



Athy Civic Amenity Centre

Annual Environmental Report 2009

Waste Licence Reg: W0175-01

Original

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June 2010

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1. Introduction

On the 30th October 2003, the Environmental Protection Agency issued Kildare County Council (KCC) a waste licence for its civic amenity facility located at Gallows Hill, Athy, Co. Kildare. The waste licence reference number is W0175-01. This report addresses Condition 11.4 of the waste licence for the facility.

Condition 11.4 states that:

- 11.4.1 The licensee shall submit to the Agency for its agreement within one month after the end of each calendar year, an Annual Environmental Report (AER).
- 11.4.2 The AER shall include as a minimum the information specified in Schedule F: Content of Annual Environmental Report of this licence and shall be prepared in accordance with any relevant written guidance issued by the Agency.

This report addressed the items listed in Schedule F: Content of the Annual Environmental Report of the waste licence for the facility, and covers the reporting period from 1st January 2009 to the 31st December 2009.

2. Site Description and Activities

2.1. Waste Activities carried out at the Facility

Waste activities at Athy Civic Amenity Centre are restricted to those outlined in Part 1 – Activities Licensed of the waste licence.

Licensed Waste Disposal Activities in accordance with the Third Schedule of the Waste Management Act, 1996

- Class 11** **Blending or mixing prior to submission to any activity referred to in a preceding paragraph of this schedule.**
This activity is limited to the compaction and storage of municipal solid waste on site, prior to disposal off-site.
- Class 12** **Repackaging prior to submission to any activity referred to in a preceding paragraph of this schedule.**
This activity is limited to the compaction of municipal solid waste on site, prior to disposal off-site.
- 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 was produced.**
This activity is limited to the storage of municipal solid waste, prior to disposal offsite.

Licensed Waste Recovery Activities, in accordance with the Fourth Schedule of the Waste Management Act, 1996

- Class 2** **Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)**
This activity is limited to the recycling of textiles, plastics, paper, cardboard, timber, green waste, limited quantities of waste arising from farm and household activities including; household chemicals, paints, inks, adhesives and resins, waste oils, oil filters and agrochemical waste.
- Class 3** **Recycling or reclamation of metals and metal compounds**
This activity is limited to the recycling of scrap metal, aluminium cans and white goods.
- Class 4** **Recycling or reclamation of other inorganic materials**
This activity is limited to the recycling of glass, household construction and demolition waste, tyres, electronics, fluorescent tubes, batteries and accumulators.
- Class 11** **Use of waste obtained from any activity referred to in a preceding paragraph of this schedule**
This activity is limited to the reuse of waste such as household construction and demolition waste, white goods or timber.
- Class 12** **Exchange of waste for submission to any activity referred to in a preceding paragraph of this schedule**
This activity is limited to the exchange of waste that can be reclaimed and reused such as timber pallets and tyres.
- 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**
This activity is limited to the storage of waste types authorised by this licence at the facility prior to recovery at an appropriate facility.

Members of the public and small commercial vehicles access the site. The activities carried out at each area are described in the subsections below.

2.2. Site Description

Athy Civic Amenity Centre is a purpose built waste management facility and is located approximately 200 metres off the N78 road between Athy and Kilcullen. A site location map is included in Appendix I. The facility was constructed on land owned by Kildare County Council which had historically been used for the storage of road maintenance equipment. The Site Layout Map for the facility shows the overall layout of the facility.

The household hazardous waste building was constructed with a bunded concrete floor slab, structural steel frame, profiled metal cladding and blockwork walls. The control building was constructed as a single storey, 'bungalow-like' structure. It contains the administration office, canteen, toilets and shower area. An 18m long weighbridge was installed adjacent to the control building.

The site consists of a split level area in the middle of the facility to allow members of the public to dispose of and recycle waste. This was constructed in a 'zig-zag' fashion to accommodate the skips below. A compactor unit was also installed adjacent to the split level area. This facilitates the disposal and compaction of municipal waste.

The civic amenity centre is surrounded by a 2m high palisade fence, for security of the site.

3. Waste Quantities and Composition

The quantity and composition of material received for recovery at the facility from the 1st January 2009 to the 31st December 2009 is outlined in Table 3.1.

Table 3.1. Summary of Recyclables Recovered (Tonnes) from the Facility (2006 – 2009)

Material	2006 (t)	2007 (t)	2008 (t)	2009 (t)
Cardboard	48.86	54.90	49.86	30.78
Newspaper	46.28	53.08	55.52	29.78
Bottles	32.62	45.18	48.88	24.68
Cans	2.61	4.02	5.48	3.02
Clothes	15.96	23.84	24.82	8.42
Electrical Goods	80.06	69.10	87.22	66.72
Batteries	6.46	5.74	3.40	2.3
Flat Glass	3.36	-	-	9.28
Vegetable Oil	0.52	1.90	1.18	0.36
Gas Bottles	0.44	-	-	-
Fluorescent Tubes	0.1	0.12	0.08	0.04
Paints	0.24	-	-	-
Metal	-	24.96	38.04	26.12
Plastic	-	12.70	7.76	23.98
Green Waste	-	27.26	84.60	28.82
Misc. Hazardous	-	12.30	3.38	2.42
Bulk Waste	-	154.78	196.62	126.68
Bulk Domestic Waste	-	319.26	323.02	344
Total	237.51	809.14	929.86	727.4

The figures above outline the recovery of recyclables for the 2006, 2007, 2008 and 2009 reporting periods. The figures show that the recovery of recyclables at the facility decreased by approximately 25% during 2009. This was mainly as a result of reduced opening hours at the facility and the economic downturn.

4. Summary of Environmental Monitoring

Condition 8 and Schedule D of the Waste Licence specify the environmental monitoring requirements for the facility. The following sections discuss the results from the monitoring events during the monitoring period.

Environmental monitoring of the Surface water and emissions to sewer at the facility was carried out on the 19th January 2009 and the 8th September 2009. Noise monitoring was carried out on the -----2009. Dust monitoring was carried out twice during the reporting period; over a 30-day period during August and September and over a 30 day period during September and October. The Environmental media monitored at the facility are as follows:

1. Surface Water
2. Emissions to Sewer
3. Air Quality – Dust
4. Noise

Unless otherwise specified, monitoring was carried out at those locations set out in Table D1.1.of the waste licence and in Figure J.1.1. Map of Environmental Monitoring Locations which is included in Appendix I.

4.1. Surface Water

Two surface water monitoring points are defined in Schedule D of the waste licence, SW1 and SW2. SW1 had only a low flow during the January sampling event and was dry during the September sampling event.

Table 4.1. Monitoring Results for SW1 and SW2

	SW1		SW2	
	19/01/2009	08/09/2009	19/01/2009	08/09/2009
pH	8.10	-	8.09	1.59
Biochemical Oxygen Demand (mg/l)	<2	-	3	7.99
Total Suspended Solids (mg/l)	869	-	22	<4.00
Fats, Oils & Grease (mg/l)	3	-	<1	<1

4.1.1. Interpretation of Results

The results for total suspended solids were elevated in SW1 in the January sample. The flows in this manhole are very low and run dry for long periods at a time. Previously, the low flow experienced at SW1 has led to problems obtaining a sample. During January 2009 a sample was obtained but the flow was still low. It is likely that the high suspended solid content identified in the results is owing to the capturing of bottom sediment incorporated into the waster sample, and is not indicative of the solid content in the flowing water. It is unlikely that the operation of the facility is having an adverse effect on the surface water in the area.

The surface water run-off from the site will continue to be monitored and analysed for these parameters on a bi-annual basis in 2010.

4.2. Emissions to Sewer

4.2.1 Monitoring Locations

Samples were taken from the point of emission to sewer (WW1) as shown on Figure J.1.1. Map of Environmental Monitoring Locations.

4.2.2. Monitoring Parameters

The samples were analysed for the parameters listed in Table D.5.1 in the waste licence. The results are presented in Table 4.2.

Table 4.2. Monitoring Results for WW1

	19/01/2009	08/09/2009
pH	8.08	8.05
Biochemical Oxygen Demand (mg/l)	3	32.1
Chemical Oxygen Demand (mg/l)	<15	-
Total Suspended Solids (mg/l)	94	15.5
Fats, Oils & Grease (mg/l)	1	2.65
Total Phosphorous (mg/l)	0.27	2.9
Total Nitrogen (mg/l)	-	15.2
Total Oxidised Nitrogen (mg/l)	<0.3	-

4.2.3. Interpretation of Results

pH, COD and fats, oils and grease remained similar to the previous year. There was a spike in TSS concentrations in the January sample but this had returned to normal range by the September sampling event. Large quantities of leaves and mud were caught at the bottom of WW1 and were the cause of the higher than average TSS content in the January sample.

There was an increase in BOD and Total Phosphorous during the September monitoring. There is No previous history of elevated levels at this site and these parameters will be monitored closely for any trend. If an increasing trend becomes evident after future sampling, recommendations will be made in an effort to reduce phosphorous results.

The wastewater from the site will continue to be monitored and analysed for these parameters on a bi-annual basis in 2010.

4.3. Dust

4.3.1. Monitoring Locations

Dust monitoring was carried out at four locations in accordance with Schedule D of the licence. These locations are shown on Figure J.1.1. Map of Environmental Monitoring Locations. Two of these monitoring points are on the site boundary and two are located in the neighbouring road maintenance yard.

4.3.2. Monitoring Parameters

Bergerhoff gauges were used to determine total dust deposition. Four gauges were set up so that the dust jars were at a height of at least 1.5m above the ground and the jars were set in place during the monthly monitoring events.

4.3.3. Monitoring Results

The results for total dust deposition are presented in Table 4.3.

Table 4.3. Monthly Dust Deposition Results

		D1	D2	D3	D4
From	To	mg/m²/d	mg/m²/d	mg/m²/d	mg/m²/d
10/08/09	08/09/09	82.5	303	45.8	45.8
10/09/09	09/10/09	60	226	56.7	96.7

4.3.4. Interpretation of Results

The dust deposition levels at all monitoring points are below the mean daily dust deposition limit as set out in Schedule C.2 of the waste licence for the facility (350mg/m²/d).

4.4. Noise

4.4.1. Monitoring Parameters

As per Schedule D of the waste licence, the annual noise survey was carried out on the 7th October 2009 when the conditions were found to be suitable. Noise monitoring was undertaken at the four locations as shown on Figure J.1.1. Map of Environmental Monitoring Locations.

Noise monitoring was carried out during the day between the hours of 09:00 and 12:00 for 30 minute intervals at each location. No night time noise monitoring is required at the facility. All measurements were taken in accordance with ISO 1996 (Description and Measurement of Environmental Noise) and the EPA Environmental Noise Survey Guidance Document.

The survey was carried out using a Brüel and Kjær 2260 Type 1 Sound Level Meter (SLM) with an outdoor microphone unit Type 4198.

The instrument was calibrated prior to commencing the survey using the recommended calibration procedure and a known pure tone noise source. The unit was again calibrated on completion of the survey to record drift during the course of the day. Drift is normally associated with battery fade and temperature. The unit had not drifted.

Good measurements require calm conditions to avoid spurious effects on the microphone, particularly at low frequencies. An average wind speed of less than 5 m/s is the preferred limit when noise measurements are being taken, with 7 m/s an upper limit. Weather conditions during the monitoring were damp and calm and wind speed was less than 7 m/s for the entire period.

4.4.2. Monitoring Locations

Monitoring was conducted at four locations as specified in the waste licence. The locations are shown on Figure J.1.1. Map of Environmental Monitoring Locations and summarised in Table 4.4

Table 4.4. Noise Monitoring Locations

Monitoring Location	Description
N1	Located on the south western boundary of the facility
N2	Located just to the east of the facility in the grounds of the adjacent quarry
S1	Located to the west of the facility adjacent to the access road
S2	Located in a housing estate northwest of the facility

4.4.4. Monitoring Results

Table 4.5. Noise Monitoring Results

Location	Date	Time	L _{Aeq}	L _{AF10}	L _{AF90}
N1	07/10/2009	10:45-11:15	44	46	36
N2	07/10/2009	11:20-11:50	52	51	40
S1	07/10/2009	09:25-09:55	52	53	46
S2	07/10/2009	10:00-10:30	54	55	45

4.4.5. Interpretation of Results

Noise emission limits are given in Table C1 of the Waste Licence and are reproduced here in Table 4.6.

Table 4.6. Noise Emission Limits

Day dB (A) L _{Aeq} (30 minutes)	Night dB (A) L _{Aeq} (30 minutes)
55	45

The noise levels at all of the monitoring locations were within the noise emission limits. No tonal element was present in the noise data at any of the locations.

4.4.6. Assessment of Tonal Components

All measurements were subject to a one-third octave band analysis to identify tonal components within the noise measured. No tonal element was present in the noise data analysed.

4.5. Summary

This report presents the monitoring results from the Athy Civic Amenity Centre, in compliance with the requirements of EPA Waste Licence Reg. No. W0175-01.

Monitoring of the environmental media, as discussed above, indicates that activities at the facility are not having a significant impact on the surrounding environment. The next monitoring report is due in 2011.

5. Site Development Works

5.1 Site Development Works During 2009

5.1.1. Civic Waste Facility

The Civic Amenity Site opened in August 2005 and has been maintained to a high standard by Kildare County Council.

No site development works were carried out during 2009

5.2. Proposed Development Works for 2010

Plans for the construction of a bunded shed have been submitted to the Agency and are awaiting approval.

6. Environmental Objectives and Targets

In compliance with Condition 2.3 of the waste licence, an Environmental Management System (EMS) has been established for the facility.

The EMS includes the timescale for achieving the objectives and targets, and the designation of responsibility for achieving the objectives and targets.

6.1. Proposed Objectives and Targets

The objectives and targets proposed for 2010 are listed below.

- Objective 1. Operate facility in order to maintain the high standards set and promote continual environmental improvement.**
It is the objective of Kildare County Council to comply with the conditions of the EPA waste licence for the facility and promote continual environmental improvement. This will ensure compliance with all licence conditions and, in return, improve the management and operation of the facility. The targets are tabulated below with a target date for the implementation of the goal.

Target		Responsible
1	Review training schedule of each staff member & identify training needs	Facility Manager
2	Implement the EMS	Facility Manager
3	Continue programme of regular inspections	Facility Manager
4	Continue to maintain the appropriate records at the facility in Accordance with Condition 11 of the waste licence	Facility Manager

Responsible Personnel

The facility manager is responsible for achieving this objective.

Timetable for Achievement of Tasks

Target	2010											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1												
2												
3												
4												

- Objective 2. Maximise recovery/recycling within the civic amenity and site office.**

It is the objective of the licensee to maximise the recycling of waste materials at the facility and site office.

The objective will be achieved by carrying out the following tasks:

Target		Responsible
1	Promote recycling in-house within the site office	Facility Manager
2	Continue effort to source new markets for recyclable products	Facility Manager
3	Increase public awareness of the facility through advertising	Facility Manager

Responsible Personnel

The facility manager is responsible for achieving this objective.

Timetable for Achievement of Tasks

Target	2010											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1												
2												
3												

- Objective 3. Maximise energy efficiency within the site office.**

It is the objective of the licensee to constantly improve and maintain energy efficiency measures to maximise efficiency within the site office.

7. Miscellaneous

7.1. New Procedures Developed During 2009

- New domestic recycling charges were introduced in January 2009.
- Reduced opening hours began in February 2009 with the facility opening for three days a week.

7.2. Incidents and Complaints Summary

The facility manager records all site incidents and complaints on a register, which is held at the site office.

There were no incidents or complaints recorded at the facility during 2009.

7.3. Review of Nuisance Controls

Athy Civic Amenity Centre is maintained to a very high standard by Kildare County Council. All loose litter at the site and on the site access road is removed by site staff. All vehicles delivering or removing waste to or from the facility are appropriately covered to minimise littering.

7.4. Financial Provision

Kildare County Council pays to the Agency an annual contribution of €7,732 towards the cost of monitoring the facility, or otherwise in performing any functions in relation to the activity.

7.5. Energy Consumption and Generation

The figures for energy use in 2009 are as follows:

- Electricity: 73,400 (approximate)
- Fuel: 1,500 litres (approximate)
- Water: 1000 m³ (approximate)

Water usage is not metered, so consumption is approximate. The electrical usage is also estimated.

7.6. Management and Staffing Structure

This is included in Appendix III

7.7. Report on Staff Training

Training completed by staff in 2009 is as follows:

Pat Roche completed the Fás Safe Pass Course.
Brian Fitzpatrick completed the Fás Safe Pass Course.

Appendix I

Drawings

Appendix II

Monitoring Results



Kildare County Council
Water Services
Aras Cilldara
Devoy Park
Naas
Co.Kildare

Attention: Claire McLaughlin

CERTIFICATE OF ANALYSIS

Date: 22 September 2009
Job: D_KILCC_NAS-2
SDG Reference: 090908-63 **Report No.:** 62069
Your Reference:
Location: Silliot Hill

A total of 12 samples was received on Tuesday September 08, 2009 and completed on Tuesday September 15, 2009. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation. We are pleased to enclose our report, it was a pleasure to be of service to you, and we look forward to our continuing association.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample. Asbestos testing - we are not accredited for screening soil samples for asbestos fibres. We are only accredited to identify asbestos fibres in bulk material (ACM) Approved By: Chris Crutchley Operations

Director - Land UK & I

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Validated

ALcontrol Laboratories Analytical Services

Kildare County Council ID_KILCC_NAS-2

Customer:

Client Reference:

Attention: Claire McLaughlin

Location: Silliot Hill

Order No.:

Report No: 62069

Sample ID	Depth	Container	Sample Type	TPH by IR Oils and Greases	Total Suspended Solids	Total Nitrogen	Total Metals by ICP-MS	pH Value	Mineral Oil C10-40 Aqueous (W)	Dust in Water	BOD Unfiltered	Ammonia by Korne (W)	Ammonium
				All	All	All	All	All	All	All	All	All	All
ACD1		1l glass bottle (D)	LIQUID						X				
ACD2		1l glass bottle (D)	LIQUID						X				
ACD3		1l glass bottle (D)	LIQUID						X				
ACD4		1l glass bottle (D)	LIQUID						X				
SHD1		1l glass bottle (D)	LIQUID						X				
SHD2		1l glass bottle (D)	LIQUID						X				
SHD3		1l glass bottle (D)	LIQUID						X				
SHD4		1l glass bottle (D)	LIQUID						X				
SHD6		1l glass bottle (D)	LIQUID						X				
SHD7		1l glass bottle (D)	LIQUID						X				
SW2		H2SO4 (Dublin)	LIQUID	X									
		1l glass bottle (D)	LIQUID					X					X
		1l glass bottle (D)	LIQUID					X		X			X
WW1		H2SO4 (Dublin)	LIQUID	X									
		1l glass bottle (D)	LIQUID					X					X
		1l glass bottle (D)	LIQUID					X	X	X	X		X

Job: D_KILCC_NAS-2

Customer: Kildare County Council

Client Reference:

Attention: Claire McLaughlin

Location: Silliot Hill

Order No.:

Report No: 62069

Table of Results

Ammonium

Results Legend	Sample ID			SW2	WW1
	Depth(m)	Sample Type	Sample received date	Water(GW/SW)	Water(GW/SW)
# ISO17025 Accredited. m MCERTS accredited. * sub contracted test. ** This result relates to the % recovery of the surrogate standard added to the sample to check on the efficiency of the method. Acceptable limits for most organic methods are 70 - 130 % The results of the individual compounds within the sample are not corrected for this recovery.				08/09/2009	08/09/2009
	Sampled date				
	SDG Ref		090908-63	090908-63	
	Sample Ref		464107	464116	
	LoD	Units	Method		
	<0.2	mg/l as N	TM099	<0.200	14.8
Ammoniacal Nitrogen as N				#	#

Anions by Kone (w)

Results Legend	Sample ID			WW1
	Depth(m)	Sample Type	Sample received date	Water(GW/SW)
# ISO17025 Accredited. m MCERTS accredited. * sub contracted test. ** This result relates to the % recovery of the surrogate standard added to the sample to check on the efficiency of the method. Acceptable limits for most organic methods are 70 - 130 % The results of the individual compounds within the sample are not corrected for this recovery.				08/09/2009
	Sampled date			
	SDG Ref		090908-63	
	Sample Ref		464116	
	LoD	Units	Method	
	3	mg/l	TM184	9.10
Sulphate (soluble)				#

BOD Unfiltered

Results Legend	Sample ID			SW2	WW1
	Depth(m)	Sample Type	Sample received date	Water(GW/SW)	Water(GW/SW)
# ISO17025 Accredited. m MCERTS accredited. * sub contracted test. ** This result relates to the % recovery of the surrogate standard added to the sample to check on the efficiency of the method. Acceptable limits for most organic methods are 70 - 130 % The results of the individual compounds within the sample are not corrected for this recovery.				08/09/2009	08/09/2009
	Sampled date				
	SDG Ref		090908-63	090908-63	
	Sample Ref		464107	464116	
	LoD	Units	Method		
	<1	mg/l O	TM045	1.59	32.1
BOD				#	#

Dust in Water

Results Legend	Sample ID			ACD1	ACD2	ACD3	ACD4
	Depth(m)	Sample Type	Sample received date	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
# ISO17025 Accredited. m MCERTS accredited. * sub contracted test. ** This result relates to the % recovery of the surrogate standard added to the sample to check on the efficiency of the method. Acceptable limits for most organic methods are 70 - 130 % The results of the individual compounds within the sample are not corrected for this recovery.				08/09/2009	08/09/2009	08/09/2009	08/09/2009
	Sampled date			08/09/2009	08/09/2009	08/09/2009	08/09/2009
	SDG Ref		090908-63	090908-63	090908-63	090908-63	090908-63
	Sample Ref		464093	464096	464099	464102	
	LoD	Units	Method				
Collection days		Days	TM253	30	30	30	30
Dust	<0.026	mg/m2/day	TM253	82.5	303	45.8	45.0

Job: D_KILCC_NAS-2**Customer:** Kildare County Council**Client Reference:****Attention:** Claire McLaughlin**Location:** Silliot Hill**Order No.:****Report No:** 62069**Dust in Water**

Results Legend	Sample ID			SHD1	SHD2	SHD3	SHD4
	Depth(m)	Units	Method				
# ISO17025 Accredited. m MCERTS accredited. * sub contracted test. ** This result relates to the % recovery of the surrogate standard added to the sample to check on the efficiency of the method. Acceptable limits for most organic methods are 70 - 130 % The results of the individual compounds within the sample are not corrected for this recovery.	Sample Type			Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
	Sample received date			08/09/2009	08/09/2009	08/09/2009	08/09/2009
	Sampled date			08/09/2009	08/09/2009	08/09/2009	08/09/2009
	SDG Ref			090908-63	090908-63	090908-63	090908-63
	Sample Ref			464070	464075	464078	464081
Collection days		Days	TM253	30	30	30	30
Dust	<0.026	mg/m ² /day	TM253	245	24.2	218	213

Dust in Water

Results Legend	Sample ID			SHD6	SHD7
	Depth(m)	Units	Method		
# ISO17025 Accredited. m MCERTS accredited. * sub contracted test. ** This result relates to the % recovery of the surrogate standard added to the sample to check on the efficiency of the method. Acceptable limits for most organic methods are 70 - 130 % The results of the individual compounds within the sample are not corrected for this recovery.	Sample Type			Water(GW/SW)	Water(GW/SW)
	Sample received date			08/09/2009	08/09/2009
	Sampled date			08/09/2009	08/09/2009
	SDG Ref			090908-63	090908-63
	Sample Ref			465737	464090
Collection days		Days	TM253	30	30
Dust	<0.026	mg/m ² /day	TM253	42.5	20.0

Mineral Oil C10-40 Aqueous (W)

Results Legend	Sample ID			SW2
	Depth(m)	Units	Method	
# ISO17025 Accredited. m MCERTS accredited. * sub contracted test. ** This result relates to the % recovery of the surrogate standard added to the sample to check on the efficiency of the method. Acceptable limits for most organic methods are 70 - 130 % The results of the individual compounds within the sample are not corrected for this recovery.	Sample Type			Water(GW/SW)
	Sample received date			08/09/2009
	Sampled date			08/09/2009
	SDG Ref			090908-63
	Sample Ref			464107
Mineral Oil (Aqueous)	<10	µg/l	TM172	<10.0

pH Value

Results Legend	Sample ID			SW2	WW1
	Depth(m)	Units	Method		
# ISO17025 Accredited. m MCERTS accredited. * sub contracted test. ** This result relates to the % recovery of the surrogate standard added to the sample to check on the efficiency of the method. Acceptable limits for most organic methods are 70 - 130 % The results of the individual compounds within the sample are not corrected for this recovery.	Sample Type			Water(GW/SW)	Water(GW/SW)
	Sample received date			08/09/2009	08/09/2009
	Sampled date			08/09/2009	08/09/2009
	SDG Ref			090908-63	090908-63
	Sample Ref			464107	464116
pH value	<1.00	pH Units	TM133	7.99	8.05

Job: D_KILCC_NAS-2

Customer: Kildare County Council

Client Reference:

Attention: Claire McLaughlin

Location: Silliot Hill

Order No.:

Report No: 62069

Total Metals by ICP-MS

Results Legend ----- # ISO17025 Accredited. m MCERTS accredited. * sub contracted test. ** This result relates to the % recovery of the surrogate standard added to the sample to check on the efficiency of the method. Acceptable limits for most organic methods are 70 - 130 % The results of the individual compounds within the sample are not corrected for this recovery.	Sample ID	WW1		
	Depth(m)			
	Sample Type	Water(GW/SW)		
	Sample received date	08/09/2009		
	Sampled date	090908-63		
SDG Ref	464116			
Sample Ref	464116			
	LoD	Units	Method	
Phosphorus (Unfiltered)	<18.3	µg/l	TM191	2900

Total Nitrogen

Results Legend ----- # ISO17025 Accredited. m MCERTS accredited. * sub contracted test. ** This result relates to the % recovery of the surrogate standard added to the sample to check on the efficiency of the method. Acceptable limits for most organic methods are 70 - 130 % The results of the individual compounds within the sample are not corrected for this recovery.	Sample ID	WW1		
	Depth(m)			
	Sample Type	Water(GW/SW)		
	Sample received date	08/09/2009		
	Sampled date	090908-63		
SDG Ref	464116			
Sample Ref	464116			
	LoD	Units	Method	
Total Nitrogen	<1	mg/l	TM212	15.2

Total Suspended Solids

Results Legend ----- # ISO17025 Accredited. m MCERTS accredited. * sub contracted test. ** This result relates to the % recovery of the surrogate standard added to the sample to check on the efficiency of the method. Acceptable limits for most organic methods are 70 - 130 % The results of the individual compounds within the sample are not corrected for this recovery.	Sample ID	SW2	WW1		
	Depth(m)				
	Sample Type	Water(GW/SW)	Water(GW/SW)		
	Sample received date	08/09/2009	08/09/2009		
	Sampled date	090908-63	090908-63		
SDG Ref	464107	464116			
Sample Ref	464107	464116			
	LoD	Units	Method		
Total Suspended Solids	<2	mg/l	TM022	<4.00 #	15.5 #

TPH by IR Oils and Greases

Results Legend ----- # ISO17025 Accredited. m MCERTS accredited. * sub contracted test. ** This result relates to the % recovery of the surrogate standard added to the sample to check on the efficiency of the method. Acceptable limits for most organic methods are 70 - 130 % The results of the individual compounds within the sample are not corrected for this recovery.	Sample ID	SW2	WW1		
	Depth(m)				
	Sample Type	Water(GW/SW)	Water(GW/SW)		
	Sample received date	08/09/2009	08/09/2009		
	Sampled date	090908-63	090908-63		
SDG Ref	464107	464116			
Sample Ref	464107	464116			
	LoD	Units	Method		
TPH / Oil & Greases	<1	mg/l	TM087	<1.00 #	2.65 #

Job: D_KILCC_NAS-2

Customer: Kildare County Council

Client Reference:

Attention: Claire McLaughlin

Location: Silliot Hill

Order No.:

Report No: 62069

Test Completion dates

SDG reference: 090908-63

Sample ID	Depth	Type	Ammonium	Anions by Ione (W)	BOD Unfiltered	Dust in Water	Mineral Oil C10-40 Aqueous (W)	pH Value	Total Metals by ICP-MS	Total Nitrogen	Total Suspended Solids	TPH by IR Oils and Greases
ACD1		LIQUID				14/09/2009						
ACD2		LIQUID				14/09/2009						
ACD3		LIQUID				14/09/2009						
ACD4		LIQUID				14/09/2009						
SHD1		LIQUID				14/09/2009						
SHD2		LIQUID				14/09/2009						
SHD3		LIQUID				14/09/2009						
SHD4		LIQUID				14/09/2009						
SHD6		LIQUID				14/09/2009						
SHD7		LIQUID				14/09/2009						
SW2		LIQUID	10/09/2009	15/09/2009		14/09/2009	10/09/2009	10/09/2009	14/09/2009	11/09/2009	14/09/2009	11/09/2009
WW1		LIQUID	10/09/2009	15/09/2009	09/09/2009			10/09/2009	10/09/2009	11/09/2009	14/09/2009	11/09/2009

APPENDIX

APPENDIX

1. Results are expressed on a dry weight basis (dried at 35°C) for all soil analyses except for the following:
NRA Leach tests, flash point, ammonium as NH₄ by the BRE method, VOC TICS, SVOC TICS, TOF-MS SCAN/SEARCH and TOF-MS TICS.
2. Samples will be run in duplicate upon request, but an additional charge may be incurred.
3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for both soil jars, tubs and volatile jars. All waters and vials will be discarded 10 days after the analysis is completed (e-mailed). All material removed during an asbestos containing material screen and analysed for the presence of asbestos will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.
4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.
5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.
6. When requested, the individual sub sample scheduled will be screened in house for the presence of large asbestos containing material fragments/pieces. If no asbestos containing material is found this will be reported as 'no asbestos containing material detected'. If asbestos containing material is detected it will be removed and analysed by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If asbestos containing material is present no further analysis will be undertaken. At no point is the fibre content of the soil sample determined.
7. If no separate volatile sample is supplied by the client, the integrity of the data may be compromised if the laboratory is required to create a sub-sample from the bulk sample – similarly, if a headspace or sediment is present in the volatile sample. This will be flagged up as an invalid VOC on the test schedule or recorded on the log sheet.
8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.
9. NDP – No determination possible due to insufficient/unsuitable sample.
10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals – total metals must be requested separately.
11. A table containing the date of analysis for each parameter is not routinely included with the report, but is available upon request.
12. **Surrogate recoveries** – Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted.
13. **Product analyses** – Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors employed.
14. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethylphenol, 3,5 Dimethylphenol).
15. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 14).
16. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.
17. Our MCERTS accreditation for PAHs by GCMS applies to all product types apart from Kerosene, where naphthalene only is not accredited.
18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.
19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.
20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.
21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.
22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials – whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.
23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C4 – C10 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

LIQUID MATRICES EXTRACTION SUMMARY

ANALYSIS	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
PAH MS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
EPH	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
EPH CWG	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
MINERAL OIL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
PCB 7 CONGENERS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
PCB TOTAL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GS MS
SVOC	DCM	LIQUID/LIQUID SHAKEN SVOC	GC MS
FREE SULPHUR	DCM	SOLID PHASE EXTRACTION	HPLC
PEST OCP/OPP	DCM/EA	SOLID PHASE EXTRACTION	GC MS
TRIAZINE HERBS	DCM/EA	SOLID PHASE EXTRACTION	GC MS
PHENOLS MS	DCM	SOLID PHASE EXTRACTION	GC MS
TPH by INFRA RED (IR)	TCE	LIQUID/LIQUID EXTRACTION	HPLC
MINERAL OIL by IR	TCE	LIQUID/LIQUID EXTRACTION	HPLC
SAPONIFIABLE	TCE	LIQUID/LIQUID EXTRACTION	HPLC
UNSAAPONIFIABLE	TCE	LIQUID/LIQUID EXTRACTION	HPLC
GLYCOLS	DCM	LIQUID/LIQUID EXTRACTION	EZ FLASH

SOLID MATRICES EXTRACTION SUMMARY

ANALYSIS	D/C OR WET	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
Solvent Extractable Matter	D&C	DCM	SOXTHERM	GRAVIMETRIC
Cyclohexane Ext. Matter	D&C	CYCLOHEXANE	SOXTHERM	GRAVIMETRIC
Thin Layer Chromatography	D&C	DCM	SOXTHERM	IATROSCAN
Elemental Sulphur	D&C	DCM	SOXTHERM	HPLC
Phenols by GCMS	WET	DCM	SOXTHERM	GC-MS
Herbicides	D&C	HEXANE:ACETONE	SOXTHERM	GC-MS
Pesticides	D&C	HEXANE:ACETONE	SOXTHERM	GC-MS
EPH (DRO)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH (Min oil)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH (Cleaned up)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH CWG by GC	D&C	HEXANE:ACETONE	END OVER END	GC-FID
PCB tot / PCB con	D&C	HEXANE:ACETONE	END OVER END	GC-MS
Polyaromatic Hydrocarbons (MS)	WET	HEXANE:ACETONE	Microwave TM218	GC-MS
C8-C40 (C6-C40)EZ Flash	WET	HEXANE:ACETONE	SHAKER	GC-EZ
Polyaromatic Hydrocarbons Rapid GC	WET	HEXANE:ACETONE	SHAKER	GC-EZ
Semi Volatile Organic Compounds	WET	DCM:ACETONE	SONICATE	GC-MS

Identification of Asbestos in Bulk Materials

The results for asbestos identification for soil samples are obtained from possible Asbestos Containing Material, removed during the 'Screening of soils for Asbestos Containing Materials', which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Visual Estimation Of Fibre Content.

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: -

Trace – Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in MDHS 100.

The identification of asbestos containing materials falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Asbestos Type

Common Name

Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-



Kildare County Council
Water Services
Aras Cilldara
Devoy Park
Naas
Co.Kildare

Attention: Claire McLaughlin

CERTIFICATE OF ANALYSIS

Date: 23 October 2009
Job: D_KILCC_NAS-5
Sample Delivery Group (SDG): 091012-9 **Report No.:** 63723
Your Reference: SILLIOT HILL
Locatio SILLIOT HILL

A total of 16 samples was received on Friday October 09, 2009 and completed on Friday October 23, 2009. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories. Asbestos testing - we are not accredited for screening soil samples for asbestos fibres. We are only accredited to identify asbestos fibres in bulk material (ACM). Approved By:

Chris Crutchley

Operations Director - Land UK & I

SDG:	091012-9	Customer:	Kildare County Council
Job:	D_KILCC_NAS-5	Attention:	Claire McLaughlin
Client Reference:	SILLIOT HILL	Order No.:	
Location:	SILLIOT HILL	Report No.:	63723

Results Legend X Test N No Determination Possible	Sample ID	Depth	Container	Sample Type	Total	
	ACA D1		JAR (D)	LIQUID		
	ACA D2		JAR (D)	LIQUID		
	ACA D3		JAR (D)	LIQUID		
	ACA D4		JAR (D)	LIQUID		
BT-1		60g VOC Dublin	LIQUID			
BT-2		60g VOC Dublin	LIQUID			
BT-3		60g VOC Dublin	LIQUID			
BT-4		60g VOC Dublin	LIQUID			
HOLDING TANK		60g VOC Dublin	LIQUID			
INLET		60g VOC Dublin	LIQUID			
SH D1		JAR (D)	LIQUID			
SH D2		JAR (D)	LIQUID			
SH D3		JAR (D)	LIQUID			
SH D4		JAR (D)	LIQUID			
SH D6		JAR (D)	LIQUID			
SH D7		JAR (D)	LIQUID			
STONE FILTER		60g VOC Dublin	LIQUID			
Determination of Dissolved Gases	All				1	
				X	6	
Dust in Water	All				0	
				X	10	

SDG:	091012-9	Customer:	Kildare County Council
Job:	D_KILCC_NAS-5	Attention:	Claire McLaughlin
Client Reference:	SILLIOT HILL	Order No.:	
Location:	SILLIOT HILL	Report No:	63723

Test Completion dates

SDG reference: 091012-9

Sample ID	Depth	Type	Determination of Dissolved Gases	Dust in Water
ACA D1		LIQUID		15/10/2009
ACA D2		LIQUID		15/10/2009
ACA D3		LIQUID		15/10/2009
ACA D4		LIQUID		15/10/2009
BT-1		LIQUID		16/10/2009
BT-2		LIQUID		16/10/2009
BT-4		LIQUID		16/10/2009
HOLDING TANK		LIQUID		16/10/2009
INLET		LIQUID		16/10/2009
SH D1		LIQUID		15/10/2009
SH D2		LIQUID		15/10/2009
SH D3		LIQUID		15/10/2009
SH D4		LIQUID		15/10/2009
SH D6		LIQUID		15/10/2009
SH D7		LIQUID		15/10/2009

SDG: 091012-9
Job: D_KILCC_NAS-5
Client Reference: SILLIOT HILL
Location: SILLIOT HILL

Customer: Kildare County Council
Attention: Claire McLaughlin
Order No.:
Report No: 63723

Test Completion dates

SDG reference: 091012-9

Sample ID	Depth	Type	Determination of Dissolved Gases	Dust in Water
ACA D1		LIQUID		15/10/2009
ACA D2		LIQUID		15/10/2009
ACA D3		LIQUID		15/10/2009
ACA D4		LIQUID		15/10/2009
BT-1		LIQUID		16/10/2009
BT-2		LIQUID		16/10/2009
BT-4		LIQUID		16/10/2009
HOLDING TANK		LIQUID		16/10/2009
INLET		LIQUID		16/10/2009
SH D1		LIQUID		15/10/2009
SH D2		LIQUID		15/10/2009
SH D3		LIQUID		15/10/2009
SH D4		LIQUID		15/10/2009
SH D6		LIQUID		15/10/2009
SH D7		LIQUID		15/10/2009

SDG: 091012-9
Job: D_KILCC_NAS-5
Client Reference: SILLIOT HILL
Location: SILLIOT HILL

Customer: Kildare County Council
Attention: Claire McLaughlin
Order No.:
Report No: 63723

Test Completion dates

SDG reference: 091012-9

Sample ID	Depth	Type	Determination of Dissolved Gases	Dust in Water
ACA D1		LIQUID		15/10/2009
ACA D2		LIQUID		15/10/2009
ACA D3		LIQUID		15/10/2009
ACA D4		LIQUID		15/10/2009
BT-1		LIQUID		16/10/2009
BT-2		LIQUID		16/10/2009
BT-4		LIQUID		16/10/2009
HOLDING TANK		LIQUID		16/10/2009
INLET		LIQUID		16/10/2009
SH D1		LIQUID		15/10/2009
SH D2		LIQUID		15/10/2009
SH D3		LIQUID		15/10/2009
SH D4		LIQUID		15/10/2009
SH D6		LIQUID		15/10/2009
SH D7		LIQUID		15/10/2009

SDG:	091012-9	Customer:	Kildare County Council
Job:	D_KILCC_NAS-5	Attention:	Claire McLaughlin
Client Reference:	SILLIOT HILL	Order No.:	
Location:	SILLIOT HILL	Report No:	63723

			Dust in Water
			Determination of Dissolved Gases
STONE FILTER		LIQUID	16/10/2009

Notification of NDP's (No determination possible)

SDG Number	091012-9	Location	SILLIOT HILL	
Client	D_KILCC_NAS	Order No.		
Client Reference	SILLIOT HILL	Report No.	25162-0	
Attention	<i>Claire McLaughlin</i>	Date Received	12/10/2009 11:52:29	

Sample No	Sample Identity	Depth (m)	Test	Comment
536698	BT-3		Determination of Dissolved Gases	Container Received Empty

APPENDIX

APPENDIX

1. Results are expressed on a dry weight basis (dried at 35°C) for all soil analyses except for the following:
NRA Leach tests, flash point, ammonium as NH₄ by the BRE method, VOC TICS, SVOC TICS, TOF-MS SCAN/SEARCH and TOF-MS TICS.
2. Samples will be run in duplicate upon request, but an additional charge may be incurred.
3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for both soil jars, tubs and volatile jars. All waters and vials will be discarded 10 days after the analysis is completed (e-mailed). All material removed during an asbestos containing material screen and analysed for the presence of asbestos will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.
4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.
5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.
6. When requested, the individual sub sample scheduled will be screened in house for the presence of large asbestos containing material fragments/pieces. If no asbestos containing material is found this will be reported as 'no asbestos containing material detected'. If asbestos containing material is detected it will be removed and analysed by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If asbestos containing material is present no further analysis will be undertaken. At no point is the fibre content of the soil sample determined.
7. If no separate volatile sample is supplied by the client, the integrity of the data may be compromised if the laboratory is required to create a sub-sample from the bulk sample – similarly, if a headspace or sediment is present in the volatile sample. This will be flagged up as an invalid VOC on the test schedule or recorded on the log sheet.
8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.
9. NDP – No determination possible due to insufficient/unsuitable sample.
10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals – total metals must be requested separately.
11. A table containing the date of analysis for each parameter is not routinely included with the report, but is available upon request.
12. **Surrogate recoveries** – Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted.
13. **Product analyses** – Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors employed.
14. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethylphenol, 3,5 Dimethylphenol).
15. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 14).
16. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.
17. Our MCERTS accreditation for PAHs by GCMS applies to all product types apart from Kerosene, where naphthalene only is not accredited.
18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.
19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.
20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.
21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.
22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials – whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.
23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C4 – C10 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

LIQUID MATRICES EXTRACTION SUMMARY

ANALYSIS	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
PAH MS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
EPH	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
EPH CWG	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
MINERAL OIL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
PCB 7 CONGENERS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
PCB TOTAL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GS MS
SVOC	DCM	LIQUID/LIQUID SHAKEN SVOC	GC MS
FREE SULPHUR	DCM	SOLID PHASE EXTRACTION	HPLC
PEST OCP/OPP	DCM/EA	SOLID PHASE EXTRACTION	GC MS
TRIAZINE HERBS	DCM/EA	SOLID PHASE EXTRACTION	GC MS
PHENOLS MS	DCM	SOLID PHASE EXTRACTION	GC MS
TPH by INFRA RED (IR)	TCE	LIQUID/LIQUID EXTRACTION	HPLC
MINERAL OIL by IR	TCE	LIQUID/LIQUID EXTRACTION	HPLC
SAPONIFIABLE	TCE	LIQUID/LIQUID EXTRACTION	HPLC
UNSAPONIFIABLE	TCE	LIQUID/LIQUID EXTRACTION	HPLC
GLYCOLS	DCM	LIQUID/LIQUID EXTRACTION	EZ FLASH

SOLID MATRICES EXTRACTION SUMMARY

ANALYSIS	D/C OR WET	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
Solvent Extractable Matter	D&C	DCM	SOXTHERM	GRAVIMETRIC
Cyclohexane Ext. Matter	D&C	CYCLOHEXANE	SOXTHERM	GRAVIMETRIC
Thin Layer Chromatography	D&C	DCM	SOXTHERM	IATROSCAN
Elemental Sulphur	D&C	DCM	SOXTHERM	HPLC
Phenols by GCMS	WET	DCM	SOXTHERM	GC-MS
Herbicides	D&C	HEXANE:ACETONE	SOXTHERM	GC-MS
Pesticides	D&C	HEXANE:ACETONE	SOXTHERM	GC-MS
EPH (DRO)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH (Min oil)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH (Cleaned up)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH CWG by GC	D&C	HEXANE:ACETONE	END OVER END	GC-FID
PCB tot / PCB con	D&C	HEXANE:ACETONE	END OVER END	GC-MS
Polyaromatic Hydrocarbons (MS)	WET	HEXANE:ACETONE	Microwave TM218	GC-MS
C8-C40 (C6-C40)EZ Flash	WET	HEXANE:ACETONE	SHAKER	GC-EZ
Polyaromatic Hydrocarbons Rapid GC	WET	HEXANE:ACETONE	SHAKER	GC-EZ
Semi Volatile Organic Compounds	WET	DCM:ACETONE	SONICATE	GC-MS

Identification of Asbestos in Bulk Materials

The results for asbestos identification for soil samples are obtained from possible Asbestos Containing Material, removed during the 'Screening of soils for Asbestos Containing Materials', which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Visual Estimation Of Fibre Content.

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: -

Trace – Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in

MDHS 100.

The identification of asbestos containing materials falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Asbestos Type

Common Name

<i>Chrysotile</i>	<i>White Asbestos</i>
<i>Amosite</i>	<i>Brown Asbestos</i>
<i>Crocidolite</i>	<i>Blue Asbestos</i>
<i>Fibrous Actinolite</i>	-
<i>Fibrous Anthophyllite</i>	-
<i>Fibrous Tremolite</i>	-

Appendix III

Staff Structure

