.2	20.3	1005
Ballynacarrick LFS	Gas Level	LG9	22/08/2013	0.1	0.4	20.1	1005
Ballynacarrick LFS	Gas Level	LG10	22/08/2013	0	0.2	20.4	1005
Ballynacarrick LFS	Gas Level	LG11	22/08/2013	0	0.9	20.2	1005
Ballynacarrick LFS	Gas Level	LG12	22/08/2013	0	3.1	15.9	1005
Ballynacarrick LFS	Gas Level	LG13	22/08/2013	0	0.8	20.4	1005
Ballynacarrick LFS	Gas Level	LG14	22/08/2013	0	1.7	19.2	1005
Ballynacarrick LFS	Gas Level	LG15	22/08/2013	0.1	3.1	10.2	1005
Ballynacarrick LFS	Gas Level	LG16	22/08/2013	0	2.9	18.2	1005
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	22/08/2013	0	3.1	2.3	1005
Ballynacarrick LFS	Gas Level	Caravan	22/08/2013	0	0	20.6	1005

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	28/08/2013	0	1.2	20.1	1000
Ballynacarrick LFS	Gas Level	LG9	28/08/2013	0	1.1	19.6	1000
Ballynacarrick LFS	Gas Level	LG10	28/08/2013	0	0.3	20.3	1000
Ballynacarrick LFS	Gas Level	LG11	28/08/2013	0	0.9	20.5	1000
Ballynacarrick LFS	Gas Level	LG12	28/08/2013	0	3.3	16.3	1000
Ballynacarrick LFS	Gas Level	LG13	28/08/2013	0	0.9	19.9	1000
Ballynacarrick LFS	Gas Level	LG14	28/08/2013	0.1	1.6	20.3	1000
Ballynacarrick LFS	Gas Level	LG15	28/08/2013	0.1	3.3	1.6	1000
Ballynacarrick LFS	Gas Level	LG16	28/08/2013	0	2.6	18.2	1000
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	28/08/2013	0	3.9	3.1	1000
Ballynacarrick LFS	Gas Level	Caravan	28/08/2013	0	0	20.6	1000

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	05/09/2013	0	3.8	18.9	1001
Ballynacarrick LFS	Gas Level	LG9	05/09/2013	0	0.1	20.4	1001
Ballynacarrick LFS	Gas Level	LG10	05/09/2013	0	0.3	20.2	1001
Ballynacarrick LFS	Gas Level	LG11	05/09/2013	0	0.2	20.3	1001
Ballynacarrick LFS	Gas Level	LG12	05/09/2013	0	3.9	16.8	1001
Ballynacarrick LFS	Gas Level	LG13	05/09/2013	0	2.1	20.2	1001
Ballynacarrick LFS	Gas Level	LG14	05/09/2013	0.1	4.8	20.6	1001
Ballynacarrick LFS	Gas Level	LG15	05/09/2013	0.6	2.9	1.2	1001
Ballynacarrick LFS	Gas Level	LG16	05/09/2013	0	3.3	19.5	1001
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	05/09/2013	0	4.2	2.8	1001
Ballynacarrick LFS	Gas Level	Caravan	05/09/2013	0	0	20.6	1001

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	13/09/2013	0	1.8	20.1	998
Ballynacarrick LFS	Gas Level	LG9	13/09/2013	0	0.3	19.3	998
Ballynacarrick LFS	Gas Level	LG10	13/09/2013	0	0.5	20.1	998
Ballynacarrick LFS	Gas Level	LG11	13/09/2013	0	0.9	20.1	998
Ballynacarrick LFS	Gas Level	LG12	13/09/2013	0	3.3	16.9	998
Ballynacarrick LFS	Gas Level	LG13	13/09/2013	0	1.2	19.1	998
Ballynacarrick LFS	Gas Level	LG14	13/09/2013	1.6	5.6	7.2	998
Ballynacarrick LFS	Gas Level	LG15	13/09/2013	0	2.8	17.2	998
Ballynacarrick LFS	Gas Level	LG16	13/09/2013	0	2.2	16.5	998
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	13/09/2013	0	6.2	0.9	998
Ballynacarrick LFS	Gas Level	Caravan	13/09/2013	0	0	20.4	998

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	24/09/2013	0	1.2	19.7	1001
Ballynacarrick LFS	Gas Level	LG9	24/09/2013	0	0.3	20.3	1001
Ballynacarrick LFS	Gas Level	LG10	24/09/2013	0	0.1	20.5	1001
Ballynacarrick LFS	Gas Level	LG11	24/09/2013	0	0.6	20.3	1001
Ballynacarrick LFS	Gas Level	LG12	24/09/2013	0	2.9	17.1	1001
Ballynacarrick LFS	Gas Level	LG13	24/09/2013	0	2	19.9	1001
Ballynacarrick LFS	Gas Level	LG14	24/09/2013	2.1	10.3	6.8	1001
Ballynacarrick LFS	Gas Level	LG15	24/09/2013	0	3	16.7	1001
Ballynacarrick LFS	Gas Level	LG16	24/09/2013	0	2.6	17.1	1001
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	24/09/2013	0	7.2	0.3	1001
Ballynacarrick LFS	Gas Level	Caravan	24/09/2013	0	0	20.7	1001

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	27/09/2013	0	1.1	16.2	997
Ballynacarrick LFS	Gas Level	LG9	27/09/2013	0	0.6	20.4	997
Ballynacarrick LFS	Gas Level	LG10	27/09/2013	0	0.2	20.1	997
Ballynacarrick LFS	Gas Level	LG11	27/09/2013	0	0.4	20.1	997
Ballynacarrick LFS	Gas Level	LG12	27/09/2013	0	3.7	16.8	997
Ballynacarrick LFS	Gas Level	LG13	27/09/2013	0.1	1.1	20.2	997
Ballynacarrick LFS	Gas Level	LG14	27/09/2013	2.9	11.1	19.9	997
Ballynacarrick LFS	Gas Level	LG15	27/09/2013	0	2.3	1.3	997
Ballynacarrick LFS	Gas Level	LG16	27/09/2013	0	2.4	19.5	997
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	27/09/2013	0	8.2	2.8	997
Ballynacarrick LFS	Gas Level	Caravan	27/09/2013	0	0	20.8	997

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	04/10/2013	0	1.2	15.3	1001
Ballynacarrick LFS	Gas Level	LG9	04/10/2013	0	0.5	20.1	1001
Ballynacarrick LFS	Gas Level	LG10	04/10/2013	0	0.3	20.3	1001
Ballynacarrick LFS	Gas Level	LG11	04/10/2013	0	0.5	19.2	1001
Ballynacarrick LFS	Gas Level	LG12	04/10/2013	0	3.3	17.2	1001
Ballynacarrick LFS	Gas Level	LG13	04/10/2013	0	0.9	19.3	1001
Ballynacarrick LFS	Gas Level	LG14	04/10/2013	0.1	10.2	20.1	1001
Ballynacarrick LFS	Gas Level	LG15	04/10/2013	0	3.1	1.6	1001
Ballynacarrick LFS	Gas Level	LG16	04/10/2013	0	2.6	19.9	1001
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	04/10/2013	0	7.9	2.1	1001
Ballynacarrick LFS	Gas Level	Caravan	04/10/2013	0	0	20.6	1001

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	10/10/2013	0	1.9	16.4	998
Ballynacarrick LFS	Gas Level	LG9	10/10/2013	0	0.9	20.3	998
Ballynacarrick LFS	Gas Level	LG10	10/10/2013	0	1.1	20.1	998
Ballynacarrick LFS	Gas Level	LG11	10/10/2013	0	1.1	20.4	998
Ballynacarrick LFS	Gas Level	LG12	10/10/2013	0	3.9	16.9	998
Ballynacarrick LFS	Gas Level	LG13	10/10/2013	0	0.6	18.9	998
Ballynacarrick LFS	Gas Level	LG14	10/10/2013	0.1	12.3	20.2	998
Ballynacarrick LFS	Gas Level	LG15	10/10/2013	0	3.2	2.3	998
Ballynacarrick LFS	Gas Level	LG16	10/10/2013	0	3.2	20.1	998
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	10/10/2013	0	6.9	2.4	998
Ballynacarrick LFS	Gas Level	Caravan	10/10/2013	0	0	20.2	998

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	18/10/2013	0	1.2	19.6	1001
Ballynacarrick LFS	Gas Level	LG9	18/10/2013	0	0.2	20.1	1001
Ballynacarrick LFS	Gas Level	LG10	18/10/2013	0	0.3	20.3	1001
Ballynacarrick LFS	Gas Level	LG11	18/10/2013	0	0.2	20.8	1001
Ballynacarrick LFS	Gas Level	LG12	18/10/2013	0	3.2	14.7	1001
Ballynacarrick LFS	Gas Level	LG13	18/10/2013	0	0.8	20.2	1001
Ballynacarrick LFS	Gas Level	LG14	18/10/2013	0.1	1.2	20.8	1001
Ballynacarrick LFS	Gas Level	LG15	18/10/2013	0	3.6	11.2	1001
Ballynacarrick LFS	Gas Level	LG16	18/10/2013	0	2.7	17.1	1001
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	18/10/2013	0	3.8	2.1	1001
Ballynacarrick LFS	Gas Level	Caravan	18/10/2013	0	0	20.9	1001

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	25/10/2013	0	3.8	15.3	987
Ballynacarrick LFS	Gas Level	LG9	25/10/2013	0	0.1	20.4	987
Ballynacarrick LFS	Gas Level	LG10	25/10/2013	0	0.2	20.8	987
Ballynacarrick LFS	Gas Level	LG11	25/10/2013	0	0.2	20.3	987
Ballynacarrick LFS	Gas Level	LG12	25/10/2013	0	4.2	16.8	987
Ballynacarrick LFS	Gas Level	LG13	25/10/2013	0	2.2	20.2	987
Ballynacarrick LFS	Gas Level	LG14	25/10/2013	0.1	1.9	20.6	987
Ballynacarrick LFS	Gas Level	LG15	25/10/2013	0	3.1	1.2	987
Ballynacarrick LFS	Gas Level	LG16	25/10/2013	0	3.8	19.5	987
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	25/10/2013	0	3.9	2.8	987
Ballynacarrick LFS	Gas Level	Caravan	25/10/2013	0	0	20.1	987

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	31/10/2013	0	2.2	20.3	1007
Ballynacarrick LFS	Gas Level	LG9	31/10/2013	0	0.4	20.1	1007
Ballynacarrick LFS	Gas Level	LG10	31/10/2013	0	0.2	21	1007
Ballynacarrick LFS	Gas Level	LG11	31/10/2013	0	0.9	20.2	1007
Ballynacarrick LFS	Gas Level	LG12	31/10/2013	0	3.1	15.9	1007
Ballynacarrick LFS	Gas Level	LG13	31/10/2013	0	0.8	20.4	1007
Ballynacarrick LFS	Gas Level	LG14	31/10/2013	0.1	1.8	19.3	1007
Ballynacarrick LFS	Gas Level	LG15	31/10/2013	0	3.1	10.2	1007
Ballynacarrick LFS	Gas Level	LG16	31/10/2013	0	2.9	17.6	1007
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	31/10/2013	0	3.1	2.2	1007
Ballynacarrick LFS	Gas Level	Caravan	31/10/2013	0	0	20.6	1007

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	08/11/2013	0	0.7	19.2	989
Ballynacarrick LFS	Gas Level	LG9	08/11/2013	0.1	0.3	20.3	989
Ballynacarrick LFS	Gas Level	LG10	08/11/2013	0	0.2	20.4	989
Ballynacarrick LFS	Gas Level	LG11	08/11/2013	0	0.3	19.3	989
Ballynacarrick LFS	Gas Level	LG12	08/11/2013	0	4.6	12.9	989
Ballynacarrick LFS	Gas Level	LG13	08/11/2013	0	3.2	19.6	989
Ballynacarrick LFS	Gas Level	LG14	08/11/2013	0.1	2.9	18.5	989
Ballynacarrick LFS	Gas Level	LG15	08/11/2013	0	3.9	0.4	989
Ballynacarrick LFS	Gas Level	LG16	08/11/2013	0	2.5	18.2	989
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	08/11/2013	0	4.6	3.6	989
Ballynacarrick LFS	Gas Level	Caravan	08/11/2013	0	0	20.6	989

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	14/11/2013	0	2.2	20.3	1006
Ballynacarrick LFS	Gas Level	LG9	14/11/2013	0.1	0.4	20.1	1006
Ballynacarrick LFS	Gas Level	LG10	14/11/2013	0	0.2	20.4	1006
Ballynacarrick LFS	Gas Level	LG11	14/11/2013	0	0.9	20.2	1006
Ballynacarrick LFS	Gas Level	LG12	14/11/2013	0	3.1	15.9	1006
Ballynacarrick LFS	Gas Level	LG13	14/11/2013	0	0.8	20.4	1006
Ballynacarrick LFS	Gas Level	LG14	14/11/2013	0.1	1.7	19.2	1006
Ballynacarrick LFS	Gas Level	LG15	14/11/2013	0	3.1	10.2	1006
Ballynacarrick LFS	Gas Level	LG16	14/11/2013	0	2.9	18.2	1006
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	14/11/2013	0	3.1	2.3	1006
Ballynacarrick LFS	Gas Level	Caravan	14/11/2013	0	0	20.6	1006

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	20/11/2013	0	1.8	20.1	1002
Ballynacarrick LFS	Gas Level	LG9	20/11/2013	0	0.3	19.3	1002
Ballynacarrick LFS	Gas Level	LG10	20/11/2013	0	0.5	20.1	1002
Ballynacarrick LFS	Gas Level	LG11	20/11/2013	0	0.9	20.1	1002
Ballynacarrick LFS	Gas Level	LG12	20/11/2013	0	3.3	16.9	1002
Ballynacarrick LFS	Gas Level	LG13	20/11/2013	0	1.2	19.1	1002
Ballynacarrick LFS	Gas Level	LG14	20/11/2013	0.9	4.2	9.3	1002
Ballynacarrick LFS	Gas Level	LG15	20/11/2013	0	2.8	17.2	1002
Ballynacarrick LFS	Gas Level	LG16	20/11/2013	0	2.2	16.5	1002
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	20/11/2013	0	4.6	0.9	1002
Ballynacarrick LFS	Gas Level	Caravan	20/11/2013	0	0	20.4	1002

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	26/11/2013	0	1.1	16.2	1027
Ballynacarrick LFS	Gas Level	LG9	26/11/2013	0	0.6	20.4	1027
Ballynacarrick LFS	Gas Level	LG10	26/11/2013	0	0.2	19.2	1027
Ballynacarrick LFS	Gas Level	LG11	26/11/2013	0	0.4	20.1	1027
Ballynacarrick LFS	Gas Level	LG12	26/11/2013	0	3.7	16.8	1027
Ballynacarrick LFS	Gas Level	LG13	26/11/2013	0	1.1	20.2	1027
Ballynacarrick LFS	Gas Level	LG14	26/11/2013	0	4.5	15.6	1027
Ballynacarrick LFS	Gas Level	LG15	26/11/2013	0	2.6	10.9	1027
Ballynacarrick LFS	Gas Level	LG16	26/11/2013	0	4.6	13.5	1027
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	26/11/2013	0	7.4	0.5	1027
Ballynacarrick LFS	Gas Level	Caravan	26/11/2013	0	0.1	21	1027

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	06/12/2013	0	1.2	20.1	1004
Ballynacarrick LFS	Gas Level	LG9	06/12/2013	0	0.5	19.3	1004
Ballynacarrick LFS	Gas Level	LG10	06/12/2013	0	0.3	20.1	1004
Ballynacarrick LFS	Gas Level	LG11	06/12/2013	0	0.5	20.1	1004
Ballynacarrick LFS	Gas Level	LG12	06/12/2013	0	3.3	16.9	1004
Ballynacarrick LFS	Gas Level	LG13	06/12/2013	0	0.9	19.1	1004
Ballynacarrick LFS	Gas Level	LG14	06/12/2013	0	6.2	9.3	1004
Ballynacarrick LFS	Gas Level	LG15	06/12/2013	0	3.1	17.2	1004
Ballynacarrick LFS	Gas Level	LG16	06/12/2013	0	2.6	16.5	1004
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	06/12/2013	0	7.9	0.9	1004
Ballynacarrick LFS	Gas Level	Caravan	06/12/2013	0	0	20.4	1004

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	09/12/2013	0	0.7	21	1008
Ballynacarrick LFS	Gas Level	LG9	09/12/2013	0	0.2	21	1008
Ballynacarrick LFS	Gas Level	LG10	09/12/2013	0	0.9	18.9	1008
Ballynacarrick LFS	Gas Level	LG11	09/12/2013	0	0.2	20.9	1008
Ballynacarrick LFS	Gas Level	LG12	09/12/2013	0	3.8	17.1	1008
Ballynacarrick LFS	Gas Level	LG13	09/12/2013	0	0.8	20.1	1008
Ballynacarrick LFS	Gas Level	LG14	09/12/2013	0	1.5	15.9	1008
Ballynacarrick LFS	Gas Level	LG15	09/12/2013	0	1.8	9.3	1008
Ballynacarrick LFS	Gas Level	LG16	09/12/2013	0	4.7	18.6	1008
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	09/12/2013	0	7.4	0.7	1008
Ballynacarrick LFS	Gas Level	Caravan	09/12/2013	0	0	21	1008

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	17/12/2013	0	2.2	19.2	998
Ballynacarrick LFS	Gas Level	LG9	17/12/2013	0	0.3	20.2	998
Ballynacarrick LFS	Gas Level	LG10	17/12/2013	0	0.1	20.3	998
Ballynacarrick LFS	Gas Level	LG11	17/12/2013	0	0.3	19.3	998
Ballynacarrick LFS	Gas Level	LG12	17/12/2013	0	2.5	17.2	998
Ballynacarrick LFS	Gas Level	LG13	17/12/2013	0	1.3	20.3	998
Ballynacarrick LFS	Gas Level	LG14	17/12/2013	0	1.9	20.1	998
Ballynacarrick LFS	Gas Level	LG15	17/12/2013	0	1.9	5.2	998
Ballynacarrick LFS	Gas Level	LG16	17/12/2013	0	3.9	20.1	998
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	17/12/2013	0	4.1	2.8	998
Ballynacarrick LFS	Gas Level	Caravan	17/12/2013	0	0	20.6	998

Location Ballynacarrick Landfill Site	Sample Type	Site No Gas Well	Date	Methane CH4 %	Carbon Dioxide CO2 %	Oxygen O2 %	Atmospheric Pressure mBar
Ballynacarrick LFS	Gas Level	LG8	23/12/2013	0	1.8	20.1	958
Ballynacarrick LFS	Gas Level	LG9	23/12/2013	0	0.3	19.3	958
Ballynacarrick LFS	Gas Level	LG10	23/12/2013	0	0.5	20.1	958
Ballynacarrick LFS	Gas Level	LG11	23/12/2013	0	0.9	20.1	958
Ballynacarrick LFS	Gas Level	LG12	23/12/2013	0	3.3	17.3	958
Ballynacarrick LFS	Gas Level	LG13	23/12/2013	0	1.2	18.2	958
Ballynacarrick LFS	Gas Level	LG14	23/12/2013	0	4.9	7.2	958
Ballynacarrick LFS	Gas Level	LG15	23/12/2013	0	2.8	18.3	958
Ballynacarrick LFS	Gas Level	LG16	23/12/2013	0	2.2	17.3	958
Ballynacarrick LFS	Gas Level	Borehole @ Caravan	23/12/2013	0	5.2	1.1	958
Ballynacarrick LFS	Gas Level	Caravan	23/12/2013	0	0	21	958

APPENDIX B

WATER BALANCE CALCULATION

WATER BALANCE CALCULATION - BALLYNACARRICK LANDFILL

Period	Active Phase	Active Area A(m^2)	Waste Input t/year	Rainfall mm	Active Area Infilitration R(A)(m^3)	Liquid Waste LW(m^3)	Temporary Capped area	Temporary Capped area RCA m^2	Temporary Capped area infiltration IRCA(m^3)	Restored area	Restored area RCA m^2	Restored area infiltration IRCA(m^3)	Total Water	Cumulative Water	Absorptive Capacity aW(m^3)	Cumulative Absorptive Capacity	Cumulative leachate	Leachate produced Lo(m^3)	Leachate tankered m^3
										Fully Capped area									
2013 a	Infrastructural Area	2,500		1,090	2,724		Phase 2B and 2C	11,190	3,658	Whole Site excludig 2B & 2C	64,700	7,050	13,433	13,433	-	-	13,433	13,433	18,971
2013 b	Infrastructural Area	2,500		574	1,435					Whole Site	75,890	4,355	5,790	19,223	-	-	19,223	5,790	7,610
Total			**-**	**1,664**		**-**						**11,406**	**19,223**					**19,223**	**26,580**

Notes

1 - Phase 2A Operational from 31st March 2007

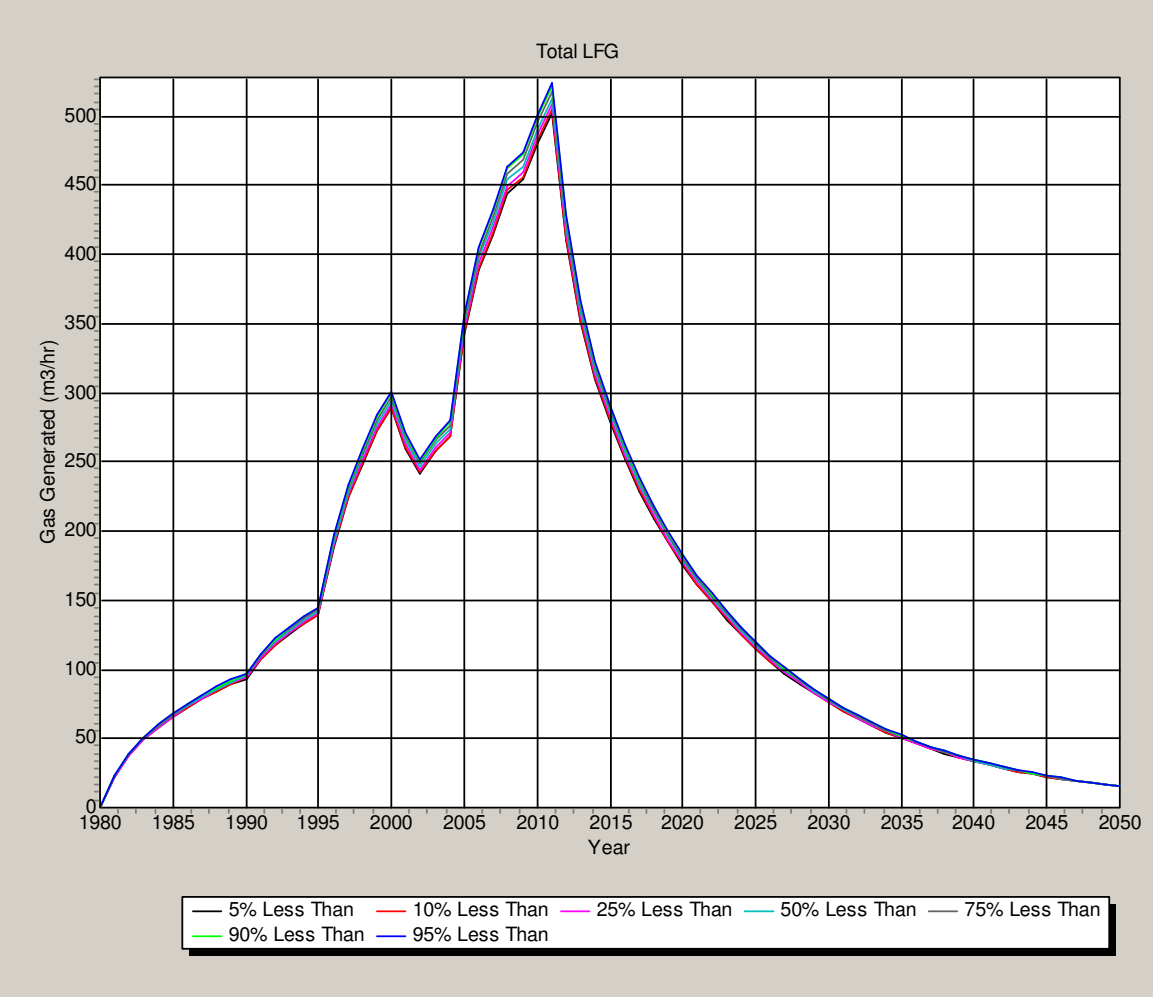
2 - Phase 2B Operational from 12th September 2007

3 - Phase 2C Operational from 9th April 2008

1. IRCA =	Fully Capped/Restored area infiltration of rainfall estimated (2-10%)	10%	% of annual rainfall
	Temporarily Capped/Restored area infiltration of rainfall estimated (25-30%)	30%	% of annual rainfall
2. Used actual rainfall R (m) for active cells and restored areas instead of Effective Rainfall (ER)			
3. Absorptive Capacity = Waste density of 0.8 tonnes/m^3. Estimated absorptive capacity (water per tonnes waste before leachate is produced)		0.06	t/m^3
4. Landfill Areas			
Extension			
Phase 1		15,400	m^2
Phase 2A		4,300	m^2
Phase 2B		2,890	m^2
Phase 2C		8,300	m^2
Recycling Area - front of site		4,000	m^2
Exisitng site			
Original Site		41,000	m^2
Infrastructural Area		2,500	m^2
5. Rainfall	a (January to September)	1,090	mm
	b (October to December)	574	mm
6. Liquid Waste input (assumed 25% dry solids)		-	tonnes

APPENDIX C

GAS MODELLING


Total LFG
Gas Generated (m3/hr)
0
50
100
150
200
250
300
350
400
450
500
1980
1985
1990
1995
2000
2005
2010
2015
2020
2025
2030
2035
2040
2045
2050
Year
5% Less Than
10% Less Than
25% Less Than
50% Less Than
75% Less Than
90% Less Than
95% Less Than

YEAR	ANNUAL m^3/hr	ANNUAL OUTPUT m^3	ACCUM OUTPUT m^3
1980	0	0	0
1981	19	166440	166440
1982	30	262800	429240
1983	40	350400	779640
1984	60	525600	1305240
1985	70	613200	1918440
1986	75	657000	2575440
1987	84	735840	3311280
1988	90	788400	4099680
1989	95	832200	4931880
1990	100	876000	5807880
1991	105	919800	6727680
1992	110	963600	7691280
1993	120	1051200	8742480
1994	138	1208880	9951360
1995	140	1226400	11177760
1996	160	1401600	12579360
1997	200	1752000	14331360
1998	280	2452800	16784160
1999	340	2978400	19762560
2000	350	3066000	22828560
2001	360	3153600	25982160
2002	330	2890800	28872960
2003	340	2978400	31851360
2004	360	3153600	35004960
2005	370	3241200	38246160
2006	380	3328800	41574960
2007	400	3504000	45078960
2008	460	4029600	49108560
2009	470	4117200	53225760
2010	460	4029600	57255360
2011	550	4818000	62160960
2012	490	4292400	66453360
2013	450	3942000	70395360

APPENDIX D

E-PRTR Regulations
(AER Electronic Reporting System)

Environmental Protection Agency

Guidance to completing the PRTR workbook

AER Returns Workbook

Version 1.1.18

REFERENCE YEAR	2013

1. FACILITY IDENTIFICATION

Parent Company Name	Donegal County Council
Facility Name	Ballynacarrick Landfill Site
PRTR Identification Number	W0024
Licence Number	W0024-04

Waste or IPPC Classes of Activity

No.	class_name
3.5	Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment.
3.13	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.
3.6	Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1. to 10. of this Schedule.
4.13	Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.
4.2	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
4.3	Recycling or reclamation of metals and metal compounds.
4.4	Recycling or reclamation of other inorganic materials.
Address 1	Ballynacarrick
Address 2	Ballintra
Address 3	County Donegal
Address 4	
	Donegal
Country	Ireland
Coordinates of Location	-8.44131 54.6298
River Basin District	GBNIIENW
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	Julie McMahon
AER Returns Contact Email Address	julie.mcmahon@donegalcoco.ie
AER Returns Contact Position	Executive Engineer
AER Returns Contact Telephone Number	0749122787
AER Returns Contact Mobile Phone Number	0872861096
AER Returns Contact Fax Number	0749161304
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	1
User Feedback/Comments	Site now closed. GasSIM model rerun to take into consideration final capping of the site. Moisture content waste changed to average. Model flow rate reduced and therefore total estimated methane generation and pollutant releases to air kg/annum.
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
5(d)	Landfills
5(c)	Installations for the disposal of non-hazardous waste
50.1	General

3. SOLVENTS REGULATIONS (S.I. No. 543 of 2002)

Is it applicable?	
Have you been granted an exemption ?	
If applicable which activity class applies (as per Schedule 2 of the regulations) ?	
Is the reduction scheme compliance route being used ?	

4. WASTE IMPORTED/ACCEPTED ONTO SITE Guidance on waste imported/accepted onto site

Do you import/accept waste onto your site for on-site treatment (either recovery or disposal activities) ?	

This question is only applicable if you are an IPPC or Quarry site

4.1 RELEASES TO AIR Link to previous years emissions data | PRTR# : W0024 | Facility Name : Ballynacarrick Landfill Site | Filename : W0024_2013.xls | Return Year : 2013 | 12/05/2014 12:07

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

RELEASES TO AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
			Method Used		Flare			
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
01	Methane (CH4)	C	OTH	as per EPA guidance	12016.0	303592.0	0.0	291576.0
03	Carbon dioxide (CO2)	C	OTH	GasSIM	6080000.0	6080000.0	0.0	0.0
02	Carbon monoxide (CO)	C	OTH	GasSIM	2730.0	2730.0	0.0	0.0
08	Nitrogen oxides (NOx/NO2)	C	OTH	GasSIM	1410.0	1410.0	0.0	0.0
07	Non-methane volatile organic compounds (NMVOC)	C	OTH	GasSIM	0.0904	0.0904	0.0	0.0
86	Particulate matter (PM10)	C	OTH	GasSIM	93.1	93.1	0.0	0.0
11	Sulphur oxides (SOx/SO2)	C	OTH	GasSIM	1710.0	1710.0	0.0	0.0
55	1,1,1-trichloroethane	C	OTH	GasSIM	2.18	2.18	0.0	0.0
53	Tetrachloromethane (TCM)	C	OTH	GasSIM	0.0471	0.0471	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING PRTR POLLUTANTS

RELEASES TO AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
			Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
15	Chlorofluorocarbons (CFCs)	C	OTH	GasSIM	8.04	8.04	0.0	0.0
14	Hydrochlorofluorocarbons (HCFCs)	C	OTH	GasSIM	5.87	5.87	0.0	0.0
62	Benzene	C	OTH	GasSIM	0.051	0.051	0.0	0.0
58	Trichloromethane	C	OTH	GasSIM	0.058	0.058	0.0	0.0
35	Dichloromethane (DCM)	C	OTH	GasSIM	0.0409	0.0409	0.0	0.0
34	1,2-dichloroethane (EDC)	C	OTH	GasSIM	0.0581	0.0581	0.0	0.0
56	1,1,2,2-tetrachloroethane	C	OTH	GasSIM	0.0892	0.0892	0.0	0.0
73	Toluene	C	OTH	GasSIM	0.232	0.232	0.0	0.0
54	Trichlorobenzenes (TCBs)(all isomers)	C	OTH	GasSIM	0.0054	0.0054	0.0	0.0
60	Vinyl chloride	C	OTH	GasSIM	0.0848	0.0848	0.0	0.0
78	Xylenes	C	OTH	GasSIM	0.0293	0.0293	0.0	0.0
52	Tetrachloroethylene (PER)	C	OTH	GasSIM	0.0629	0.0629	0.0	0.0
57	**Trichloroethylene**	C	OTH	GasSIM	0.293	0.293	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION C : REMAINING POLLUTANT EMISSIONS (As required in your Licence)

RELEASES TO AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
			Method Used					
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
315	Formaldehyde	C	OTH		0.249	0.249	0.0	0.0
		C	OTH		0.0	0.0	0.0	0.0
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

Additional Data Requested from Landfill operators

For the purposes of the National Inventory on Greenhouse Gases, landfill operators are requested to provide summary data on landfill gas (Methane) flared or utilised on their facilities to accompany the figures for total methane generated. Operators should only report their Net methane (CH4) emission to the environment under T(total) KG/yr for Section A: Sector specific PRTR pollutants above. Please complete the table below:

Landfill: Ballynacarrick Landfill Site

Please enter summary data on the quantities of methane flared and / or utilised	T (Total) kg/Year	M/C/E	Method Used: Method Code	Method Used: Designation or Description	Facility Total Capacity m3 per hour	
Total estimated methane generation (as per site model)	892362.0	C	OTH	GasSIM total LFG * Average Methane % from LFG survey 2013. Methane was converted from m3 to kg using STP (0.717).	N/A	
Methane flared	588771.0	M	OTH	LFG Survey 2013	500.0	(Total Flaring Capacity)
Methane utilised in engine/s	0.0				0.0	(Total Utilising Capacity)
Net methane emission (as reported in Section A above)	303591.0	C	OTH	Total estimated methane ger	N/A	

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

| PRTR# : W0024 | Facility Name : Ballynacarrick Landfill Site | Filename : W0024_2013.xls | Return Year : 2013 | 12/05/2014 12:07

Please enter all quantities on this sheet in Tonnes 5

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility Non Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
Within the Country	**19 07 03**	**No**	26580.1	landfill leachate other than those mentioned in 19 07 02	D8	M	Weighed	Offsite in Ireland	Donegal County Council,D0009-01	Letterkenny WWTP,Magheranan,Letterkenny,County Donegal,Ireland		

* Select a row by double-clicking the Description of Waste then click the delete button

Link to previous years waste data
Link to previous years waste summary data & percentage change
Link to Waste Guidance