

RESULTS



ALcontrol Laboratories

Unit 18A
Rosemount Business Park
Ballycoolin
Dublin 11
Tel : (0035) 3188 29893

~~Ballyhannis~~
~~Claremorris~~

Mayo County Council
Aras an Chontae
Castlebar
Co. Mayo

Attention: Orla Courke

CERTIFICATE OF ANALYSIS

Date: 17 June 2009
Job: D_MAYOCC_CSB-2
SDG Reference: 090610-63 Report No.: 57773
Your Reference:
Location: Disused Landfills

A total of 6 samples was received on Monday June 08, 2009 and completed on Wednesday June 17, 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:

Declan Burns
Lab Manager



Validated

ALcontrol Laboratories Analytical Services

Job: D_MAYOCC_CSB-2

Customer: Mayo County Council

Client Reference:

Attention: Orla Courke

Location: Disused Landfills

Order No.: 5312275

Report No: 57773

Table of Results

Alkalinity as CaCO3

Results Legend

ISO17025 Accredited.
m MCERTS accredited.
* sub contracted test.

Sample ID	Ballyhaunis D/S		Ballyhaunis Leachate		Ballyhaunis U/S		Claremorris D/S	
	Depth(m)	Sample Type	Sample received date	Sampled date	SDG Ref	Sample Ref	Depth(m)	Sample Type
		Water(GW/SW)	08/06/2009	08/06/2009	08/06/2009	08/06/2009		Water(GW/SW)
		09/06/2009	09/06/2009	09/06/2009	09/06/2009	09/06/2009		08/06/2009
		090610-63	090610-63	090610-63	090610-63	090610-63		09/06/2009
		278776	278759	278770	278770	278764		090610-63
								278764
LoD	Units	Method						
Total Alkalinity as CaCO3	<2	mg/l	TM043	240	195	225		285

Alkalinity as CaCO3

Results Legend

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* sub contracted test.

Sample ID	Claremorris Leachate		Claremorris U/S		
	Depth(m)	Sample Type	Sample received date	Sampled date	
		Water(GW/SW)	08/06/2009	08/06/2009	
		09/06/2009	09/06/2009	09/06/2009	
		090610-63	090610-63	090610-63	
		278741	278751	278751	
LoD	Units	Method			
Total Alkalinity as CaCO3	<2	mg/l	TM043	680	250

Ammonium

Results Legend

ISO17025 Accredited.
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Sample ID	Ballyhaunis D/S		Ballyhaunis Leachate		Ballyhaunis U/S		Claremorris D/S	
	Depth(m)	Sample Type	Sample received date	Sampled date	SDG Ref	Sample Ref	Depth(m)	Sample Type
		Water(GW/SW)	08/06/2009	08/06/2009	08/06/2009	08/06/2009		Water(GW/SW)
		09/06/2009	09/06/2009	09/06/2009	09/06/2009	09/06/2009		08/06/2009
		090610-63	090610-63	090610-63	090610-63	090610-63		09/06/2009
		278776	278759	278770	278770	278764		090610-63
								278764
LoD	Units	Method						
Ammoniacal Nitrogen as N	<0.2	mg/l as N	TM099	<0.200	<0.200	<0.200		1.60

Ammonium

Results Legend

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Sample ID	Claremorris Leachate		Claremorris U/S		
	Depth(m)	Sample Type	Sample received date	Sampled date	
		Water(GW/SW)	08/06/2009	08/06/2009	
		09/06/2009	09/06/2009	09/06/2009	
		090610-63	090610-63	090610-63	
		278741	278751	278751	
LoD	Units	Method			
Ammoniacal Nitrogen as N	<0.2	mg/l as N	TM099	19.8	<0.200

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COD Unfiltered

Results Legend
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	Sample ID			Ballyhaunis D/S	Ballyhaunis Leachate	Ballyhaunis U/S	Claremorris D/S
	Depth(m)	Sample Type	Sample received date	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278776	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278759	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278770	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278764
	LoD	Units	Method				
COD	7	mg/l O	TM107	14.1	46.1	13.8	47.3

COD Unfiltered

Results Legend
ISO17025 Accredited.
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* sub contracted test.

	Sample ID			Claremorris Leachate	Claremorris U/S
	Depth(m)	Sample Type	Sample received date	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278741	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278751
	LoD	Units	Method		
COD	7	mg/l O	TM107	160	27.8

Coliforms (W)

Results Legend
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* sub contracted test.

	Sample ID			Ballyhaunis Leachate	Claremorris Leachate
	Depth(m)	Sample Type	Sample received date	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278759	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278741
	LoD	Units	Method		
Coli (on liquids)		CFU/100ml		0	18
Total Coliforms (W)		CFU/100ml		490	18

Conductivity (at 20 deg.C)

Results Legend
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m MCERTS accredited.
* sub contracted test.

	Sample ID			Ballyhaunis D/S	Ballyhaunis Leachate	Ballyhaunis U/S	Claremorris D/S
	Depth(m)	Sample Type	Sample received date	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278776	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278759	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278770	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278764
	LoD	Units	Method				
Conductivity (at 20 deg.C)	<0.014	mS/cm	TM120	0.668	0.348	0.713	0.671

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Dissolved Metals by ICP-MS

Results Legend
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	Sample ID			Claremorris Leachate	Claremorris U/S
	Depth(m)	Sample Type	Sample received date	Water(GW/SW)	Water(GW/SW)
				08/06/2009	08/06/2009
				09/06/2009	09/06/2009
				090610-63	090610-63
				278741	278751
	LoD	Units	Method		
Cadmium Dissolved	<0.22	µg/l	TM152	<0.220 #	<0.220 #
Chromium Dissolved	<0.7	µg/l	TM152	1.57 #	<0.700 #
Copper Dissolved	<1.6	µg/l	TM152	<1.60 #	2.17 #
Lead Dissolved	<0.4	µg/l	TM152	0.427 #	<0.400 #
Manganese Dissolved	<0.6	µg/l	TM152	391 #	8.53 #
Nickel Dissolved	<1.5	µg/l	TM152	<1.50 #	<1.50 #
Phosphorus Dissolved	<105	µg/l	TM152		170 #
Zinc Dissolved	<5	µg/l	TM152	5.85 #	11.2 #

Dissolved Oxygen by Probe

Results Legend
ISO17025 Accredited.
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	Sample ID			Ballyhaunis D/S	Ballyhaunis U/S	Claremorris D/S	Claremorris U/S
	Depth(m)	Sample Type	Sample received date	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
				08/06/2009	08/06/2009	08/06/2009	08/06/2009
				09/06/2009	09/06/2009	09/06/2009	09/06/2009
				090610-63	090610-63	090610-63	090610-63
				278746	278770	278764	278751
	LoD	Units	Method				
Dissolved Oxygen	<1	mg/l	TM046	9.45 #	9.63 #	7.99 #	5.81 #

Fluoride

Results Legend
ISO17025 Accredited.
m MCERTS accredited.
* sub contracted test.

	Sample ID			Ballyhaunis Leachate	Claremorris Leachate
	Depth(m)	Sample Type	Sample received date	Water(GW/SW)	Water(GW/SW)
				08/06/2009	08/06/2009
				09/06/2009	09/06/2009
				090610-63	090610-63
				278759	278741
	LoD	Units	Method		
Fluoride	<0.5	mg/l	TM104	<0.500	<0.500

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OC, OP Pesticides and Triazine Herb

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	Sample ID			Ballyhaunis D/S	Ballyhaunis U/S	Claremorris D/S	Claremorris U/S
	Depth(m)	Units	Method	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278776	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278770	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278764	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278751
Aldrin	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
Alpha-BHC (Lindane)	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
Azinphos-methyl	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
Beta-BHC (Lindane)	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
Diazinon	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
Dichlorvos	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
Delldrin	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
Endosulphan I	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
Endosulphan II	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
Endosulphan Sulphate	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
Endrin	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
Ethion	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
Fenitrothion	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
Gamma-BHC (Lindane)	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
Heptachlor	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
Heptachlor Epoxide	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
Malathion	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
Methyl Parathion	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
Mevinphos	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
o,p'-DDE	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
o,p'-DDT	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
o,p'-Methoxychlor	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
o,p'-TDE(DDD)	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
p,p'-DDE	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
p,p'-DDT	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
p,p'-Methoxychlor	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
p,p'-TDE(DDD)	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100
Parathion	<0.01	µg/l	TM231	<0.0100	<0.0100	<0.0100	<0.0100

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ALcontrol Laboratories Analytical Services

Job: D_MAYOCC_CSB-2
Client Reference:
Location: Disused Landfills

Customer: Mayo County Council
Attention: Orla Courke
Order No.: 5312275

Report No: 57773

				Ballyhaunis D/S	Ballyhaunis U/S	Claremorris D/S	Claremorris U/S
				Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278776	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278770	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278764	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278751
2,4,5-Trichlorophenol	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
2,4,6-Trichlorophenol	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
2,4-Dichlorophenol	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
2,4-Dimethylphenol	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
2,4-Dinitrotoluene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
2,6-Dinitrotoluene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
2-Chloronaphthalene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Chlorophenol	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
2-Methylnaphthalene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
2-Methylphenol	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
2-Nitroaniline	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
2-Nitrophenol	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
3-Nitroaniline	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
4-Bromophenylphenylether	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
4-Chloro-3-methylphenol	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
4-Chloroaniline	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
4-Chlorophenylphenylether	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
4-Methylphenol	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
4-Nitroaniline	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
4-Nitrophenol	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
acenaphthene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Acenaphthylene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Anthracene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Azobenzene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Benzo(a)anthracene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Benzo(a)pyrene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Benzo(b)fluoranthene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Benzo(ghi)perylene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Benzo(k)fluoranthene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Bis(2-chloroethoxy)methane	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Bis(2-chloroethyl)ether	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Bis(2-ethylhexyl) phthalate	<2	µg/l	TM176	<2.00	<2.00	<2.00	<2.00
Butylbenzyl phthalate	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Carbazole	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Chrysene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00

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17/06/2009

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ALcontrol Laboratories Analytical Services

Job: D_MAYOCC_CSB-2
Client Reference:
Location: Disused Landfills

Customer: Mayo County Council
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VOC MS (W)

Results Legend
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* sub contracted test.

Sample ID	Depth(m)	Sample Type	Sample received date	Sampled date	SDG Ref	Sample Ref	Ballyhaunis D/S	Ballyhaunis U/S	Claremorris D/S	Claremorris U/S
							Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
1,3,5-Trichlorobenzene		µg/l	TM208				<10	<10	<10	<10
1.1.1.2-Tetrachloroethane	<1	µg/l	TM208				<1.00	<1.00	<1.00	<1.00
1.1.1-Trichloroethane	<1	µg/l	TM208				<1.00	<1.00	<1.00	<1.00
1.1.2.2-Tetrachloroethane	<4	µg/l	TM208				<4.00	<4.00	<4.00	<4.00
1.1.2-Trichloroethane	<2	µg/l	TM208				<2.00	<2.00	<2.00	<2.00
1,1-Dichloroethane	<1	µg/l	TM208				<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	<1	µg/l	TM208				<1.00	<1.00	<1.00	<1.00
1,1-Dichloropropene	<1	µg/l	TM208				<1.00	<1.00	<1.00	<1.00
1,2,3-Trichlorobenzene	<3	µg/l	TM208				<3.00	<3.00	<3.00	<3.00
1,2,3-Trichloropropane	<9	µg/l	TM208				<9.00	<9.00	<9.00	<9.00
1,2,4-Trichlorobenzene	<2	µg/l	TM208				<2.00	<2.00	<2.00	<2.00
1,2,4-Trimethylbenzene	<1	µg/l	TM208				<1.00	<1.00	<1.00	<1.00
1,2-Dibromo-3-chloropropane	<10	µg/l	TM208				<10.0	<10.0	<10.0	<10.0
1,2-Dibromoethane	<2	µg/l	TM208				<2.00	<2.00	<2.00	<2.00
1,2-Dichlorobenzene	<3	µg/l	TM208				<3.00	<3.00	<3.00	<3.00
1,2-Dichloroethane	<3	µg/l	TM208				<3.00	<3.00	<3.00	<3.00
1,2-Dichloropropane	<3	µg/l	TM208				<3.00	<3.00	<3.00	<3.00
1,3,5-Trimethylbenzene	<1	µg/l	TM208				<1.00	<1.00	<1.00	<1.00
1,3-Dichlorobenzene	<2	µg/l	TM208				<2.00	<2.00	<2.00	<2.00
1,3-Dichloropropane	<2	µg/l	TM208				<2.00	<2.00	<2.00	<2.00
1,4-Dichlorobenzene	<1	µg/l	TM208				<1.00	<1.00	<1.00	<1.00
2,2-Dichloropropane	<1	µg/l	TM208				<1.00	<1.00	<1.00	<1.00
2-Chlorotoluene	<2	µg/l	TM208				<2.00	<2.00	<2.00	<2.00
4-Chlorotoluene	<2	µg/l	TM208				<2.00	<2.00	<2.00	<2.00
4-Isopropyltoluene	<3	µg/l	TM208				<3.00	<3.00	<3.00	<3.00
Benzene	<1	µg/l	TM208				<1.00	<1.00	<1.00	<1.00
Bromobenzene	<1	µg/l	TM208				<1.00	<1.00	<1.00	<1.00
Bromochloromethane	<2	µg/l	TM208				<2.00	<2.00	<2.00	<2.00
Bromodichloromethane	<1	µg/l	TM208				<1.00	<1.00	<1.00	<1.00
Bromoform	<3	µg/l	TM208				<3.00	<3.00	<3.00	<3.00
Bromomethane	<1	µg/l	TM208				<1.00	<1.00	<1.00	<1.00
Carbon disulphide	<2	µg/l	TM208				<2.00	<2.00	<2.00	<2.00
Carbontetrachloride	<1	µg/l	TM208				<1.00	<1.00	<1.00	<1.00
Chlorobenzene	<4	µg/l	TM208				<4.00	<4.00	<4.00	<4.00

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 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, but not corrected or 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

Validated

ALcontrol Laboratories Analytical Services

Job: D_MAYOCC_CSB-2
Client Reference:
Location: Disused Landfills

Customer: Mayo County Council
Attention: Orla Courke

Order No.: 5312275

Report No: 57773

Ballyhaunis D/S	Ballyhaunis U/S	Claremorris D/S	Claremorris U/S
Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278776	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278770	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278764	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278751

Compound	Limit	Unit	Method	Ballyhaunis D/S	Ballyhaunis U/S	Claremorris D/S	Claremorris U/S
Chloroethane	<2	µg/l	TM208	<2.00	<2.00	<2.00	<2.00
Chloroform	<2	µg/l	TM208	<2.00	<2.00	<2.00	<2.00
Chloromethane	<1	µg/l	TM208	<1.00	<1.00	<1.00	<1.00
cis-1-2-Dichloroethene	<2	µg/l	TM208	<2.00	<2.00	<2.00	<2.00
cis-1-3-Dichloropropene	<2	µg/l	TM208	<2.00	<2.00	<2.00	<2.00
Dibromochloromethane	<2	µg/l	TM208	<2.00	<2.00	<2.00	<2.00
Dibromomethane	<3	µg/l	TM208	<3.00	<3.00	<3.00	<3.00
Dichlorodifluoromethane	<1	µg/l	TM208	<1.00	<1.00	<1.00	<1.00
Dichloromethane	<3	µg/l	TM208	<3.00	<3.00	<3.00	<3.00
Ethylbenzene	<2	µg/l	TM208	<2.00	<2.00	<2.00	<2.00
Hexachlorobutadiene	<2	µg/l	TM208	<2.00	<2.00	<2.00	<2.00
Isopropylbenzene	<2	µg/l	TM208	<2.00	<2.00	<2.00	<2.00
Methyl Tertiary Butyl Ether	<2	µg/l	TM208	<2.00	<2.00	<2.00	<2.00
Naphthalene	<4	µg/l	TM208	<4.00	<4.00	<4.00	<4.00
n-Butylbenzene	<2	µg/l	TM208	<2.00	<2.00	<2.00	<2.00
o-Xylene	<1	µg/l	TM208	<1.00	<1.00	<1.00	<1.00
p/m-Xylene	<2	µg/l	TM208	<2.00	<2.00	<2.00	<2.00
Propylbenzene	<3	µg/l	TM208	<3.00	<3.00	<3.00	<3.00
sec-Butylbenzene	<1	µg/l	TM208	<1.00	<1.00	<1.00	<1.00
Styrene	<1	µg/l	TM208	<1.00	<1.00	<1.00	<1.00
tert-Butylbenzene	<2	µg/l	TM208	<2.00	<2.00	<2.00	<2.00
Tetrachloroethene	<2	µg/l	TM208	<2.00	<2.00	<2.00	<2.00
Toluene	<1	µg/l	TM208	<1.00	<1.00	<1.00	<1.00
trans-1-2-Dichloroethene	<2	µg/l	TM208	<2.00	<2.00	<2.00	<2.00
trans-1-3-Dichloropropene	<3	µg/l	TM208	<3.00	<3.00	<3.00	<3.00
Trichloroethene	<2	µg/l	TM208	<2.00	<2.00	<2.00	<2.00
Trichlorofluoromethane	<2	µg/l	TM208	<2.00	<2.00	<2.00	<2.00
Vinyl Chloride	<1	µg/l	TM208	<1.00	<1.00	<1.00	<1.00

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Validated

ALcontrol Laboratories Analytical Services

Job: D_MAYOCC_CSB-2
Client Reference:
Location: Disused Landfills

Customer: Mayo County Council
Attention: Orla Courke

Order No.: 5312275

Report No: 57773

Ballyhaunis D/S	Ballyhaunis U/S	Claremorris D/S	Claremorris U/S
Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278776	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278770	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278764	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278751

Compound	Limit	Unit	Method	Ballyhaunis D/S	Ballyhaunis U/S	Claremorris D/S	Claremorris U/S
Dibenzo(a,h)anthracene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Dibenzofuran	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Diethyl phthalate	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Dimethyl phthalate	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Di-n-butyl phthalate	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Di-n-Octyl phthalate	<5	µg/l	TM176	<5.00	<5.00	<5.00	<5.00
Fluoranthene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Fluorene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Hexachlorobenzene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Hexachlorobutadiene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Hexachlorocyclopentadiene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Hexachloroethane	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Indeno (1,2,3-cd) Pyrene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Isophorone	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Naphthalene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Nitrobenzene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
N-nitrosodi-n-propylamine	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Pentachlorophenol	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Phenanthrene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Phenol	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
Pyrene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00

Total Suspended Solids

Results Legend
 # ISO17025 Accredited.
 m MCERTS accredited.
 * sub contracted test.

Sample ID	Ballyhaunis D/S	Ballyhaunis U/S	Claremorris D/S	Claremorris U/S
Depth(m) Sample Type Sample received date Sampled date SDG Ref Sample Ref	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278776	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278770	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278764	Water(GW/SW) 08/06/2009 09/06/2009 090610-63 278751
LoD	<2	<2	7.00	4.00
Units	mg/l	mg/l	mg/l	mg/l
Method	TM022	TM022	TM022	TM022

Validated

ALcontrol Laboratories Analytical Services

Job: D_MAYOCC_CSB-2

Customer: Mayo County Council

Client Reference:

Attention: Orla Courke

Location: Disused Landfills

Order No.: 5312275

Report No: 57773

pH Value

Results Legend

ISO17025 Accredited.
m MCERTS accredited.
* sub contracted test.

	Sample ID			Ballyhaunis D/S	Ballyhaunis Leachate	Ballyhaunis U/S	Claremorris D/S
	Depth(m)	Sample Type	Sample received date	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
	Sample received date		08/06/2009	08/06/2009	08/06/2009	08/06/2009	08/06/2009
	Sampled date		09/06/2009	09/06/2009	09/06/2009	09/06/2009	09/06/2009
	SDG Ref		090610-63	090610-63	090610-63	090610-63	090610-63
	Sample Ref		278776	278759	278770	278764	278764
	LoD	Units	Method				
pH value	<1.00	pH Units	TM133	8.32	8.24	8.59	8.24

pH Value

Results Legend

ISO17025 Accredited.
m MCERTS accredited.
* sub contracted test.

	Sample ID			Claremorris Leachate	Claremorris U/S
	Depth(m)	Sample Type	Sample received date	Water(GW/SW)	Water(GW/SW)
	Sample received date		08/06/2009	08/06/2009	08/06/2009
	Sampled date		09/06/2009	09/06/2009	09/06/2009
	SDG Ref		090610-63	090610-63	090610-63
	Sample Ref		278741	278751	
	LoD	Units	Method		
pH value	<1.00	pH Units	TM133	8.00	8.34

Phenols by HPLC (W)

Results Legend

ISO17025 Accredited.
m MCERTS accredited.
* sub contracted test.

	Sample ID			Ballyhaunis Leachate	Claremorris D/S
	Depth(m)	Sample Type	Sample received date	Water(GW/SW)	Water(GW/SW)
	Sample received date		08/06/2009	08/06/2009	08/06/2009
	Sampled date		09/06/2009	09/06/2009	09/06/2009
	SDG Ref		090610-63	090610-63	090610-63
	Sample Ref		278759	278764	278764
	LoD	Units	Method		
2,3,5 Trimethyl-Phenol	<0.003	mg/l	TM062	<0.00300	<0.00300
2-Isopropyl Phenol	<0.006	mg/l	TM062	<0.00600	<0.00600
Cresols	<0.006	mg/l	TM062	<0.00600	<0.00600
Phenol	<0.002	mg/l	TM062	<0.00200	<0.00200
Phenols Total of 5 Speciated	<0.025	mg/l	TM062	<0.0250	<0.0250
Xylenols	<0.008	mg/l	TM062	<0.00800	<0.00800

SVOC MS (W) - Aqueous

Results Legend

ISO17025 Accredited.
m MCERTS accredited.
* sub contracted test.

	Sample ID			Ballyhaunis D/S	Ballyhaunis U/S	Claremorris D/S	Claremorris U/S
	Depth(m)	Sample Type	Sample received date	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
	Sample received date		08/06/2009	08/06/2009	08/06/2009	08/06/2009	08/06/2009
	Sampled date		09/06/2009	09/06/2009	09/06/2009	09/06/2009	09/06/2009
	SDG Ref		090610-63	090610-63	090610-63	090610-63	090610-63
	Sample Ref		278776	278770	278764	278751	278751
	LoD	Units	Method				
1,2,4-Trichlorobenzene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
1,3-Dichlorobenzene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00
1,4-Dichlorobenzene	<1	µg/l	TM176	<1.00	<1.00	<1.00	<1.00

Validated

ALcontrol Laboratories Analytical Services

Job: D_MAYOCC_CSB-2

Customer: Mayo County Council

Client Reference:

Attention: Orla Courke

Location: Disused Landfills

Order No.: 5312275

Report No: 57773

Mercury Dissolved

Results Legend
 # ISO17025 Accredited.
 m MCERTS accredited.
 * sub contracted test.

	Sample ID			Ballyhaunis D/S	Ballyhaunis Leachate	Ballyhaunis U/S	Claremorris D/S
	Depth(m)	Sample Type	Sample received date	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
				08/06/2009	08/06/2009	08/06/2009	08/06/2009
				09/06/2009	09/06/2009	09/06/2009	09/06/2009
				090610-63	090610-63	090610-63	090610-63
				278776	278759	278770	278764
	LoD	Units	Method				
Mercury Dissolved	<0.01	µg/l	TM183	<0.0100	<0.0100	<0.0100	<0.0100

Mercury Dissolved

Results Legend
 # ISO17025 Accredited.
 m MCERTS accredited.
 * sub contracted test.

	Sample ID			Claremorris Leachate	Claremorris U/S
	Depth(m)	Sample Type	Sample received date	Water(GW/SW)	Water(GW/SW)
				08/06/2009	08/06/2009
				09/06/2009	09/06/2009
				090610-63	090610-63
				278741	278751
	LoD	Units	Method		
Mercury Dissolved	<0.01	µg/l	TM183	<0.0100	<0.0100

Metals by iCap-OES Dissolved (W)

Results Legend
 # ISO17025 Accredited.
 m MCERTS accredited.
 * sub contracted test.

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	Sample ID			Ballyhaunis D/S	Ballyhaunis Leachate	Ballyhaunis U/S	Claremorris D/S
	Depth(m)	Sample Type	Sample received date	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
				08/06/2009	08/06/2009	08/06/2009	08/06/2009
				09/06/2009	09/06/2009	09/06/2009	09/06/2009
				090610-63	090610-63	090610-63	090610-63
				278776	278759	278770	278764
	LoD	Units	Method				
Calcium Dissolved	0.012	mg/l	TM228	132	70.1	133	139
Iron Dissolved	0.019	mg/l	TM228	0.550	0.466	0.347	0.139
Magnesium Dissolved	0.036	mg/l	TM228	5.10	2.00	5.22	5.65
Potassium Dissolved	2.335	mg/l	TM228	<2.34	<2.34	<2.34	<2.34
Sodium Dissolved	0.076	mg/l	TM228	23.0	5.03	32.7	17.5

Metals by iCap-OES Dissolved (W)

Results Legend
 # ISO17025 Accredited.
 m MCERTS accredited.
 * sub contracted test.

	Sample ID			Claremorris Leachate	Claremorris U/S
	Depth(m)	Sample Type	Sample received date	Water(GW/SW)	Water(GW/SW)
				08/06/2009	08/06/2009
				09/06/2009	09/06/2009
				090610-63	090610-63
				278741	278751
	LoD	Units	Method		
Calcium Dissolved	0.012	mg/l	TM228	128	124
Iron Dissolved	0.019	mg/l	TM228	0.664	0.821
Magnesium Dissolved	0.036	mg/l	TM228	40.7	3.73
Potassium Dissolved	2.335	mg/l	TM228	96.2	<2.34
Sodium Dissolved	0.076	mg/l	TM228	88.9	7.34

Validated

ALcontrol Laboratories Analytical Services

Job: D_MAYOCC_CSB-2

Customer: Mayo County Council

Client Reference:

Attention: Orla Courke

Location: Disused Landfills

Order No.: 5312275

Report No: 57773

Conductivity (at 20 deg.C)

Results Legend
 # ISO17025 Accredited.
 m MCERTS accredited.
 * sub contracted test.

	Sample ID			Claremorris Leachate	Claremorris U/S
	Depth(m)	Sample Type	Sample received date	Water(GW/SW)	Water(GW/SW)
				08/06/2009	08/06/2009
				09/06/2009	09/06/2009
				090610-63	090610-63
				278741	278751
	LoD	Units	Method		
Conductivity (at 20 deg.C)	<0.01 4	mS/cm	TM120	1.49 #	0.551 #

Cyanide Complex/Free/Total/Thiocyan

Results Legend
 # ISO17025 Accredited.
 m MCERTS accredited.
 * sub contracted test.

	Sample ID			Ballyhaunis Leachate	Claremorris D/S
	Depth(m)	Sample Type	Sample received date	Water(GW/SW)	Water(GW/SW)
				08/06/2009	08/06/2009
				09/06/2009	09/06/2009
				090610-63	090610-63
				278759	278764
	LoD	Units	Method		
Total Cyanide	<0.05	mg/l	TM227	<0.0500 #	<0.0500 #

Dissolved Metals by ICP-MS

Results Legend
 # ISO17025 Accredited.
 m MCERTS accredited.
 * sub contracted test.

	Sample ID			Ballyhaunis D/S	Ballyhaunis Leachate	Ballyhaunis U/S	Claremorris D/S
	Depth(m)	Sample Type	Sample received date	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
				08/06/2009	08/06/2009	08/06/2009	08/06/2009
				09/06/2009	09/06/2009	09/06/2009	09/06/2009
				090610-63	090610-63	090610-63	090610-63
				278776	278759	278770	278764
	LoD	Units	Method				
Cadmium Dissolved	<0.22	µg/l	TM152	<0.220 #	<0.220 #	0.306 #	<0.220 #
Chromium Dissolved	<0.7	µg/l	TM152	6.82 #	<0.700 #	7.42 #	9.03 #
Copper Dissolved	<1.6	µg/l	TM152	2.78 #	5.81 #	3.76 #	4.47 #
Lead Dissolved	<0.4	µg/l	TM152	<0.400 #	<0.400 #	<0.400 #	<0.400 #
Manganese Dissolved	<0.6	µg/l	TM152	14.3 #	20.3 #	11.5 #	77.7 #
Nickel Dissolved	<1.5	µg/l	TM152	<1.50 #	<1.50 #	<1.50 #	2.01 #
Phosphorus Dissolved	<105	µg/l	TM152	<105 #	<105 #	<105 #	<105 #
Zinc Dissolved	<5	µg/l	TM152	11.0 #	12.2 #	9.06 #	13.4 #

Validated

ALcontrol Laboratories Analytical Services

Job: D_MAYOCC_CSB-2

Customer: Mayo County Council

Client Reference:

Attention: Orla Courke

Location: Disused Landfills

Order No.: 5312275

Report No: 57773

Anions by Kone

Results Legend

ISO17025 Accredited.
m MCERTS accredited.
* sub contracted test.

	Sample ID			Ballyhaunis D/S	Ballyhaunis Leachate	Ballyhaunis U/S	Claremorris D/S
	Depth(m)	Sample Type	Sample received date	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
				08/06/2009	08/06/2009	08/06/2009	08/06/2009
				09/06/2009	09/06/2009	09/06/2009	09/06/2009
				090610-63	090610-63	090610-63	090610-63
				278776	278759	278770	278764
	LoD	Units	Method				
Chloride	<1	mg/l	TM184	36.7	7.40	51.7	28.1
Phosphate (Ortho as P)	<0.03	mg/l	TM184	<0.0300		<0.0300	<0.0300
Sulphate (soluble)	3	mg/l	TM184	16.5	<3.00	17.6	29.5
Total Oxidised Nitrogen as N	<0.3	mg/l	TM184	1.54	<0.300	1.49	0.903

Anions by Kone

Results Legend

ISO17025 Accredited.
m MCERTS accredited.
* sub contracted test.

	Sample ID			Claremorris Leachate	Claremorris U/S
	Depth(m)	Sample Type	Sample received date	Water(GW/SW)	Water(GW/SW)
				08/06/2009	08/06/2009
				09/06/2009	09/06/2009
				090610-63	090610-63
				278741	278751
	LoD	Units	Method		
Chloride	<1	mg/l	TM184	128	15.0
Phosphate (Ortho as P)	<0.03	mg/l	TM184		<0.0300
Sulphate (soluble)	3	mg/l	TM184	15.3	<3.00
Total Oxidised Nitrogen as N	<0.3	mg/l	TM184	<0.300	<0.300

BOD Unfiltered

Results Legend

ISO17025 Accredited.
m MCERTS accredited.
* sub contracted test.

	Sample ID			Ballyhaunis D/S	Ballyhaunis Leachate	Ballyhaunis U/S	Claremorris D/S
	Depth(m)	Sample Type	Sample received date	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
				08/06/2009	08/06/2009	08/06/2009	08/06/2009
				09/06/2009	09/06/2009	09/06/2009	09/06/2009
				090610-63	090610-63	090610-63	090610-63
				278776	278759	278770	278764
	LoD	Units	Method				
BOD	<1	mg/l O	TM045	1.07	6.42	1.23	2.37

BOD Unfiltered

Results Legend

ISO17025 Accredited.
m MCERTS accredited.
* sub contracted test.

	Sample ID			Claremorris Leachate	Claremorris U/S
	Depth(m)	Sample Type	Sample received date	Water(GW/SW)	Water(GW/SW)
				08/06/2009	08/06/2009
				09/06/2009	09/06/2009
				090610-63	090610-63
				278741	278751
	LoD	Units	Method		
BOD	<1	mg/l O	TM045	6.87	<1.00

Validated

ALcontrol Laboratories Analytical Services

Job: D_MAYOCC_CSB-2

Customer: Mayo County Council

Client Reference:

Attention: Orla Courke

Location: Disused Landfills

Order No.: 5312275

Report No: 57773

Sample ID	Depth	Container	Sample Type	Analytical Parameters																	
				Alkalinity as CaCO3	Ammonium	Anions by Kome	BOD Unfiltered	COD Unfiltered	Coliforms (M)	Conductivity (at 20 deg. C)	Cyanide Complex/Free/Total/Thiocyan	Dissolved Metals by ICP-MS	Dissolved Oxygen by Probe	Fluoride	Mercury Dissolved	Metals by ICP-OES Dissolved (M)	OC, OP, Pesticides and Triazine Herb	pH Value	Rhatois by HPLC (M)	S/OC/MS (M) - Aqueous	Total Suspended Solids
Ballyhaunis D/S		60g VOC Dublin	LIQUID																		X
		1l glass bottle (D)	LIQUID								X			X				X			
		H2SO4 (Dublin)	LIQUID	X																	
		1l glass bottle (D)	LIQUID	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X
Ballyhaunis Leachate		Plastic NaOH (D)	LIQUID							X								X			
		H2SO4 (Dublin)	LIQUID	X																	
		PLAS BOT (D)	LIQUID	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		Micro	LIQUID					X													
Ballyhaunis U/S		60g VOC Dublin	LIQUID																		X
		H2SO4 (Dublin)	LIQUID	X																	
		1l glass bottle (D)	LIQUID	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		1l glass bottle (D)	LIQUID	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Claremorris D/S		H2SO4 (Dublin)	LIQUID	X																	
		1l glass bottle (D)	LIQUID								X			X				X			
		60g VOC Dublin	LIQUID																		X
		1l glass bottle (D)	LIQUID	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Claremorris Leachate		H2SO4 (Dublin)	LIQUID	X																	
		PLAS BOT (D)	LIQUID	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		Micro	LIQUID					X													
Claremorris U/S		60g VOC Dublin	LIQUID																		X
		H2SO4 (Dublin)	LIQUID	X																	
		1l glass bottle (D)	LIQUID								X			X				X			
		1l glass bottle (D)	LIQUID	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X