

Annex 7A

**Sediment Elutriate Test
Results**

Annex 7A Summary of Elutriate Testing Results conducted under this EIA Study

Parameter	B-GB01	B-GB02	B-GB03	B-GB02 (Blank)	B-GB04	B-GB05	B-GB06	B-GB07	B-GB08	B-EL01	B-EL02
Heavy Metals / Metalloid											
Mercury (mg L ⁻¹)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic (mg L ⁻¹)	2	4	4	2	4	5	4	5	4	5	4
Cadmium (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium (mg L ⁻¹)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper (mg L ⁻¹)	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1
Lead (mg L ⁻¹)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Nickel (mg L ⁻¹)	2	1	1	2	<1	1	1	1	<1	<1	<1
Silver (mg L ⁻¹)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Zinc (mg L ⁻¹)	<10	<10	<10	10	<10	<10	<10	16	<10	<10	<10
Organic Contaminants											
Total Polychlorinated Biphenyls (PCBs) (mg L ⁻¹)	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18
Total Polycyclic Aromatic Hydrocarbons (PAHs) (mg L ⁻¹)	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
Tributyltin (TBT) (µg L ⁻¹)	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
Chlorinated Pesticides											
alpha-BHC (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
beta- & gamma-BHC (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan 1 (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDE (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDD (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulfate (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDT (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Inorganic Non-metallic											
Ammonia as N	0.37	0.32	0.25	0.13	0.56	0.26	0.15	0.38	0.3	0.35	0.26
Reactive Phosphorus as P	0.06	0.04	0.06	0.04	0.04	0.03	0.04	0.05	0.05	0.06	0.05
Total Kjeldahl Nitrogen as N	1.2	0.7	0.7	0.4	1	0.8	0.6	0.9	0.7	0.8	0.6
Total Phosphorus as P	0.12	0.07	0.08	0.05	0.06	0.05	0.05	0.07	0.07	0.08	0.07
Nitrate as N	1.2	1.32	1.52	1.34	1.38	1.28	1.43	1.41	1.45	1.33	1.4
Nitrite as N	0.08	0.05	<0.05	<0.05	<0.05	0.05	<0.05	<0.05	0.05	0.06	0.06

Annex 7A Summary of Elutriate Testing Results conducted under this EIA Study

Parameter	B-EL03	B-EL04	B-EL05	B-EL02 (Blank)	B-GB09	B-GB10	B-GB11	B-GB12	B-GB13	B-GB14	B-GB15	B-GB16
Heavy Metals / Metalloid												
Mercury (mg L ⁻¹)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic (mg L ⁻¹)	5	5	6	2	5	4	6	4	3	7	4	6
Cadmium (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium (mg L ⁻¹)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper (mg L ⁻¹)	<1	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1
Lead (mg L ⁻¹)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Nickel (mg L ⁻¹)	<1	<1	<1	2	<1	<1	<1	<1	1	<1	<1	<1
Silver (mg L ⁻¹)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Zinc (mg L ⁻¹)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	12	<10
Organic Contaminants												
Total Polychlorinated Biphenyls (PCBs) (mg L ⁻¹)	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18
Total Polycyclic Aromatic Hydrocarbons (PAHs) (mg L ⁻¹)	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
Tributyltin (TBT) (µg L ⁻¹)	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
Chlorinated Pesticides												
alpha-BHC (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
beta- & gamma-BHC (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan 1 (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDE (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDD (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulfate (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDT (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Inorganic Non-metallic												
Ammonia as N	0.39	0.4	0.15	0.09	0.33	0.28	0.27	0.54	2.31	0.51	0.36	0.26
Reactive Phosphorus as P	0.05	0.05	0.05	0.04	0.05	0.03	0.04	0.03	0.02	0.03	0.04	0.05
Total Kjeldahl Nitrogen as N	0.8	0.7	0.5	0.5	0.8	0.7	0.6	0.8	3.5	0.8	0.8	0.7
Total Phosphorus as P	0.06	0.07	0.07	0.05	0.07	0.06	0.06	0.05	0.05	0.06	0.07	0.08
Nitrate as N	1.27	1.35	1.27	1.25	1.27	1.07	0.86	0.7	0.72	0.7	0.62	0.59
Nitrite as N	0.06	0.06	0.06	0.06	0.05	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.05

Annex 7A Summary of Elutriate Testing Results conducted under this EIA Study

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Annex 7A Summary of Elutriate Testing Results conducted under this EIA Study

Parameter	L-EL12	L-EL13	L-EL14	L-EL09 (Blank)
Heavy Metals / Metalloid				
Mercury (mg L ⁻¹)	<0.05	<0.05	<0.05	<0.05
Arsenic (mg L ⁻¹)	5	5	7	2
Cadmium (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1
Chromium (mg L ⁻¹)	<1	<1	<1	<1
Copper (mg L ⁻¹)	<1	<1	<1	3
Lead (mg L ⁻¹)	<1	<1	<1	<1
Nickel (mg L ⁻¹)	<1	<1	<1	<1
Silver (mg L ⁻¹)	<1	<1	<1	<1
Zinc (mg L ⁻¹)	23	15	<10	<10
Organic Contaminants				
Total Polychlorinated Biphenyls (PCBs) (mg L ⁻¹)	<0.18	<0.18	<0.18	<0.18
Total Polycyclic Aromatic Hydrocarbons (PAHs) (mg L ⁻¹)	<1.6	<1.6	<1.6	<1.6
Tributyltin (TBT) (µg L ⁻¹)	<0.015	<0.015	<0.015	<0.015
Chlorinated Pesticides				
alpha-BHC (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1
beta- & gamma-BHC (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1
delta-BHC (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1
Heptachlor (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1
Aldrin (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1
Endosulfan 1 (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1
4,4'-DDE (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1
4,4'-DDD (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1
Endosulfan sulfate (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1
4,4'-DDT (mg L ⁻¹)	<0.1	<0.1	<0.1	<0.1
Inorganic Non-metallic				
Ammonia as N	0.28	0.3	0.31	0.06
Reactive Phosphorus as P	0.06	0.06	0.06	<0.01
Total Kjeldahl Nitrogen as N	0.6	0.7	0.8	0.2
Total Phosphorus as P	0.08	0.08	0.08	0.02
Nitrate as N	0.39	0.38	0.39	0.38
Nitrite as N	<0.05	<0.05	<0.05	<0.05

**CERTIFICATE OF ANALYSIS**

Client	: EGS (ASIA) LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 17
Contact	: MR KEUNG WONG	Contact	: Richard Fung	Work Order	: HK1730888
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Project	: CLP - SAMPLING SURVEY FOR HONG KONG OFFSHORE LNG TERMINAL PROJECT	Quote number	: ----	Date Samples Received	: 18-JUL-2017
Order number	: ----			Issue Date	: 22-AUG-2017
C-O-C number	: ----			No. of samples received	: 18
Site	: BLACK POINT TO LAMMA			No. of samples analysed	: 18

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	Position	Authorised results for
Chan Ka Yu, Karen Fung Lim Chee, Richard	Manager - Organics General Manager	Organics Inorganics

General Comments

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. 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. Testing period is from 18-JUL-2017 to 08-AUG-2017.

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

Specific Comments for Work Order: HK1730888

Sample(s) were received in chilled condition.

Elutriate sample(s) analysed and reported on an as received basis.

Elutriate sample(s) were filtered prior to dissolved metal analysis.

**Analytical Results**

Sub-Matrix: ELUTRIATE				Client sample ID	B-EL01	B-EL02	B-EL03	B-EL04	B-EL05
Compound	CAS Number	LOR	Unit		HK1730888-001	HK1730888-002	HK1730888-003	HK1730888-004	HK1730888-005
ED/EK: Inorganic Nonmetallic Parameters									
EK055K: Ammonia as N	7664-41-7	0.01	mg/L		0.35	0.26	0.39	0.40	0.15
EK057A: Nitrite as N	14797-65-0	0.05	mg/L		0.06	0.06	0.06	0.06	0.06
EK058A: Nitrate as N	14797-55-8	0.05	mg/L		1.33	1.40	1.27	1.35	1.27
EK061P: Total Kjeldahl Nitrogen as N	---	0.1	mg/L		0.8	0.6	0.8	0.7	0.5
EK067P: Total Phosphorus as P	---	0.01	mg/L		0.08	0.07	0.06	0.07	0.07
EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L		0.06	0.05	0.05	0.05	0.05
EG: Metals and Major Cations - Filtered									
EG029: Arsenic	7440-38-2	1	µg/L		5	4	5	5	6
EG029: Cadmium	7440-43-9	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
EG029: Chromium	7440-47-3	1	µg/L		<1	<1	<1	<1	<1
EG029: Copper	7440-50-8	1	µg/L		<1	<1	<1	<1	<1
EG029: Lead	7439-92-1	1	µg/L		<1	<1	<1	<1	<1
EG029: Nickel	7440-02-0	1	µg/L		<1	<1	<1	<1	<1
EG029: Silver	7440-22-4	1	µg/L		<1	<1	<1	<1	<1
EG029: Zinc	7440-66-6	10	µg/L		<10	<10	<10	<10	<10
EG038: Mercury	7439-97-6	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP-065: PCB Single Congeners									
PCB 8	34883-43-7	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 18	37680-65-2	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 28	7012-37-5	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 44	41464-39-5	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 52	35693-99-3	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 66	32598-10-0	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 77	32598-13-3	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 101	37680-73-2	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 105	32598-14-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 118	31508-00-6	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 126	57465-28-8	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 128	38380-07-3	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 138	35065-28-2	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 153	35065-27-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 169	32774-16-6	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 170	35065-30-6	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 180	35065-29-3	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 187	52663-68-0	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Total Polychlorinated biphenyls	---	0.18	µg/L		<0.18	<0.18	<0.18	<0.18	<0.18
EP-067A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
beta- & gamma-BHC	319-85-7 58-89-9	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1



Sub-Matrix: ELUTRIATE		Client sample ID Client sampling date / time		B-EL01	B-EL02	B-EL03	B-EL04	B-EL05
				18-JUL-2017 12:18	18-JUL-2017 12:31	18-JUL-2017 12:40	18-JUL-2017 12:50	18-JUL-2017 13:01
Compound	CAS Number	LOR	Unit	HK1730888-001	HK1730888-002	HK1730888-003	HK1730888-004	HK1730888-005
EP-067A: Organochlorine Pesticides (OC) - Continued								
delta-BHC	319-86-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	76-44-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	309-00-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	1024-57-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan 1	959-98-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDE	72-55-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDD	72-54-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulfate	1031-07-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDT	50-29-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	208-96-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	83-32-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	86-73-7	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	85-01-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	120-12-7	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	206-44-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	129-00-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	218-01-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	205-99-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	50-32-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3,cd)pyrene	193-39-5	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenz(a,h)anthracene	53-70-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	191-24-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
EP-390: Triorganotins								
Tributyltin	56573-85-4	0.015	µg TBT /L	<0.015	<0.015	<0.015	<0.015	<0.015
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	52.1	50.2	52.6	52.1	55.9
4-Terphenyl-d14	1718-51-0	0.1	%	103	98.5	81.2	105	84.4
EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	79.4	72.4	70.0	87.7	64.0
EP-067S: Pesticide Surrogate								
Tetrachlorometaxylene	877-09-8	0.1	%	52.2	62.4	51.8	52.8	62.2
Dibutylchlorendate	1770-80-5	0.1	%	90.8	77.2	76.2	85.2	72.2



Sub-Matrix: ELUTRIATE		Client sample ID	B-GB01	B-GB02	B-GB03	B-GB04	B-GB05	
Compound	CAS Number	LOR	Unit	HK1730888-006	HK1730888-007	HK1730888-008	HK1730888-009	HK1730888-010
ED/EK: Inorganic Nonmetallic Parameters								
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	0.37	0.32	0.25	0.56	0.26
EK057A: Nitrite as N	14797-65-0	0.05	mg/L	0.08	0.05	<0.05	<0.05	0.05
EK058A: Nitrate as N	14797-55-8	0.05	mg/L	1.20	1.32	1.52	1.38	1.28
EK061P: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	1.2	0.7	0.7	1.0	0.8
EK067P: Total Phosphorus as P	----	0.01	mg/L	0.12	0.07	0.08	0.06	0.05
EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	0.06	0.04	0.06	0.04	0.03
EG: Metals and Major Cations - Filtered								
EG029: Arsenic	7440-38-2	1	µg/L	2	4	4	4	5
EG029: Cadmium	7440-43-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
EG029: Chromium	7440-47-3	1	µg/L	<1	<1	<1	<1	<1
EG029: Copper	7440-50-8	1	µg/L	<1	<1	<1	<1	<1
EG029: Lead	7439-92-1	1	µg/L	<1	<1	<1	<1	<1
EG029: Nickel	7440-02-0	1	µg/L	2	1	1	<1	1
EG029: Silver	7440-22-4	1	µg/L	<1	<1	<1	<1	<1
EG029: Zinc	7440-66-6	10	µg/L	<10	<10	<10	<10	<10
EG038: Mercury	7439-97-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP-065: PCB Single Congeners								
PCB 8	34883-43-7	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 18	37680-65-2	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 28	7012-37-5	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 44	41464-39-5	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 52	35693-99-3	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 66	32598-10-0	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 77	32598-13-3	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 101	37680-73-2	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 105	32598-14-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 118	31508-00-6	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 126	57465-28-8	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 128	38380-07-3	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 138	35065-28-2	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 153	35065-27-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 169	32774-16-6	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 170	35065-30-6	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 180	35065-29-3	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 187	52663-68-0	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Total Polychlorinated biphenyls	----	0.18	µg/L	<0.18	<0.18	<0.18	<0.18	<0.18
EP-067A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
beta- & gamma-BHC	319-85-7 58-89-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	319-86-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1



Sub-Matrix: ELUTRIATE			Client sample ID	B-GB01	B-GB02	B-GB03	B-GB04	B-GB05
Compound	CAS Number	LOR	Unit	HK1730888-006	HK1730888-007	HK1730888-008	HK1730888-009	HK1730888-010
EP-067A: Organochlorine Pesticides (OC) - Continued								
Heptachlor	76-44-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	309-00-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	1024-57-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan 1	959-98-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDE	72-55-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDD	72-54-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulfate	1031-07-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDT	50-29-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	208-96-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	83-32-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	86-73-7	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	85-01-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	120-12-7	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	206-44-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	129-00-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	218-01-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	205-99-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	50-32-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3,cd)pyrene	193-39-5	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenz(a,h)anthracene	53-70-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	191-24-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
EP-390: Triorganotins								
Tributyltin	56573-85-4	0.015	µg TBT /L	<0.015	<0.015	<0.015	<0.015	<0.015
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	50.3	52.6	50.3	58.4	51.4
4-Terphenyl-d14	1718-51-0	0.1	%	78.6	80.6	85.6	89.5	74.9
EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	63.4	63.6	63.1	60.0	79.0
EP-067S: Pesticide Surrogate								
Tetrachlorometaxylene	877-09-8	0.1	%	51.2	52.6	52.0	59.8	50.8
Dibutylchlorendate	1770-80-5	0.1	%	72.8	64.2	71.6	66.8	80.6



Sub-Matrix: ELUTRIATE			Client sample ID	B-GB06	B-GB07	B-GB08	B-GB09	B-GB10
Compound	CAS Number	LOR	Unit	HK1730888-011	HK1730888-012	HK1730888-013	HK1730888-014	HK1730888-015
EP-067A: Organochlorine Pesticides (OC) - Continued								
Heptachlor	76-44-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	309-00-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	1024-57-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan 1	959-98-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDE	72-55-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDD	72-54-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulfate	1031-07-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDT	50-29-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	208-96-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	83-32-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	86-73-7	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	85-01-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	120-12-7	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	206-44-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	129-00-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	218-01-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	205-99-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	50-32-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3,cd)pyrene	193-39-5	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenz(a,h)anthracene	53-70-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	191-24-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
EP-390: Triorganotins								
Tributyltin	56573-85-4	0.015	µg TBT /L	<0.015	<0.015	<0.015	<0.015	<0.015
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	51.4	51.8	51.1	51.5	50.0
4-Terphenyl-d14	1718-51-0	0.1	%	96.8	106	113	89.3	91.2
EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	91.6	99.4	93.5	65.6	77.0
EP-067S: Pesticide Surrogate								
Tetrachlorometaxylene	877-09-8	0.1	%	52.2	65.4	59.8	51.8	67.4
Dibutylchlorendate	1770-80-5	0.1	%	91.2	97.0	92.0	74.8	85.4

Surrogate control limits listed at end of this report.

Surrogate control limits listed at end of this report.

Surrogate control limits listed at end of this report.

Sub-Matrix: ELUTRIATE		Client sample ID		B-GB11	B-EL02 SEAWATER BLANK	B-GB02 SEAWATER BLANK		
		Client sampling date / time		18-JUL-2017 14:15	18-JUL-2017 12:31	18-JUL-2017 10:35		
Compound	CAS Number	LOR	Unit	HK1730888-016	HK1730888-017	HK1730888-018		
ED/EK: Inorganic Nonmetallic Parameters								
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	0.27	0.09	0.13		
EK057A: Nitrite as N	14797-65-0	0.05	mg/L	<0.05	0.06	<0.05		
EK058A: Nitrate as N	14797-55-8	0.05	mg/L	0.86	1.25	1.34		
EK061P: Total Kjeldahl Nitrogen as N	---	0.1	mg/L	0.6	0.5	0.4		
EK067P: Total Phosphorus as P	---	0.01	mg/L	0.06	0.05	0.05		
EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	0.04	0.04	0.04		
EG: Metals and Major Cations - Filtered								
EG029: Arsenic	7440-38-2	1	µg/L	6	2	2		
EG029: Cadmium	7440-43-9	0.1	µg/L	<0.1	<0.1	<0.1		
EG029: Chromium	7440-47-3	1	µg/L	<1	<1	<1		
EG029: Copper	7440-50-8	1	µg/L	<1	2	1		
EG029: Lead	7439-92-1	1	µg/L	<1	<1	<1		
EG029: Nickel	7440-02-0	1	µg/L	<1	2	2		
EG029: Silver	7440-22-4	1	µg/L	<1	<1	<1		
EG029: Zinc	7440-66-6	10	µg/L	<10	<10	10		
EG038: Mercury	7439-97-6	0.05	µg/L	<0.05	<0.05	<0.05		
EP-065: PCB Single Congeners								
PCB 8	34883-43-7	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 18	37680-65-2	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 28	7012-37-5	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 44	41464-39-5	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 52	35693-99-3	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 66	32598-10-0	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 77	32598-13-3	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 101	37680-73-2	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 105	32598-14-4	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 118	31508-00-6	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 126	57465-28-8	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 128	38380-07-3	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 138	35065-28-2	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 153	35065-27-1	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 169	32774-16-6	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 170	35065-30-6	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 180	35065-29-3	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 187	52663-68-0	0.01	µg/L	<0.01	<0.01	<0.01		
Total Polychlorinated biphenyls	---	0.18	µg/L	<0.18	<0.18	<0.18		
EP-067A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.1	µg/L	<0.1	<0.1	<0.1		
beta- & gamma-BHC	319-85-7 58-89-9	0.1	µg/L	<0.1	<0.1	<0.1		



Sub-Matrix: ELUTRIATE			Client sample ID	B-GB11	B-EL02 SEAWATER BLANK	B-GB02 SEAWATER BLANK		
Compound	CAS Number	LOR	Unit	18-JUL-2017 14:15	18-JUL-2017 12:31	18-JUL-2017 10:35		
EP-067A: Organochlorine Pesticides (OC) - Continued				HK1730888-016	HK1730888-017	HK1730888-018		
delta-BHC	319-86-8	0.1	µg/L	<0.1	<0.1	<0.1		
Heptachlor	76-44-8	0.1	µg/L	<0.1	<0.1	<0.1		
Aldrin	309-00-2	0.1	µg/L	<0.1	<0.1	<0.1		
Heptachlor epoxide	1024-57-3	0.1	µg/L	<0.1	<0.1	<0.1		
Endosulfan 1	959-98-8	0.1	µg/L	<0.1	<0.1	<0.1		
4,4'-DDE	72-55-9	0.1	µg/L	<0.1	<0.1	<0.1		
4,4'-DDD	72-54-8	0.1	µg/L	<0.1	<0.1	<0.1		
Endosulfan sulfate	1031-07-8	0.1	µg/L	<0.1	<0.1	<0.1		
4,4'-DDT	50-29-3	0.1	µg/L	<0.1	<0.1	<0.1		
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.1	µg/L	<0.1	<0.1	<0.1		
Acenaphthylene	208-96-8	0.1	µg/L	<0.1	<0.1	<0.1		
Acenaphthene	83-32-9	0.1	µg/L	<0.1	<0.1	<0.1		
Fluorene	86-73-7	0.1	µg/L	<0.1	<0.1	<0.1		
Phenanthrene	85-01-8	0.1	µg/L	<0.1	<0.1	<0.1		
Anthracene	120-12-7	0.1	µg/L	<0.1	<0.1	<0.1		
Fluoranthene	206-44-0	0.1	µg/L	<0.1	<0.1	<0.1		
Pyrene	129-00-0	0.1	µg/L	<0.1	<0.1	<0.1		
Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1	<0.1	<0.1		
Chrysene	218-01-9	0.1	µg/L	<0.1	<0.1	<0.1		
Benzo(b)fluoranthene	205-99-2	0.1	µg/L	<0.1	<0.1	<0.1		
Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	<0.1	<0.1		
Benzo(a)pyrene	50-32-8	0.1	µg/L	<0.1	<0.1	<0.1		
Indeno(1,2,3,cd)pyrene	193-39-5	0.1	µg/L	<0.1	<0.1	<0.1		
Dibenz(a,h)anthracene	53-70-3	0.1	µg/L	<0.1	<0.1	<0.1		
Benzo(g,h,i)perylene	191-24-2	0.1	µg/L	<0.1	<0.1	<0.1		
EP-390: Triorganotins								
Tributyltin	56573-85-4	0.015	µg TBT /L	<0.015	<0.015	<0.015		
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates							Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%	53.5	81.3	50.2		
4-Terphenyl-d14	1718-51-0	0.1	%	109	108	93.7		
EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate							Surrogate control limits listed at end of this report.	
Decachlorobiphenyl	2051-24-3	0.1	%	89.0	92.6	80.7		
EP-067S: Pesticide Surrogate							Surrogate control limits listed at end of this report.	
Tetrachlorometaxylene	877-09-8	0.1	%	51.8	55.4	63.8		
Dibutylchlorendate	1770-80-5	0.1	%	93.4	84.2	83.8		

Laboratory Duplicate (DUP) Report

Matrix: WATER

Laboratory Duplicate (DUP) Report								
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4509689)								
HK1730888-001	B-EL01	EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	0.06	0.06	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510142)								
HK1730888-001	B-EL01	EK057A: Nitrite as N	14797-65-0	0.05	mg/L	0.06	0.06	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510151)								
HK1730888-001	B-EL01	EK055K: Ammonia as N	7664-41-7	0.01	mg/L	0.35	0.38	8.2
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510154)								
HK1730888-001	B-EL01	EK067P: Total Phosphorus as P	----	0.01	mg/L	0.08	0.08	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 4509142)								
HK1730888-002	B-EL02	EG029: Cadmium	7440-43-9	0.1	µg/L	<0.1	<0.1	0.0
		EG029: Arsenic	7440-38-2	1	µg/L	4	4	0.0
		EG029: Chromium	7440-47-3	1	µg/L	<1	<1	0.0
		EG029: Copper	7440-50-8	1	µg/L	<1	<1	0.0
		EG029: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG029: Nickel	7440-02-0	1	µg/L	<1	<1	0.0
		EG029: Silver	7440-22-4	1	µg/L	<1	<1	0.0
		EG029: Zinc	7440-66-6	10	µg/L	<10	<10	0.0
HK1730888-012	B-GB07	EG029: Cadmium	7440-43-9	0.1	µg/L	<0.1	<0.1	0.0
		EG029: Arsenic	7440-38-2	1	µg/L	5	5	0.0
		EG029: Chromium	7440-47-3	1	µg/L	<1	<1	0.0
		EG029: Copper	7440-50-8	1	µg/L	<1	<1	0.0
		EG029: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG029: Nickel	7440-02-0	1	µg/L	1	<1	0.0
		EG029: Silver	7440-22-4	1	µg/L	<1	<1	0.0
		EG029: Zinc	7440-66-6	10	µg/L	16	14	12.0
EG: Metals and Major Cations - Filtered (QC Lot: 4509146)								
HK1730888-002	B-EL02	EG038: Mercury	7439-97-6	0.05	µg/L	<0.05	<0.05	0.0
HK1730888-011	B-GB06	EG038: Mercury	7439-97-6	0.05	µg/L	<0.05	<0.05	0.0
EP-065: PCB Single Congeners (QC Lot: 4509418)								
HK1730888-002	B-EL02	PCB 8	34883-43-7	0.01	µg/L	<0.01	<0.01	0.0
		PCB 18	37680-65-2	0.01	µg/L	<0.01	<0.01	0.0
		PCB 28	7012-37-5	0.01	µg/L	<0.01	<0.01	0.0
		PCB 44	41464-39-5	0.01	µg/L	<0.01	<0.01	0.0
		PCB 52	35693-99-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 66	32598-10-0	0.01	µg/L	<0.01	<0.01	0.0
		PCB 77	32598-13-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 101	37680-73-2	0.01	µg/L	<0.01	<0.01	0.0
		PCB 105	32598-14-4	0.01	µg/L	<0.01	<0.01	0.0
		PCB 118	31508-00-6	0.01	µg/L	<0.01	<0.01	0.0
		PCB 126	57465-28-8	0.01	µg/L	<0.01	<0.01	0.0

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-065: PCB Single Congeners (QC Lot: 4509418) - Continued								
HK1730888-002	B-EL02	PCB 128	38380-07-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 138	35065-28-2	0.01	µg/L	<0.01	<0.01	0.0
		PCB 153	35065-27-1	0.01	µg/L	<0.01	<0.01	0.0
		PCB 169	32774-16-6	0.01	µg/L	<0.01	<0.01	0.0
		PCB 170	35065-30-6	0.01	µg/L	<0.01	<0.01	0.0
		PCB 180	35065-29-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 187	52663-68-0	0.01	µg/L	<0.01	<0.01	0.0
		Total Polychlorinated biphenyls	----	0.18	µg/L	<0.18	<0.18	0.0
EP-067A: Organochlorine Pesticides (OC) (QC Lot: 4509416)								
HK1730888-002	B-EL02	alpha-BHC	319-84-6	0.1	µg/L	<0.1	<0.1	0.0
		beta- & gamma-BHC	319-85-7	0.1	µg/L	<0.1	<0.1	0.0
			58-89-9					
		delta-BHC	319-86-8	0.1	µg/L	<0.1	<0.1	0.0
		Heptachlor	76-44-8	0.1	µg/L	<0.1	<0.1	0.0
		Aldrin	309-00-2	0.1	µg/L	<0.1	<0.1	0.0
		Heptachlor epoxide	1024-57-3	0.1	µg/L	<0.1	<0.1	0.0
		Endosulfan 1	959-98-8	0.1	µg/L	<0.1	<0.1	0.0
		4,4'-DDE	72-55-9	0.1	µg/L	<0.1	<0.1	0.0
		4,4'-DDD	72-54-8	0.1	µg/L	<0.1	<0.1	0.0
		Endosulfan sulfate	1031-07-8	0.1	µg/L	<0.1	<0.1	0.0
		4,4'-DDT	50-29-3	0.1	µg/L	<0.1	<0.1	0.0
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 4509417)								
HK1730888-002	B-EL02	Naphthalene	91-20-3	0.1	µg/L	<0.1	<0.1	0.0
		Acenaphthylene	208-96-8	0.1	µg/L	<0.1	<0.1	0.0
		Acenaphthene	83-32-9	0.1	µg/L	<0.1	<0.1	0.0
		Fluorene	86-73-7	0.1	µg/L	<0.1	<0.1	0.0
		Phenanthrene	85-01-8	0.1	µg/L	<0.1	<0.1	0.0
		Anthracene	120-12-7	0.1	µg/L	<0.1	<0.1	0.0
		Fluoranthene	206-44-0	0.1	µg/L	<0.1	<0.1	0.0
		Pyrene	129-00-0	0.1	µg/L	<0.1	<0.1	0.0
		Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1	<0.1	0.0
		Chrysene	218-01-9	0.1	µg/L	<0.1	<0.1	0.0
		Benzo(b)fluoranthene	205-99-2	0.1	µg/L	<0.1	<0.1	0.0
		Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	<0.1	0.0
		Benzo(a)pyrene	50-32-8	0.1	µg/L	<0.1	<0.1	0.0
		Indeno(1,2,3,cd)pyrene	193-39-5	0.1	µg/L	<0.1	<0.1	0.0
		Dibenz(a,h)anthracene	53-70-3	0.1	µg/L	<0.1	<0.1	0.0
		Benzo(g,h,i)perylene	191-24-2	0.1	µg/L	<0.1	<0.1	0.0
EP-390: Triorganotins (QC Lot: 4511383)								
HK1730888-002	B-EL02	Tributyltin	56573-85-4	6	ngSn/L	<6	<6	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report								
		LOR	Unit	Result	Spike Concentration	LCS	DCS	Recovery Limits (%)	Low	High	Value	RPD (%)	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4509689)													
EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	0.5 mg/L	96.7	---	93	107	---	---	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510142)													
EK057A: Nitrite as N	14797-65-0	0.01	mg/L	---	0.4 mg/L 0.05 mg/L	105 111	---	96 84	112 118	---	---	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510151)													
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	102	---	91	109	---	---	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510154)													
EK067P: Total Phosphorus as P	---	0.01	mg/L	<0.01	0.5 mg/L	96.0	---	93	103	---	---	---	---
EG: Metals and Major Cations - Filtered (QC Lot: 4509142)													
EG029: Arsenic	7440-38-2	10	µg/L	<10	10 µg/L	94.2	---	78	114	---	---	---	---
EG029: Cadmium	7440-43-9	0.1	µg/L	<0.1	10 µg/L	93.8	---	78	116	---	---	---	---
EG029: Chromium	7440-47-3	1	µg/L	<1	10 µg/L	109	---	81	115	---	---	---	---
EG029: Copper	7440-50-8	1	µg/L	<1	10 µg/L	94.2	---	80	116	---	---	---	---
EG029: Lead	7439-92-1	1	µg/L	<1	10 µg/L	94.6	---	81	113	---	---	---	---
EG029: Nickel	7440-02-0	1	µg/L	<1	10 µg/L	108	---	80	118	---	---	---	---
EG029: Silver	7440-22-4	1	µg/L	<1	10 µg/L	98.2	---	77	119	---	---	---	---
EG029: Zinc	7440-66-6	10	µg/L	<10	10 µg/L	98.6	---	83	119	---	---	---	---
EG: Metals and Major Cations - Filtered (QC Lot: 4509146)													
EG038: Mercury	7439-97-6	0.05	µg/L	<0.05	0.05 µg/L	97.2	---	85	115	---	---	---	---
EP-065: PCB Single Congeners (QC Lot: 4509418)													
PCB 8	34883-43-7	0.01	µg/L	<0.01	25 µg/L	65.3	63.6	50	130	2.7	25		
PCB 18	37680-65-2	0.01	µg/L	<0.01	25 µg/L	63.0	58.4	50	130	7.4	25		
PCB 28	7012-37-5	0.01	µg/L	<0.01	25 µg/L	64.5	63.9	50	130	1.0	25		
PCB 44	41464-39-5	0.01	µg/L	<0.01	25 µg/L	76.2	75.3	50	130	1.2	25		
PCB 52	35693-99-3	0.01	µg/L	<0.01	25 µg/L	57.5	57.3	50	130	0.3	25		
PCB 66	32598-10-0	0.01	µg/L	<0.01	25 µg/L	86.7	86.9	50	130	0.3	25		
PCB 77	32598-13-3	0.01	µg/L	<0.01	25 µg/L	59.4	60.7	50	130	2.1	25		
PCB 101	37680-73-2	0.01	µg/L	<0.01	25 µg/L	62.6	63.5	50	130	1.5	25		
PCB 105	32598-14-4	0.01	µg/L	<0.01	25 µg/L	69.7	70.5	50	130	1.2	25		
PCB 118	31508-00-6	0.01	µg/L	<0.01	25 µg/L	67.4	67.8	50	130	0.4	25		
PCB 126	57465-28-8	0.01	µg/L	<0.01	25 µg/L	57.4	57.0	50	130	0.7	25		
PCB 128	38380-07-3	0.01	µg/L	<0.01	25 µg/L	78.9	80.4	50	130	1.9	25		
PCB 138	35065-28-2	0.01	µg/L	<0.01	25 µg/L	71.9	72.4	50	130	0.7	25		
PCB 153	35065-27-1	0.01	µg/L	<0.01	25 µg/L	73.6	74.7	50	130	1.4	25		
PCB 169	32774-16-6	0.01	µg/L	<0.01	25 µg/L	54.8	58.5	50	130	6.6	25		
PCB 170	35065-30-6	0.01	µg/L	<0.01	25 µg/L	78.6	79.8	50	130	1.5	25		
PCB 180	35065-29-3	0.01	µg/L	<0.01	25 µg/L	76.8	78.1	50	130	1.7	25		
PCB 187	52663-68-0	0.01	µg/L	<0.01	25 µg/L	72.6	73.4	50	130	1.2	25		

Matrix: WATER			Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report								
			Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
									LCS	DCS	Low	High	Value	Control Limit
EP-065: PCB Single Congeners (QC Lot: 4509418) - Continued														
Total Polychlorinated biphenyls	----	0.18		µg/L		<0.18		25 µg/L	67.1	67.5	50	130	0.7	25
EP-067A: Organochlorine Pesticides (OC) (QC Lot: 4509416)														
alpha-BHC	319-84-6	0.5		µg/L		<0.5		5 µg/L	74.4	77.8	23	104	4.5	20
beta- & gamma-BHC	319-85-7	1		µg/L		<1.0		10 µg/L	84.9	88.4	42	104	4.0	20
	58-89-9													
delta-BHC	319-86-8	0.5		µg/L		<0.5		5 µg/L	80.4	78.6	44	124	2.3	20
Heptachlor	76-44-8	0.5		µg/L		<0.5		5 µg/L	99.6	99.2	22	120	0.4	20
Aldrin	309-00-2	0.5		µg/L		<0.5		5 µg/L	71.6	71.2	27	124	0.6	20
Heptachlor epoxide	1024-57-3	0.5		µg/L		<0.5		5 µg/L	82.0	79.6	29	125	3.0	20
Endosulfan 1	959-98-8	0.5		µg/L		<0.5		5 µg/L	73.0	72.6	44	118	0.5	20
4,4'-DDE	72-55-9	0.5		µg/L		<0.5		5 µg/L	70.4	68.4	58	113	2.9	20
4,4'-DDD	72-54-8	0.5		µg/L		<0.5		5 µg/L	81.4	77.6	63	123	4.8	20
Endosulfan sulfate	1031-07-8	0.5		µg/L		<0.5		5 µg/L	83.2	82.8	55	120	0.5	20
4,4'-DDT	50-29-3	2		µg/L		<2.0		5 µg/L	106	104	14	127	1.3	20
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 4509417)														
Naphthalene	91-20-3	0.2		µg/L		<0.2		0.5 µg/L	58.9	61.9	31	102	4.9	20
Acenaphthylene	208-96-8	0.2		µg/L		<0.2		0.5 µg/L	59.0	62.4	31	105	5.5	20
Acenaphthene	83-32-9	0.2		µg/L		<0.2		0.5 µg/L	53.6	54.5	32	93	1.8	20
Fluorene	86-73-7	0.2		µg/L		<0.2		0.5 µg/L	55.5	50.3	33	100	10.0	20
Phenanthrene	85-01-8	0.2		µg/L		<0.2		0.5 µg/L	56.1	55.1	30	107	1.7	20
Anthracene	120-12-7	0.2		µg/L		<0.2		0.5 µg/L	57.2	56.6	28	108	1.0	20
Fluoranthene	206-44-0	0.2		µg/L		<0.2		0.5 µg/L	77.5	76.6	56	121	1.1	20
Pyrene	129-00-0	0.2		µg/L		<0.2		0.5 µg/L	78.9	77.8	56	125	1.5	20
Benz(a)anthracene	56-55-3	0.2		µg/L		<0.2		0.5 µg/L	82.9	81.8	72	117	1.2	20
Chrysene	218-01-9	0.2		µg/L		<0.2		0.5 µg/L	77.7	78.5	57	117	1.0	20
Benzo(b)fluoranthene	205-99-2	0.2		µg/L		<0.2		0.5 µg/L	92.6	84.2	71	119	9.4	20
Benzo(k)fluoranthene	207-08-9	0.2		µg/L		<0.2		0.5 µg/L	77.5	83.5	70	114	7.5	20
Benzo(a)pyrene	50-32-8	0.2		µg/L		<0.2		0.5 µg/L	80.9	80.6	59	121	0.4	20
Indeno(1,2,3.cd)pyrene	193-39-5	0.2		µg/L		<0.2		0.5 µg/L	77.3	93.4	56	118	18.8	20
Dibenz(a,h)anthracene	53-70-3	0.2		µg/L		<0.2		0.5 µg/L	75.4	75.8	39	123	0.5	20
Benzo(g,h,i)perylene	191-24-2	0.2		µg/L		<0.2		0.5 µg/L	69.4	67.9	42	130	2.2	20
EP-390: Triorganotins (QC Lot: 4511383)														
Tributyltin	56573-85-4	5		ngSn/L		<5		2 ngSn/L	86.8	86.0	70	130	0.9	20

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report								
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)			
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4509689)	HK1730888-001	B-EL01	EK071K: Reactive Phosphorus as P		0.5 mg/L	96.0	----	75	125	----	----	
					14265-44-2	0.5 mg/L	96.0	----	75	125	----	
					14797-65-0	0.5 mg/L	106	----	75	125	----	
					7664-41-7	0.5 mg/L	82.0	----	75	125	----	
					----	0.5 mg/L	90.0	----	75	125	----	
					7440-38-2	10 µg/L	100	119	80	120	16.9	
					7440-43-9	10 µg/L	100	113	80	120	11.9	
					7440-47-3	10 µg/L	93.7	103	80	120	9.2	
					7440-50-8	10 µg/L	103	111	80	120	6.8	
					7439-92-1	10 µg/L	88.3	96.6	80	120	8.9	
					7440-02-0	10 µg/L	101	112	80	120	10.1	
					7440-22-4	10 µg/L	98.3	112	80	120	12.9	
					7440-66-6	10 µg/L	105	113	80	120	7.7	
EG: Metals and Major Cations - Filtered (QC Lot: 4509142)												
EG: Metals and Major Cations - Filtered (QC Lot: 4509146)	HK1730888-001	B-EL01	EG038: Mercury		7439-97-6	0.05 µg/L	95.6	98.0	75	125	2.5	
					7439-97-6	0.05 µg/L	95.6	98.0	75	125	2.5	
					34883-43-7	25 µg/L	59.3	----	50	130	----	
					37680-65-2	25 µg/L	52.6	----	50	130	----	
					7012-37-5	25 µg/L	56.1	----	50	130	----	
					41464-39-5	25 µg/L	68.2	----	50	130	----	
					35693-99-3	25 µg/L	56.9	----	50	130	----	
					32598-10-0	25 µg/L	73.8	----	50	130	----	
					32598-13-3	25 µg/L	59.8	----	50	130	----	
					37680-73-2	25 µg/L	64.4	----	50	130	----	
					32598-14-4	25 µg/L	70.3	----	50	130	----	
					31508-00-6	25 µg/L	68.1	----	50	130	----	
EP-065: PCB Single Congeners (QC Lot: 4509418)	HK1730888-007	B-GB02	PCB 8		57465-28-8	25 µg/L	56.9	----	50	130	----	
					38380-07-3	25 µg/L	79.9	----	50	130	----	
					35065-28-2	25 µg/L	74.4	----	50	130	----	
					35065-27-1	25 µg/L	75.7	----	50	130	----	
					32774-16-6	25 µg/L	54.7	----	50	130	----	
					35065-30-6	25 µg/L	80.2	----	50	130	----	
					35065-29-3	25 µg/L	78.8	----	50	130	----	

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EP-065: PCB Single Congeners (QC Lot: 4509418) - Continued										
HK1730888-007	B-GB02	PCB 187	52663-68-0	25 µg/L	78.1	----	50	130	----	----
		Total Polychlorinated biphenyls	----	25 µg/L	66.5	----	50	130	----	----
EP-067A: Organochlorine Pesticides (OC) (QC Lot: 4509416)										
HK1730888-007	B-GB02	alpha-BHC	319-84-6	5 µg/L	57.4	----	50	130	----	----
		beta- & gamma-BHC	319-85-7	10 µg/L	67.8	----	50	130	----	----
			58-89-9							
		delta-BHC	319-86-8	5 µg/L	67.6	----	50	130	----	----
		Heptachlor	76-44-8	5 µg/L	70.2	----	50	130	----	----
		Aldrin	309-00-2	5 µg/L	57.0	----	50	130	----	----
		Heptachlor epoxide	1024-57-3	5 µg/L	67.0	----	50	130	----	----
		Endosulfan 1	959-98-8	5 µg/L	60.8	----	50	130	----	----
		4,4'-DDE	72-55-9	5 µg/L	59.8	----	50	130	----	----
		4,4'-DDD	72-54-8	5 µg/L	73.0	----	50	130	----	----
		Endosulfan sulfate	1031-07-8	5 µg/L	73.2	----	50	130	----	----
		4,4'-DDT	50-29-3	5 µg/L	99.6	----	50	130	----	----
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 4509417)										
HK1730888-007	B-GB02	Naphthalene	91-20-3	0.5 µg/L	54.2	----	50	130	----	----
		Acenaphthylene	208-96-8	0.5 µg/L	51.0	----	50	130	----	----
		Acenaphthene	83-32-9	0.5 µg/L	59.3	----	50	130	----	----
		Fluorene	86-73-7	0.5 µg/L	67.4	----	50	130	----	----
		Phenanthrene	85-01-8	0.5 µg/L	60.0	----	50	130	----	----
		Anthracene	120-12-7	0.5 µg/L	59.2	----	50	130	----	----
		Fluoranthene	206-44-0	0.5 µg/L	78.9	----	50	130	----	----
		Pyrene	129-00-0	0.5 µg/L	83.1	----	50	130	----	----
		Benz(a)anthracene	56-55-3	0.5 µg/L	85.6	----	50	130	----	----
		Chrysene	218-01-9	0.5 µg/L	81.0	----	50	130	----	----
		Benzo(b)fluoranthene	205-99-2	0.5 µg/L	97.9	----	50	130	----	----
		Benzo(k)fluoranthene	207-08-9	0.5 µg/L	81.5	----	50	130	----	----
		Benzo(a)pyrene	50-32-8	0.5 µg/L	85.1	----	50	130	----	----
		Indeno(1,2,3,cd)pyrene	193-39-5	0.5 µg/L	98.3	----	50	130	----	----
		Dibenz(a,h)anthracene	53-70-3	0.5 µg/L	79.6	----	50	130	----	----
		Benzo(g,h,i)perylene	191-24-2	0.5 µg/L	71.2	----	50	130	----	----
EP-390: Triorganotins (QC Lot: 4511383)										
HK1730888-007	B-GB02	Tributyltin	56573-85-4	2 ngSn/L	107	---	70	130	---	---

Surrogate Control Limits

Sub-Matrix: ELUTRIATE

Compound	CAS Number	Recovery Limits (%)	
		Low	High

Sub-Matrix: ELUTRIATE

Compound	CAS Number	Recovery Limits (%)	
		Low	High
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130
EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate			
Decachlorobiphenyl	2051-24-3	50	130
EP-067S: Pesticide Surrogate			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130

**CERTIFICATE OF ANALYSIS**

Client	: EGS (ASIA) LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 23
Contact	: MR KEUNG WONG	Contact	: Richard Fung	Work Order	: HK1731099
Address	: 5TH FLOOR, ZUNG FU INDUSTRIAL BUILDING, 1067 KING'S ROAD, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong	Amendment	: 1
E-mail	: keung@egssurvey.com	E-mail	: Richard.Fung@alsglobal.com		
Telephone	: +852 2911 9369	Telephone	: +852 2610 1044		
Facsimile	: +852 2576 3590	Facsimile	: +852 2610 2021		
Project	: CLP - SAMPLING SURVEY FOR HONG KONG OFFSHORE LNG TERMINAL PROJECT	Quote number	: ----	Date Samples Received	: 19-JUL-2017
Order number	: ----			Issue Date	: 22-AUG-2017
C-O-C number	: ----			No. of samples received	: 18
Site	: BLACK POINT TO LAMMA			No. of samples analysed	: 18

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	Position	Authorised results for
Chan Ka Yu, Karen Fung Lim Chee, Richard	Manager - Organics General Manager	Organics Inorganics

General Comments

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. 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. Testing period is from 19-JUL-2017 to 08-AUG-2017.

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

Specific Comments for Work Order: HK1731099

Sample(s) were received in chilled condition.

Elutriate sample(s) analysed and reported on an as received basis.

Elutriate sample(s) were filtered prior to dissolved metal analysis.



Sub-Matrix: ELUTRIATE		Client sample ID		B-EL06	B-EL07	B-EL08	B-EL09	B-EL10
		Client sampling date / time		19-JUL-2017 11:45	19-JUL-2017 11:49	19-JUL-2017 12:07	19-JUL-2017 12:18	19-JUL-2017 12:25
Compound	CAS Number	LOR	Unit	HK1731099-001	HK1731099-002	HK1731099-003	HK1731099-004	HK1731099-005
EP-067A: Organochlorine Pesticides (OC) - Continued								
delta-BHC	319-86-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	76-44-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	309-00-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	1024-57-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan 1	959-98-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDE	72-55-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDD	72-54-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulfate	1031-07-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDT	50-29-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	208-96-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	83-32-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	86-73-7	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	85-01-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	120-12-7	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	206-44-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	129-00-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	218-01-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	205-99-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	50-32-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3,cd)pyrene	193-39-5	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenz(a,h)anthracene	53-70-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	191-24-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
EP-390: Triorganotins								
Tributyltin	56573-85-4	0.015	µg TBT /L	<0.015	<0.015	<0.015	<0.015	<0.015
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	53.8	54.2	51.9	50.1	51.7
4-Terphenyl-d14	1718-51-0	0.1	%	79.8	88.1	67.9	84.6	89.1
EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	70.2	72.1	79.6	86.9	88.5
EP-067S: Pesticide Surrogate								
Tetrachlorometaxylene	877-09-8	0.1	%	55.8	59.8	62.4	52.4	56.4
Dibutylchlorendate	1770-80-5	0.1	%	69.0	64.6	74.0	83.4	84.4

Sub-Matrix: ELUTRIATE			Client sample ID	B-EL11	L-EL01	B-GB12	B-GB13	B-GB14
Compound	CAS Number	LOR	Unit	HK1731099-006	HK1731099-007	HK1731099-008	HK1731099-009	HK1731099-010
EP-067A: Organochlorine Pesticides (OC) - Continued								
Heptachlor	76-44-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	309-00-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	1024-57-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan 1	959-98-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDE	72-55-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDD	72-54-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulfate	1031-07-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDT	50-29-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	208-96-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	83-32-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	86-73-7	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	85-01-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	120-12-7	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	206-44-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	129-00-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	218-01-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	205-99-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	50-32-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3,cd)pyrene	193-39-5	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenz(a,h)anthracene	53-70-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	191-24-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
EP-390: Triorganotins								
Tributyltin	56573-85-4	0.015	µg TBT /L	<0.015	<0.015	<0.015	<0.015	<0.015
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	51.3	51.9	50.5	56.7	54.1
4-Terphenyl-d14	1718-51-0	0.1	%	85.2	79.2	95.8	102	104
EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	85.2	79.8	91.5	95.5	94.9
EP-067S: Pesticide Surrogate								
Tetrachlorometaxylene	877-09-8	0.1	%	59.2	51.4	59.2	53.0	56.0
Dibutylchlorendate	1770-80-5	0.1	%	75.6	75.8	74.6	82.0	83.0

Sub-Matrix: ELUTRIATE		Client sample ID		B-GB15	B-GB16	B-GB17	B-GB18	F-GB01
		Client sampling date / time		19-JUL-2017 10:34	19-JUL-2017 10:55	19-JUL-2017 11:09	19-JUL-2017 11:23	19-JUL-2017 14:08
Compound	CAS Number	LOR	Unit	HK1731099-011	HK1731099-012	HK1731099-013	HK1731099-014	HK1731099-015
ED/EK: Inorganic Nonmetallic Parameters								
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	0.36	0.26	0.28	0.85	0.35
EK057A: Nitrite as N	14797-65-0	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EK058A: Nitrate as N	14797-55-8	0.05	mg/L	0.62	0.59	0.53	0.56	0.37
EK061P: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.8	0.7	0.8	1.6	0.8
EK067P: Total Phosphorus as P	----	0.01	mg/L	0.07	0.08	0.08	0.08	0.06
EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	0.04	0.05	0.05	0.04	0.04
EG: Metals and Major Cations - Filtered								
EG029: Arsenic	7440-38-2	1	µg/L	4	6	4	4	4
EG029: Cadmium	7440-43-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
EG029: Chromium	7440-47-3	1	µg/L	<1	<1	<1	<1	<1
EG029: Copper	7440-50-8	1	µg/L	<1	<1	<1	<1	<1
EG029: Lead	7439-92-1	1	µg/L	<1	<1	<1	<1	<1
EG029: Nickel	7440-02-0	1	µg/L	<1	<1	<1	2	<1
EG029: Silver	7440-22-4	1	µg/L	<1	<1	<1	<1	<1
EG029: Zinc	7440-66-6	10	µg/L	12	<10	<10	<10	<10
EG038: Mercury	7439-97-6	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP-065: PCB Single Congeners								
PCB 8	34883-43-7	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 18	37680-65-2	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 28	7012-37-5	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 44	41464-39-5	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 52	35693-99-3	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 66	32598-10-0	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 77	32598-13-3	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 101	37680-73-2	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 105	32598-14-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 118	31508-00-6	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 126	57465-28-8	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 128	38380-07-3	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 138	35065-28-2	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 153	35065-27-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 169	32774-16-6	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 170	35065-30-6	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 180	35065-29-3	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
PCB 187	52663-68-0	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Total Polychlorinated biphenyls	----	0.18	µg/L	<0.18	<0.18	<0.18	<0.18	<0.18
EP-067A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
beta- & gamma-BHC	319-85-7 58-89-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	319-86-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1



Sub-Matrix: ELUTRIATE			Client sample ID	B-GB15	B-GB16	B-GB17	B-GB18	F-GB01
				Client sampling date / time	19-JUL-2017 10:34	19-JUL-2017 10:55	19-JUL-2017 11:09	19-JUL-2017 11:23
Compound	CAS Number	LOR	Unit	HK1731099-011	HK1731099-012	HK1731099-013	HK1731099-014	HK1731099-015
EP-067A: Organochlorine Pesticides (OC) - Continued								
Heptachlor	76-44-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	309-00-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	1024-57-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan 1	959-98-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDE	72-55-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDD	72-54-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulfate	1031-07-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
4,4'-DDT	50-29-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	208-96-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	83-32-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	86-73-7	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	85-01-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	120-12-7	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	206-44-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	129-00-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	218-01-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	205-99-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	50-32-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3,cd)pyrene	193-39-5	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenz(a,h)anthracene	53-70-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	191-24-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
EP-390: Triorganotins								
Tributyltin	56573-85-4	0.015	µg TBT /L	<0.015	<0.015	<0.015	<0.015	<0.015
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	50.2	70.1	72.7	54.6	75.9
4-Terphenyl-d14	1718-51-0	0.1	%	92.9	91.0	96.1	73.6	91.8
EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	88.9	89.4	84.9	72.8	93.6
EP-067S: Pesticide Surrogate								
Tetrachlorometaxylene	877-09-8	0.1	%	54.6	58.8	53.0	52.2	50.8
Dibutylchlorendate	1770-80-5	0.1	%	80.8	86.0	76.8	66.0	82.8

Sub-Matrix: ELUTRIATE		Client sample ID		F-GB02	B-EL08 SEAWATER BLANK	B-GB12 SEAWATER BLANK		
		Client sampling date / time		19-JUL-2017 13:58	19-JUL-2017 12:07	19-JUL-2017 09:59		
Compound	CAS Number	LOR	Unit	HK1731099-016	HK1731099-017	HK1731099-018		
ED/EK: Inorganic Nonmetallic Parameters								
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	0.39	0.09	0.08		
EK057A: Nitrite as N	14797-65-0	0.05	mg/L	<0.05	<0.05	<0.05		
EK058A: Nitrate as N	14797-55-8	0.05	mg/L	0.42	0.50	0.80		
EK061P: Total Kjeldahl Nitrogen as N	---	0.1	mg/L	0.7	0.2	0.3		
EK067P: Total Phosphorus as P	---	0.01	mg/L	0.06	0.02	0.03		
EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	0.04	0.01	0.02		
EG: Metals and Major Cations - Filtered								
EG029: Arsenic	7440-38-2	1	µg/L	5	2	2		
EG029: Cadmium	7440-43-9	0.1	µg/L	<0.1	<0.1	<0.1		
EG029: Chromium	7440-47-3	1	µg/L	<1	<1	<1		
EG029: Copper	7440-50-8	1	µg/L	<1	2	2		
EG029: Lead	7439-92-1	1	µg/L	<1	<1	<1		
EG029: Nickel	7440-02-0	1	µg/L	<1	<1	1		
EG029: Silver	7440-22-4	1	µg/L	<1	<1	<1		
EG029: Zinc	7440-66-6	10	µg/L	<10	<10	<10		
EG038: Mercury	7439-97-6	0.05	µg/L	<0.05	<0.05	<0.05		
EP-065: PCB Single Congeners								
PCB 8	34883-43-7	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 18	37680-65-2	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 28	7012-37-5	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 44	41464-39-5	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 52	35693-99-3	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 66	32598-10-0	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 77	32598-13-3	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 101	37680-73-2	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 105	32598-14-4	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 118	31508-00-6	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 126	57465-28-8	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 128	38380-07-3	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 138	35065-28-2	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 153	35065-27-1	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 169	32774-16-6	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 170	35065-30-6	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 180	35065-29-3	0.01	µg/L	<0.01	<0.01	<0.01		
PCB 187	52663-68-0	0.01	µg/L	<0.01	<0.01	<0.01		
Total Polychlorinated biphenyls	---	0.18	µg/L	<0.18	<0.18	<0.18		
EP-067A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.1	µg/L	<0.1	<0.1	<0.1		
beta- & gamma-BHC	319-85-7 58-89-9	0.1	µg/L	<0.1	<0.1	<0.1		



Sub-Matrix: ELUTRIATE			Client sample ID	F-GB02	B-EL08 SEAWATER BLANK	B-GB12 SEAWATER BLANK		
Compound	CAS Number	LOR	Unit	19-JUL-2017 13:58	19-JUL-2017 12:07	19-JUL-2017 09:59		
EP-067A: Organochlorine Pesticides (OC) - Continued								
delta-BHC	319-86-8	0.1	µg/L	<0.1	<0.1	<0.1		
Heptachlor	76-44-8	0.1	µg/L	<0.1	<0.1	<0.1		
Aldrin	309-00-2	0.1	µg/L	<0.1	<0.1	<0.1		
Heptachlor epoxide	1024-57-3	0.1	µg/L	<0.1	<0.1	<0.1		
Endosulfan 1	959-98-8	0.1	µg/L	<0.1	<0.1	<0.1		
4,4'-DDE	72-55-9	0.1	µg/L	<0.1	<0.1	<0.1		
4,4'-DDD	72-54-8	0.1	µg/L	<0.1	<0.1	<0.1		
Endosulfan sulfate	1031-07-8	0.1	µg/L	<0.1	<0.1	<0.1		
4,4'-DDT	50-29-3	0.1	µg/L	<0.1	<0.1	<0.1		
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.1	µg/L	<0.1	<0.1	<0.1		
Acenaphthylene	208-96-8	0.1	µg/L	<0.1	<0.1	<0.1		
Acenaphthene	83-32-9	0.1	µg/L	<0.1	<0.1	<0.1		
Fluorene	86-73-7	0.1	µg/L	<0.1	<0.1	<0.1		
Phenanthrene	85-01-8	0.1	µg/L	<0.1	<0.1	<0.1		
Anthracene	120-12-7	0.1	µg/L	<0.1	<0.1	<0.1		
Fluoranthene	206-44-0	0.1	µg/L	<0.1	<0.1	<0.1		
Pyrene	129-00-0	0.1	µg/L	<0.1	<0.1	<0.1		
Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1	<0.1	<0.1		
Chrysene	218-01-9	0.1	µg/L	<0.1	<0.1	<0.1		
Benzo(b)fluoranthene	205-99-2	0.1	µg/L	<0.1	<0.1	<0.1		
Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	<0.1	<0.1		
Benzo(a)pyrene	50-32-8	0.1	µg/L	<0.1	<0.1	<0.1		
Indeno(1,2,3,cd)pyrene	193-39-5	0.1	µg/L	<0.1	<0.1	<0.1		
Dibenz(a,h)anthracene	53-70-3	0.1	µg/L	<0.1	<0.1	<0.1		
Benzo(g,h,i)perylene	191-24-2	0.1	µg/L	<0.1	<0.1	<0.1		
EP-390: Triorganotins								
Tributyltin	56573-85-4	0.015	µg TBT /L	<0.015	<0.015	<0.015		
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	51.6	79.1	52.8		
4-Terphenyl-d14	1718-51-0	0.1	%	81.6	113	95.3		
EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	84.2	113	82.4		
EP-067S: Pesticide Surrogate								
Tetrachlorometaxylene	877-09-8	0.1	%	62.0	55.6	65.6		
Dibutylchlorendate	1770-80-5	0.1	%	73.2	87.2	78.4		

Surrogate control limits listed at end of this report.

Surrogate control limits listed at end of this report.

Surrogate control limits listed at end of this report.

Laboratory Duplicate (DUP) Report

Matrix: WATER

Laboratory Duplicate (DUP) Report								
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4509689)								
HK1730888-001	Anonymous	EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	0.06	0.06	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4509690)								
HK1731099-001	B-EL06	EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	0.05	0.05	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510142)								
HK1730888-001	Anonymous	EK057A: Nitrite as N	14797-65-0	0.05	mg/L	0.06	0.06	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510144)								
HK1731099-001	B-EL06	EK057A: Nitrite as N	14797-65-0	0.05	mg/L	<0.05	<0.05	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510151)								
HK1730888-001	Anonymous	EK055K: Ammonia as N	7664-41-7	0.01	mg/L	0.35	0.38	8.2
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510152)								
HK1731099-001	B-EL06	EK055K: Ammonia as N	7664-41-7	0.01	mg/L	0.54	0.50	7.7
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510154)								
HK1730888-001	Anonymous	EK067P: Total Phosphorus as P	----	0.01	mg/L	0.08	0.08	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510156)								
HK1731099-001	B-EL06	EK067P: Total Phosphorus as P	----	0.01	mg/L	0.09	0.09	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 4509142)								
HK1730888-002	Anonymous	EG029: Cadmium	7440-43-9	0.1	µg/L	<0.1	<0.1	0.0
		EG029: Arsenic	7440-38-2	1	µg/L	4	4	0.0
		EG029: Chromium	7440-47-3	1	µg/L	<1	<1	0.0
		EG029: Copper	7440-50-8	1	µg/L	<1	<1	0.0
		EG029: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG029: Nickel	7440-02-0	1	µg/L	<1	<1	0.0
		EG029: Silver	7440-22-4	1	µg/L	<1	<1	0.0
		EG029: Zinc	7440-66-6	10	µg/L	<10	<10	0.0
HK1730888-012	Anonymous	EG029: Cadmium	7440-43-9	0.1	µg/L	<0.1	<0.1	0.0
		EG029: Arsenic	7440-38-2	1	µg/L	5	5	0.0
		EG029: Chromium	7440-47-3	1	µg/L	<1	<1	0.0
		EG029: Copper	7440-50-8	1	µg/L	<1	<1	0.0
		EG029: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG029: Nickel	7440-02-0	1	µg/L	1	<1	0.0
		EG029: Silver	7440-22-4	1	µg/L	<1	<1	0.0
		EG029: Zinc	7440-66-6	10	µg/L	16	14	12.0
EG: Metals and Major Cations - Filtered (QC Lot: 4509143)								
HK1731099-004	B-EL09	EG029: Cadmium	7440-43-9	0.1	µg/L	<0.1	<0.1	0.0
		EG029: Arsenic	7440-38-2	1	µg/L	7	7	0.0
		EG029: Chromium	7440-47-3	1	µg/L	<1	<1	0.0
		EG029: Copper	7440-50-8	1	µg/L	<1	<1	0.0
		EG029: Lead	7439-92-1	1	µg/L	<1	<1	0.0

Matrix: WATER		Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 4509143) - Continued								
HK1731099-004	B-EL09	EG029: Nickel	7440-02-0	1	µg/L	<1	<1	0.0
		EG029: Silver	7440-22-4	1	µg/L	<1	<1	0.0
		EG029: Zinc	7440-66-6	10	µg/L	12	12	0.0
HK1731099-014	B-GB18	EG029: Cadmium	7440-43-9	0.1	µg/L	<0.1	<0.1	0.0
		EG029: Arsenic	7440-38-2	1	µg/L	4	5	0.0
		EG029: Chromium	7440-47-3	1	µg/L	<1	<1	0.0
		EG029: Copper	7440-50-8	1	µg/L	<1	<1	0.0
		EG029: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG029: Nickel	7440-02-0	1	µg/L	2	2	0.0
		EG029: Silver	7440-22-4	1	µg/L	<1	<1	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 4509146)								
HK1730888-002	Anonymous	EG038: Mercury	7439-97-6	0.05	µg/L	<0.05	<0.05	0.0
HK1730888-011	Anonymous	EG038: Mercury	7439-97-6	0.05	µg/L	<0.05	<0.05	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 4509147)								
HK1731099-004	B-EL09	EG038: Mercury	7439-97-6	0.05	µg/L	<0.05	<0.05	0.0
HK1731099-013	B-GB17	EG038: Mercury	7439-97-6	0.05	µg/L	<0.05	<0.05	0.0
EP-065: PCB Single Congeners (QC Lot: 4509418)								
HK1730888-002	Anonymous	PCB 8	34883-43-7	0.01	µg/L	<0.01	<0.01	0.0
		PCB 18	37680-65-2	0.01	µg/L	<0.01	<0.01	0.0
		PCB 28	7012-37-5	0.01	µg/L	<0.01	<0.01	0.0
		PCB 44	41464-39-5	0.01	µg/L	<0.01	<0.01	0.0
		PCB 52	35693-99-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 66	32598-10-0	0.01	µg/L	<0.01	<0.01	0.0
		PCB 77	32598-13-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 101	37680-73-2	0.01	µg/L	<0.01	<0.01	0.0
		PCB 105	32598-14-4	0.01	µg/L	<0.01	<0.01	0.0
		PCB 118	31508-00-6	0.01	µg/L	<0.01	<0.01	0.0
		PCB 126	57465-28-8	0.01	µg/L	<0.01	<0.01	0.0
		PCB 128	38380-07-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 138	35065-28-2	0.01	µg/L	<0.01	<0.01	0.0
		PCB 153	35065-27-1	0.01	µg/L	<0.01	<0.01	0.0
		PCB 169	32774-16-6	0.01	µg/L	<0.01	<0.01	0.0
		PCB 170	35065-30-6	0.01	µg/L	<0.01	<0.01	0.0
		PCB 180	35065-29-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 187	52663-68-0	0.01	µg/L	<0.01	<0.01	0.0
		Total Polychlorinated biphenyls	----	0.18	µg/L	<0.18	<0.18	0.0
EP-065: PCB Single Congeners (QC Lot: 4509421)								
HK1731099-003	B-EL08	PCB 8	34883-43-7	0.01	µg/L	<0.01	<0.01	0.0
		PCB 18	37680-65-2	0.01	µg/L	<0.01	<0.01	0.0

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-065: PCB Single Congeners (QC Lot: 4509421) - Continued								
HK1731099-003	B-EL08	PCB 28	7012-37-5	0.01	µg/L	<0.01	<0.01	0.0
		PCB 44	41464-39-5	0.01	µg/L	<0.01	<0.01	0.0
		PCB 52	35693-99-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 66	32598-10-0	0.01	µg/L	<0.01	<0.01	0.0
		PCB 77	32598-13-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 101	37680-73-2	0.01	µg/L	<0.01	<0.01	0.0
		PCB 105	32598-14-4	0.01	µg/L	<0.01	<0.01	0.0
		PCB 118	31508-00-6	0.01	µg/L	<0.01	<0.01	0.0
		PCB 126	57465-28-8	0.01	µg/L	<0.01	<0.01	0.0
		PCB 128	38380-07-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 138	35065-28-2	0.01	µg/L	<0.01	<0.01	0.0
		PCB 153	35065-27-1	0.01	µg/L	<0.01	<0.01	0.0
		PCB 169	32774-16-6	0.01	µg/L	<0.01	<0.01	0.0
		PCB 170	35065-30-6	0.01	µg/L	<0.01	<0.01	0.0
		PCB 180	35065-29-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 187	52663-68-0	0.01	µg/L	<0.01	<0.01	0.0
		Total Polychlorinated biphenyls	----	0.18	µg/L	<0.18	<0.18	0.0
EP-067A: Organochlorine Pesticides (OC) (QC Lot: 4509416)								
HK1730888-002	Anonymous	alpha-BHC	319-84-6	0.1	µg/L	<0.1	<0.1	0.0
		beta- & gamma-BHC	319-85-7	0.1	µg/L	<0.1	<0.1	0.0
			58-89-9					
		delta-BHC	319-86-8	0.1	µg/L	<0.1	<0.1	0.0
		Heptachlor	76-44-8	0.1	µg/L	<0.1	<0.1	0.0
		Aldrin	309-00-2	0.1	µg/L	<0.1	<0.1	0.0
		Heptachlor epoxide	1024-57-3	0.1	µg/L	<0.1	<0.1	0.0
		Endosulfan 1	959-98-8	0.1	µg/L	<0.1	<0.1	0.0
		4,4'-DDE	72-55-9	0.1	µg/L	<0.1	<0.1	0.0
		4,4'-DDD	72-54-8	0.1	µg/L	<0.1	<0.1	0.0
		Endosulfan sulfate	1031-07-8	0.1	µg/L	<0.1	<0.1	0.0
		4,4'-DDT	50-29-3	0.1	µg/L	<0.1	<0.1	0.0
EP-067A: Organochlorine Pesticides (OC) (QC Lot: 4509419)								
HK1731099-003	B-EL08	alpha-BHC	319-84-6	0.1	µg/L	<0.1	<0.1	0.0
		beta- & gamma-BHC	319-85-7	0.1	µg/L	<0.1	<0.1	0.0
			58-89-9					
		delta-BHC	319-86-8	0.1	µg/L	<0.1	<0.1	0.0
		Heptachlor	76-44-8	0.1	µg/L	<0.1	<0.1	0.0
		Aldrin	309-00-2	0.1	µg/L	<0.1	<0.1	0.0
		Heptachlor epoxide	1024-57-3	0.1	µg/L	<0.1	<0.1	0.0
		Endosulfan 1	959-98-8	0.1	µg/L	<0.1	<0.1	0.0
		4,4'-DDE	72-55-9	0.1	µg/L	<0.1	<0.1	0.0
		4,4'-DDD	72-54-8	0.1	µg/L	<0.1	<0.1	0.0

Matrix: WATER		Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-067A: Organochlorine Pesticides (OC) (QC Lot: 4509419) - Continued								
HK1731099-003	B-EL08	Endosulfan sulfate	1031-07-8	0.1	µg/L	<0.1	<0.1	0.0
		4,4'-DDT	50-29-3	0.1	µg/L	<0.1	<0.1	0.0
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 4509417)								
HK1730888-002	Anonymous	Naphthalene	91-20-3	0.1	µg/L	<0.1	<0.1	0.0
		Acenaphthylene	208-96-8	0.1	µg/L	<0.1	<0.1	0.0
		Acenaphthene	83-32-9	0.1	µg/L	<0.1	<0.1	0.0
		Fluorene	86-73-7	0.1	µg/L	<0.1	<0.1	0.0
		Phenanthrene	85-01-8	0.1	µg/L	<0.1	<0.1	0.0
		Anthracene	120-12-7	0.1	µg/L	<0.1	<0.1	0.0
		Fluoranthene	206-44-0	0.1	µg/L	<0.1	<0.1	0.0
		Pyrene	129-00-0	0.1	µg/L	<0.1	<0.1	0.0
		Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1	<0.1	0.0
		Chrysene	218-01-9	0.1	µg/L	<0.1	<0.1	0.0
		Benzo(b)fluoranthene	205-99-2	0.1	µg/L	<0.1	<0.1	0.0
		Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	<0.1	0.0
		Benzo(a)pyrene	50-32-8	0.1	µg/L	<0.1	<0.1	0.0
		Indeno(1,2,3,cd)pyrene	193-39-5	0.1	µg/L	<0.1	<0.1	0.0
		Dibenz(a,h)anthracene	53-70-3	0.1	µg/L	<0.1	<0.1	0.0
		Benzo(g,h,i)perylene	191-24-2	0.1	µg/L	<0.1	<0.1	0.0
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 4509420)								
HK1731099-003	B-EL08	Naphthalene	91-20-3	0.1	µg/L	<0.1	<0.1	0.0
		Acenaphthylene	208-96-8	0.1	µg/L	<0.1	<0.1	0.0
		Acenaphthene	83-32-9	0.1	µg/L	<0.1	<0.1	0.0
		Fluorene	86-73-7	0.1	µg/L	<0.1	<0.1	0.0
		Phenanthrene	85-01-8	0.1	µg/L	<0.1	<0.1	0.0
		Anthracene	120-12-7	0.1	µg/L	<0.1	<0.1	0.0
		Fluoranthene	206-44-0	0.1	µg/L	<0.1	<0.1	0.0
		Pyrene	129-00-0	0.1	µg/L	<0.1	<0.1	0.0
		Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1	<0.1	0.0
		Chrysene	218-01-9	0.1	µg/L	<0.1	<0.1	0.0
		Benzo(b)fluoranthene	205-99-2	0.1	µg/L	<0.1	<0.1	0.0
		Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	<0.1	0.0
		Benzo(a)pyrene	50-32-8	0.1	µg/L	<0.1	<0.1	0.0
		Indeno(1,2,3,cd)pyrene	193-39-5	0.1	µg/L	<0.1	<0.1	0.0
		Dibenz(a,h)anthracene	53-70-3	0.1	µg/L	<0.1	<0.1	0.0
		Benzo(g,h,i)perylene	191-24-2	0.1	µg/L	<0.1	<0.1	0.0
EP-390: Triorganotins (QC Lot: 4511383)								
HK1730888-002	Anonymous	Tributyltin	56573-85-4	6	ngSn/L	<6	<6	0.0
EP-390: Triorganotins (QC Lot: 4511384)								
HK1731099-003	B-EL08	Tributyltin	56573-85-4	6	ngSn/L	<6	<6	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report							
		LOR	Unit	Result	Spike Concentration	LCS	DCS	Recovery Limits (%)	Low	High	Value	RPD (%)
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4509689)												
EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	0.5 mg/L	96.7	---	93	107	---	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4509690)												
EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	0.5 mg/L	95.4	---	93	107	---	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510142)												
EK057A: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.05 mg/L 0.4 mg/L	111 105	---	84	118	---	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510144)												
EK057A: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.05 mg/L 0.4 mg/L	103 105	---	84	118	---	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510151)												
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	102	---	91	109	---	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510152)												
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	100	---	91	109	---	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510154)												
EK067P: Total Phosphorus as P	---	0.01	mg/L	<0.01	0.5 mg/L	96.0	---	93	103	---	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510156)												
EK067P: Total Phosphorus as P	---	0.01	mg/L	<0.01	0.5 mg/L	94.2	---	93	103	---	---	---
EG: Metals and Major Cations - Filtered (QC Lot: 4509142)												
EG029: Arsenic	7440-38-2	10	µg/L	<10	10 µg/L	94.2	---	78	114	---	---	---
EG029: Cadmium	7440-43-9	0.1	µg/L	<0.1	10 µg/L	93.8	---	78	116	---	---	---
EG029: Chromium	7440-47-3	1	µg/L	<1	10 µg/L	109	---	81	115	---	---	---
EG029: Copper	7440-50-8	1	µg/L	<1	10 µg/L	94.2	---	80	116	---	---	---
EG029: Lead	7439-92-1	1	µg/L	<1	10 µg/L	94.6	---	81	113	---	---	---
EG029: Nickel	7440-02-0	1	µg/L	<1	10 µg/L	108	---	80	118	---	---	---
EG029: Silver	7440-22-4	1	µg/L	<1	10 µg/L	98.2	---	77	119	---	---	---
EG029: Zinc	7440-66-6	10	µg/L	<10	10 µg/L	98.6	---	83	119	---	---	---
EG: Metals and Major Cations - Filtered (QC Lot: 4509143)												
EG029: Arsenic	7440-38-2	10	µg/L	<10	10 µg/L	99.2	---	78	114	---	---	---
EG029: Cadmium	7440-43-9	0.1	µg/L	<0.1	10 µg/L	113	---	78	116	---	---	---
EG029: Chromium	7440-47-3	1	µg/L	<1	10 µg/L	99.1	---	81	115	---	---	---
EG029: Copper	7440-50-8	1	µg/L	<1	10 µg/L	89.3	---	80	116	---	---	---
EG029: Lead	7439-92-1	1	µg/L	<1	10 µg/L	103	---	81	113	---	---	---
EG029: Nickel	7440-02-0	1	µg/L	<1	10 µg/L	88.7	---	80	118	---	---	---
EG029: Silver	7440-22-4	1	µg/L	<1	10 µg/L	110	---	77	119	---	---	---
EG029: Zinc	7440-66-6	10	µg/L	<10	10 µg/L	95.5	---	83	119	---	---	---
EG: Metals and Major Cations - Filtered (QC Lot: 4509146)												
EG038: Mercury	7439-97-6	0.05	µg/L	<0.05	0.05 µg/L	97.2	---	85	115	---	---	---

Matrix: WATER			Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report								
			Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
									LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 4509147)														
EG038: Mercury	7439-97-6	0.05	µg/L	<0.05	0.05 µg/L	98.6	---	85	115	----	----	----	----	
EP-065: PCB Single Congeners (QC Lot: 4509418)														
PCB 8	34883-43-7	0.01	µg/L	<0.01	25 µg/L	65.3	63.6	50	130	2.7	25			
PCB 18	37680-65-2	0.01	µg/L	<0.01	25 µg/L	63.0	58.4	50	130	7.4	25			
PCB 28	7012-37-5	0.01	µg/L	<0.01	25 µg/L	64.5	63.9	50	130	1.0	25			
PCB 44	41464-39-5	0.01	µg/L	<0.01	25 µg/L	76.2	75.3	50	130	1.2	25			
PCB 52	35693-99-3	0.01	µg/L	<0.01	25 µg/L	57.5	57.3	50	130	0.3	25			
PCB 66	32598-10-0	0.01	µg/L	<0.01	25 µg/L	86.7	86.9	50	130	0.3	25			
PCB 77	32598-13-3	0.01	µg/L	<0.01	25 µg/L	59.4	60.7	50	130	2.1	25			
PCB 101	37680-73-2	0.01	µg/L	<0.01	25 µg/L	62.6	63.5	50	130	1.5	25			
PCB 105	32598-14-4	0.01	µg/L	<0.01	25 µg/L	69.7	70.5	50	130	1.2	25			
PCB 118	31508-00-6	0.01	µg/L	<0.01	25 µg/L	67.4	67.8	50	130	0.4	25			
PCB 126	57465-28-8	0.01	µg/L	<0.01	25 µg/L	57.4	57.0	50	130	0.7	25			
PCB 128	38380-07-3	0.01	µg/L	<0.01	25 µg/L	78.9	80.4	50	130	1.9	25			
PCB 138	35065-28-2	0.01	µg/L	<0.01	25 µg/L	71.9	72.4	50	130	0.7	25			
PCB 153	35065-27-1	0.01	µg/L	<0.01	25 µg/L	73.6	74.7	50	130	1.4	25			
PCB 169	32774-16-6	0.01	µg/L	<0.01	25 µg/L	54.8	58.5	50	130	6.6	25			
PCB 170	35065-30-6	0.01	µg/L	<0.01	25 µg/L	78.6	79.8	50	130	1.5	25			
PCB 180	35065-29-3	0.01	µg/L	<0.01	25 µg/L	76.8	78.1	50	130	1.7	25			
PCB 187	52663-68-0	0.01	µg/L	<0.01	25 µg/L	72.6	73.4	50	130	1.2	25			
Total Polychlorinated biphenyls	----	0.18	µg/L	<0.18	25 µg/L	67.1	67.5	50	130	0.7	25			
EP-065: PCB Single Congeners (QC Lot: 4509421)														
PCB 8	34883-43-7	0.01	µg/L	<0.01	25 µg/L	61.6	65.0	50	130	5.4	25			
PCB 18	37680-65-2	0.01	µg/L	<0.01	25 µg/L	66.6	67.8	50	130	1.8	25			
PCB 28	7012-37-5	0.01	µg/L	<0.01	25 µg/L	61.0	63.5	50	130	4.0	25			
PCB 44	41464-39-5	0.01	µg/L	<0.01	25 µg/L	69.9	72.1	50	130	3.2	25			
PCB 52	35693-99-3	0.01	µg/L	<0.01	25 µg/L	60.3	60.4	50	130	0.2	25			
PCB 66	32598-10-0	0.01	µg/L	<0.01	25 µg/L	81.2	77.2	50	130	5.1	25			
PCB 77	32598-13-3	0.01	µg/L	<0.01	25 µg/L	58.6	60.8	50	130	3.6	25			
PCB 101	37680-73-2	0.01	µg/L	<0.01	25 µg/L	62.1	66.3	50	130	6.5	25			
PCB 105	32598-14-4	0.01	µg/L	<0.01	25 µg/L	68.9	73.0	50	130	5.7	25			
PCB 118	31508-00-6	0.01	µg/L	<0.01	25 µg/L	66.8	70.2	50	130	4.9	25			
PCB 126	57465-28-8	0.01	µg/L	<0.01	25 µg/L	55.8	58.9	50	130	5.5	25			
PCB 128	38380-07-3	0.01	µg/L	<0.01	25 µg/L	80.7	92.2	50	130	13.4	25			
PCB 138	35065-28-2	0.01	µg/L	<0.01	25 µg/L	73.4	78.4	50	130	6.6	25			
PCB 153	35065-27-1	0.01	µg/L	<0.01	25 µg/L	73.7	78.0	50	130	5.7	25			
PCB 169	32774-16-6	0.01	µg/L	<0.01	25 µg/L	54.9	58.1	50	130	5.7	25			
PCB 170	35065-30-6	0.01	µg/L	<0.01	25 µg/L	80.0	84.7	50	130	5.7	25			
PCB 180	35065-29-3	0.01	µg/L	<0.01	25 µg/L	78.0	82.8	50	130	5.9	25			
PCB 187	52663-68-0	0.01	µg/L	<0.01	25 µg/L	73.6	78.3	50	130	6.1	25			

Matrix: WATER	Method Blank (MB) Report				Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report												
	Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)						
						LCS	DCS	Low	High	Value	Control Limit						
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 4509417) - Continued																	
Benzo(a)pyrene	50-32-8	0.2	µg/L	<0.2	0.5 µg/L	80.9	80.6	59	121	0.4	20						
Indeno(1.2.3.cd)pyrene	193-39-5	0.2	µg/L	<0.2	0.5 µg/L	77.3	93.4	56	118	18.8	20						
Dibenz(a,h)anthracene	53-70-3	0.2	µg/L	<0.2	0.5 µg/L	75.4	75.8	39	123	0.5	20						
Benzo(g.h.i)perylene	191-24-2	0.2	µg/L	<0.2	0.5 µg/L	69.4	67.9	42	130	2.2	20						
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 4509420)																	
Naphthalene	91-20-3	0.2	µg/L	<0.2	0.5 µg/L	60.3	63.6	31	102	5.3	20						
Acenaphthylene	208-96-8	0.2	µg/L	<0.2	0.5 µg/L	61.4	64.2	31	105	4.5	20						
Acenaphthene	83-32-9	0.2	µg/L	<0.2	0.5 µg/L	50.8	52.4	32	93	3.2	20						
Fluorene	86-73-7	0.2	µg/L	<0.2	0.5 µg/L	51.2	52.8	33	100	3.0	20						
Phenanthrene	85-01-8	0.2	µg/L	<0.2	0.5 µg/L	60.4	58.1	30	107	4.0	20						
Anthracene	120-12-7	0.2	µg/L	<0.2	0.5 µg/L	61.9	59.5	28	108	3.9	20						
Fluoranthene	206-44-0	0.2	µg/L	<0.2	0.5 µg/L	83.3	80.4	56	121	3.5	20						
Pyrene	129-00-0	0.2	µg/L	<0.2	0.5 µg/L	85.1	82.3	56	125	3.3	20						
Benz(a)anthracene	56-55-3	0.2	µg/L	<0.2	0.5 µg/L	87.4	86.5	72	117	1.1	20						
Chrysene	218-01-9	0.2	µg/L	<0.2	0.5 µg/L	83.6	82.8	57	117	1.0	20						
Benzo(b)fluoranthene	205-99-2	0.2	µg/L	<0.2	0.5 µg/L	98.5	89.2	71	119	9.9	20						
Benzo(k)fluoranthene	207-08-9	0.2	µg/L	<0.2	0.5 µg/L	80.8	87.6	70	114	8.1	20						
Benzo(a)pyrene	50-32-8	0.2	µg/L	<0.2	0.5 µg/L	84.0	83.1	59	121	1.0	20						
Indeno(1.2.3.cd)pyrene	193-39-5	0.2	µg/L	<0.2	0.5 µg/L	82.9	82.9	56	118	0.01	20						
Dibenz(a,h)anthracene	53-70-3	0.2	µg/L	<0.2	0.5 µg/L	74.4	73.5	39	123	1.2	20						
Benzo(g.h.i)perylene	191-24-2	0.2	µg/L	<0.2	0.5 µg/L	73.0	66.6	42	130	9.1	20						
EP-390: Triorganotins (QC Lot: 4511383)																	
Tributyltin	56573-85-4	5	ngSn/L	<5	2 ngSn/L	86.8	86.0	70	130	0.9	20						
EP-390: Triorganotins (QC Lot: 4511384)																	
Tributyltin	56573-85-4	5	ngSn/L	<5	2 ngSn/L	93.6	104	70	130	10.5	20						

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report							
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)		
					MS	MSD	Low	High	Value	Control Limit	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4509689)											
HK1730888-001	Anonymous	EK071K: Reactive Phosphorus as P	14265-44-2	0.5 mg/L	96.0	----	75	125	----	----	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4509690)											
HK1731099-001	B-EL06	EK071K: Reactive Phosphorus as P	14265-44-2	0.5 mg/L	96.0	----	75	125	----	----	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510142)											
HK1730888-001	Anonymous	EK057A: Nitrite as N	14797-65-0	0.5 mg/L	106	----	75	125	----	----	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510144)											
HK1731099-001	B-EL06	EK057A: Nitrite as N	14797-65-0	0.5 mg/L	116	----	75	125	----	----	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510151)											
HK1730888-011	Anonymous	EK055K: Ammonia as N	7664-41-7	0.5 mg/L	82.0	----	75	125	----	----	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510152)											
HK1731099-001	B-EL06	EK055K: Ammonia as N	7664-41-7	0.5 mg/L	94.0	----	75	125	----	----	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510154)											
HK1730888-001	Anonymous	EK067P: Total Phosphorus as P	---	0.5 mg/L	90.0	----	75	125	----	----	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510156)											
HK1731099-001	B-EL06	EK067P: Total Phosphorus as P	---	0.5 mg/L	86.0	----	75	125	----	----	
EG: Metals and Major Cations - Filtered (QC Lot: 4509142)											
HK1730888-001	Anonymous	EG029: Arsenic	7440-38-2	10 µg/L	100	119	80	120	16.9	----	
		EG029: Cadmium	7440-43-9	10 µg/L	100	113	80	120	11.9	----	
		EG029: Chromium	7440-47-3	10 µg/L	93.7	103	80	120	9.2	----	
		EG029: Copper	7440-50-8	10 µg/L	103	111	80	120	6.8	----	
		EG029: Lead	7439-92-1	10 µg/L	88.3	96.6	80	120	8.9	----	
		EG029: Nickel	7440-02-0	10 µg/L	101	112	80	120	10.1	----	
		EG029: Silver	7440-22-4	10 µg/L	98.3	112	80	120	12.9	----	
		EG029: Zinc	7440-66-6	10 µg/L	105	113	80	120	7.7	----	
EG: Metals and Major Cations - Filtered (QC Lot: 4509143)											
HK1731099-003	B-EL08	EG029: Arsenic	7440-38-2	10 µg/L	101	98.2	80	120	2.5	----	
		EG029: Cadmium	7440-43-9	10 µg/L	102	98.2	80	120	3.6	----	
		EG029: Chromium	7440-47-3	10 µg/L	95.4	103	80	120	7.7	----	
		EG029: Copper	7440-50-8	10 µg/L	96.3	101	80	120	4.9	----	
		EG029: Lead	7439-92-1	10 µg/L	84.7	81.9	80	120	3.3	----	
		EG029: Nickel	7440-02-0	10 µg/L	96.7	104	80	120	7.5	----	
		EG029: Silver	7440-22-4	10 µg/L	97.7	99.1	80	120	1.4	----	
		EG029: Zinc	7440-66-6	10 µg/L	95.1	102	80	120	7.0	----	
EG: Metals and Major Cations - Filtered (QC Lot: 4509146)											
HK1730888-001	Anonymous	EG038: Mercury	7439-97-6	0.05 µg/L	95.6	98.0	75	125	2.5	----	

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
				MS	MSD	Low	High	Value	Control Limit	
EG: Metals and Major Cations - Filtered (QC Lot: 4509147)										
HK1731099-003	B-EL08	EG038: Mercury	7439-97-6	0.05 µg/L	104	106	75	125	1.1	---
EP-065: PCB Single Congeners (QC Lot: 4509418)										
HK1730888-007	Anonymous	PCB 8	34883-43-7	25 µg/L	59.3	---	50	130	---	---
		PCB 18	37680-65-2	25 µg/L	52.6	---	50	130	---	---
		PCB 28	7012-37-5	25 µg/L	56.1	---	50	130	---	---
		PCB 44	41464-39-5	25 µg/L	68.2	---	50	130	---	---
		PCB 52	35693-99-3	25 µg/L	56.9	---	50	130	---	---
		PCB 66	32598-10-0	25 µg/L	73.8	---	50	130	---	---
		PCB 77	32598-13-3	25 µg/L	59.8	---	50	130	---	---
		PCB 101	37680-73-2	25 µg/L	64.4	---	50	130	---	---
		PCB 105	32598-14-4	25 µg/L	70.3	---	50	130	---	---
		PCB 118	31508-00-6	25 µg/L	68.1	---	50	130	---	---
		PCB 126	57465-28-8	25 µg/L	56.9	---	50	130	---	---
		PCB 128	38380-07-3	25 µg/L	79.9	---	50	130	---	---
		PCB 138	35065-28-2	25 µg/L	74.4	---	50	130	---	---
		PCB 153	35065-27-1	25 µg/L	75.7	---	50	130	---	---
		PCB 169	32774-16-6	25 µg/L	54.7	---	50	130	---	---
		PCB 170	35065-30-6	25 µg/L	80.2	---	50	130	---	---
		PCB 180	35065-29-3	25 µg/L	78.8	---	50	130	---	---
		PCB 187	52663-68-0	25 µg/L	78.1	---	50	130	---	---
		Total Polychlorinated biphenyls	---	25 µg/L	66.5	---	50	130	---	---
EP-065: PCB Single Congeners (QC Lot: 4509421)										
HK1731099-008	B-GB12	PCB 8	34883-43-7	25 µg/L	61.1	---	50	130	---	---
		PCB 18	37680-65-2	25 µg/L	63.6	---	50	130	---	---
		PCB 28	7012-37-5	25 µg/L	84.8	---	50	130	---	---
		PCB 44	41464-39-5	25 µg/L	54.2	---	50	130	---	---
		PCB 52	35693-99-3	25 µg/L	72.6	---	50	130	---	---
		PCB 66	32598-10-0	25 µg/L	70.2	---	50	130	---	---
		PCB 77	32598-13-3	25 µg/L	63.1	---	50	130	---	---
		PCB 101	37680-73-2	25 µg/L	63.3	---	50	130	---	---
		PCB 105	32598-14-4	25 µg/L	70.0	---	50	130	---	---
		PCB 118	31508-00-6	25 µg/L	67.9	---	50	130	---	---
		PCB 126	57465-28-8	25 µg/L	55.4	---	50	130	---	---
		PCB 128	38380-07-3	25 µg/L	87.3	---	50	130	---	---
		PCB 138	35065-28-2	25 µg/L	76.1	---	50	130	---	---
		PCB 153	35065-27-1	25 µg/L	72.5	---	50	130	---	---
		PCB 169	32774-16-6	25 µg/L	54.4	---	50	130	---	---
		PCB 170	35065-30-6	25 µg/L	79.2	---	50	130	---	---
		PCB 180	35065-29-3	25 µg/L	77.5	---	50	130	---	---

Matrix: WATER

			Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report							
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EP-065: PCB Single Congeners (QC Lot: 4509421) - Continued										
HK1731099-008	B-GB12	PCB 187	52663-68-0	25 µg/L	73.4	----	50	130	----	----
		Total Polychlorinated biphenyls	----	25 µg/L	67.8	----	50	130	----	----
EP-067A: Organochlorine Pesticides (OC) (QC Lot: 4509416)										
HK1730888-007	Anonymous	alpha-BHC	319-84-6	5 µg/L	57.4	----	50	130	----	----
		beta- & gamma-BHC	319-85-7	10 µg/L	67.8	----	50	130	----	----
			58-89-9							
		delta-BHC	319-86-8	5 µg/L	67.6	----	50	130	----	----
		Heptachlor	76-44-8	5 µg/L	70.2	----	50	130	----	----
		Aldrin	309-00-2	5 µg/L	57.0	----	50	130	----	----
		Heptachlor epoxide	1024-57-3	5 µg/L	67.0	----	50	130	----	----
		Endosulfan 1	959-98-8	5 µg/L	60.8	----	50	130	----	----
		4,4'-DDE	72-55-9	5 µg/L	59.8	----	50	130	----	----
		4,4'-DDD	72-54-8	5 µg/L	73.0	----	50	130	----	----
		Endosulfan sulfate	1031-07-8	5 µg/L	73.2	----	50	130	----	----
		4,4'-DDT	50-29-3	5 µg/L	99.6	----	50	130	----	----
EP-067A: Organochlorine Pesticides (OC) (QC Lot: 4509419)										
HK1731099-008	B-GB12	alpha-BHC	319-84-6	5 µg/L	87.0	----	50	130	----	----
		beta- & gamma-BHC	319-85-7	10 µg/L	96.7	----	50	130	----	----
			58-89-9							
		delta-BHC	319-86-8	5 µg/L	100	----	50	130	----	----
		Heptachlor	76-44-8	5 µg/L	69.8	----	50	130	----	----
		Aldrin	309-00-2	5 µg/L	50.6	----	50	130	----	----
		Heptachlor epoxide	1024-57-3	5 µg/L	89.8	----	50	130	----	----
		Endosulfan 1	959-98-8	5 µg/L	85.2	----	50	130	----	----
		4,4'-DDE	72-55-9	5 µg/L	91.2	----	50	130	----	----
		4,4'-DDD	72-54-8	5 µg/L	107	----	50	130	----	----
		Endosulfan sulfate	1031-07-8	5 µg/L	115	----	50	130	----	----
		4,4'-DDT	50-29-3	5 µg/L	114	----	50	130	----	----
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 4509417)										
HK1730888-007	Anonymous	Naphthalene	91-20-3	0.5 µg/L	54.2	----	50	130	----	----
		Acenaphthylene	208-96-8	0.5 µg/L	51.0	----	50	130	----	----
		Acenaphthene	83-32-9	0.5 µg/L	59.3	----	50	130	----	----
		Fluorene	86-73-7	0.5 µg/L	67.4	----	50	130	----	----
		Phenanthrene	85-01-8	0.5 µg/L	60.0	----	50	130	----	----
		Anthracene	120-12-7	0.5 µg/L	59.2	----	50	130	----	----
		Fluoranthene	206-44-0	0.5 µg/L	78.9	----	50	130	----	----
		Pyrene	129-00-0	0.5 µg/L	83.1	----	50	130	----	----
		Benz(a)anthracene	56-55-3	0.5 µg/L	85.6	----	50	130	----	----
		Chrysene	218-01-9	0.5 µg/L	81.0	----	50	130	----	----

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report							
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)		
				MS	MSD	Low	High	Value	Control Limit		
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 4509417) - Continued											
HK1730888-007	Anonymous	Benzo(b)fluoranthene	205-99-2	0.5 µg/L	97.9	----	50	130	---	---	---
		Benzo(k)fluoranthene	207-08-9	0.5 µg/L	81.5	----	50	130	---	---	---
		Benzo(a)pyrene	50-32-8	0.5 µg/L	85.1	----	50	130	---	---	---
		Indeno(1,2,3,cd)pyrene	193-39-5	0.5 µg/L	98.3	----	50	130	---	---	---
		Dibenz(a,h)anthracene	53-70-3	0.5 µg/L	79.6	----	50	130	---	---	---
		Benzo(g,h,i)perylene	191-24-2	0.5 µg/L	71.2	----	50	130	---	---	---
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 4509420)											
HK1731099-008	B-GB12	Naphthalene	91-20-3	0.5 µg/L	53.6	----	50	130	---	---	---
		Acenaphthylene	208-96-8	0.5 µg/L	50.7	----	50	130	---	---	---
		Acenaphthene	83-32-9	0.5 µg/L	51.4	----	50	130	---	---	---
		Fluorene	86-73-7	0.5 µg/L	50.4	----	50	130	---	---	---
		Phenanthrene	85-01-8	0.5 µg/L	58.0	----	50	130	---	---	---
		Anthracene	120-12-7	0.5 µg/L	54.6	----	50	130	---	---	---
		Fluoranthene	206-44-0	0.5 µg/L	66.4	----	50	130	---	---	---
		Pyrene	129-00-0	0.5 µg/L	72.4	----	50	130	---	---	---
		Benz(a)anthracene	56-55-3	0.5 µg/L	80.4	----	50	130	---	---	---
		Chrysene	218-01-9	0.5 µg/L	77.0	----	50	130	---	---	---
		Benzo(b)fluoranthene	205-99-2	0.5 µg/L	82.4	----	50	130	---	---	---
		Benzo(k)fluoranthene	207-08-9	0.5 µg/L	80.7	----	50	130	---	---	---
		Benzo(a)pyrene	50-32-8	0.5 µg/L	77.4	----	50	130	---	---	---
		Indeno(1,2,3,cd)pyrene	193-39-5	0.5 µg/L	77.9	----	50	130	---	---	---
		Dibenz(a,h)anthracene	53-70-3	0.5 µg/L	71.4	----	50	130	---	---	---
		Benzo(g,h,i)perylene	191-24-2	0.5 µg/L	61.6	----	50	130	---	---	---
EP-390: Triorganotins (QC Lot: 4511383)											
HK1730888-007	Anonymous	Tributyltin	56573-85-4	2 ngSn/L	107	----	70	130	---	---	---
EP-390: Triorganotins (QC Lot: 4511384)											
HK1731099-008	B-GB12	Tributyltin	56573-85-4	2 ngSn/L	98.8	----	70	130	---	---	---

Surrogate Control Limits

Sub-Matrix: ELUTRIATE	CAS Number	Recovery Limits (%)	
Compound	CAS Number	Low	High
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130
EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate			
Decachlorobiphenyl	2051-24-3	50	130
EP-067S: Pesticide Surrogate			

Sub-Matrix: ELUTRIATE

Compound	CAS Number	Recovery Limits (%)	
		Low	High
EP-067S: Pesticide Surrogate - Continued			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130

**CERTIFICATE OF ANALYSIS**

Client	: EGS (ASIA) LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 21
Contact	: MR KEUNG WONG	Contact	: Richard Fung	Work Order	: HK1731354
Address	: 5TH FLOOR, ZUNG FU INDUSTRIAL BUILDING, 1067 KING'S ROAD, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong	Amendment	: 1
E-mail	: keung@egssurvey.com	E-mail	: Richard.Fung@alsglobal.com		
Telephone	: +852 2911 9369	Telephone	: +852 2610 1044		
Facsimile	: +852 2576 3590	Facsimile	: +852 2610 2021		
Project	: CLP - SAMPLING SURVEY FOR HONG KONG OFFSHORE LNG TERMINAL PROJECT	Quote number	: ----	Date Samples Received	: 20-JUL-2017
Order number	: ----			Issue Date	: 22-AUG-2017
C-O-C number	: ----			No. of samples received	: 15
Site	: BLACK POINT TO LAMMA			No. of samples analysed	: 15

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	Position	Authorised results for
Chan Ka Yu, Karen Fung Lim Chee, Richard	Manager - Organics General Manager	Organics Inorganics

General Comments

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. 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. Testing period is from 20-JUL-2017 to 08-AUG-2017.

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

Specific Comments for Work Order: HK1731354

Sample(s) were received in chilled condition.

Elutriate sample(s) analysed and reported on an as received basis.

Elutriate sample(s) were filtered prior to dissolved metal analysis.



Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 4509144) - Continued								
HK1731354-006	L-EL07	EG029: Nickel	7440-02-0	1	µg/L	<1	<1	0.0
		EG029: Silver	7440-22-4	1	µg/L	<1	<1	0.0
		EG029: Zinc	7440-66-6	10	µg/L	<10	<10	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 4509147)								
HK1731099-004	Anonymous	EG038: Mercury	7439-97-6	0.05	µg/L	<0.05	<0.05	0.0
HK1731099-013	Anonymous	EG038: Mercury	7439-97-6	0.05	µg/L	<0.05	<0.05	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 4509148)								
HK1731354-006	L-EL07	EG038: Mercury	7439-97-6	0.05	µg/L	<0.05	<0.05	0.0
HK1731354-015	L-EL09 SEAWATER BLANK	EG038: Mercury	7439-97-6	0.05	µg/L	<0.05	<0.05	0.0
EP-065: PCB Single Congeners (QC Lot: 4509421)								
HK1731099-003	Anonymous	PCB 8	34883-43-7	0.01	µg/L	<0.01	<0.01	0.0
		PCB 18	37680-65-2	0.01	µg/L	<0.01	<0.01	0.0
		PCB 28	7012-37-5	0.01	µg/L	<0.01	<0.01	0.0
		PCB 44	41464-39-5	0.01	µg/L	<0.01	<0.01	0.0
		PCB 52	35693-99-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 66	32598-10-0	0.01	µg/L	<0.01	<0.01	0.0
		PCB 77	32598-13-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 101	37680-73-2	0.01	µg/L	<0.01	<0.01	0.0
		PCB 105	32598-14-4	0.01	µg/L	<0.01	<0.01	0.0
		PCB 118	31508-00-6	0.01	µg/L	<0.01	<0.01	0.0
		PCB 126	57465-28-8	0.01	µg/L	<0.01	<0.01	0.0
		PCB 128	38380-07-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 138	35065-28-2	0.01	µg/L	<0.01	<0.01	0.0
		PCB 153	35065-27-1	0.01	µg/L	<0.01	<0.01	0.0
		PCB 169	32774-16-6	0.01	µg/L	<0.01	<0.01	0.0
		PCB 170	35065-30-6	0.01	µg/L	<0.01	<0.01	0.0
		PCB 180	35065-29-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 187	52663-68-0	0.01	µg/L	<0.01	<0.01	0.0
		Total Polychlorinated biphenyls	----	0.18	µg/L	<0.18	<0.18	0.0
EP-065: PCB Single Congeners (QC Lot: 4509424)								
HK1731354-008	L-EL09	PCB 8	34883-43-7	0.01	µg/L	<0.01	<0.01	0.0
		PCB 18	37680-65-2	0.01	µg/L	<0.01	<0.01	0.0
		PCB 28	7012-37-5	0.01	µg/L	<0.01	<0.01	0.0
		PCB 44	41464-39-5	0.01	µg/L	<0.01	<0.01	0.0
		PCB 52	35693-99-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 66	32598-10-0	0.01	µg/L	<0.01	<0.01	0.0
		PCB 77	32598-13-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 101	37680-73-2	0.01	µg/L	<0.01	<0.01	0.0
		PCB 105	32598-14-4	0.01	µg/L	<0.01	<0.01	0.0
		PCB 118	31508-00-6	0.01	µg/L	<0.01	<0.01	0.0

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-065: PCB Single Congeners (QC Lot: 4509424) - Continued								
HK1731354-008	L-EL09	PCB 126	57465-28-8	0.01	µg/L	<0.01	<0.01	0.0
		PCB 128	38380-07-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 138	35065-28-2	0.01	µg/L	<0.01	<0.01	0.0
		PCB 153	35065-27-1	0.01	µg/L	<0.01	<0.01	0.0
		PCB 169	32774-16-6	0.01	µg/L	<0.01	<0.01	0.0
		PCB 170	35065-30-6	0.01	µg/L	<0.01	<0.01	0.0
		PCB 180	35065-29-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 187	52663-68-0	0.01	µg/L	<0.01	<0.01	0.0
		Total Polychlorinated biphenyls	----	0.18	µg/L	<0.18	<0.18	0.0
EP-067A: Organochlorine Pesticides (OC) (QC Lot: 4509419)								
HK1731099-003	Anonymous	alpha-BHC	319-84-6	0.1	µg/L	<0.1	<0.1	0.0
		beta- & gamma-BHC	319-85-7	0.1	µg/L	<0.1	<0.1	0.0
			58-89-9					
		delta-BHC	319-86-8	0.1	µg/L	<0.1	<0.1	0.0
		Heptachlor	76-44-8	0.1	µg/L	<0.1	<0.1	0.0
		Aldrin	309-00-2	0.1	µg/L	<0.1	<0.1	0.0
		Heptachlor epoxide	1024-57-3	0.1	µg/L	<0.1	<0.1	0.0
		Endosulfan 1	959-98-8	0.1	µg/L	<0.1	<0.1	0.0
		4,4'-DDE	72-55-9	0.1	µg/L	<0.1	<0.1	0.0
		4,4'-DDD	72-54-8	0.1	µg/L	<0.1	<0.1	0.0
		Endosulfan sulfate	1031-07-8	0.1	µg/L	<0.1	<0.1	0.0
		4,4'-DDT	50-29-3	0.1	µg/L	<0.1	<0.1	0.0
EP-067A: Organochlorine Pesticides (OC) (QC Lot: 4509422)								
HK1731354-008	L-EL09	alpha-BHC	319-84-6	0.1	µg/L	<0.1	<0.1	0.0
		beta- & gamma-BHC	319-85-7	0.1	µg/L	<0.1	<0.1	0.0
			58-89-9					
		delta-BHC	319-86-8	0.1	µg/L	<0.1	<0.1	0.0
		Heptachlor	76-44-8	0.1	µg/L	<0.1	<0.1	0.0
		Aldrin	309-00-2	0.1	µg/L	<0.1	<0.1	0.0
		Heptachlor epoxide	1024-57-3	0.1	µg/L	<0.1	<0.1	0.0
		Endosulfan 1	959-98-8	0.1	µg/L	<0.1	<0.1	0.0
		4,4'-DDE	72-55-9	0.1	µg/L	<0.1	<0.1	0.0
		4,4'-DDD	72-54-8	0.1	µg/L	<0.1	<0.1	0.0
		Endosulfan sulfate	1031-07-8	0.1	µg/L	<0.1	<0.1	0.0
		4,4'-DDT	50-29-3	0.1	µg/L	<0.1	<0.1	0.0
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 4509420)								
HK1731099-003	Anonymous	Naphthalene	91-20-3	0.1	µg/L	<0.1	<0.1	0.0
		Acenaphthylene	208-96-8	0.1	µg/L	<0.1	<0.1	0.0
		Acenaphthene	83-32-9	0.1	µg/L	<0.1	<0.1	0.0
		Fluorene	86-73-7	0.1	µg/L	<0.1	<0.1	0.0
		Phenanthrene	85-01-8	0.1	µg/L	<0.1	<0.1	0.0

Matrix: WATER	Method Blank (MB) Report				Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report											
	Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)					
						LCS	DCS	Low	High	Value	Control Limit					
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 4509420) - Continued																
Dibenz(a,h)anthracene	53-70-3	0.2	µg/L	<0.2	0.5 µg/L	74.4	73.5	39	123	1.2	20					
Benzo(g,h,i)perylene	191-24-2	0.2	µg/L	<0.2	0.5 µg/L	73.0	66.6	42	130	9.1	20					
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 4509423)																
Naphthalene	91-20-3	0.2	µg/L	<0.2	0.5 µg/L	61.2	58.9	31	102	3.8	20					
Acenaphthylene	208-96-8	0.2	µg/L	<0.2	0.5 µg/L	62.3	60.6	31	105	2.8	20					
Acenaphthene	83-32-9	0.2	µg/L	<0.2	0.5 µg/L	50.4	53.0	32	93	5.0	20					
Fluorene	86-73-7	0.2	µg/L	<0.2	0.5 µg/L	50.0	54.0	33	100	7.7	20					
Phenanthrene	85-01-8	0.2	µg/L	<0.2	0.5 µg/L	54.9	57.2	30	107	4.1	20					
Anthracene	120-12-7	0.2	µg/L	<0.2	0.5 µg/L	55.7	58.0	28	108	3.9	20					
Fluoranthene	206-44-0	0.2	µg/L	<0.2	0.5 µg/L	74.0	77.3	56	121	4.3	20					
Pyrene	129-00-0	0.2	µg/L	<0.2	0.5 µg/L	75.5	78.5	56	125	3.9	20					
Benz(a)anthracene	56-55-3	0.2	µg/L	<0.2	0.5 µg/L	83.5	86.6	72	117	3.7	20					
Chrysene	218-01-9	0.2	µg/L	<0.2	0.5 µg/L	77.9	81.4	57	117	4.3	20					
Benzo(b)fluoranthene	205-99-2	0.2	µg/L	<0.2	0.5 µg/L	84.9	88.7	71	119	4.4	20					
Benzo(k)fluoranthene	207-08-9	0.2	µg/L	<0.2	0.5 µg/L	78.4	82.3	70	114	4.9	20					
Benzo(a)pyrene	50-32-8	0.2	µg/L	<0.2	0.5 µg/L	77.8	81.0	59	121	4.0	20					
Indeno(1,2,3-cd)pyrene	193-39-5	0.2	µg/L	<0.2	0.5 µg/L	88.1	96.9	56	118	9.5	20					
Dibenz(a,h)anthracene	53-70-3	0.2	µg/L	<0.2	0.5 µg/L	83.7	88.8	39	123	5.9	20					
Benzo(g,h,i)perylene	191-24-2	0.2	µg/L	<0.2	0.5 µg/L	88.7	93.6	42	130	5.4	20					
EP-390: Triorganotins (QC Lot: 4511384)																
Tributyltin	56573-85-4	5	ngSn/L	<5	2 ngSn/L	93.6	104	70	130	10.5	20					
EP-390: Triorganotins (QC Lot: 4511385)																
Tributyltin	56573-85-4	5	ngSn/L	<5	2 ngSn/L	94.0	106	70	130	12.4	20					

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report							
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)		
MS	MSD	Low	High	Value	Control Limit						
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 4509420) - Continued											
HK1731099-008	Anonymous	Benzo(b)fluoranthene	205-99-2	0.5 µg/L	82.4	----	50	130	----	----	
		Benzo(k)fluoranthene	207-08-9	0.5 µg/L	80.7	----	50	130	----	----	
		Benzo(a)pyrene	50-32-8	0.5 µg/L	77.4	----	50	130	----	----	
		Indeno(1,2,3,cd)pyrene	193-39-5	0.5 µg/L	77.9	----	50	130	----	----	
		Dibenz(a,h)anthracene	53-70-3	0.5 µg/L	71.4	----	50	130	----	----	
		Benzo(g,h,i)perylene	191-24-2	0.5 µg/L	61.6	----	50	130	----	----	
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 4509423)											
HK1731441-001	Anonymous	Naphthalene	91-20-3	0.5 µg/L	50.8	----	50	130	----	----	
		Acenaphthylene	208-96-8	0.5 µg/L	51.4	----	50	130	----	----	
		Acenaphthene	83-32-9	0.5 µg/L	52.9	----	50	130	----	----	
		Fluorene	86-73-7	0.5 µg/L	52.5	----	50	130	----	----	
		Phenanthrene	85-01-8	0.5 µg/L	59.4	----	50	130	----	----	
		Anthracene	120-12-7	0.5 µg/L	55.1	----	50	130	----	----	
		Fluoranthene	206-44-0	0.5 µg/L	79.5	----	50	130	----	----	
		Pyrene	129-00-0	0.5 µg/L	88.0	----	50	130	----	----	
		Benz(a)anthracene	56-55-3	0.5 µg/L	96.6	----	50	130	----	----	
		Chrysene	218-01-9	0.5 µg/L	90.1	----	50	130	----	----	
		Benzo(b)fluoranthene	205-99-2	0.5 µg/L	101	----	50	130	----	----	
		Benzo(k)fluoranthene	207-08-9	0.5 µg/L	93.7	----	50	130	----	----	
		Benzo(a)pyrene	50-32-8	0.5 µg/L	93.7	----	50	130	----	----	
		Indeno(1,2,3,cd)pyrene	193-39-5	0.5 µg/L	99.8	----	50	130	----	----	
		Dibenz(a,h)anthracene	53-70-3	0.5 µg/L	95.4	----	50	130	----	----	
		Benzo(g,h,i)perylene	191-24-2	0.5 µg/L	100	----	50	130	----	----	
EP-390: Triorganotins (QC Lot: 4511384)											
HK1731099-008	Anonymous	Tributyltin	56573-85-4	2 ngSn/L	98.8	----	70	130	----	----	
EP-390: Triorganotins (QC Lot: 4511385)											
HK1731441-001	Anonymous	Tributyltin	56573-85-4	2 ngSn/L	95.6	----	70	130	----	----	

Surrogate Control Limits

Sub-Matrix: ELUTRIATE		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130
EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate			
Decachlorobiphenyl	2051-24-3	50	130
EP-067S: Pesticide Surrogate			

Sub-Matrix: ELUTRIATE

Compound	CAS Number	Recovery Limits (%)	
		Low	High
EP-067S: Pesticide Surrogate - Continued			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130

**CERTIFICATE OF ANALYSIS**

Client	: EGS (ASIA) LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 11
Contact	: MR KEUNG WONG	Contact	: Richard Fung	Work Order	: HK1731441
Address	: 5TH FLOOR, ZUNG FU INDUSTRIAL BUILDING, 1067 KING'S ROAD, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong	Amendment	: 1
E-mail	: keung@egssurvey.com	E-mail	: Richard.Fung@alsglobal.com		
Telephone	: +852 2911 9369	Telephone	: +852 2610 1044		
Facsimile	: +852 2576 3590	Facsimile	: +852 2610 2021		
Project	: CLP - SAMPLING SURVEY FOR HONG KONG OFFSHORE LNG TERMINAL PROJECT	Quote number	: ----	Date Samples Received	: 21-JUL-2017
Order number	: ----			Issue Date	: 22-AUG-2017
C-O-C number	: ----			No. of samples received	: 1
Site	: BLACK POINT TO LAMMA			No. of samples analysed	: 1

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	Position	Authorised results for
Chan Ka Yu, Karen Fung Lim Chee, Richard	Manager - Organics General Manager	Organics Inorganics

General Comments

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. 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. Testing period is from 21-JUL-2017 to 10-AUG-2017.

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

Specific Comments for Work Order: HK1731441

Sample(s) were received in chilled condition.

Elutriate sample(s) analysed and reported on an as received basis.

Elutriate sample(s) were filtered prior to dissolved metal analysis.

Analytical Results

Sub-Matrix: ELUTRIATE

Client sample ID

PS6

Client sampling date / time

21-JUL-2017 11:55

Compound	CAS Number	LOR	Unit	HK1731441-001						
ED/EK: Inorganic Nonmetallic Parameters										
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	0.38						
EK057A: Nitrite as N	14797-65-0	0.05	mg/L	<0.05						
EK058A: Nitrate as N	14797-55-8	0.05	mg/L	0.05						
EK061P: Total Kjeldahl Nitrogen as N	---	0.1	mg/L	0.8						
EK067P: Total Phosphorus as P	---	0.01	mg/L	0.13						
EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	0.10						
EG: Metals and Major Cations - Filtered										
EG029: Arsenic	7440-38-2	1	µg/L	19						
EG029: Cadmium	7440-43-9	0.1	µg/L	<0.1						
EG029: Chromium	7440-47-3	1	µg/L	<1						
EG029: Copper	7440-50-8	1	µg/L	<1						
EG029: Lead	7439-92-1	1	µg/L	<1						
EG029: Nickel	7440-02-0	1	µg/L	<1						
EG029: Silver	7440-22-4	1	µg/L	<1						
EG029: Zinc	7440-66-6	10	µg/L	<10						
EG038: Mercury	7439-97-6	0.05	µg/L	<0.05						
EP-065: PCB Single Congeners										
PCB 8	34883-43-7	0.01	µg/L	<0.01						
PCB 18	37680-65-2	0.01	µg/L	<0.01						
PCB 28	7012-37-5	0.01	µg/L	<0.01						
PCB 44	41464-39-5	0.01	µg/L	<0.01						
PCB 52	35693-99-3	0.01	µg/L	<0.01						
PCB 66	32598-10-0	0.01	µg/L	<0.01						
PCB 77	32598-13-3	0.01	µg/L	<0.01						
PCB 101	37680-73-2	0.01	µg/L	<0.01						
PCB 105	32598-14-4	0.01	µg/L	<0.01						
PCB 118	31508-00-6	0.01	µg/L	<0.01						
PCB 126	57465-28-8	0.01	µg/L	<0.01						
PCB 128	38380-07-3	0.01	µg/L	<0.01						
PCB 138	35065-28-2	0.01	µg/L	<0.01						
PCB 153	35065-27-1	0.01	µg/L	<0.01						
PCB 169	32774-16-6	0.01	µg/L	<0.01						
PCB 170	35065-30-6	0.01	µg/L	<0.01						
PCB 180	35065-29-3	0.01	µg/L	<0.01						
PCB 187	52663-68-0	0.01	µg/L	<0.01						
Total Polychlorinated biphenyls	----	0.18	µg/L	<0.18						
EP-067A: Organochlorine Pesticides (OC)										
alpha-BHC	319-84-6	0.1	µg/L	<0.1						
beta- & gamma-BHC	319-85-7 58-89-9	0.1	µg/L	<0.1						



Sub-Matrix: ELUTRIATE		Client sample ID		PS6					
Compound	CAS Number	LOR	Unit	HK1731441-001					
EP-067A: Organochlorine Pesticides (OC) - Continued									
delta-BHC	319-86-8	0.1	µg/L	<0.1					
Heptachlor	76-44-8	0.1	µg/L	<0.1					
Aldrin	309-00-2	0.1	µg/L	<0.1					
Heptachlor epoxide	1024-57-3	0.1	µg/L	<0.1					
Endosulfan 1	959-98-8	0.1	µg/L	<0.1					
4,4'-DDE	72-55-9	0.1	µg/L	<0.1					
4,4'-DDD	72-54-8	0.1	µg/L	<0.1					
Endosulfan sulfate	1031-07-8	0.1	µg/L	<0.1					
4,4'-DDT	50-29-3	0.1	µg/L	<0.1					
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.1	µg/L	<0.1					
Acenaphthylene	208-96-8	0.1	µg/L	<0.1					
Acenaphthene	83-32-9	0.1	µg/L	<0.1					
Fluorene	86-73-7	0.1	µg/L	<0.1					
Phenanthrene	85-01-8	0.1	µg/L	<0.1					
Anthracene	120-12-7	0.1	µg/L	<0.1					
Fluoranthene	206-44-0	0.1	µg/L	<0.1					
Pyrene	129-00-0	0.1	µg/L	<0.1					
Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1					
Chrysene	218-01-9	0.1	µg/L	<0.1					
Benzo(b)fluoranthene	205-99-2	0.1	µg/L	<0.1					
Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1					
Benzo(a)pyrene	50-32-8	0.1	µg/L	<0.1					
Indeno(1,2,3,cd)pyrene	193-39-5	0.1	µg/L	<0.1					
Dibenz(a,h)anthracene	53-70-3	0.1	µg/L	<0.1					
Benzo(g,h,i)perylene	191-24-2	0.1	µg/L	<0.1					
EP-390: Triorganotins									
Tributyltin	56573-85-4	0.015	µg TBT /L	<0.015					
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%	50.7					
4-Terphenyl-d14	1718-51-0	0.1	%	85.2					
EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%	77.6					
EP-067S: Pesticide Surrogate									
Tetrachlorometaxylene	877-09-8	0.1	%	54.8					
Dibutylchlorendate	1770-80-5	0.1	%	85.0					

Laboratory Duplicate (DUP) Report

Matrix: WATER

Laboratory Duplicate (DUP) Report								
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4509691)								
HK1731354-001	Anonymous	EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	0.04	0.03	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510146)								
HK1731354-001	Anonymous	EK057A: Nitrite as N	14797-65-0	0.05	mg/L	<0.05	<0.05	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510153)								
HK1731354-001	Anonymous	EK055K: Ammonia as N	7664-41-7	0.01	mg/L	0.29	0.32	9.8
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510158)								
HK1731354-011	Anonymous	EK067P: Total Phosphorus as P	----	0.01	mg/L	0.08	0.08	0.0
EP-065: PCB Single Congeners (QC Lot: 4509424)								
HK1731354-008	Anonymous	PCB 8	34883-43-7	0.01	µg/L	<0.01	<0.01	0.0
		PCB 18	37680-65-2	0.01	µg/L	<0.01	<0.01	0.0
		PCB 28	7012-37-5	0.01	µg/L	<0.01	<0.01	0.0
		PCB 44	41464-39-5	0.01	µg/L	<0.01	<0.01	0.0
		PCB 52	35693-99-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 66	32598-10-0	0.01	µg/L	<0.01	<0.01	0.0
		PCB 77	32598-13-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 101	37680-73-2	0.01	µg/L	<0.01	<0.01	0.0
		PCB 105	32598-14-4	0.01	µg/L	<0.01	<0.01	0.0
		PCB 118	31508-00-6	0.01	µg/L	<0.01	<0.01	0.0
		PCB 126	57465-28-8	0.01	µg/L	<0.01	<0.01	0.0
		PCB 128	38380-07-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 138	35065-28-2	0.01	µg/L	<0.01	<0.01	0.0
		PCB 153	35065-27-1	0.01	µg/L	<0.01	<0.01	0.0
		PCB 169	32774-16-6	0.01	µg/L	<0.01	<0.01	0.0
		PCB 170	35065-30-6	0.01	µg/L	<0.01	<0.01	0.0
		PCB 180	35065-29-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 187	52663-68-0	0.01	µg/L	<0.01	<0.01	0.0
		Total Polychlorinated biphenyls	----	0.18	µg/L	<0.18	<0.18	0.0
EP-067A: Organochlorine Pesticides (OC) (QC Lot: 4509422)								
HK1731354-008	Anonymous	alpha-BHC	319-84-6	0.1	µg/L	<0.1	<0.1	0.0
		beta- & gamma-BHC	319-85-7 58-89-9	0.1	µg/L	<0.1	<0.1	0.0
		delta-BHC	319-86-8	0.1	µg/L	<0.1	<0.1	0.0
		Heptachlor	76-44-8	0.1	µg/L	<0.1	<0.1	0.0
		Aldrin	309-00-2	0.1	µg/L	<0.1	<0.1	0.0
		Heptachlor epoxide	1024-57-3	0.1	µg/L	<0.1	<0.1	0.0
		Endosulfan 1	959-98-8	0.1	µg/L	<0.1	<0.1	0.0
		4,4'-DDE	72-55-9	0.1	µg/L	<0.1	<0.1	0.0
		4,4'-DDD	72-54-8	0.1	µg/L	<0.1	<0.1	0.0
		Endosulfan sulfate	1031-07-8	0.1	µg/L	<0.1	<0.1	0.0

Matrix: WATER				Laboratory Duplicate (DUP) Report				
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-067A: Organochlorine Pesticides (OC) (QC Lot: 4509422) - Continued								
HK1731354-008	Anonymous	4,4'-DDT	50-29-3	0.1	µg/L	<0.1	<0.1	0.0
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 4509423)								
HK1731354-008	Anonymous	Naphthalene	91-20-3	0.1	µg/L	<0.1	<0.1	0.0
		Acenaphthylene	208-96-8	0.1	µg/L	<0.1	<0.1	0.0
		Acenaphthene	83-32-9	0.1	µg/L	<0.1	<0.1	0.0
		Fluorene	86-73-7	0.1	µg/L	<0.1	<0.1	0.0
		Phenanthrene	85-01-8	0.1	µg/L	<0.1	<0.1	0.0
		Anthracene	120-12-7	0.1	µg/L	<0.1	<0.1	0.0
		Fluoranthene	206-44-0	0.1	µg/L	<0.1	<0.1	0.0
		Pyrene	129-00-0	0.1	µg/L	<0.1	<0.1	0.0
		Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1	<0.1	0.0
		Chrysene	218-01-9	0.1	µg/L	<0.1	<0.1	0.0
		Benzo(b)fluoranthene	205-99-2	0.1	µg/L	<0.1	<0.1	0.0
		Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	<0.1	0.0
		Benzo(a)pyrene	50-32-8	0.1	µg/L	<0.1	<0.1	0.0
		Indeno(1,2,3,cd)pyrene	193-39-5	0.1	µg/L	<0.1	<0.1	0.0
		Dibenz(a,h)anthracene	53-70-3	0.1	µg/L	<0.1	<0.1	0.0
		Benzo(g,h,i)perylene	191-24-2	0.1	µg/L	<0.1	<0.1	0.0
EP-390: Triorganotins (QC Lot: 4511385)								
HK1731354-008	Anonymous	Tributyltin	56573-85-4	6	ngSn/L	<6	<6	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: WATER			Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
						LCS	DCS	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4509691)											
EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	0.5 mg/L	97.2	---	93	107	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510146)											
EK057A: Nitrite as N	14797-65-0	0.01	mg/L	---	0.4 mg/L	102	---	96	112	---	---
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.05 mg/L	106	---	84	118	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510153)											
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	99.0	---	91	109	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510158)											
EK067P: Total Phosphorus as P	---	0.01	mg/L	<0.01	0.5 mg/L	94.9	---	93	103	---	---
EG: Metals and Major Cations - Filtered (QC Lot: 4509670)											
EG029: Arsenic	7440-38-2	10	µg/L	<10	10 µg/L	96.2	---	78	114	---	---
EG029: Cadmium	7440-43-9	0.1	µg/L	<0.1	10 µg/L	113	---	78	116	---	---
EG029: Chromium	7440-47-3	1	µg/L	<1	10 µg/L	115	---	81	115	---	---
EG029: Copper	7440-50-8	1	µg/L	<1	10 µg/L	88.9	---	80	116	---	---
EG029: Lead	7439-92-1	1	µg/L	<1	10 µg/L	101	---	81	113	---	---

Matrix: WATER	Method Blank (MB) Report				Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report												
	Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)						
						LCS	DCS	Low	High	Value	Control Limit						
EG: Metals and Major Cations - Filtered (QC Lot: 4509670) - Continued																	
EG029: Nickel	7440-02-0	1	µg/L	<1	10 µg/L	108	---	80	118	---	---	---					
EG029: Silver	7440-22-4	1	µg/L	<1	10 µg/L	110	---	77	119	---	---	---					
EG029: Zinc	7440-66-6	10	µg/L	<10	10 µg/L	100	---	83	119	---	---	---					
EG: Metals and Major Cations - Filtered (QC Lot: 4509671)																	
EG038: Mercury	7439-97-6	0.05	µg/L	<0.05	0.05 µg/L	98.6	---	85	115	---	---	---					
EP-065: PCB Single Congeners (QC Lot: 4509424)																	
PCB 8	34883-43-7	0.01	µg/L	<0.01	25 µg/L	68.2	65.0	50	130	4.7	25						
PCB 18	37680-65-2	0.01	µg/L	<0.01	25 µg/L	67.1	67.1	50	130	0.03	25						
PCB 28	7012-37-5	0.01	µg/L	<0.01	25 µg/L	70.2	69.3	50	130	1.2	25						
PCB 44	41464-39-5	0.01	µg/L	<0.01	25 µg/L	64.4	63.5	50	130	1.4	25						
PCB 52	35693-99-3	0.01	µg/L	<0.01	25 µg/L	63.3	66.7	50	130	5.3	25						
PCB 66	32598-10-0	0.01	µg/L	<0.01	25 µg/L	73.2	72.9	50	130	0.4	25						
PCB 77	32598-13-3	0.01	µg/L	<0.01	25 µg/L	64.1	63.7	50	130	0.6	25						
PCB 101	37680-73-2	0.01	µg/L	<0.01	25 µg/L	63.0	63.2	50	130	0.4	25						
PCB 105	32598-14-4	0.01	µg/L	<0.01	25 µg/L	70.0	70.1	50	130	0.06	25						
PCB 118	31508-00-6	0.01	µg/L	<0.01	25 µg/L	67.8	67.5	50	130	0.5	25						
PCB 126	57465-28-8	0.01	µg/L	<0.01	25 µg/L	78.0	76.8	50	130	1.5	25						
PCB 128	38380-07-3	0.01	µg/L	<0.01	25 µg/L	89.3	90.7	50	130	1.5	25						
PCB 138	35065-28-2	0.01	µg/L	<0.01	25 µg/L	75.2	75.7	50	130	0.7	25						
PCB 153	35065-27-1	0.01	µg/L	<0.01	25 µg/L	74.5	75.2	50	130	1.0	25						
PCB 169	32774-16-6	0.01	µg/L	<0.01	25 µg/L	64.0	63.6	50	130	0.7	25						
PCB 170	35065-30-6	0.01	µg/L	<0.01	25 µg/L	80.0	79.8	50	130	0.3	25						
PCB 180	35065-29-3	0.01	µg/L	<0.01	25 µg/L	78.8	78.7	50	130	0.1	25						
PCB 187	52663-68-0	0.01	µg/L	<0.01	25 µg/L	74.2	74.3	50	130	0.2	25						
Total Polychlorinated biphenyls	----	0.18	µg/L	<0.18	25 µg/L	69.7	69.7	50	130	0.06	25						
EP-067A: Organochlorine Pesticides (OC) (QC Lot: 4509422)																	
alpha-BHC	319-84-6	0.5	µg/L	<0.5	5 µg/L	75.4	76.6	23	104	1.6	20						
beta- & gamma-BHC	319-85-7	1	µg/L	<1.0	10 µg/L	85.6	88.0	42	104	2.8	20						
	58-89-9																
delta-BHC	319-86-8	0.5	µg/L	<0.5	5 µg/L	76.2	81.4	44	124	6.6	20						
Heptachlor	76-44-8	0.5	µg/L	<0.5	5 µg/L	85.0	96.8	22	120	13.0	20						
Aldrin	309-00-2	0.5	µg/L	<0.5	5 µg/L	68.6	72.2	27	124	5.1	20						
Heptachlor epoxide	1024-57-3	0.5	µg/L	<0.5	5 µg/L	77.4	82.4	29	125	6.2	20						
Endosulfan 1	959-98-8	0.5	µg/L	<0.5	5 µg/L	69.4	72.8	44	118	4.8	20						
4,4'-DDE	72-55-9	0.5	µg/L	<0.5	5 µg/L	68.0	72.0	58	113	5.7	20						
4,4'-DDD	72-54-8	0.5	µg/L	<0.5	5 µg/L	88.6	89.8	63	123	1.3	20						
Endosulfan sulfate	1031-07-8	0.5	µg/L	<0.5	5 µg/L	85.4	87.4	55	120	2.3	20						
4,4'-DDT	50-29-3	2	µg/L	<2.0	5 µg/L	97.2	96.6	14	127	0.6	20						
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 4509423)																	
Naphthalene	91-20-3	0.2	µg/L	<0.2	0.5 µg/L	61.2	58.9	31	102	3.8	20						

Matrix: WATER	Method Blank (MB) Report				Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report												
	Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)						
						LCS	DCS	Low	High	Value	Control Limit						
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 4509423) - Continued																	
Acenaphthylene	208-96-8	0.2	µg/L	<0.2	0.5 µg/L	62.3	60.6	31	105	2.8	20						
Acenaphthene	83-32-9	0.2	µg/L	<0.2	0.5 µg/L	50.4	53.0	32	93	5.0	20						
Fluorene	86-73-7	0.2	µg/L	<0.2	0.5 µg/L	50.0	54.0	33	100	7.7	20						
Phenanthrene	85-01-8	0.2	µg/L	<0.2	0.5 µg/L	54.9	57.2	30	107	4.1	20						
Anthracene	120-12-7	0.2	µg/L	<0.2	0.5 µg/L	55.7	58.0	28	108	3.9	20						
Fluoranthene	206-44-0	0.2	µg/L	<0.2	0.5 µg/L	74.0	77.3	56	121	4.3	20						
Pyrene	129-00-0	0.2	µg/L	<0.2	0.5 µg/L	75.5	78.5	56	125	3.9	20						
Benz(a)anthracene	56-55-3	0.2	µg/L	<0.2	0.5 µg/L	83.5	86.6	72	117	3.7	20						
Chrysene	218-01-9	0.2	µg/L	<0.2	0.5 µg/L	77.9	81.4	57	117	4.3	20						
Benzo(b)fluoranthene	205-99-2	0.2	µg/L	<0.2	0.5 µg/L	84.9	88.7	71	119	4.4	20						
Benzo(k)fluoranthene	207-08-9	0.2	µg/L	<0.2	0.5 µg/L	78.4	82.3	70	114	4.9	20						
Benzo(a)pyrene	50-32-8	0.2	µg/L	<0.2	0.5 µg/L	77.8	81.0	59	121	4.0	20						
Indeno(1,2,3,cd)pyrene	193-39-5	0.2	µg/L	<0.2	0.5 µg/L	88.1	96.9	56	118	9.5	20						
Dibenz(a,h)anthracene	53-70-3	0.2	µg/L	<0.2	0.5 µg/L	83.7	88.8	39	123	5.9	20						
Benzo(g,h,i)perylene	191-24-2	0.2	µg/L	<0.2	0.5 µg/L	88.7	93.6	42	130	5.4	20						
EP-390: Triorganotins (QC Lot: 4511385)																	
Tributyltin	56573-85-4	5	ngSn/L	<5	2 ngSn/L	94.0	106	70	130	12.4	20						

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report							
				Spike Concentration	MS	MSD	Recovery Limits (%)		RPD (%)		
							Low	High	Value	Control Limit	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4509691)											
HK1731354-001	Anonymous	EK071K: Reactive Phosphorus as P	14265-44-2	0.5 mg/L	94.7	----	75	125	----	----	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510146)											
HK1731354-001	Anonymous	EK057A: Nitrite as N	14797-65-0	0.5 mg/L	112	----	75	125	----	----	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510153)											
HK1731354-001	Anonymous	EK055K: Ammonia as N	7664-41-7	0.5 mg/L	78.0	----	75	125	----	----	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4510158)											
HK1731354-011	Anonymous	EK067P: Total Phosphorus as P	----	0.5 mg/L	92.0	----	75	125	----	----	
EG: Metals and Major Cations - Filtered (QC Lot: 4509670)											
HK1731441-001	PS6	EG029: Arsenic	7440-38-2	10 µg/L	81.5	105	80	120	25.4	----	
		EG029: Cadmium	7440-43-9	10 µg/L	100	98.6	80	120	1.8	----	
		EG029: Chromium	7440-47-3	10 µg/L	89.4	101	80	120	12.5	----	
		EG029: Copper	7440-50-8	10 µg/L	92.2	106	80	120	13.4	----	
		EG029: Lead	7439-92-1	10 µg/L	90.3	92.5	80	120	2.4	----	
		EG029: Nickel	7440-02-0	10 µg/L	90.2	107	80	120	16.8	----	
		EG029: Silver	7440-22-4	10 µg/L	99.1	105	80	120	6.0	----	
		EG029: Zinc	7440-66-6	10 µg/L	83.9	84.2	80	120	0.4	----	
EG: Metals and Major Cations - Filtered (QC Lot: 4509671)											
HK1731441-001	PS6	EG038: Mercury	7439-97-6	0.05 µg/L	95.2	95.8	75	125	0.6	----	
EP-065: PCB Single Congeners (QC Lot: 4509424)											
HK1731441-001	PS6	PCB 8	34883-43-7	25 µg/L	61.4	----	50	130	----	----	
		PCB 18	37680-65-2	25 µg/L	53.7	----	50	130	----	----	
		PCB 28	7012-37-5	25 µg/L	57.7	----	50	130	----	----	
		PCB 44	41464-39-5	25 µg/L	62.5	----	50	130	----	----	
		PCB 52	35693-99-3	25 µg/L	67.3	----	50	130	----	----	
		PCB 66	32598-10-0	25 µg/L	72.0	----	50	130	----	----	
		PCB 77	32598-13-3	25 µg/L	63.6	----	50	130	----	----	
		PCB 101	37680-73-2	25 µg/L	63.1	----	50	130	----	----	
		PCB 105	32598-14-4	25 µg/L	70.4	----	50	130	----	----	
		PCB 118	31508-00-6	25 µg/L	67.9	----	50	130	----	----	
		PCB 126	57465-28-8	25 µg/L	56.4	----	50	130	----	----	
		PCB 128	38380-07-3	25 µg/L	90.5	----	50	130	----	----	
		PCB 138	35065-28-2	25 µg/L	78.1	----	50	130	----	----	
		PCB 153	35065-27-1	25 µg/L	73.1	----	50	130	----	----	
		PCB 169	32774-16-6	25 µg/L	55.5	----	50	130	----	----	
		PCB 170	35065-30-6	25 µg/L	80.5	----	50	130	----	----	
		PCB 180	35065-29-3	25 µg/L	78.0	----	50	130	----	----	

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report							
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)		
					MS	MSD	Low	High	Value	Control Limit	
EP-065: PCB Single Congeners (QC Lot: 4509424) - Continued											
HK1731441-001	PS6	PCB 187	52663-68-0	25 µg/L	73.4	----	50	130	----	----	
		Total Polychlorinated biphenyls	----	25 µg/L	67.5	----	50	130	----	----	
EP-067A: Organochlorine Pesticides (OC) (QC Lot: 4509422)											
HK1731441-001	PS6	alpha-BHC	319-84-6	5 µg/L	68.8	----	50	130	----	----	
		beta- & gamma-BHC	319-85-7	10 µg/L	90.9	----	50	130	----	----	
			58-89-9								
		delta-BHC	319-86-8	5 µg/L	71.4	----	50	130	----	----	
		Heptachlor	76-44-8	5 µg/L	62.8	----	50	130	----	----	
		Aldrin	309-00-2	5 µg/L	55.6	----	50	130	----	----	
		Heptachlor epoxide	1024-57-3	5 µg/L	68.6	----	50	130	----	----	
		Endosulfan 1	959-98-8	5 µg/L	62.4	----	50	130	----	----	
		4,4'-DDE	72-55-9	5 µg/L	63.6	----	50	130	----	----	
		4,4'-DDD	72-54-8	5 µg/L	84.0	----	50	130	----	----	
		Endosulfan sulfate	1031-07-8	5 µg/L	80.4	----	50	130	----	----	
		4,4'-DDT	50-29-3	5 µg/L	94.0	----	50	130	----	----	
EP-076HK: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 4509423)											
HK1731441-001	PS6	Naphthalene	91-20-3	0.5 µg/L	50.8	----	50	130	----	----	
		Acenaphthylene	208-96-8	0.5 µg/L	51.4	----	50	130	----	----	
		Acenaphthene	83-32-9	0.5 µg/L	52.9	----	50	130	----	----	
		Fluorene	86-73-7	0.5 µg/L	52.5	----	50	130	----	----	
		Phenanthrene	85-01-8	0.5 µg/L	59.4	----	50	130	----	----	
		Anthracene	120-12-7	0.5 µg/L	55.1	----	50	130	----	----	
		Fluoranthene	206-44-0	0.5 µg/L	79.5	----	50	130	----	----	
		Pyrene	129-00-0	0.5 µg/L	88.0	----	50	130	----	----	
		Benz(a)anthracene	56-55-3	0.5 µg/L	96.6	----	50	130	----	----	
		Chrysene	218-01-9	0.5 µg/L	90.1	----	50	130	----	----	
		Benzo(b)fluoranthene	205-99-2	0.5 µg/L	101	----	50	130	----	----	
		Benzo(k)fluoranthene	207-08-9	0.5 µg/L	93.7	----	50	130	----	----	
		Benzo(a)pyrene	50-32-8	0.5 µg/L	93.7	----	50	130	----	----	
		Indeno(1,2,3,cd)pyrene	193-39-5	0.5 µg/L	99.8	----	50	130	----	----	
		Dibenz(a,h)anthracene	53-70-3	0.5 µg/L	95.4	----	50	130	----	----	
		Benzo(g,h,i)perylene	191-24-2	0.5 µg/L	100	----	50	130	----	----	
EP-390: Triorganotins (QC Lot: 4511385)											
HK1731441-001	PS6	Tributyltin	56573-85-4	2 ngSn/L	95.6	----	70	130	----	----	

Surrogate Control Limits

Sub-Matrix: ELUTRIATE

Compound	CAS Number	Recovery Limits (%)	
		Low	High

Sub-Matrix: ELUTRIATE

Compound	CAS Number	Recovery Limits (%)	
		Low	High
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130
EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate			
Decachlorobiphenyl	2051-24-3	50	130
EP-067S: Pesticide Surrogate			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130