

## CERTIFICATE OF ANALYSIS

<p><b>Work Order</b> : <b>EW1202608</b></p> <p><b>Client</b> : <b>SHOALHAVEN CITY COUNCIL</b></p> <p><b>Contact</b> : Mr David Hojem</p> <p><b>Address</b> : PO Box 42 Nowra NSW 2541</p> <p><b>E-mail</b> : nowra.lab@alsglobal.com</p> <p><b>Telephone</b> : 02 4429 3406</p> <p><b>Facsimile</b> : 02 4429 5929</p> <p><b>Project</b> : Huskisson Landfill Annual</p> <p><b>Order number</b> : 15435 16780</p> <p><b>C-O-C number</b> : ----</p> <p><b>Sampler</b> : Craig Wilson</p> <p><b>Site</b> : ----</p> <p><b>Quote number</b> : ----</p>	<p><b>Page</b> : 1 of 23</p> <p><b>Laboratory</b> : Environmental Division NSW South Coast</p> <p><b>Contact</b> : Aneta Prosaroski</p> <p><b>Address</b> : 99 Kenny Street, Wollongong 2500 Unit 4 / 13 Geary Place, PO Box 3105, North Nowra 2541 AUSTRALIA</p> <p><b>E-mail</b> : aneta.prosaroski@alsglobal.com</p> <p><b>Telephone</b> : 02 4225 3125</p> <p><b>Facsimile</b> : 02 4225 3128</p> <p><b>QC Level</b> : NEPM 1999 Schedule B(3) and ALS QCS3 requirement</p> <p><b>Date Samples Received</b> : 20-SEP-2012</p> <p><b>Issue Date</b> : 12-OCT-2012</p> <p><b>No. of samples received</b> : 16</p> <p><b>No. of samples analysed</b> : 16</p>
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This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits



NATA Accredited Laboratory 825

Accredited for compliance with  
ISO/IEC 17025.

### Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Alex Rossi	Organic Chemist	Sydney Organics
Ankit Joshi	Inorganic Chemist	Sydney Inorganics
Ashesh Patel	Inorganic Chemist	Sydney Inorganics
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics
Edwandy Fadjar	Organic Coordinator	Sydney Organics
Glenn Davies	Environmental Services Representative	Laboratory - Wollongong
Sanjeshni Jyoti Mala	Senior Chemist Volatile	Sydney Organics
Sarah Millington	Senior Inorganic Chemist	Sydney Inorganics
Wisam Marassa	Inorganics Coordinator	Sydney Inorganics





## General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

^ = This result is computed from individual analyte detections at or above the level of reporting

- **EA015: Insufficient sample has been provided for standard analysis for sample ID Blank - Rinsate. LOR value have been adjusted accordingly.**
- **ED009 - Fluoride results for sample ID GA 2, GA 5, GA 12 and DUP from PCT due to samples' matrix interferences.**
- **Sites S1, S2, GA1, GA8 & GA9 - Dry at time of sampling.**



## Analytical Results

Sub-Matrix: WATER

				Client sample ID	DP-02	S1	S2	GA 1	GA 2
				Client sampling date / time	25-SEP-2012 09:35	25-SEP-2012 08:40	25-SEP-2012 07:50	25-SEP-2012 07:55	25-SEP-2012 08:45
Compound	CAS Number	LOR	Unit	EW1202608-001	EW1202608-002	EW1202608-003	EW1202608-004	EW1202608-005	
<b>EA015: Total Dissolved Solids</b>									
Total Dissolved Solids @180°C	GIS-210-010	1	mg/L	852	----	----	----	----	4830
<b>EA025: Suspended Solids</b>									
Suspended Solids (SS)	----	1	mg/L	8	----	----	----	----	----
<b>ED009: Anions</b>									
Fluoride	16984-48-8	0.02	mg/L	0.20	----	----	----	----	1.42
<b>ED037P: Alkalinity by PC Titrator</b>									
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	----	----	----	----	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	438	----	----	----	----	77
Total Alkalinity as CaCO3	----	1	mg/L	438	----	----	----	----	77
<b>ED041G: Sulfate (Turbidimetric) as SO4 2- by DA</b>									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	74	----	----	----	----	459
<b>ED045G: Chloride Discrete analyser</b>									
Chloride	16887-00-6	1	mg/L	203	----	----	----	----	2730
<b>ED093F: Dissolved Major Cations</b>									
Calcium	7440-70-2	1	mg/L	92	----	----	----	----	56
Magnesium	7439-95-4	1	mg/L	35	----	----	----	----	245
Sodium	7440-23-5	1	mg/L	160	----	----	----	----	1380
Potassium	7440-09-7	1	mg/L	32	----	----	----	----	9
<b>EG020T: Total Metals by ICP-MS</b>									
Aluminium	7429-90-5	0.01	mg/L	0.30	----	----	----	----	0.62
Arsenic	7440-38-2	0.001	mg/L	0.003	----	----	----	----	0.002
Barium	7440-39-3	0.001	mg/L	0.143	----	----	----	----	0.062
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	----	----	----	----	0.0003
Cobalt	7440-48-4	0.001	mg/L	<0.001	----	----	----	----	0.190
Chromium	7440-47-3	0.001	mg/L	0.008	----	----	----	----	0.002
Copper	7440-50-8	0.001	mg/L	0.006	----	----	----	----	0.019
Manganese	7439-96-5	0.001	mg/L	0.022	----	----	----	----	1.82
Lead	7439-92-1	0.001	mg/L	<0.001	----	----	----	----	0.003
Zinc	7440-66-6	0.005	mg/L	0.010	----	----	----	----	0.507
<b>EG035T: Total Recoverable Mercury by FIMS</b>									
Mercury	7439-97-6	0.0001	mg/L	<0.0001	----	----	----	----	<0.0001
<b>EG050T: Total Hexavalent Chromium</b>									
Hexavalent Chromium	18540-29-9	0.01	mg/L	<0.01	----	----	----	----	<0.01
<b>EK055G: Ammonia as N by Discrete Analyser</b>									
Ammonia as N	7664-41-7	0.01	mg/L	19.6	----	----	----	----	0.57



## Analytical Results

Sub-Matrix: WATER

				Client sample ID	DP-02	S1	S2	GA 1	GA 2
				Client sampling date / time	25-SEP-2012 09:35	25-SEP-2012 08:40	25-SEP-2012 07:50	25-SEP-2012 07:55	25-SEP-2012 08:45
Compound	CAS Number	LOR	Unit		EW1202608-001	EW1202608-002	EW1202608-003	EW1202608-004	EW1202608-005
<b>EK057G: Nitrite as N by Discrete Analyser</b>									
Nitrite as N	----	0.01	mg/L		0.12	----	----	----	0.02
<b>EK058G: Nitrate as N by Discrete Analyser</b>									
Nitrate as N	14797-55-8	0.01	mg/L		0.54	----	----	----	0.26
<b>EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser</b>									
Nitrite + Nitrate as N	----	0.01	mg/L		0.66	----	----	----	----
<b>EK067G: Total Phosphorus as P by Discrete Analyser</b>									
Total Phosphorus as P	----	0.01	mg/L		0.07	----	----	----	----
<b>EK071G: Reactive Phosphorus as P by discrete analyser</b>									
Reactive Phosphorus as P	----	0.01	mg/L		<0.01	----	----	----	<0.01
<b>EN67 PK: Field Tests</b>									
pH	----	0.1	pH Unit		8.0	----	----	----	5.5
Electrical Conductivity (Non Compensated)	----	1	µS/cm		1590	----	----	----	----
Redox Potential	----	0.1	mV		----	----	----	----	241
Field Observations	----	0.01	--		----	DRY	DRY	DRY	----
Standing Water Level	----	0.01	m AHD		----	----	----	----	2.32
<b>EP005: Total Organic Carbon (TOC)</b>									
Total Organic Carbon	----	1	mg/L		47	----	----	----	6
<b>EP035G: Total Phenol by Discrete Analyser</b>									
Phenols (Total)	----	0.05	mg/L		<0.05	----	----	----	<0.05
<b>EP068A: Organochlorine Pesticides (OC)</b>									
alpha-BHC	319-84-6	0.5	µg/L		<0.5	----	----	----	<0.5
Hexachlorobenzene (HCB)	118-74-1	0.5	µg/L		<0.5	----	----	----	<0.5
beta-BHC	319-85-7	0.5	µg/L		<0.5	----	----	----	<0.5
gamma-BHC	58-89-9	0.5	µg/L		<0.5	----	----	----	<0.5
delta-BHC	319-86-8	0.5	µg/L		<0.5	----	----	----	<0.5
Heptachlor	76-44-8	0.5	µg/L		<0.5	----	----	----	<0.5
Aldrin	309-00-2	0.5	µg/L		<0.5	----	----	----	<0.5
Heptachlor epoxide	1024-57-3	0.5	µg/L		<0.5	----	----	----	<0.5
trans-Chlordane	5103-74-2	0.5	µg/L		<0.5	----	----	----	<0.5
alpha-Endosulfan	959-98-8	0.5	µg/L		<0.5	----	----	----	<0.5
cis-Chlordane	5103-71-9	0.5	µg/L		<0.5	----	----	----	<0.5
Dieldrin	60-57-1	0.5	µg/L		<0.5	----	----	----	<0.5
4,4'-DDE	72-55-9	0.5	µg/L		<0.5	----	----	----	<0.5
Endrin	72-20-8	0.5	µg/L		<0.5	----	----	----	<0.5
beta-Endosulfan	33213-65-9	0.5	µg/L		<0.5	----	----	----	<0.5



## Analytical Results

Sub-Matrix: WATER

Client sample ID  
 Client sampling date / time

Compound	CAS Number	LOR	Unit	DP-02	S1	S2	GA 1	GA 2
				25-SEP-2012 09:35	25-SEP-2012 08:40	25-SEP-2012 07:50	25-SEP-2012 07:55	25-SEP-2012 08:45
				EW1202608-001	EW1202608-002	EW1202608-003	EW1202608-004	EW1202608-005
<b>EP068A: Organochlorine Pesticides (OC) - Continued</b>								
4,4'-DDD	72-54-8	0.5	µg/L	<0.5	----	----	----	<0.5
Endrin aldehyde	7421-93-4	0.5	µg/L	<0.5	----	----	----	<0.5
Endosulfan sulfate	1031-07-8	0.5	µg/L	<0.5	----	----	----	<0.5
4,4'-DDT	50-29-3	2	µg/L	<2	----	----	----	<2
Endrin ketone	53494-70-5	0.5	µg/L	<0.5	----	----	----	<0.5
Methoxychlor	72-43-5	2	µg/L	<2	----	----	----	<2
<b>EP068B: Organophosphorus Pesticides (OP)</b>								
Dichlorvos	62-73-7	0.5	µg/L	<0.5	----	----	----	<0.5
Demeton-S-methyl	919-86-8	0.5	µg/L	<0.5	----	----	----	<0.5
Monocrotophos	6923-22-4	2	µg/L	<2	----	----	----	<2
Dimethoate	60-51-5	0.5	µg/L	<0.5	----	----	----	<0.5
Diazinon	333-41-5	0.5	µg/L	<0.5	----	----	----	<0.5
Chlorpyrifos-methyl	5598-13-0	0.5	µg/L	<0.5	----	----	----	<0.5
Parathion-methyl	298-00-0	2	µg/L	<2	----	----	----	<2
Malathion	121-75-5	0.5	µg/L	<0.5	----	----	----	<0.5
Fenthion	55-38-9	0.5	µg/L	<0.5	----	----	----	<0.5
Chlorpyrifos	2921-88-2	0.5	µg/L	<0.5	----	----	----	<0.5
Parathion	56-38-2	2	µg/L	<2	----	----	----	<2
Pirimphos-ethyl	23505-41-1	0.5	µg/L	<0.5	----	----	----	<0.5
Bromophos-ethyl	4824-78-6	0.5	µg/L	<0.5	----	----	----	<0.5
Fenamiphos	22224-92-6	0.5	µg/L	<0.5	----	----	----	<0.5
Prothiofos	34643-46-4	0.5	µg/L	<0.5	----	----	----	<0.5
Ethion	563-12-2	0.5	µg/L	<0.5	----	----	----	<0.5
Carbophenothion	786-19-6	0.5	µg/L	<0.5	----	----	----	<0.5
Azinphos Methyl	86-50-0	0.5	µg/L	<0.5	----	----	----	<0.5
<b>EP075(SIM)B: Polynuclear Aromatic Hydrocarbons</b>								
Naphthalene	91-20-3	1.0	µg/L	<1.0	----	----	----	<1.0
Acenaphthylene	208-96-8	1.0	µg/L	<1.0	----	----	----	<1.0
Acenaphthene	83-32-9	1.0	µg/L	<1.0	----	----	----	<1.0
Fluorene	86-73-7	1.0	µg/L	<1.0	----	----	----	<1.0
Phenanthrene	85-01-8	1.0	µg/L	<1.0	----	----	----	<1.0
Anthracene	120-12-7	1.0	µg/L	<1.0	----	----	----	<1.0
Fluoranthene	206-44-0	1.0	µg/L	<1.0	----	----	----	<1.0
Pyrene	129-00-0	1.0	µg/L	<1.0	----	----	----	<1.0
Benz(a)anthracene	56-55-3	1.0	µg/L	<1.0	----	----	----	<1.0
Chrysene	218-01-9	1.0	µg/L	<1.0	----	----	----	<1.0



## Analytical Results

Sub-Matrix: WATER

Client sample ID

Client sampling date / time

Compound	CAS Number	LOR	Unit	DP-02	S1	S2	GA 1	GA 2
				25-SEP-2012 09:35	25-SEP-2012 08:40	25-SEP-2012 07:50	25-SEP-2012 07:55	25-SEP-2012 08:45
				EW1202608-001	EW1202608-002	EW1202608-003	EW1202608-004	EW1202608-005
<b>EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued</b>								
Benzo(b)fluoranthene	205-99-2	1.0	µg/L	<1.0	----	----	----	<1.0
Benzo(k)fluoranthene	207-08-9	1.0	µg/L	<1.0	----	----	----	<1.0
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	----	----	----	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L	<1.0	----	----	----	<1.0
Dibenz(a,h)anthracene	53-70-3	1.0	µg/L	<1.0	----	----	----	<1.0
Benzo(g,h,i)perylene	191-24-2	1.0	µg/L	<1.0	----	----	----	<1.0
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L	<0.5	----	----	----	<0.5
<b>EP080/071: Total Petroleum Hydrocarbons</b>								
C6 - C9 Fraction	----	20	µg/L	<20	----	----	----	<20
C10 - C14 Fraction	----	50	µg/L	<50	----	----	----	<50
C15 - C28 Fraction	----	100	µg/L	<100	----	----	----	<100
C29 - C36 Fraction	----	50	µg/L	<50	----	----	----	<50
^ C10 - C36 Fraction (sum)	----	50	µg/L	<50	----	----	----	<50
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft</b>								
C6 - C10 Fraction	----	20	µg/L	<20	----	----	----	<20
^ C6 - C10 Fraction minus BTEX (F1)	----	20	µg/L	<20	----	----	----	<20
>C10 - C16 Fraction	----	100	µg/L	<100	----	----	----	<100
>C16 - C34 Fraction	----	100	µg/L	<100	----	----	----	<100
>C34 - C40 Fraction	----	100	µg/L	<100	----	----	----	<100
^ >C10 - C40 Fraction (sum)	----	100	µg/L	<100	----	----	----	<100
<b>EP080: BTEXN</b>								
Benzene	71-43-2	1	µg/L	<1	----	----	----	<1
Toluene	108-88-3	2	µg/L	<2	----	----	----	<2
Ethylbenzene	100-41-4	2	µg/L	<2	----	----	----	<2
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	----	----	----	<2
ortho-Xylene	95-47-6	2	µg/L	<2	----	----	----	<2
^ Total Xylenes	1330-20-7	2	µg/L	<2	----	----	----	<2
^ Sum of BTEX	----	1	µg/L	<1	----	----	----	<1
Naphthalene	91-20-3	5	µg/L	<5	----	----	----	<5
<b>EP068S: Organochlorine Pesticide Surrogate</b>								
Dibromo-DDE	21655-73-2	0.1	%	63.6	----	----	----	66.7
<b>EP068T: Organophosphorus Pesticide Surrogate</b>								
DEF	78-48-8	0.1	%	69.8	----	----	----	65.0
<b>EP075(SIM)S: Phenolic Compound Surrogates</b>								
Phenol-d6	13127-88-3	0.1	%	20.2	----	----	----	25.5
2-Chlorophenol-D4	93951-73-6	0.1	%	58.6	----	----	----	71.6



**Analytical Results**

Sub-Matrix: **WATER**

				Client sample ID	DP-02	S1	S2	GA 1	GA 2
				Client sampling date / time	25-SEP-2012 09:35	25-SEP-2012 08:40	25-SEP-2012 07:50	25-SEP-2012 07:55	25-SEP-2012 08:45
Compound	CAS Number	LOR	Unit		EW1202608-001	EW1202608-002	EW1202608-003	EW1202608-004	EW1202608-005
<b>EP075(SIM)S: Phenolic Compound Surrogates - Continued</b>									
2,4,6-Tribromophenol	118-79-6	0.1	%		70.9	----	----	----	69.0
<b>EP075(SIM)T: PAH Surrogates</b>									
2-Fluorobiphenyl	321-60-8	0.1	%		72.2	----	----	----	75.3
Anthracene-d10	1719-06-8	0.1	%		74.0	----	----	----	71.6
4-Terphenyl-d14	1718-51-0	0.1	%		79.5	----	----	----	82.9
<b>EP080S: TPH(V)/BTEX Surrogates</b>									
1,2-Dichloroethane-D4	17060-07-0	0.1	%		102	----	----	----	116
Toluene-D8	2037-26-5	0.1	%		103	----	----	----	111
4-Bromofluorobenzene	460-00-4	0.1	%		87.3	----	----	----	94.2





## Analytical Results

Sub-Matrix: WATER

				Client sample ID	GA 4	GA 5	GA 6	GA 7	GA 8
				Client sampling date / time	25-SEP-2012 09:15	25-SEP-2012 10:20	25-SEP-2012 09:05	25-SEP-2012 08:55	25-SEP-2012 08:20
Compound	CAS Number	LOR	Unit		EW1202608-006	EW1202608-007	EW1202608-008	EW1202608-009	EW1202608-010
<b>EA015: Total Dissolved Solids</b>									
Total Dissolved Solids @180°C	GIS-210-010	1	mg/L		1190	3200	520	292	----
<b>ED009: Anions</b>									
Fluoride	16984-48-8	0.02	mg/L		0.53	0.68	0.07	0.05	----
<b>ED037P: Alkalinity by PC Titrator</b>									
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	<1	<1	<1	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		52	168	<1	<1	----
Total Alkalinity as CaCO3	----	1	mg/L		52	168	<1	<1	----
<b>ED041G: Sulfate (Turbidimetric) as SO4 2- by DA</b>									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		107	267	152	54	----
<b>ED045G: Chloride Discrete analyser</b>									
Chloride	16887-00-6	1	mg/L		608	1710	219	115	----
<b>ED093F: Dissolved Major Cations</b>									
Calcium	7440-70-2	1	mg/L		26	51	2	<1	----
Magnesium	7439-95-4	1	mg/L		53	156	19	5	----
Sodium	7440-23-5	1	mg/L		323	951	170	84	----
Potassium	7440-09-7	1	mg/L		7	11	<1	<1	----
<b>EG020T: Total Metals by ICP-MS</b>									
Aluminium	7429-90-5	0.01	mg/L		0.94	0.12	0.66	0.30	----
Arsenic	7440-38-2	0.001	mg/L		<0.001	0.005	0.002	<0.001	----
Barium	7440-39-3	0.001	mg/L		0.051	0.054	0.049	0.012	----
Cadmium	7440-43-9	0.0001	mg/L		0.0001	0.0001	0.0001	<0.0001	----
Cobalt	7440-48-4	0.001	mg/L		0.019	0.043	0.003	<0.001	----
Chromium	7440-47-3	0.001	mg/L		0.002	0.002	0.002	<0.001	----
Copper	7440-50-8	0.001	mg/L		0.010	0.014	0.015	0.006	----
Manganese	7439-96-5	0.001	mg/L		0.865	0.602	0.033	0.009	----
Lead	7439-92-1	0.001	mg/L		0.003	0.003	0.004	0.001	----
Zinc	7440-66-6	0.005	mg/L		0.124	0.034	0.037	0.014	----
<b>EG035T: Total Recoverable Mercury by FIMS</b>									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	<0.0001	<0.0001	<0.0001	----
<b>EG050T: Total Hexavalent Chromium</b>									
Hexavalent Chromium	18540-29-9	0.01	mg/L		<0.01	<0.01	<0.01	<0.01	----
<b>EK055G: Ammonia as N by Discrete Analyser</b>									
Ammonia as N	7664-41-7	0.01	mg/L		0.03	0.04	0.04	<0.01	----
<b>EK057G: Nitrite as N by Discrete Analyser</b>									
Nitrite as N	----	0.01	mg/L		<0.01	<0.01	<0.01	<0.01	----



## Analytical Results

Sub-Matrix: WATER

Client sample ID  
 Client sampling date / time

Compound	CAS Number	LOR	Unit	GA 4	GA 5	GA 6	GA 7	GA 8
				25-SEP-2012 09:15	25-SEP-2012 10:20	25-SEP-2012 09:05	25-SEP-2012 08:55	25-SEP-2012 08:20
				EW1202608-006	EW1202608-007	EW1202608-008	EW1202608-009	EW1202608-010
<b>EK058G: Nitrate as N by Discrete Analyser</b>								
Nitrate as N	14797-55-8	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	----
<b>EK071G: Reactive Phosphorus as P by discrete analyser</b>								
Reactive Phosphorus as P	----	0.01	mg/L	0.03	<0.01	<0.01	<0.01	----
<b>EN67 PK: Field Tests</b>								
pH	----	0.1	pH Unit	5.5	5.9	4.6	4.4	----
Redox Potential	----	0.1	mV	219	39.0	242	391	----
Field Observations	----	0.01	--	----	----	----	----	DRY
Standing Water Level	----	0.01	m AHD	7.64	4.69	8.22	7.44	----
<b>EP005: Total Organic Carbon (TOC)</b>								
Total Organic Carbon	----	1	mg/L	<1	6	8	<1	----
<b>EP035G: Total Phenol by Discrete Analyser</b>								
Phenols (Total)	----	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	----
<b>EP068A: Organochlorine Pesticides (OC)</b>								
alpha-BHC	319-84-6	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Hexachlorobenzene (HCB)	118-74-1	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
beta-BHC	319-85-7	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
gamma-BHC	58-89-9	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
delta-BHC	319-86-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Heptachlor	76-44-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Aldrin	309-00-2	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Heptachlor epoxide	1024-57-3	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
trans-Chlordane	5103-74-2	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
alpha-Endosulfan	959-98-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
cis-Chlordane	5103-71-9	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Dieldrin	60-57-1	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
4,4'-DDE	72-55-9	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Endrin	72-20-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
beta-Endosulfan	33213-65-9	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
4,4'-DDD	72-54-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Endrin aldehyde	7421-93-4	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Endosulfan sulfate	1031-07-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
4,4'-DDT	50-29-3	2	µg/L	<2	<2	<2	<2	----
Endrin ketone	53494-70-5	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Methoxychlor	72-43-5	2	µg/L	<2	<2	<2	<2	----
<b>EP068B: Organophosphorus Pesticides (OP)</b>								
Dichlorvos	62-73-7	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----



## Analytical Results

Sub-Matrix: WATER

Client sample ID  
 Client sampling date / time

Compound	CAS Number	LOR	Unit	GA 4	GA 5	GA 6	GA 7	GA 8
				25-SEP-2012 09:15	25-SEP-2012 10:20	25-SEP-2012 09:05	25-SEP-2012 08:55	25-SEP-2012 08:20
				EW1202608-006	EW1202608-007	EW1202608-008	EW1202608-009	EW1202608-010
<b>EP068B: Organophosphorus Pesticides (OP) - Continued</b>								
Demeton-S-methyl	919-86-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Monocrotophos	6923-22-4	2	µg/L	<2	<2	<2	<2	----
Dimethoate	60-51-5	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Diazinon	333-41-5	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Chlorpyrifos-methyl	5598-13-0	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Parathion-methyl	298-00-0	2	µg/L	<2	<2	<2	<2	----
Malathion	121-75-5	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Fenthion	55-38-9	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Chlorpyrifos	2921-88-2	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Parathion	56-38-2	2	µg/L	<2	<2	<2	<2	----
Pirimphos-ethyl	23505-41-1	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Bromophos-ethyl	4824-78-6	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Fenamiphos	22224-92-6	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Prothiofos	34643-46-4	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Ethion	563-12-2	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Carbophenothion	786-19-6	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Azinphos Methyl	86-50-0	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
<b>EP075(SIM)B: Polynuclear Aromatic Hydrocarbons</b>								
Naphthalene	91-20-3	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	----
Acenaphthylene	208-96-8	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	----
Acenaphthene	83-32-9	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	----
Fluorene	86-73-7	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	----
Phenanthrene	85-01-8	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	----
Anthracene	120-12-7	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	----
Fluoranthene	206-44-0	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	----
Pyrene	129-00-0	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	----
Benz(a)anthracene	56-55-3	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	----
Chrysene	218-01-9	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	----
Benzo(b)fluoranthene	205-99-2	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	----
Benzo(k)fluoranthene	207-08-9	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	----
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	----
Dibenz(a,h)anthracene	53-70-3	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	----
Benzo(g,h,i)perylene	191-24-2	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
<b>EP080/071: Total Petroleum Hydrocarbons</b>								



## Analytical Results

Sub-Matrix: WATER

				Client sample ID				
				GA 4	GA 5	GA 6	GA 7	GA 8
				25-SEP-2012 09:15	25-SEP-2012 10:20	25-SEP-2012 09:05	25-SEP-2012 08:55	25-SEP-2012 08:20
				Client sampling date / time				
Compound	CAS Number	LOR	Unit	EW1202608-006	EW1202608-007	EW1202608-008	EW1202608-009	EW1202608-010
<b>EP080/071: Total Petroleum Hydrocarbons - Continued</b>								
C6 - C9 Fraction	----	20	µg/L	<20	<20	<20	<20	----
C10 - C14 Fraction	----	50	µg/L	<50	<50	<50	<50	----
C15 - C28 Fraction	----	100	µg/L	<100	<100	<100	<100	----
C29 - C36 Fraction	----	50	µg/L	<50	<50	<50	<50	----
^ C10 - C36 Fraction (sum)	----	50	µg/L	<50	<50	<50	<50	----
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft</b>								
C6 - C10 Fraction	----	20	µg/L	<20	<20	<20	<20	----
^ C6 - C10 Fraction minus BTEX (F1)	----	20	µg/L	<20	<20	<20	<20	----
>C10 - C16 Fraction	----	100	µg/L	<100	<100	<100	<100	----
>C16 - C34 Fraction	----	100	µg/L	<100	<100	<100	<100	----
>C34 - C40 Fraction	----	100	µg/L	<100	<100	<100	<100	----
^ >C10 - C40 Fraction (sum)	----	100	µg/L	<100	<100	<100	<100	----
<b>EP080: BTEXN</b>								
Benzene	71-43-2	1	µg/L	<1	<1	<1	<1	----
Toluene	108-88-3	2	µg/L	<2	<2	<2	<2	----
Ethylbenzene	100-41-4	2	µg/L	<2	<2	<2	<2	----
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	<2	<2	----
ortho-Xylene	95-47-6	2	µg/L	<2	<2	<2	<2	----
^ Total Xylenes	1330-20-7	2	µg/L	<2	<2	<2	<2	----
^ Sum of BTEX	----	1	µg/L	<1	<1	<1	<1	----
Naphthalene	91-20-3	5	µg/L	<5	<5	<5	<5	----
<b>EP068S: Organochlorine Pesticide Surrogate</b>								
Dibromo-DDE	21655-73-2	0.1	%	71.1	62.4	66.2	70.3	----
<b>EP068T: Organophosphorus Pesticide Surrogate</b>								
DEF	78-48-8	0.1	%	70.6	61.3	80.5	68.6	----
<b>EP075(SIM)S: Phenolic Compound Surrogates</b>								
Phenol-d6	13127-88-3	0.1	%	24.2	22.6	25.3	24.3	----
2-Chlorophenol-D4	93951-73-6	0.1	%	71.4	66.3	69.4	71.5	----
2,4,6-Tribromophenol	118-79-6	0.1	%	67.2	68.0	68.1	51.8	----
<b>EP075(SIM)T: PAH Surrogates</b>								
2-Fluorobiphenyl	321-60-8	0.1	%	76.5	72.6	72.7	64.0	----
Anthracene-d10	1719-06-8	0.1	%	74.0	69.0	74.5	66.4	----
4-Terphenyl-d14	1718-51-0	0.1	%	87.8	79.3	84.2	81.4	----
<b>EP080S: TPH(V)/BTEX Surrogates</b>								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	120	118	115	112	----
Toluene-D8	2037-26-5	0.1	%	130	113	117	114	----



### Analytical Results

Sub-Matrix: **WATER**

				GA 4	GA 5	GA 6	GA 7	GA 8
				25-SEP-2012 09:15	25-SEP-2012 10:20	25-SEP-2012 09:05	25-SEP-2012 08:55	25-SEP-2012 08:20
Compound	CAS Number	LOR	Unit	EW1202608-006	EW1202608-007	EW1202608-008	EW1202608-009	EW1202608-010
<b>EP080S: TPH(V)/BTEX Surrogates - Continued</b>								
4-Bromofluorobenzene	460-00-4	0.1	%	104	98.8	101	95.1	----



## Analytical Results

Sub-Matrix: WATER

				Client sample ID				
				GA9	GA 10	GA 11	GA 12	DUP
				25-SEP-2012 08:05	25-SEP-2012 09:45	25-SEP-2012 10:10	25-SEP-2012 10:00	25-SEP-2012 09:15
				Client sampling date / time				
Compound	CAS Number	LOR	Unit	EW1202608-011	EW1202608-012	EW1202608-013	EW1202608-014	EW1202608-015
<b>EA015: Total Dissolved Solids</b>								
Total Dissolved Solids @180°C	GIS-210-010	1	mg/L	----	498	368	2620	1140
<b>ED009: Anions</b>								
Fluoride	16984-48-8	0.02	mg/L	----	0.12	0.02	0.53	0.59
<b>ED037P: Alkalinity by PC Titrator</b>								
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	----	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	----	99	1	<1	51
Total Alkalinity as CaCO3	----	1	mg/L	----	99	1	<1	51
<b>ED041G: Sulfate (Turbidimetric) as SO4 2- by DA</b>								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	----	116	60	185	109
<b>ED045G: Chloride Discrete analyser</b>								
Chloride	16887-00-6	1	mg/L	----	141	122	1340	602
<b>ED093F: Dissolved Major Cations</b>								
Calcium	7440-70-2	1	mg/L	----	26	<1	1	26
Magnesium	7439-95-4	1	mg/L	----	17	4	99	53
Sodium	7440-23-5	1	mg/L	----	131	94	775	343
Potassium	7440-09-7	1	mg/L	----	4	<1	2	8
<b>EG020T: Total Metals by ICP-MS</b>								
Aluminium	7429-90-5	0.01	mg/L	----	0.49	1.17	18.8	1.04
Arsenic	7440-38-2	0.001	mg/L	----	0.002	0.001	0.002	<0.001
Barium	7440-39-3	0.001	mg/L	----	0.026	0.044	0.054	0.048
Cadmium	7440-43-9	0.0001	mg/L	----	<0.0001	<0.0001	<0.0001	<0.0001
Cobalt	7440-48-4	0.001	mg/L	----	<0.001	0.001	0.004	0.020
Chromium	7440-47-3	0.001	mg/L	----	0.004	0.002	0.002	0.002
Copper	7440-50-8	0.001	mg/L	----	0.006	0.008	0.032	0.005
Manganese	7439-96-5	0.001	mg/L	----	0.021	0.029	0.038	0.866
Lead	7439-92-1	0.001	mg/L	----	0.010	0.003	0.008	0.002
Zinc	7440-66-6	0.005	mg/L	----	0.056	0.024	0.034	0.112
<b>EG035T: Total Recoverable Mercury by FIMS</b>								
Mercury	7439-97-6	0.0001	mg/L	----	<0.0001	<0.0001	<0.0001	<0.0001
<b>EG050T: Total Hexavalent Chromium</b>								
Hexavalent Chromium	18540-29-9	0.01	mg/L	----	<0.01	<0.01	<0.01	<0.01
<b>EK055G: Ammonia as N by Discrete Analyser</b>								
Ammonia as N	7664-41-7	0.01	mg/L	----	<0.01	<0.01	<0.01	0.03
<b>EK057G: Nitrite as N by Discrete Analyser</b>								
Nitrite as N	----	0.01	mg/L	----	<0.01	<0.01	<0.01	<0.01



## Analytical Results

Sub-Matrix: WATER

Client sample ID  
 Client sampling date / time

Compound	CAS Number	LOR	Unit	GA9	GA 10	GA 11	GA 12	DUP
				25-SEP-2012 08:05	25-SEP-2012 09:45	25-SEP-2012 10:10	25-SEP-2012 10:00	25-SEP-2012 09:15
				EW1202608-011	EW1202608-012	EW1202608-013	EW1202608-014	EW1202608-015
<b>EK058G: Nitrate as N by Discrete Analyser</b>								
Nitrate as N	14797-55-8	0.01	mg/L	----	0.10	<0.01	0.02	<0.01
<b>EK071G: Reactive Phosphorus as P by discrete analyser</b>								
Reactive Phosphorus as P	----	0.01	mg/L	----	<0.01	<0.01	<0.01	0.03
<b>EN67 PK: Field Tests</b>								
pH	----	0.1	pH Unit	----	6.3	4.4	3.6	5.5
Redox Potential	----	0.1	mV	----	178	370	454	217
Field Observations	----	0.01	--	DRY	----	----	----	----
Standing Water Level	----	0.01	m AHD	----	9.48	8.51	10.2	7.64
<b>EP005: Total Organic Carbon (TOC)</b>								
Total Organic Carbon	----	1	mg/L	----	16	2	7	<1
<b>EP035G: Total Phenol by Discrete Analyser</b>								
Phenols (Total)	----	0.05	mg/L	----	<0.05	<0.05	<0.05	<0.05
<b>EP068A: Organochlorine Pesticides (OC)</b>								
alpha-BHC	319-84-6	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
Hexachlorobenzene (HCB)	118-74-1	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
beta-BHC	319-85-7	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
gamma-BHC	58-89-9	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
delta-BHC	319-86-8	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
Heptachlor	76-44-8	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
Aldrin	309-00-2	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
Heptachlor epoxide	1024-57-3	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
trans-Chlordane	5103-74-2	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
alpha-Endosulfan	959-98-8	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
cis-Chlordane	5103-71-9	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
Dieldrin	60-57-1	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
4,4'-DDE	72-55-9	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
Endrin	72-20-8	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
beta-Endosulfan	33213-65-9	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
4,4'-DDD	72-54-8	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
Endrin aldehyde	7421-93-4	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
Endosulfan sulfate	1031-07-8	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
4,4'-DDT	50-29-3	2	µg/L	----	<2	<2	<2	<2
Endrin ketone	53494-70-5	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
Methoxychlor	72-43-5	2	µg/L	----	<2	<2	<2	<2
<b>EP068B: Organophosphorus Pesticides (OP)</b>								
Dichlorvos	62-73-7	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5





## Analytical Results

Sub-Matrix: WATER

Client sample ID  
 Client sampling date / time

Compound	CAS Number	LOR	Unit	GA9	GA 10	GA 11	GA 12	DUP
				25-SEP-2012 08:05	25-SEP-2012 09:45	25-SEP-2012 10:10	25-SEP-2012 10:00	25-SEP-2012 09:15
				EW1202608-011	EW1202608-012	EW1202608-013	EW1202608-014	EW1202608-015
<b>EP068B: Organophosphorus Pesticides (OP) - Continued</b>								
Demeton-S-methyl	919-86-8	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
Monocrotophos	6923-22-4	2	µg/L	----	<2	<2	<2	<2
Dimethoate	60-51-5	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
Diazinon	333-41-5	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
Chlorpyrifos-methyl	5598-13-0	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
Parathion-methyl	298-00-0	2	µg/L	----	<2	<2	<2	<2
Malathion	121-75-5	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
Fenthion	55-38-9	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
Chlorpyrifos	2921-88-2	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
Parathion	56-38-2	2	µg/L	----	<2	<2	<2	<2
Pirimphos-ethyl	23505-41-1	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
Bromophos-ethyl	4824-78-6	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
Fenamiphos	22224-92-6	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
Prothiofos	34643-46-4	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
Ethion	563-12-2	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
Carbophenothion	786-19-6	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
Azinphos Methyl	86-50-0	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
<b>EP075(SIM)B: Polynuclear Aromatic Hydrocarbons</b>								
Naphthalene	91-20-3	1.0	µg/L	----	<1.0	<1.0	<1.0	<1.0
Acenaphthylene	208-96-8	1.0	µg/L	----	<1.0	<1.0	<1.0	<1.0
Acenaphthene	83-32-9	1.0	µg/L	----	<1.0	<1.0	<1.0	<1.0
Fluorene	86-73-7	1.0	µg/L	----	<1.0	<1.0	<1.0	<1.0
Phenanthrene	85-01-8	1.0	µg/L	----	<1.0	<1.0	<1.0	<1.0
Anthracene	120-12-7	1.0	µg/L	----	<1.0	<1.0	<1.0	<1.0
Fluoranthene	206-44-0	1.0	µg/L	----	<1.0	<1.0	<1.0	<1.0
Pyrene	129-00-0	1.0	µg/L	----	<1.0	<1.0	<1.0	<1.0
Benz(a)anthracene	56-55-3	1.0	µg/L	----	<1.0	<1.0	<1.0	<1.0
Chrysene	218-01-9	1.0	µg/L	----	<1.0	<1.0	<1.0	<1.0
Benzo(b)fluoranthene	205-99-2	1.0	µg/L	----	<1.0	<1.0	<1.0	<1.0
Benzo(k)fluoranthene	207-08-9	1.0	µg/L	----	<1.0	<1.0	<1.0	<1.0
Benzo(a)pyrene	50-32-8	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L	----	<1.0	<1.0	<1.0	<1.0
Dibenz(a,h)anthracene	53-70-3	1.0	µg/L	----	<1.0	<1.0	<1.0	<1.0
Benzo(g,h,i)perylene	191-24-2	1.0	µg/L	----	<1.0	<1.0	<1.0	<1.0
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L	----	<0.5	<0.5	<0.5	<0.5
<b>EP080/071: Total Petroleum Hydrocarbons</b>								





## Analytical Results

Sub-Matrix: WATER

Client sample ID  
 Client sampling date / time

Compound	CAS Number	LOR	Unit	GA9	GA 10	GA 11	GA 12	DUP
				25-SEP-2012 08:05	25-SEP-2012 09:45	25-SEP-2012 10:10	25-SEP-2012 10:00	25-SEP-2012 09:15
				EW1202608-011	EW1202608-012	EW1202608-013	EW1202608-014	EW1202608-015
<b>EP080/071: Total Petroleum Hydrocarbons - Continued</b>								
C6 - C9 Fraction	----	20	µg/L	----	<20	<20	<20	<20
C10 - C14 Fraction	----	50	µg/L	----	<50	<50	<50	<50
C15 - C28 Fraction	----	100	µg/L	----	<100	<100	<100	<100
C29 - C36 Fraction	----	50	µg/L	----	<50	<50	<50	<50
^ C10 - C36 Fraction (sum)	----	50	µg/L	----	<50	<50	<50	<50
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft</b>								
C6 - C10 Fraction	----	20	µg/L	----	<20	<20	<20	<20
^ C6 - C10 Fraction minus BTEX (F1)	----	20	µg/L	----	<20	<20	<20	<20
>C10 - C16 Fraction	----	100	µg/L	----	<100	<100	<100	<100
>C16 - C34 Fraction	----	100	µg/L	----	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	µg/L	----	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	100	µg/L	----	<100	<100	<100	<100
<b>EP080: BTEXN</b>								
Benzene	71-43-2	1	µg/L	----	<1	<1	<1	<1
Toluene	108-88-3	2	µg/L	----	<2	<2	<2	<2
Ethylbenzene	100-41-4	2	µg/L	----	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	----	<2	<2	<2	<2
ortho-Xylene	95-47-6	2	µg/L	----	<2	<2	<2	<2
^ Total Xylenes	1330-20-7	2	µg/L	----	<2	<2	<2	<2
^ Sum of BTEX	----	1	µg/L	----	<1	<1	<1	<1
Naphthalene	91-20-3	5	µg/L	----	<5	<5	<5	<5
<b>EP068S: Organochlorine Pesticide Surrogate</b>								
Dibromo-DDE	21655-73-2	0.1	%	----	73.8	71.1	71.1	68.0
<b>EP068T: Organophosphorus Pesticide Surrogate</b>								
DEF	78-48-8	0.1	%	----	74.0	78.6	71.7	74.8
<b>EP075(SIM)S: Phenolic Compound Surrogates</b>								
Phenol-d6	13127-88-3	0.1	%	----	24.2	21.2	27.0	25.2
2-Chlorophenol-D4	93951-73-6	0.1	%	----	65.3	56.2	73.8	72.1
2,4,6-Tribromophenol	118-79-6	0.1	%	----	62.9	47.0	66.1	59.8
<b>EP075(SIM)T: PAH Surrogates</b>								
2-Fluorobiphenyl	321-60-8	0.1	%	----	68.5	58.3	69.5	68.2
Anthracene-d10	1719-06-8	0.1	%	----	78.2	60.2	78.0	73.8
4-Terphenyl-d14	1718-51-0	0.1	%	----	87.2	68.5	89.5	83.0
<b>EP080S: TPH(V)/BTEX Surrogates</b>								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	----	116	107	121	117
Toluene-D8	2037-26-5	0.1	%	----	130	121	128	129



**Analytical Results**

Sub-Matrix: **WATER**

				Client sample ID	GA9	GA 10	GA 11	GA 12	DUP
				Client sampling date / time	25-SEP-2012 08:05	25-SEP-2012 09:45	25-SEP-2012 10:10	25-SEP-2012 10:00	25-SEP-2012 09:15
Compound	CAS Number	LOR	Unit		EW1202608-011	EW1202608-012	EW1202608-013	EW1202608-014	EW1202608-015
<b>EP080S: TPH(V)/BTEX Surrogates - Continued</b>									
4-Bromofluorobenzene	460-00-4	0.1	%		----	104	94.9	104	102



## Analytical Results

Sub-Matrix: WATER

Client sample ID

Client sampling date / time

				Blank - Rinsate	----	----	----	----
				25-SEP-2012 09:20	----	----	----	----
Compound	CAS Number	LOR	Unit	EW1202608-016	----	----	----	----
<b>EA015: Total Dissolved Solids</b>								
Total Dissolved Solids @180°C	GIS-210-010	1	mg/L	<5	----	----	----	----
<b>ED009: Anions</b>								
Fluoride	16984-48-8	0.02	mg/L	<0.02	----	----	----	----
<b>ED037P: Alkalinity by PC Titrator</b>								
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	----	----	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	<1	----	----	----	----
Total Alkalinity as CaCO3	----	1	mg/L	<1	----	----	----	----
<b>ED041G: Sulfate (Turbidimetric) as SO4 2- by DA</b>								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	----	----	----	----
<b>ED045G: Chloride Discrete analyser</b>								
Chloride	16887-00-6	1	mg/L	<1	----	----	----	----
<b>ED093F: Dissolved Major Cations</b>								
Calcium	7440-70-2	1	mg/L	<1	----	----	----	----
Magnesium	7439-95-4	1	mg/L	<1	----	----	----	----
Sodium	7440-23-5	1	mg/L	<1	----	----	----	----
Potassium	7440-09-7	1	mg/L	<1	----	----	----	----
<b>EG020T: Total Metals by ICP-MS</b>								
Aluminium	7429-90-5	0.01	mg/L	<0.01	----	----	----	----
Arsenic	7440-38-2	0.001	mg/L	<0.001	----	----	----	----
Barium	7440-39-3	0.001	mg/L	<0.001	----	----	----	----
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	----	----	----	----
Cobalt	7440-48-4	0.001	mg/L	<0.001	----	----	----	----
Chromium	7440-47-3	0.001	mg/L	<0.001	----	----	----	----
Copper	7440-50-8	0.001	mg/L	<0.001	----	----	----	----
Manganese	7439-96-5	0.001	mg/L	<0.001	----	----	----	----
Lead	7439-92-1	0.001	mg/L	<0.001	----	----	----	----
Zinc	7440-66-6	0.005	mg/L	<0.005	----	----	----	----
<b>EG035T: Total Recoverable Mercury by FIMS</b>								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	----	----	----	----
<b>EG050T: Total Hexavalent Chromium</b>								
Hexavalent Chromium	18540-29-9	0.01	mg/L	<0.01	----	----	----	----
<b>EK055G: Ammonia as N by Discrete Analyser</b>								
Ammonia as N	7664-41-7	0.01	mg/L	<0.01	----	----	----	----
<b>EK057G: Nitrite as N by Discrete Analyser</b>								
Nitrite as N	----	0.01	mg/L	<0.01	----	----	----	----



## Analytical Results

Sub-Matrix: WATER

Client sample ID

Client sampling date / time

				Blank - Rinsate	----	----	----	----
				25-SEP-2012 09:20	----	----	----	----
Compound	CAS Number	LOR	Unit	EW1202608-016	----	----	----	----
<b>EK058G: Nitrate as N by Discrete Analyser</b>								
Nitrate as N	14797-55-8	0.01	mg/L	<0.01	----	----	----	----
<b>EK071G: Reactive Phosphorus as P by discrete analyser</b>								
Reactive Phosphorus as P	----	0.01	mg/L	<0.01	----	----	----	----
<b>EN67 PK: Field Tests</b>								
pH	----	0.1	pH Unit	6.4	----	----	----	----
Redox Potential	----	0.1	mV	190	----	----	----	----
<b>EP005: Total Organic Carbon (TOC)</b>								
Total Organic Carbon	----	1	mg/L	<1	----	----	----	----
<b>EP035G: Total Phenol by Discrete Analyser</b>								
Phenols (Total)	----	0.05	mg/L	<0.05	----	----	----	----
<b>EP068A: Organochlorine Pesticides (OC)</b>								
alpha-BHC	319-84-6	0.5	µg/L	<0.5	----	----	----	----
Hexachlorobenzene (HCB)	118-74-1	0.5	µg/L	<0.5	----	----	----	----
beta-BHC	319-85-7	0.5	µg/L	<0.5	----	----	----	----
gamma-BHC	58-89-9	0.5	µg/L	<0.5	----	----	----	----
delta-BHC	319-86-8	0.5	µg/L	<0.5	----	----	----	----
Heptachlor	76-44-8	0.5	µg/L	<0.5	----	----	----	----
Aldrin	309-00-2	0.5	µg/L	<0.5	----	----	----	----
Heptachlor epoxide	1024-57-3	0.5	µg/L	<0.5	----	----	----	----
trans-Chlordane	5103-74-2	0.5	µg/L	<0.5	----	----	----	----
alpha-Endosulfan	959-98-8	0.5	µg/L	<0.5	----	----	----	----
cis-Chlordane	5103-71-9	0.5	µg/L	<0.5	----	----	----	----
Dieldrin	60-57-1	0.5	µg/L	<0.5	----	----	----	----
4,4'-DDE	72-55-9	0.5	µg/L	<0.5	----	----	----	----
Endrin	72-20-8	0.5	µg/L	<0.5	----	----	----	----
beta-Endosulfan	33213-65-9	0.5	µg/L	<0.5	----	----	----	----
4,4'-DDD	72-54-8	0.5	µg/L	<0.5	----	----	----	----
Endrin aldehyde	7421-93-4	0.5	µg/L	<0.5	----	----	----	----
Endosulfan sulfate	1031-07-8	0.5	µg/L	<0.5	----	----	----	----
4,4'-DDT	50-29-3	2	µg/L	<2	----	----	----	----
Endrin ketone	53494-70-5	0.5	µg/L	<0.5	----	----	----	----
Methoxychlor	72-43-5	2	µg/L	<2	----	----	----	----
<b>EP068B: Organophosphorus Pesticides (OP)</b>								
Dichlorvos	62-73-7	0.5	µg/L	<0.5	----	----	----	----
Demeton-S-methyl	919-86-8	0.5	µg/L	<0.5	----	----	----	----
Monocrotophos	6923-22-4	2	µg/L	<2	----	----	----	----



## Analytical Results

Sub-Matrix: WATER

Client sample ID

Client sampling date / time

				Blank - Rinsate	---	---	---	---
				25-SEP-2012 09:20	---	---	---	---
Compound	CAS Number	LOR	Unit	EW1202608-016	---	---	---	---
<b>EP068B: Organophosphorus Pesticides (OP) - Continued</b>								
Dimethoate	60-51-5	0.5	µg/L	<0.5	---	---	---	---
Diazinon	333-41-5	0.5	µg/L	<0.5	---	---	---	---
Chlorpyrifos-methyl	5598-13-0	0.5	µg/L	<0.5	---	---	---	---
Parathion-methyl	298-00-0	2	µg/L	<2	---	---	---	---
Malathion	121-75-5	0.5	µg/L	<0.5	---	---	---	---
Fenthion	55-38-9	0.5	µg/L	<0.5	---	---	---	---
Chlorpyrifos	2921-88-2	0.5	µg/L	<0.5	---	---	---	---
Parathion	56-38-2	2	µg/L	<2	---	---	---	---
Pirimphos-ethyl	23505-41-1	0.5	µg/L	<0.5	---	---	---	---
Bromophos-ethyl	4824-78-6	0.5	µg/L	<0.5	---	---	---	---
Fenamiphos	22224-92-6	0.5	µg/L	<0.5	---	---	---	---
Prothiofos	34643-46-4	0.5	µg/L	<0.5	---	---	---	---
Ethion	563-12-2	0.5	µg/L	<0.5	---	---	---	---
Carbophenothion	786-19-6	0.5	µg/L	<0.5	---	---	---	---
Azinphos Methyl	86-50-0	0.5	µg/L	<0.5	---	---	---	---
<b>EP075(SIM)B: Polynuclear Aromatic Hydrocarbons</b>								
Naphthalene	91-20-3	1.0	µg/L	<1.0	---	---	---	---
Acenaphthylene	208-96-8	1.0	µg/L	<1.0	---	---	---	---
Acenaphthene	83-32-9	1.0	µg/L	<1.0	---	---	---	---
Fluorene	86-73-7	1.0	µg/L	<1.0	---	---	---	---
Phenanthrene	85-01-8	1.0	µg/L	<1.0	---	---	---	---
Anthracene	120-12-7	1.0	µg/L	<1.0	---	---	---	---
Fluoranthene	206-44-0	1.0	µg/L	<1.0	---	---	---	---
Pyrene	129-00-0	1.0	µg/L	<1.0	---	---	---	---
Benz(a)anthracene	56-55-3	1.0	µg/L	<1.0	---	---	---	---
Chrysene	218-01-9	1.0	µg/L	<1.0	---	---	---	---
Benzo(b)fluoranthene	205-99-2	1.0	µg/L	<1.0	---	---	---	---
Benzo(k)fluoranthene	207-08-9	1.0	µg/L	<1.0	---	---	---	---
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	---	---	---	---
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L	<1.0	---	---	---	---
Dibenz(a,h)anthracene	53-70-3	1.0	µg/L	<1.0	---	---	---	---
Benzo(g,h,i)perylene	191-24-2	1.0	µg/L	<1.0	---	---	---	---
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L	<0.5	---	---	---	---
<b>EP080/071: Total Petroleum Hydrocarbons</b>								
C6 - C9 Fraction	----	20	µg/L	<20	---	---	---	---
C10 - C14 Fraction	----	50	µg/L	<50	---	---	---	---



## Analytical Results

Sub-Matrix: WATER

				Client sample ID	Blank - Rinsate				
				Client sampling date / time	25-SEP-2012 09:20	----	----	----	----
Compound	CAS Number	LOR	Unit	EW1202608-016	----	----	----	----	----
<b>EP080/071: Total Petroleum Hydrocarbons - Continued</b>									
C15 - C28 Fraction	----	100	µg/L	<100	----	----	----	----	----
C29 - C36 Fraction	----	50	µg/L	<50	----	----	----	----	----
^ C10 - C36 Fraction (sum)	----	50	µg/L	<50	----	----	----	----	----
<b>EP080/071: Total Recoverable Hydrocarbons - NEPM 2010 Draft</b>									
C6 - C10 Fraction	----	20	µg/L	<20	----	----	----	----	----
^ C6 - C10 Fraction minus BTEX (F1)	----	20	µg/L	<20	----	----	----	----	----
>C10 - C16 Fraction	----	100	µg/L	<100	----	----	----	----	----
>C16 - C34 Fraction	----	100	µg/L	<100	----	----	----	----	----
>C34 - C40 Fraction	----	100	µg/L	<100	----	----	----	----	----
^ >C10 - C40 Fraction (sum)	----	100	µg/L	<100	----	----	----	----	----
<b>EP080: BTEXN</b>									
Benzene	71-43-2	1	µg/L	<1	----	----	----	----	----
Toluene	108-88-3	2	µg/L	<2	----	----	----	----	----
Ethylbenzene	100-41-4	2	µg/L	<2	----	----	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	----	----	----	----	----
ortho-Xylene	95-47-6	2	µg/L	<2	----	----	----	----	----
^ Total Xylenes	1330-20-7	2	µg/L	<2	----	----	----	----	----
^ Sum of BTEX	----	1	µg/L	<1	----	----	----	----	----
Naphthalene	91-20-3	5	µg/L	<5	----	----	----	----	----
<b>EP068S: Organochlorine Pesticide Surrogate</b>									
Dibromo-DDE	21655-73-2	0.1	%	69.8	----	----	----	----	----
<b>EP068T: Organophosphorus Pesticide Surrogate</b>									
DEF	78-48-8	0.1	%	67.4	----	----	----	----	----
<b>EP075(SIM)S: Phenolic Compound Surrogates</b>									
Phenol-d6	13127-88-3	0.1	%	16.9	----	----	----	----	----
2-Chlorophenol-D4	93951-73-6	0.1	%	73.2	----	----	----	----	----
2,4,6-Tribromophenol	118-79-6	0.1	%	61.7	----	----	----	----	----
<b>EP075(SIM)T: PAH Surrogates</b>									
2-Fluorobiphenyl	321-60-8	0.1	%	70.4	----	----	----	----	----
Anthracene-d10	1719-06-8	0.1	%	75.4	----	----	----	----	----
4-Terphenyl-d14	1718-51-0	0.1	%	82.3	----	----	----	----	----
<b>EP080S: TPH(V)/BTEX Surrogates</b>									
1,2-Dichloroethane-D4	17060-07-0	0.1	%	116	----	----	----	----	----
Toluene-D8	2037-26-5	0.1	%	119	----	----	----	----	----
4-Bromofluorobenzene	460-00-4	0.1	%	96.5	----	----	----	----	----



## Surrogate Control Limits

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
<b>EP068S: Organochlorine Pesticide Surrogate</b>			
Dibromo-DDE	21655-73-2	33.6	142.5
<b>EP068T: Organophosphorus Pesticide Surrogate</b>			
DEF	78-48-8	28.1	147.7
<b>EP075(SIM)S: Phenolic Compound Surrogates</b>			
Phenol-d6	13127-88-3	10.0	64.1
2-Chlorophenol-D4	93951-73-6	11.3	122.9
2,4,6-Tribromophenol	118-79-6	11.7	144.0
<b>EP075(SIM)T: PAH Surrogates</b>			
2-Fluorobiphenyl	321-60-8	19.9	122.8
Anthracene-d10	1719-06-8	23.3	125.8
4-Terphenyl-d14	1718-51-0	20.3	134.5
<b>EP080S: TPH(V)/BTEX Surrogates</b>			
1,2-Dichloroethane-D4	17060-07-0	71	137
Toluene-D8	2037-26-5	79	131
4-Bromofluorobenzene	460-00-4	70	128