

**CLIENT NAME: DEFENCE CONSTRUCTION CANADA
14 ALERT BLVD, 8 WING TRENTON
ASTRA, ON K0K3W0
(613) 392-2811**

ATTENTION TO: Chris McRae

PROJECT NO: Alert

AGAT WORK ORDER: 12T609876

MICROBIOLOGY ANALYSIS REVIEWED BY: Inesa Alizarchyk, Inorganic Lab Supervisor

TRACE ORGANICS REVIEWED BY: Inga Kuzmina, Organic Laboratory Supervisor

WATER ANALYSIS REVIEWED BY: Mike Muneswar, BSc (Chem), Senior Inorganic Analyst

DATE REPORTED: Jun 25, 2012

PAGES (INCLUDING COVER): 14

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.



AGAT Laboratories

Certificate of Analysis

AGAT WORK ORDER: 12T609876

PROJECT NO: Alert

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: DEFENCE CONSTRUCTION CANADA

ATTENTION TO: Chris McRae

Microbiological Analysis (water)

DATE SAMPLED: Jun 09, 2012

DATE RECEIVED: Jun 14, 2012

DATE REPORTED: Jun 25, 2012

SAMPLE TYPE: Water

Parameter	Unit	G / S	RDL	ALT-4 3425385	ALT-5 3425433	ALT-6 3425448	ALT-7 3425462
Fecal Coliform	CFU/100mL		1	ND	ND	ND	ND

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

3425385-3425462 ND - Not Detected.

Certified By:



AGAT Laboratories

Certificate of Analysis

AGAT WORK ORDER: 12T609876

PROJECT NO: Alert

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: DEFENCE CONSTRUCTION CANADA

ATTENTION TO: Chris McRae

(P & T) - BTEX - Water (GC/MS)

DATE SAMPLED: May 29, 2012

DATE RECEIVED: Jun 14, 2012

DATE REPORTED: Jun 25, 2012

SAMPLE TYPE: Water

Parameter	Unit	G / S	RDL	ALT-8 3425480	ALT-9 3425487	ALT-10 3425493	ALT-11 3425499	ALT-8.2 3425505	Trip Blank 3425511	Field Blank 3425514
Benzene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	µg/L		0.20	<0.20	<0.20	2.2	<0.20	<0.20	<0.20	<0.20
Ethylbenzene	µg/L		0.10	<0.10	<0.10	1.8	<0.10	<0.10	<0.10	<0.10
m & p-Xylene	µg/L		0.20	<0.20	<0.20	21	0.36	<0.20	<0.20	<0.20
o-Xylene	µg/L		0.10	<0.10	<0.10	20	0.28	<0.10	<0.10	<0.10
Xylene Mixture (Total)	µg/L		0.20	<0.20	<0.20	41	0.64	<0.20	<0.20	<0.20
Surrogate	Unit	Acceptable Limits								
Toluene-d8	% Recovery	60-130		80	85	78	84	80	85	84
4-Bromofluorobenzene	% Recovery	70-130		117	100	106	108	105	100	105

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

3425480-3425514 Results relate only to the items tested.

Dilution factor=

The sample was diluted to keep the target compounds in the calibration range of the instrument and avoid contaminating the Purge and Trap system. The method detection limit has been corrected for the dilution factor used.

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 12T609876

PROJECT NO: Alert

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: DEFENCE CONSTRUCTION CANADA

ATTENTION TO: Chris McRae

O. Reg. 153(511) - PAHs (Water)

DATE SAMPLED: Jun 09, 2012

DATE RECEIVED: Jun 14, 2012

DATE REPORTED: Jun 25, 2012

SAMPLE TYPE: Water

Parameter	Unit	G / S	RDL	ALT-4 3425385	ALT-5 3425433	ALT-6 3425448	ALT-7 3425462
Naphthalene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Acenaphthylene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Acenaphthene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Fluorene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Phenanthrene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10
Anthracene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10
Fluoranthene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Pyrene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Benz(a)anthracene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Chrysene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10
Benzo(b)fluoranthene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10
Benzo(k)fluoranthene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10
Benzo(a)pyrene	µg/L		0.01	<0.01	<0.01	<0.01	<0.01
Indeno(1,2,3-cd)pyrene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Dibenz(a,h)anthracene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Benzo(g,h,i)perylene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
2-and 1-methyl Naphthalene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Surrogate	Unit	Acceptable Limits					
Chrysene-d12	%	50-140		59	57	58	57

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

3425385-3425462 Note: The result for Benzo(b)Flouranthene is the total of the Benzo(b)&(j)Flouranthene isomers because the isomers co-elute on the GC column.

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 12T609876

PROJECT NO: Alert

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: DEFENCE CONSTRUCTION CANADA

ATTENTION TO: Chris McRae

O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Water)

DATE SAMPLED: Jun 09, 2012

DATE RECEIVED: Jun 14, 2012

DATE REPORTED: Jun 25, 2012

SAMPLE TYPE: Water

Parameter	Unit	G / S	RDL	ALT-4 3425385	ALT-5 3425433	ALT-6 3425448	ALT-7 3425462
Benzene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Toluene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Ethylbenzene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10
Xylene Mixture	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
F1 (C6 to C10)	µg/L		25	<25	<25	<25	<25
F1 (C6 to C10) minus BTEX	µg/L		25	<25	<25	<25	<25
F2 (C10 to C16)	µg/L		100	<100	<100	<100	<100
F2 (C10 to C16) minus Naphthalene	µg/L		100	<100	<100	<100	<100
F3 (C16 to C34)	µg/L		100	<100	<100	<100	<100
F3 (C16 to C34) minus PAHs	µg/L		100	<100	<100	<100	<100
F4 (C34 to C50)	µg/L		100	<100	<100	<100	<100
Gravimetric Heavy Hydrocarbons	µg/L		500	NA	NA	NA	NA
Surrogate	Unit	Acceptable Limits					
Terphenyl	%	60-140		67	83	69	73

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard**3425385-3425462** The C6-C10 fraction is calculated using Toluene response factor.

The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.

Gravimetric Heavy Hydrocarbons are not included in the Total C16 - C50 and are only determined if the chromatogram of the C34 - C50 Hydrocarbons indicated that hydrocarbons >C50 are present.

Total C6-C50 results are corrected for BTEX and PAH contributions.

This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.

n-C6 and n-C10 response factors are within 30% of Toluene response factor.

n-C10, n-C16 and n-C34 response factors are within 10% of their average.

C50 response factor is within 70% of n-C10 + n-C16 n-C34 average.

Linearity is within 15%.

Extraction and holding times were met for this sample.

Certified By:



AGAT Laboratories

Certificate of Analysis

AGAT WORK ORDER: 12T609876

PROJECT NO: Alert

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: DEFENCE CONSTRUCTION CANADA

ATTENTION TO: Chris McRae

Oil and Grease [water]

DATE SAMPLED: Jun 09, 2012

DATE RECEIVED: Jun 14, 2012

DATE REPORTED: Jun 25, 2012

SAMPLE TYPE: Water

Parameter	Unit	G / S	RDL	ALT-4 3425385	ALT-5 3425433	ALT-6 3425448	ALT-7 3425462	ALT-8 3425480	ALT-9 3425487	ALT-10 3425493	ALT-11 3425499
Oil and Grease (animal/vegetable)	mg/L		0.5	0.8	<0.5	<0.5	0.5	<0.5	<0.5	7.6	0.5
Oil and Grease (mineral) in water	mg/L		0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Oil and Grease (Total) in water	mg/L		0.5	0.8	<0.5	0.5	0.5	0.5	<0.5	7.7	0.5

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 12T609876

PROJECT NO: Alert

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: DEFENCE CONSTRUCTION CANADA

ATTENTION TO: Chris McRae

Inorganic Chemistry (Water) - Revised Final Report

DATE SAMPLED: Jun 09, 2012

DATE RECEIVED: Jun 14, 2012

DATE REPORTED: Jun 25, 2012

SAMPLE TYPE: Water

Parameter	Unit	G / S	RDL	ALT-4 3425385	ALT-5 3425433	ALT-6 3425448	ALT-7 3425462
BOD (5)	mg/L		5	<5	<5	<5	<5
Electrical Conductivity	uS/cm		2	331	132	1300	278
pH	pH Units		NA	7.68	7.18	7.68	7.61
Total Hardness (as CaCO ₃)	mg/L		10	129	43	328	114
Total Suspended Solids	mg/L		10	241	167	1090	104
Alkalinity (as CaCO ₃)	mg/L		5	84	25	78	58
Nitrate as N	mg/L		0.05	0.63	0.27	0.66	0.47
Nitrite as N	mg/L		0.05	<0.05	<0.05	<0.05	<0.05
Sulphate	mg/L		0.10	41.4	10.9	352	52.7
Ammonia as N	mg/L		0.02	0.03	<0.02	<0.02	<0.02
Chemical Oxygen Demand	mg/L		5	<5	<5	<5	<5
Phenols	µg/L		1	<1	<1	<1	<1
Calcium	mg/L		0.05	39.9	11.5	74.1	31.4
Magnesium	mg/L		0.05	7.23	3.47	34.7	8.72
Sodium	mg/L		0.05	14.3	7.22	103	9.79
Potassium	mg/L		0.05	3.19	0.89	67.1	0.61
Arsenic	mg/L		0.003	<0.003	<0.003	0.005	<0.003
Cadmium	mg/L		0.001	<0.001	<0.001	<0.001	<0.001
Chromium	mg/L		0.003	<0.003	<0.003	0.004	<0.003
Copper	mg/L		0.003	0.007	<0.003	0.034	<0.003
Iron	mg/L		0.010	0.983	0.275	3.04	0.596
Lead	mg/L		0.001	0.005	0.002	0.036	0.004
Mercury	mg/L		0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	mg/L		0.003	0.004	<0.003	0.020	<0.003

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard**3425385-3425462** Revised Jun 29, 2012.

Revision: This report replaces the Certificate of Analysis issued on Jun 25, 2012. RDL for Pb was changed from 0.002 mg/L to 0.001 mg/L.

Certified By:



AGAT Laboratories

Certificate of Analysis

AGAT WORK ORDER: 12T609876

PROJECT NO: Alert

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: DEFENCE CONSTRUCTION CANADA

ATTENTION TO: Chris McRae

Lead & Phenols (Water) - Revised Final Report

DATE SAMPLED: Jun 09, 2012

DATE RECEIVED: Jun 14, 2012

DATE REPORTED: Jun 25, 2012

SAMPLE TYPE: Water

Parameter	Unit	G / S	RDL	ALT-8 3425480	ALT-9 3425487	ALT-10 3425493	ALT-11 3425499
Phenols	µg/L		1	<1	<1	30	3
Lead	µg/L		1	<1	<1	<1	3

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

3425480-3425499 Revised Jun 29, 2012.

Revision: This report replaces the Certificate of Analysis issued on Jun 25, 2012. Unit & RDL for Pb was changed from 0.002 mg/L to 1 µg/L.

Certified By:

Quality Assurance

CLIENT NAME: DEFENCE CONSTRUCTION CANADA

AGAT WORK ORDER: 12T609876

PROJECT NO: Alert

ATTENTION TO: Chris McRae

Microbiology Analysis

RPT Date: Jun 25, 2012			DUPLICATE			Method Blank	REFERENCE MATERIAL		METHOD BLANK SPIKE			MATRIX SPIKE			
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

Microbiological Analysis (water)

Fecal Coliform	1	3425385	ND	ND	NA	< 1	NA		NA		NA
----------------	---	---------	----	----	----	-----	----	--	----	--	----

Comments: ND - Not Detected ; NA - Not Applicable

Certified By:



Quality Assurance

CLIENT NAME: DEFENCE CONSTRUCTION CANADA

AGAT WORK ORDER: 12T609876

PROJECT NO: Alert

ATTENTION TO: Chris McRae

Trace Organics Analysis

RPT Date: Jun 25, 2012			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

Oil and Grease [water]

Oil and Grease (animal/vegetable)	1		< 0.5	< 0.5	0.0%	< 0.5	NA	70%	130%	125%	70%	130%	NA	70%	130%
Oil and Grease (mineral) in water	1		< 0.5	< 0.5	0.0%	< 0.5	NA	70%	130%	71%	70%	130%	NA	70%	130%
Oil and Grease (Total) in water	1		< 0.5	< 0.5	0.0%	< 0.5	NA	70%	130%	98%	70%	130%	NA	70%	130%

O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Water)

Benzene	1		< 0.20	< 0.20	0.0%	< 0.20	87%	50%	140%	79%	60%	130%	87%	50%	140%
Toluene	1		< 0.20	< 0.20	0.0%	< 0.20	85%	50%	140%	82%	60%	130%	82%	50%	140%
Ethylbenzene	1		< 0.10	< 0.10	0.0%	< 0.10	83%	50%	140%	94%	60%	130%	81%	50%	140%
Xylene Mixture	1		< 0.20	< 0.20	0.0%	< 0.20	83%	50%	140%	98%	60%	130%	96%	50%	140%
F1 (C6 to C10)	1		< 25	< 25	0.0%	< 25	107%	60%	140%	88%	60%	140%	87%	60%	140%
F2 (C10 to C16)	1		< 100	< 100	0.0%	< 100	101%	60%	140%	64%	60%	140%	63%	60%	140%
F3 (C16 to C34)	1		< 100	< 100	0.0%	< 100	103%	60%	140%	95%	60%	140%	81%	60%	140%
F4 (C34 to C50)	1		< 100	< 100	0.0%	< 100	108%	60%	140%	100%	60%	140%	80%	60%	140%

O. Reg. 153(511) - PAHs (Water)

Naphthalene	1		< 0.20	< 0.20	0.0%	< 0.20	106%	50%	140%	99%	50%	140%	106%	50%	140%
Acenaphthylene	1		< 0.20	< 0.20	0.0%	< 0.20	97%	50%	140%	87%	50%	140%	96%	50%	140%
Acenaphthene	1		< 0.20	< 0.20	0.0%	< 0.20	106%	50%	140%	91%	50%	140%	103%	50%	140%
Fluorene	1		< 0.20	< 0.20	0.0%	< 0.20	95%	50%	140%	91%	50%	140%	101%	50%	140%
Phenanthrene	1		< 0.10	< 0.10	0.0%	< 0.10	81%	50%	140%	82%	50%	140%	94%	50%	140%
Anthracene	1		< 0.10	< 0.10	0.0%	< 0.10	93%	50%	140%	94%	50%	140%	106%	50%	140%
Fluoranthene	1		< 0.20	< 0.20	0.0%	< 0.20	82%	50%	140%	79%	50%	140%	102%	50%	140%
Pyrene	1		< 0.20	< 0.20	0.0%	< 0.20	79%	50%	140%	74%	50%	140%	99%	50%	140%
Benz(a)anthracene	1		< 0.20	< 0.20	0.0%	< 0.20	69%	50%	140%	70%	50%	140%	89%	50%	140%
Chrysene	1		< 0.10	< 0.10	0.0%	< 0.10	103%	50%	140%	72%	50%	140%	99%	50%	140%
Benzo(b)fluoranthene	1		< 0.10	< 0.10	0.0%	< 0.10	90%	50%	140%	66%	50%	140%	87%	50%	140%
Benzo(k)fluoranthene	1		< 0.10	< 0.10	0.0%	< 0.10	111%	50%	140%	99%	50%	140%	101%	50%	140%
Benzo(a)pyrene	1		< 0.01	< 0.01	0.0%	< 0.01	80%	50%	140%	68%	50%	140%	82%	50%	140%
Indeno(1,2,3-cd)pyrene	1		< 0.20	< 0.20	0.0%	< 0.20	79%	50%	140%	69%	50%	140%	72%	50%	140%
Dibenz(a,h)anthracene	1		< 0.20	< 0.20	0.0%	< 0.20	80%	50%	140%	53%	50%	140%	74%	50%	140%
Benzo(g,h,i)perylene	1		< 0.20	< 0.20	0.0%	< 0.20	58%	50%	140%	78%	50%	140%	105%	50%	140%
2-and 1-methyl Naphthalene	1		< 0.20	< 0.20	0.0%	< 0.20	100%	50%	140%	91%	50%	140%	101%	50%	140%

(P & T) - BTEX - Water (GC/MS)

Benzene	1		< 0.20	< 0.20	0.0%	< 0.20	94%	60%	130%	76%	60%	130%	67%	60%	130%
Toluene	1		< 0.20	< 0.20	0.0%	< 0.20	96%	60%	130%	66%	60%	130%	66%	60%	130%
Ethylbenzene	1		< 0.10	< 0.10	0.0%	< 0.10	109%	60%	130%	67%	60%	130%	65%	60%	130%
m & p-Xylene	1		< 0.20	< 0.20	0.0%	< 0.20	115%	60%	130%	79%	60%	130%	79%	60%	130%
o-Xylene	1		< 0.10	< 0.10	0.0%	< 0.10	117%	60%	130%	87%	60%	130%	90%	60%	130%
Xylene Mixture (Total)	1		< 0.20	< 0.20	0.0%	< 0.20	115%	60%	130%	79%	60%	130%	79%	60%	130%

Quality Assurance

CLIENT NAME: DEFENCE CONSTRUCTION CANADA

AGAT WORK ORDER: 12T609876

PROJECT NO: Alert

ATTENTION TO: Chris McRae

Trace Organics Analysis (Continued)

RPT Date: Jun 25, 2012			DUPLICATE			Method Blank	REFERENCE MATERIAL		METHOD BLANK SPIKE			MATRIX SPIKE			
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

Certified By:



Quality Assurance

CLIENT NAME: DEFENCE CONSTRUCTION CANADA

AGAT WORK ORDER: 12T609876

PROJECT NO: Alert

ATTENTION TO: Chris McRae

Water Analysis															
RPT Date: Jun 25, 2012			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Inorganic Chemistry (Water) - Revised Final Report															
BOD (5)	1	3425448	< 5	< 5	0.0%	< 5	107%	75%	125%	NA			NA		
Electrical Conductivity	1	3425385	331	331	0.0%	< 2	100%	80%	120%	NA			NA		
pH	1	3425385	7.68	7.70	0.3%	NA	100%	90%	110%	NA			NA		
Total Suspended Solids	1		< 10	< 10	0.0%	< 10	94%	80%	120%	NA			NA		
Alkalinity (as CaCO3)	1	3425385	84	80	4.9%	< 5	99%	80%	120%	NA			NA		
Nitrate as N	1		< 0.05	< 0.05	0.0%	< 0.05	92%	90%	110%	98%	90%	110%	104%	70%	130%
Nitrite as N	1		< 0.05	< 0.05	0.0%	< 0.05	NA	90%	110%	102%	90%	110%	114%	80%	120%
Sulphate	1		34.1	33.5	1.8%	< 0.10	91%	90%	110%	94%	90%	110%	99%	80%	120%
Ammonia as N	1		< 0.02	< 0.02	0.0%	< 0.02	93%	90%	110%	92%	90%	110%	89%	80%	120%
Chemical Oxygen Demand	1		70	74	5.6%	< 5	103%	90%	110%	92%	90%	110%	103%	70%	130%
Phenols	1	3425385	< 1	1	NA	< 1	98%	90%	110%	95%	90%	110%	96%	80%	120%
Calcium	1		57.2	57.4	0.3%	< 0.05	98%	90%	110%	100%	90%	110%	104%	70%	130%
Magnesium	1		11.9	11.9	0.0%	< 0.05	97%	90%	110%	100%	90%	110%	106%	70%	130%
Sodium	1		54.2	53.9	0.6%	< 0.05	98%	90%	110%	100%	90%	110%	103%	70%	130%
Potassium	1		6.89	6.89	0.0%	< 0.05	96%	90%	110%	98%	90%	110%	102%	70%	130%
Arsenic	1		< 0.003	< 0.003	0.0%	< 0.003	100%	90%	110%	109%	90%	110%	111%	70%	130%
Cadmium	1		< 0.001	< 0.001	0.0%	< 0.001	109%	90%	110%	105%	80%	120%	105%	70%	130%
Chromium	1		< 0.003	< 0.003	0.0%	< 0.003	105%	90%	110%	102%	90%	110%	103%	70%	130%
Copper	1		0.005	0.005	0.0%	< 0.003	103%	90%	110%	102%	80%	120%	100%	70%	130%
Iron	1		0.081	0.080	1.2%	< 0.010	109%	90%	110%	100%	90%	180%	113%	70%	130%
Lead	1		< 0.001	< 0.001	0.0%	< 0.001	100%	90%	110%	104%	90%	110%	97%	70%	130%
Mercury	1		< 0.0001	< 0.0001	0.0%	< 0.0001	96%	90%	110%	98%	70%	130%	99%	70%	130%
Nickel	1		< 0.003	< 0.003	0.0%	< 0.003	106%	90%	110%	102%	90%	110%	101%	70%	130%

Comments: NA signifies Not Applicable.

Certified By:



Method Summary

CLIENT NAME: DEFENCE CONSTRUCTION CANADA
AGAT WORK ORDER: 12T609876
PROJECT NO: Alert
ATTENTION TO: Chris McRae

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Microbiology Analysis			
Fecal Coliform	MIC-93-7000	SM 9222 D	MF/INCUBATOR
Trace Organics Analysis			
Benzene	VOL-91-5001	EPA SW-846 5230B & 8260	(P&T)GC/MS
Toluene	VOL-91-5001	EPA SW-846 5230B & 8260	(P&T)GC/MS
Ethylbenzene	VOL-91-5001	EPA SW-846 5230B & 8260	(P&T)GC/MS
m & p-Xylene	VOL-91-5001	EPA SW-846 5230B & 8260	(P&T)GC/MS
o-Xylene	VOL-91-5001	EPA SW-846 5230B & 8260	(P&T)GC/MS
Xylene Mixture (Total)	VOL-91-5001	EPA SW-846 5230B & 8260	(P&T)GC/MS
Toluene-d8	VOL-91-5001	EPA SW-846 5230B & 8260	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5001	EPA SW-846 5230B & 8260	(P&T)GC/MS
Naphthalene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Acenaphthylene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Acenaphthene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Fluorene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Phenanthrene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Anthracene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Pyrene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Benz(a)anthracene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Chrysene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Benzo(b)fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Benzo(k)fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Benzo(a)pyrene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Dibenz(a,h)anthracene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Benzo(g,h,i)perylene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Chrysene-d12	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Benzene	VOL-91-5010	MOE PHC E3421	(P&T)GC/MS
Toluene	VOL-91-5010	MOE PHC E3421	(P&T)GC/MS
Ethylbenzene	VOL-91-5010	MOE PHC E3421	(P&T)GC/MS
Xylene Mixture	VOL-91-5010	MOE PHC E3421	(P&T)GC/MS
F1 (C6 to C10)	VOL-91-5010	MOE PHC E3421	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	MOE PHC E3421	(P&T)GC/FID
F2 (C10 to C16)	VOL-91-5010	MOE PHC E3421	GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5010	MOE PHC E3421	GC/FID
F3 (C16 to C34)	VOL-91-5010	MOE PHC E3421	GC/FID
F3 (C16 to C34) minus PAHs	VOL-91-5010	MOE PHC E3421	GC/FID
F4 (C34 to C50)	VOL -91- 5010	MOE PHC- E3421	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5010	MOE PHC E3421	BALANCE
Terphenyl	VOL-91-5010		GC/FID
Oil and Grease (animal/vegetable)	VOL-91- 5011	SM 5520 & EPA SW846 3510C & EPA 1664	GRAVIMETRIC
Oil and Grease (mineral) in water	VOL-91- 5011	SM 5520 & EPA SW846 3510C & EPA 1664	GRAVIMETRIC
Oil and Grease (Total) in water	VOL-91- 5011	SM 5520 & EPA SW846 3510C & EPA 1664	GRAVIMETRIC

Method Summary

CLIENT NAME: DEFENCE CONSTRUCTION CANADA
AGAT WORK ORDER: 12T609876
PROJECT NO: Alert
ATTENTION TO: Chris McRae

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis			
BOD (5)	INOR-93-6006	SM 5210 B	DO METER
Electrical Conductivity	INOR-93-6000	SM 2510 B	PC TITRATE
pH	INOR-93-6000	SM 4500-H+ B	PC TITRATE
Total Hardness (as CaCO ₃)	MET-93-6105	EPA SW-846 6010C & 200.7 & SM 2340 B	ICP/OES
Total Suspended Solids	INOR-93-6028	SM 2540 D	BALANCE
Alkalinity (as CaCO ₃)	INOR-93-6000	SM 2320 B	PC TITRATE
Nitrate as N	INOR-93-6004	SM 4110 B	ION CHROMATOGRAPH
Nitrite as N	INOR-93-6004	SM 4110 B	ION CHROMATOGRAPH
Sulphate	INOR-93-6004	SM 4110 B	ION CHROMATOGRAPH
Ammonia as N	INOR-93-6002	AQ2 EPA-103A & SM 4500 NH ₃ -F	AQ-2 DISCRETE ANALYZER
Chemical Oxygen Demand	INOR-93-6042	SM 5220 D	SPECTROPHOTOMETER
Phenols	INOR-93-6050	MOE ROPHEN-E 3179 & SM 5530 D	TECHNICON AUTO ANALYZER
Calcium	MET-93-6105	EPA SW-846 6010C & 200.7	ICP/OES
Magnesium	MET-93-6105	EPA SW-846 6010C & 200.7	ICP/OES
Sodium	MET-93-6105	EPA SW-846 6010C & 200.7	ICP/OES
Potassium	MET-93-6105	EPA SW-846 6010C & 200.7	ICP/OES
Arsenic	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Cadmium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Chromium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Copper	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Iron	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Lead	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Mercury	MET-93-6100	EPA SW 846 7470 & 245.1	CVAAS
Nickel	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Phenols	INOR-93-6050	MOE ROPHEN-E 3179 & SM 5530 D	TECHNICON AUTO ANALYZER
Lead	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS

