



ANALYSIS REPORT

Client:	Focus Environmental Services Limited	Lab No:	1070618	SPV3
Contact:	David O'Reilly C/- Focus Environmental Services Limited PO Box 11455 Ellerslie AUCKLAND 1542	Date Registered:	17-Nov-2012	
		Date Reported:	30-Nov-2012	
		Quote No:		
		Order No:	0092.024	
		Client Reference:		
		Submitted By:	David O'Reilly	

Amended Report

This report replaces an earlier report issued on the 26 Nov 2012 at 3:51 pm
 BTEX analysis was added to both samples at the client's request.

Sample Type: Soil						
Sample Name:		COM 01	COM 02			
Lab Number:		1070618.1	1070618.2			
Individual Tests						
Dry Matter	g/100g as rcvd	78	84	-	-	-
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	-	-	-
Total Cyanide*	mg/kg dry wt	< 0.10	< 0.10	-	-	-
Benzo[a]pyrene Toxic Equivalence (TEF)	mg/kg dry wt	0.26	0.56	-	-	-
Heavy metals, screen As,Cd,Cr,Cu,Ni,Pb,Zn,Hg						
Total Recoverable Arsenic	mg/kg dry wt	2	3	-	-	-
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	-	-	-
Total Recoverable Chromium	mg/kg dry wt	35	21	-	-	-
Total Recoverable Copper	mg/kg dry wt	21	17	-	-	-
Total Recoverable Lead	mg/kg dry wt	16.9	22	-	-	-
Total Recoverable Mercury	mg/kg dry wt	< 0.10	< 0.10	-	-	-
Total Recoverable Nickel	mg/kg dry wt	31	15	-	-	-
Total Recoverable Zinc	mg/kg dry wt	49	42	-	-	-
BTEX in Soil by Headspace GC-MS						
Benzene	mg/kg dry wt	< 0.06	< 0.05	-	-	-
Toluene	mg/kg dry wt	< 0.06	< 0.05	-	-	-
Ethylbenzene	mg/kg dry wt	< 0.06	< 0.05	-	-	-
m&p-Xylene	mg/kg dry wt	< 0.11	< 0.10	-	-	-
o-Xylene	mg/kg dry wt	< 0.06	< 0.05	-	-	-
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.010	< 0.011	-	-	-
alpha-BHC	mg/kg dry wt	< 0.010	< 0.011	-	-	-
beta-BHC	mg/kg dry wt	< 0.010	< 0.011	-	-	-
delta-BHC	mg/kg dry wt	< 0.010	< 0.011	-	-	-
gamma-BHC (Lindane)	mg/kg dry wt	< 0.010	< 0.011	-	-	-
cis-Chlordane	mg/kg dry wt	< 0.010	< 0.011	-	-	-
trans-Chlordane	mg/kg dry wt	< 0.010	< 0.011	-	-	-
Total Chlordane [(cis+trans)* 100/42]	mg/kg dry wt	< 0.04	< 0.04	-	-	-
2,4'-DDD	mg/kg dry wt	< 0.010	< 0.011	-	-	-
4,4'-DDD	mg/kg dry wt	< 0.010	< 0.011	-	-	-
2,4'-DDE	mg/kg dry wt	< 0.010	< 0.011	-	-	-
4,4'-DDE	mg/kg dry wt	< 0.010	< 0.011	-	-	-
2,4'-DDT	mg/kg dry wt	< 0.010	< 0.011	-	-	-
4,4'-DDT	mg/kg dry wt	< 0.010	< 0.011	-	-	-



Sample Type: Soil						
Sample Name:		COM 01	COM 02			
Lab Number:		1070618.1	1070618.2			
Organochlorine Pesticides Screening in Soil						
Dieldrin	mg/kg dry wt	< 0.010	< 0.011	-	-	-
Endosulfan I	mg/kg dry wt	< 0.010	< 0.011	-	-	-
Endosulfan II	mg/kg dry wt	< 0.010	< 0.011	-	-	-
Endosulfan sulphate	mg/kg dry wt	< 0.010	< 0.011	-	-	-
Endrin	mg/kg dry wt	< 0.010	< 0.011	-	-	-
Endrin Aldehyde	mg/kg dry wt	< 0.010	< 0.011	-	-	-
Endrin ketone	mg/kg dry wt	< 0.010	< 0.011	-	-	-
Heptachlor	mg/kg dry wt	< 0.010	< 0.011	-	-	-
Heptachlor epoxide	mg/kg dry wt	< 0.010	< 0.011	-	-	-
Hexachlorobenzene	mg/kg dry wt	< 0.010	< 0.011	-	-	-
Methoxychlor	mg/kg dry wt	< 0.010	< 0.011	-	-	-
Polycyclic Aromatic Hydrocarbons Screening in Soil						
Acenaphthene	mg/kg dry wt	< 0.04	< 0.03	-	-	-
Acenaphthylene	mg/kg dry wt	< 0.04	< 0.03	-	-	-
Anthracene	mg/kg dry wt	< 0.04	0.04	-	-	-
Benzo[a]anthracene	mg/kg dry wt	0.12	0.23	-	-	-
Benzo[a]pyrene (BAP)	mg/kg dry wt	0.17	0.37	-	-	-
Benzo[b]fluoranthene + Benzo[j]fluoranthene	mg/kg dry wt	0.19	0.40	-	-	-
Benzo[g,h,i]perylene	mg/kg dry wt	0.15	0.31	-	-	-
Benzo[k]fluoranthene	mg/kg dry wt	0.08	0.16	-	-	-
Chrysene	mg/kg dry wt	0.12	0.23	-	-	-
Dibenzo[a,h]anthracene	mg/kg dry wt	0.03	0.07	-	-	-
Fluoranthene	mg/kg dry wt	0.25	0.46	-	-	-
Fluorene	mg/kg dry wt	< 0.04	< 0.03	-	-	-
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	0.13	0.30	-	-	-
Naphthalene	mg/kg dry wt	< 0.16	< 0.14	-	-	-
Phenanthrene	mg/kg dry wt	0.10	0.20	-	-	-
Pyrene	mg/kg dry wt	0.28	0.55	-	-	-
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	< 10	< 9	-	-	-
C10 - C14	mg/kg dry wt	< 20	< 20	-	-	-
C15 - C36	mg/kg dry wt	< 40	< 40	-	-	-
Total hydrocarbons (C7 - C36)	mg/kg dry wt	< 70	< 70	-	-	-

SUMMARY OF METHODS

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively clean matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Samples
Environmental Solids Sample Preparation	Air dried at 35°C and sieved, <2mm fraction. Used for sample preparation. May contain a residual moisture content of 2-5%.	-	1-2
TPH Oil Industry Profile + PAHscreen	Sonication in DCM extraction, SPE cleanup, GC-FID & GC-MS analysis. Tested on as received sample. US EPA 8015B/MfE Petroleum Industry Guidelines	-	1-2
Heavy metals, screen As,Cd,Cr,Cu,Ni,Pb,Zn,Hg	Dried sample, <2mm fraction. Nitric/Hydrochloric acid digestion, ICP-MS, screen level.	-	1-2
BTEX in Soil by Headspace GC-MS	Solvent extraction, Headspace GC-MS analysis US EPA 8260B. Tested on as received sample	-	1-2
Organochlorine Pesticides Screening in Soil	Sonication extraction, SPE cleanup, dual column GC-ECD analysis (modified US EPA 8082).. Tested on dried sample	-	1-2
Dry Matter (Env)	Dried at 103°C for 4-22hr (removes 3-5% more water than air dry) , gravimetry. US EPA 3550. (Free water removed before analysis).	0.10 g/100g as rcvd	1-2
Total Recoverable digestion	Nitric / hydrochloric acid digestion. US EPA 200.2.	-	1-2
Total Cyanide Distillation*	Distillation of sample as received. APHA 4500-CN- C & E 21 st ed. 2005.	-	1-2

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Samples
Total Recoverable Boron	Dried sample, sieved as specified (if required). Nitric/Hydrochloric acid digestion, ICP-MS, screen level. US EPA 200.2.	20 mg/kg dry wt	1-2
Total Cyanide*	Distillation, colorimetry. APHA 4500-CN- C & E 21st ed. 2005.	0.10 mg/kg dry wt	1-2
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES	BaP Toxic Equivalence calculated from Benz(a)anthracene x 0.1 + Benzo(b)fluoranthene x 0.1 + Benzo(j)fluoranthene x 0.1 + Benzo(k)fluoranthene x 0.1 + Benzo(a)pyrene x 1 + Chrysene x 0.01 + Dibenz(a,h)anthracene x 1 + Fluoranthene x 0.01 + Indeno(1,2,3-c,d)pyrene x 0.1 Ministry for the Environment. 2011. Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health. Wellington: Ministry for the Environment.	0.002 mg/kg dry wt	1-2

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Samples are held at the laboratory after reporting for a length of time depending on the preservation used and the stability of the analytes being tested. Once the storage period is completed the samples are discarded unless otherwise advised by the client.

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