

APPENDIX C

**Laboratory Analytical Reports and Chain-of-Custody Documents
July 2011 Sentry Event**



Environmental & Marine Chemistry Laboratories



CALSCIENCE

WORK ORDER NUMBER: 11-07-0612

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Parsons, Inc.

Client Project Name: NORWALK GWM

Attention: Mary Lucas
100 West Walnut Street
Pasadena, CA 91124-0002

Approved for release on 07/18/2011 by:
Ranjit Clarke
Project Manager

ResultLink ▶

Email your PM ▶



Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.





Environmental & Marine Chemistry Laboratories

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Client Project Name: NORWALK GWM

Work Order Number: 11-07-0612

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Parsons, Inc.
 100 West Walnut Street
 Pasadena, CA 91124-0002

Date Received: 07/11/11
 Work Order No: 11-07-0612
 Preparation: EPA 3510C
 Method: EPA 8015B (M)

Project: NORWALK GWM

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EXP-1	11-07-0612-1-J	07/11/11 08:01	Aqueous	GC 45	07/12/11	07/13/11 14:26	110712B10

Parameter	Result	RL	DF	Qual	Units
TPH as JP5	ND	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	101	68-140			

EXP-2	11-07-0612-2-J	07/11/11 08:47	Aqueous	GC 45	07/12/11	07/13/11 14:42	110712B10
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Parameter	Result	RL	DF	Qual	Units
TPH as JP5	ND	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	108	68-140			

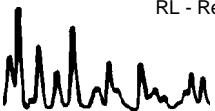
GMW-57	11-07-0612-3-G	07/11/11 10:17	Aqueous	GC 45	07/12/11	07/13/11 14:57	110712B10
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Parameter	Result	RL	DF	Qual	Units
TPH as JP5	130	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	106	68-140			

GMW-58	11-07-0612-4-G	07/11/11 14:12	Aqueous	GC 45	07/12/11	07/13/11 15:12	110712B10
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Parameter	Result	RL	DF	Qual	Units
TPH as JP5	220	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	99	68-140			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Parsons, Inc.
 100 West Walnut Street
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Date Received: 07/11/11
 Work Order No: 11-07-0612
 Preparation: EPA 3510C
 Method: EPA 8015B (M)

Project: NORWALK GWM

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GMW-63	11-07-0612-5-G	07/11/11 10:56	Aqueous	GC 45	07/12/11	07/13/11 15:28	110712B10

Parameter	Result	RL	DF	Qual	Units
TPH as JP5	ND	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	97	68-140			

GMW-64	11-07-0612-6-G	07/11/11 11:32	Aqueous	GC 45	07/12/11	07/13/11 15:43	110712B10
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Parameter	Result	RL	DF	Qual	Units
TPH as JP5	ND	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	105	68-140			

GMW-65	11-07-0612-7-G	07/11/11 12:09	Aqueous	GC 45	07/12/11	07/13/11 15:59	110712B10
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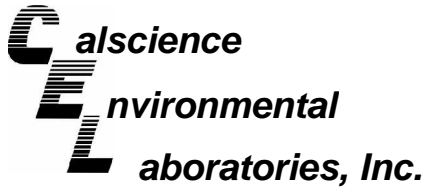
Parameter	Result	RL	DF	Qual	Units
TPH as JP5	ND	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	100	68-140			

MW-14	11-07-0612-8-G	07/11/11 12:55	Aqueous	GC 45	07/12/11	07/13/11 16:14	110712B10
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Parameter	Result	RL	DF	Qual	Units
TPH as JP5	ND	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	102	68-140			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Analytical Report



Parsons, Inc.
100 West Walnut Street
Pasadena, CA 91124-0002

Date Received: 07/11/11
Work Order No: 11-07-0612
Preparation: EPA 3510C
Method: EPA 8015B (M)

Project: NORWALK GWM

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-22(MID)	11-07-0612-9-G	07/11/11 13:33	Aqueous	GC 45	07/12/11	07/13/11 16:30	110712B10

Parameter	Result	RL	DF	Qual	Units
TPH as JP5	100	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	101	68-140			

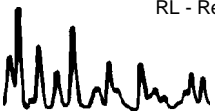
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GMW-58 dup	11-07-0612-11-D	07/11/11 00:00	Aqueous	GC 45	07/12/11	07/13/11 16:46	110712B10

Parameter	Result	RL	DF	Qual	Units
TPH as JP5	220	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	101	68-140			

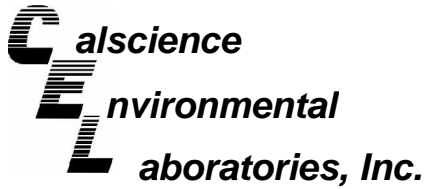
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-366-83	N/A	Aqueous	GC 45	07/12/11	07/13/11 13:40	110712B10

Parameter	Result	RL	DF	Qual	Units
TPH as JP5	ND	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	94	68-140			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Analytical Report



Parsons, Inc.
100 West Walnut Street
Pasadena, CA 91124-0002

Date Received: 07/11/11
Work Order No: 11-07-0612
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: NORWALK GWM

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EXP-1	11-07-0612-1-G	07/11/11 08:01	Aqueous	GC 56	07/12/11	07/12/11 18:44	110712B01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	76	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EXP-2	11-07-0612-2-D	07/11/11 08:47	Aqueous	GC 56	07/12/11	07/12/11 19:48	110712B01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	76	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-247-5,238	N/A	Aqueous	GC 56	07/12/11	07/12/11 11:21	110712B01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	76	38-134			

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Parsons, Inc.
 100 West Walnut Street
 Pasadena, CA 91124-0002

Date Received: 07/11/11
 Work Order No: 11-07-0612
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: NORWALK GWM

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EXP-1	11-07-0612-1-A	07/11/11 08:01	Aqueous	GC/MS QQ	07/12/11	07/12/11 17:44	110712L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	20	6.0	1		c-1,3-Dichloropropene	ND	0.50	0.25	1	
Benzene	ND	0.50	0.14	1		t-1,3-Dichloropropene	ND	0.50	0.25	1	
Bromobenzene	ND	1.0	0.30	1		Ethylbenzene	ND	0.50	0.14	1	
Bromochloromethane	ND	1.0	0.48	1		2-Hexanone	ND	10	2.1	1	
Bromodichloromethane	ND	1.0	0.21	1		Isopropylbenzene	ND	1.0	0.58	1	
Bromoform	ND	1.0	0.50	1		p-Isopropyltoluene	ND	1.0	0.16	1	
Bromomethane	ND	5.0	3.9	1		Methylene Chloride	ND	5.0	0.64	1	
2-Butanone	ND	10	2.2	1		4-Methyl-2-Pentanone	ND	10	4.4	1	
n-Butylbenzene	ND	1.0	0.23	1		Naphthalene	ND	10	2.5	1	
sec-Butylbenzene	ND	1.0	0.25	1		n-Propylbenzene	ND	1.0	0.17	1	
tert-Butylbenzene	ND	1.0	0.28	1		Styrene	ND	1.0	0.17	1	
Carbon Disulfide	ND	10	0.41	1		1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
Carbon Tetrachloride	ND	0.50	0.23	1		1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Chlorobenzene	ND	1.0	0.17	1		Tetrachloroethene	ND	1.0	0.39	1	
Chloroethane	ND	5.0	2.3	1		Toluene	ND	0.50	0.24	1	
Chloroform	ND	1.0	0.46	1		1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
Chloromethane	ND	5.0	1.8	1		1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
2-Chlorotoluene	ND	1.0	0.24	1		1,1,1-Trichloroethane	ND	1.0	0.30	1	
4-Chlorotoluene	ND	1.0	0.13	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
Dibromochloromethane	ND	1.0	0.25	1		1,1,2-Trichloroethane	ND	1.0	0.38	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1		Trichloroethene	ND	1.0	0.37	1	
1,2-Dibromoethane	ND	1.0	0.36	1		Trichlorofluoromethane	ND	10	1.7	1	
Dibromomethane	ND	1.0	0.46	1		1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1		1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1		1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1		Vinyl Acetate	ND	10	2.8	1	
Dichlorodifluoromethane	ND	1.0	0.46	1		Vinyl Chloride	ND	0.50	0.30	1	
1,1-Dichloroethane	ND	1.0	0.28	1		p/m-Xylene	ND	0.50	0.24	1	
1,2-Dichloroethane	ND	0.50	0.24	1		o-Xylene	ND	0.50	0.23	1	
1,1-Dichloroethene	ND	1.0	0.43	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.31	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1		Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1		Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
1,2-Dichloropropane	ND	1.0	0.42	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.30	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
2,2-Dichloropropane	ND	1.0	0.36	1		Ethanol	ND	100	50	1	
1,1-Dichloropropene	ND	1.0	0.46	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	89	80-120		Dibromofluoromethane	101	80-126	
1,2-Dichloroethane-d4	87	80-134		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Parsons, Inc.
 100 West Walnut Street
 Pasadena, CA 91124-0002

Date Received: 07/11/11
 Work Order No: 11-07-0612
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: NORWALK GWM

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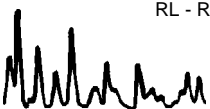
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EXP-2	11-07-0612-2-A	07/11/11 08:47	Aqueous	GC/MS QQ	07/12/11	07/12/11 18:11	110712L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	20	6.0	1		c-1,3-Dichloropropene	ND	0.50	0.25	1	
Benzene	ND	0.50	0.14	1		t-1,3-Dichloropropene	ND	0.50	0.25	1	
Bromobenzene	ND	1.0	0.30	1		Ethylbenzene	ND	0.50	0.14	1	
Bromochloromethane	ND	1.0	0.48	1		2-Hexanone	ND	10	2.1	1	
Bromodichloromethane	ND	1.0	0.21	1		Isopropylbenzene	ND	1.0	0.58	1	
Bromoform	ND	1.0	0.50	1		p-Isopropyltoluene	ND	1.0	0.16	1	
Bromomethane	ND	5.0	3.9	1		Methylene Chloride	ND	5.0	0.64	1	
2-Butanone	ND	10	2.2	1		4-Methyl-2-Pentanone	ND	10	4.4	1	
n-Butylbenzene	ND	1.0	0.23	1		Naphthalene	ND	10	2.5	1	
sec-Butylbenzene	ND	1.0	0.25	1		n-Propylbenzene	ND	1.0	0.17	1	
tert-Butylbenzene	ND	1.0	0.28	1		Styrene	ND	1.0	0.17	1	
Carbon Disulfide	ND	10	0.41	1		1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
Carbon Tetrachloride	ND	0.50	0.23	1		1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Chlorobenzene	ND	1.0	0.17	1		Tetrachloroethene	ND	1.0	0.39	1	
Chloroethane	ND	5.0	2.3	1		Toluene	ND	0.50	0.24	1	
Chloroform	ND	1.0	0.46	1		1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
Chloromethane	ND	5.0	1.8	1		1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
2-Chlorotoluene	ND	1.0	0.24	1		1,1,1-Trichloroethane	ND	1.0	0.30	1	
4-Chlorotoluene	ND	1.0	0.13	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
Dibromochloromethane	ND	1.0	0.25	1		1,1,2-Trichloroethane	ND	1.0	0.38	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1		Trichloroethene	ND	1.0	0.37	1	
1,2-Dibromoethane	ND	1.0	0.36	1		Trichlorofluoromethane	ND	10	1.7	1	
Dibromomethane	ND	1.0	0.46	1		1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1		1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1		1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1		Vinyl Acetate	ND	10	2.8	1	
Dichlorodifluoromethane	ND	1.0	0.46	1		Vinyl Chloride	ND	0.50	0.30	1	
1,1-Dichloroethane	ND	1.0	0.28	1		p/m-Xylene	ND	0.50	0.24	1	
1,2-Dichloroethane	ND	0.50	0.24	1		o-Xylene	ND	0.50	0.23	1	
1,1-Dichloroethene	ND	1.0	0.43	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.31	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1		Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1		Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
1,2-Dichloropropane	ND	1.0	0.42	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.30	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
2,2-Dichloropropane	ND	1.0	0.36	1		Ethanol	ND	100	50	1	
1,1-Dichloropropene	ND	1.0	0.46	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	89	80-120		Dibromofluoromethane	102	80-126	
1,2-Dichloroethane-d4	89	80-134		Toluene-d8	95	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Parsons, Inc.
 100 West Walnut Street
 Pasadena, CA 91124-0002

Date Received: 07/11/11
 Work Order No: 11-07-0612
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: NORWALK GWM

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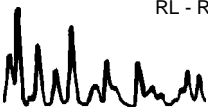
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GMW-57	11-07-0612-3-A	07/11/11 10:17	Aqueous	GC/MS QQ	07/12/11	07/12/11 18:39	110712L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

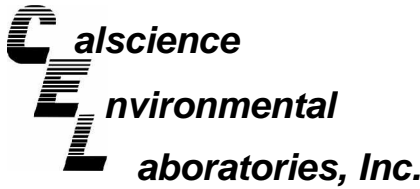
Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	6.7	20	6.0	1	J	c-1,3-Dichloropropene	ND	0.50	0.25	1	
Benzene	10	0.50	0.14	1		t-1,3-Dichloropropene	ND	0.50	0.25	1	
Bromobenzene	ND	1.0	0.30	1		Ethylbenzene	ND	0.50	0.14	1	
Bromochloromethane	ND	1.0	0.48	1		2-Hexanone	ND	10	2.1	1	
Bromodichloromethane	ND	1.0	0.21	1		Isopropylbenzene	4.0	1.0	0.58	1	
Bromoform	ND	1.0	0.50	1		p-Isopropyltoluene	ND	1.0	0.16	1	
Bromomethane	ND	5.0	3.9	1		Methylene Chloride	ND	5.0	0.64	1	
2-Butanone	ND	10	2.2	1		4-Methyl-2-Pentanone	ND	10	4.4	1	
n-Butylbenzene	ND	1.0	0.23	1		Naphthalene	ND	10	2.5	1	
sec-Butylbenzene	ND	1.0	0.25	1		n-Propylbenzene	1.0	1.0	0.17	1	J
tert-Butylbenzene	ND	1.0	0.28	1		Styrene	ND	1.0	0.17	1	
Carbon Disulfide	ND	10	0.41	1		1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
Carbon Tetrachloride	ND	0.50	0.23	1		1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Chlorobenzene	ND	1.0	0.17	1		Tetrachloroethene	ND	1.0	0.39	1	
Chloroethane	ND	5.0	2.3	1		Toluene	ND	0.50	0.24	1	
Chloroform	ND	1.0	0.46	1		1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
Chloromethane	ND	5.0	1.8	1		1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
2-Chlorotoluene	ND	1.0	0.24	1		1,1,1-Trichloroethane	ND	1.0	0.30	1	
4-Chlorotoluene	ND	1.0	0.13	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
Dibromochloromethane	ND	1.0	0.25	1		1,1,2-Trichloroethane	ND	1.0	0.38	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1		Trichloroethene	ND	1.0	0.37	1	
1,2-Dibromoethane	ND	1.0	0.36	1		Trichlorofluoromethane	ND	10	1.7	1	
Dibromomethane	ND	1.0	0.46	1		1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1		1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1		1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1		Vinyl Acetate	ND	10	2.8	1	
Dichlorodifluoromethane	ND	1.0	0.46	1		Vinyl Chloride	ND	0.50	0.30	1	
1,1-Dichloroethane	0.52	1.0	0.28	1	J	p/m-Xylene	ND	0.50	0.24	1	
1,2-Dichloroethane	ND	0.50	0.24	1		o-Xylene	ND	0.50	0.23	1	
1,1-Dichloroethene	ND	1.0	0.43	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.31	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1		Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1		Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
1,2-Dichloropropane	ND	1.0	0.42	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.30	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
2,2-Dichloropropane	ND	1.0	0.36	1		Ethanol	ND	100	50	1	
1,1-Dichloropropene	ND	1.0	0.46	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	89	80-120		Dibromofluoromethane	101	80-126	
1,2-Dichloroethane-d4	89	80-134		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Analytical Report



Parsons, Inc.
100 West Walnut Street
Pasadena, CA 91124-0002

Date Received: 07/11/11
Work Order No: 11-07-0612
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: NORWALK GWM

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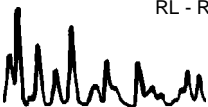
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GMW-58	11-07-0612-4-A	07/11/11 14:12	Aqueous	GC/MS QQ	07/12/11	07/12/11 19:06	110712L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	20	6.0	1		c-1,3-Dichloropropene	ND	0.50	0.25	1	
Benzene	31	0.50	0.14	1		t-1,3-Dichloropropene	ND	0.50	0.25	1	
Bromobenzene	ND	1.0	0.30	1		Ethylbenzene	ND	0.50	0.14	1	
Bromochloromethane	ND	1.0	0.48	1		2-Hexanone	ND	10	2.1	1	
Bromodichloromethane	ND	1.0	0.21	1		Isopropylbenzene	3.2	1.0	0.58	1	
Bromoform	ND	1.0	0.50	1		p-Isopropyltoluene	ND	1.0	0.16	1	
Bromomethane	ND	5.0	3.9	1		Methylene Chloride	ND	5.0	0.64	1	
2-Butanone	ND	10	2.2	1		4-Methyl-2-Pentanone	ND	10	4.4	1	
n-Butylbenzene	ND	1.0	0.23	1		Naphthalene	ND	10	2.5	1	
sec-Butylbenzene	0.35	1.0	0.25	1	J	n-Propylbenzene	0.88	1.0	0.17	1	J
tert-Butylbenzene	ND	1.0	0.28	1		Styrene	ND	1.0	0.17	1	
Carbon Disulfide	ND	10	0.41	1		1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
Carbon Tetrachloride	ND	0.50	0.23	1		1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Chlorobenzene	ND	1.0	0.17	1		Tetrachloroethene	ND	1.0	0.39	1	
Chloroethane	ND	5.0	2.3	1		Toluene	ND	0.50	0.24	1	
Chloroform	ND	1.0	0.46	1		1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
Chloromethane	ND	5.0	1.8	1		1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
2-Chlorotoluene	ND	1.0	0.24	1		1,1,1-Trichloroethane	ND	1.0	0.30	1	
4-Chlorotoluene	ND	1.0	0.13	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
Dibromochloromethane	ND	1.0	0.25	1		1,1,2-Trichloroethane	ND	1.0	0.38	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1		Trichloroethene	ND	1.0	0.37	1	
1,2-Dibromoethane	ND	1.0	0.36	1		Trichlorofluoromethane	ND	10	1.7	1	
Dibromomethane	ND	1.0	0.46	1		1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1		1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1		1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1		Vinyl Acetate	ND	10	2.8	1	
Dichlorodifluoromethane	ND	1.0	0.46	1		Vinyl Chloride	ND	0.50	0.30	1	
1,1-Dichloroethane	0.52	1.0	0.28	1	J	p/m-Xylene	ND	0.50	0.24	1	
1,2-Dichloroethane	ND	0.50	0.24	1		o-Xylene	ND	0.50	0.23	1	
1,1-Dichloroethene	ND	1.0	0.43	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.31	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1		Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1		Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
1,2-Dichloropropane	ND	1.0	0.42	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.30	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
2,2-Dichloropropane	ND	1.0	0.36	1		Ethanol	ND	100	50	1	
1,1-Dichloropropene	ND	1.0	0.46	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	90	80-120		Dibromofluoromethane	100	80-126	
1,2-Dichloroethane-d4	88	80-134		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Parsons, Inc.
 100 West Walnut Street
 Pasadena, CA 91124-0002

Date Received: 07/11/11
 Work Order No: 11-07-0612
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: NORWALK GWM

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GMW-63	11-07-0612-5-A	07/11/11 10:56	Aqueous	GC/MS QQ	07/12/11	07/12/11 19:33	110712L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	20	6.0	1		c-1,3-Dichloropropene	ND	0.50	0.25	1	
Benzene	ND	0.50	0.14	1		t-1,3-Dichloropropene	ND	0.50	0.25	1	
Bromobenzene	ND	1.0	0.30	1		Ethylbenzene	ND	0.50	0.14	1	
Bromochloromethane	ND	1.0	0.48	1		2-Hexanone	ND	10	2.1	1	
Bromodichloromethane	ND	1.0	0.21	1		Isopropylbenzene	ND	1.0	0.58	1	
Bromoform	ND	1.0	0.50	1		p-Isopropyltoluene	ND	1.0	0.16	1	
Bromomethane	ND	5.0	3.9	1		Methylene Chloride	ND	5.0	0.64	1	
2-Butanone	ND	10	2.2	1		4-Methyl-2-Pentanone	ND	10	4.4	1	
n-Butylbenzene	ND	1.0	0.23	1		Naphthalene	ND	10	2.5	1	
sec-Butylbenzene	ND	1.0	0.25	1		n-Propylbenzene	ND	1.0	0.17	1	
tert-Butylbenzene	ND	1.0	0.28	1		Styrene	ND	1.0	0.17	1	
Carbon Disulfide	ND	10	0.41	1		1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
Carbon Tetrachloride	ND	0.50	0.23	1		1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Chlorobenzene	ND	1.0	0.17	1		Tetrachloroethene	ND	1.0	0.39	1	
Chloroethane	ND	5.0	2.3	1		Toluene	ND	0.50	0.24	1	
Chloroform	ND	1.0	0.46	1		1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
Chloromethane	ND	5.0	1.8	1		1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
2-Chlorotoluene	ND	1.0	0.24	1		1,1,1-Trichloroethane	ND	1.0	0.30	1	
4-Chlorotoluene	ND	1.0	0.13	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
Dibromochloromethane	ND	1.0	0.25	1		1,1,2-Trichloroethane	ND	1.0	0.38	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1		Trichloroethene	ND	1.0	0.37	1	
1,2-Dibromoethane	ND	1.0	0.36	1		Trichlorofluoromethane	ND	10	1.7	1	
Dibromomethane	ND	1.0	0.46	1		1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1		1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1		1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1		Vinyl Acetate	ND	10	2.8	1	
Dichlorodifluoromethane	ND	1.0	0.46	1		Vinyl Chloride	ND	0.50	0.30	1	
1,1-Dichloroethane	ND	1.0	0.28	1		p/m-Xylene	ND	0.50	0.24	1	
1,2-Dichloroethane	ND	0.50	0.24	1		o-Xylene	ND	0.50	0.23	1	
1,1-Dichloroethene	ND	1.0	0.43	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.31	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1		Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1		Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
1,2-Dichloropropane	ND	1.0	0.42	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.30	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
2,2-Dichloropropane	ND	1.0	0.36	1		Ethanol	ND	100	50	1	
1,1-Dichloropropene	ND	1.0	0.46	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	89	80-120		Dibromofluoromethane	102	80-126	
1,2-Dichloroethane-d4	90	80-134		Toluene-d8	93	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Parsons, Inc.
 100 West Walnut Street
 Pasadena, CA 91124-0002

Date Received: 07/11/11
 Work Order No: 11-07-0612
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: NORWALK GWM

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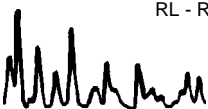
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GMW-64	11-07-0612-6-A	07/11/11 11:32	Aqueous	GC/MS QQ	07/12/11	07/12/11 20:00	110712L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

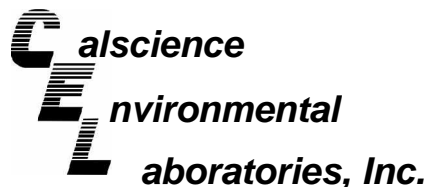
Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	20	6.0	1		c-1,3-Dichloropropene	ND	0.50	0.25	1	
Benzene	ND	0.50	0.14	1		t-1,3-Dichloropropene	ND	0.50	0.25	1	
Bromobenzene	ND	1.0	0.30	1		Ethylbenzene	ND	0.50	0.14	1	
Bromochloromethane	ND	1.0	0.48	1		2-Hexanone	ND	10	2.1	1	
Bromodichloromethane	ND	1.0	0.21	1		Isopropylbenzene	ND	1.0	0.58	1	
Bromoform	ND	1.0	0.50	1		p-Isopropyltoluene	ND	1.0	0.16	1	
Bromomethane	ND	5.0	3.9	1		Methylene Chloride	ND	5.0	0.64	1	
2-Butanone	ND	10	2.2	1		4-Methyl-2-Pentanone	ND	10	4.4	1	
n-Butylbenzene	ND	1.0	0.23	1		Naphthalene	ND	10	2.5	1	
sec-Butylbenzene	ND	1.0	0.25	1		n-Propylbenzene	ND	1.0	0.17	1	
tert-Butylbenzene	ND	1.0	0.28	1		Styrene	ND	1.0	0.17	1	
Carbon Disulfide	ND	10	0.41	1		1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
Carbon Tetrachloride	ND	0.50	0.23	1		1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Chlorobenzene	ND	1.0	0.17	1		Tetrachloroethene	ND	1.0	0.39	1	
Chloroethane	ND	5.0	2.3	1		Toluene	ND	0.50	0.24	1	
Chloroform	ND	1.0	0.46	1		1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
Chloromethane	ND	5.0	1.8	1		1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
2-Chlorotoluene	ND	1.0	0.24	1		1,1,1-Trichloroethane	ND	1.0	0.30	1	
4-Chlorotoluene	ND	1.0	0.13	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
Dibromochloromethane	ND	1.0	0.25	1		1,1,2-Trichloroethane	ND	1.0	0.38	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1		Trichloroethene	ND	1.0	0.37	1	
1,2-Dibromoethane	ND	1.0	0.36	1		Trichlorofluoromethane	ND	10	1.7	1	
Dibromomethane	ND	1.0	0.46	1		1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1		1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1		1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1		Vinyl Acetate	ND	10	2.8	1	
Dichlorodifluoromethane	ND	1.0	0.46	1		Vinyl Chloride	ND	0.50	0.30	1	
1,1-Dichloroethane	ND	1.0	0.28	1		p/m-Xylene	ND	0.50	0.24	1	
1,2-Dichloroethane	ND	0.50	0.24	1		o-Xylene	ND	0.50	0.23	1	
1,1-Dichloroethene	ND	1.0	0.43	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.31	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1		Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1		Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
1,2-Dichloropropane	ND	1.0	0.42	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.30	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
2,2-Dichloropropane	ND	1.0	0.36	1		Ethanol	ND	100	50	1	
1,1-Dichloropropene	ND	1.0	0.46	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	89	80-120		Dibromofluoromethane	101	80-126	
1,2-Dichloroethane-d4	89	80-134		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Analytical Report



Parsons, Inc.
100 West Walnut Street
Pasadena, CA 91124-0002

Date Received: 07/11/11
Work Order No: 11-07-0612
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: NORWALK GWM

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GMW-65	11-07-0612-7-A	07/11/11 12:09	Aqueous	GC/MS QQ	07/12/11	07/12/11 20:28	110712L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

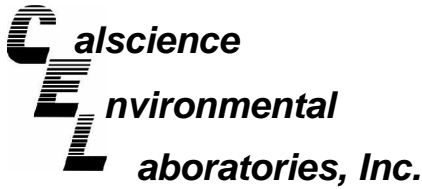
Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	20	6.0	1		c-1,3-Dichloropropene	ND	0.50	0.25	1	
Benzene	ND	0.50	0.14	1		t-1,3-Dichloropropene	ND	0.50	0.25	1	
Bromobenzene	ND	1.0	0.30	1		Ethylbenzene	ND	0.50	0.14	1	
Bromochloromethane	ND	1.0	0.48	1		2-Hexanone	ND	10	2.1	1	
Bromodichloromethane	ND	1.0	0.21	1		Isopropylbenzene	ND	1.0	0.58	1	
Bromoform	ND	1.0	0.50	1		p-Isopropyltoluene	ND	1.0	0.16	1	
Bromomethane	ND	5.0	3.9	1		Methylene Chloride	ND	5.0	0.64	1	
2-Butanone	ND	10	2.2	1		4-Methyl-2-Pentanone	ND	10	4.4	1	
n-Butylbenzene	ND	1.0	0.23	1		Naphthalene	ND	10	2.5	1	
sec-Butylbenzene	ND	1.0	0.25	1		n-Propylbenzene	ND	1.0	0.17	1	
tert-Butylbenzene	ND	1.0	0.28	1		Styrene	ND	1.0	0.17	1	
Carbon Disulfide	ND	10	0.41	1		1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
Carbon Tetrachloride	ND	0.50	0.23	1		1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Chlorobenzene	ND	1.0	0.17	1		Tetrachloroethene	ND	1.0	0.39	1	
Chloroethane	ND	5.0	2.3	1		Toluene	ND	0.50	0.24	1	
Chloroform	ND	1.0	0.46	1		1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
Chloromethane	ND	5.0	1.8	1		1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
2-Chlorotoluene	ND	1.0	0.24	1		1,1,1-Trichloroethane	ND	1.0	0.30	1	
4-Chlorotoluene	ND	1.0	0.13	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
Dibromochloromethane	ND	1.0	0.25	1		1,1,2-Trichloroethane	ND	1.0	0.38	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1		Trichloroethene	ND	1.0	0.37	1	
1,2-Dibromoethane	ND	1.0	0.36	1		Trichlorofluoromethane	ND	10	1.7	1	
Dibromomethane	ND	1.0	0.46	1		1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1		1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1		1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1		Vinyl Acetate	ND	10	2.8	1	
Dichlorodifluoromethane	ND	1.0	0.46	1		Vinyl Chloride	ND	0.50	0.30	1	
1,1-Dichloroethane	ND	1.0	0.28	1		p/m-Xylene	ND	0.50	0.24	1	
1,2-Dichloroethane	ND	0.50	0.24	1		o-Xylene	ND	0.50	0.23	1	
1,1-Dichloroethene	ND	1.0	0.43	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.31	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1		Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1		Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
1,2-Dichloropropane	ND	1.0	0.42	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.30	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
2,2-Dichloropropane	ND	1.0	0.36	1		Ethanol	ND	100	50	1	
1,1-Dichloropropene	ND	1.0	0.46	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	89	80-120		Dibromofluoromethane	101	80-126	
1,2-Dichloroethane-d4	89	80-134		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Analytical Report



Parsons, Inc.
100 West Walnut Street
Pasadena, CA 91124-0002

Date Received: 07/11/11
Work Order No: 11-07-0612
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: NORWALK GWM

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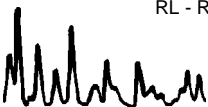
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-14	11-07-0612-8-A	07/11/11 12:55	Aqueous	GC/MS QQ	07/12/11	07/12/11 20:55	110712L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

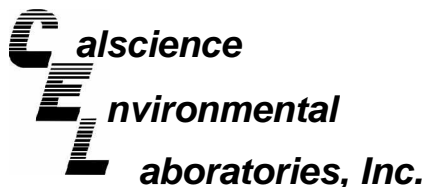
Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	20	6.0	1		c-1,3-Dichloropropene	ND	0.50	0.25	1	
Benzene	ND	0.50	0.14	1		t-1,3-Dichloropropene	ND	0.50	0.25	1	
Bromobenzene	ND	1.0	0.30	1		Ethylbenzene	ND	0.50	0.14	1	
Bromochloromethane	ND	1.0	0.48	1		2-Hexanone	ND	10	2.1	1	
Bromodichloromethane	ND	1.0	0.21	1		Isopropylbenzene	ND	1.0	0.58	1	
Bromoform	ND	1.0	0.50	1		p-Isopropyltoluene	ND	1.0	0.16	1	
Bromomethane	ND	5.0	3.9	1		Methylene Chloride	ND	5.0	0.64	1	
2-Butanone	ND	10	2.2	1		4-Methyl-2-Pentanone	ND	10	4.4	1	
n-Butylbenzene	ND	1.0	0.23	1		Naphthalene	ND	10	2.5	1	
sec-Butylbenzene	ND	1.0	0.25	1		n-Propylbenzene	ND	1.0	0.17	1	
tert-Butylbenzene	ND	1.0	0.28	1		Styrene	ND	1.0	0.17	1	
Carbon Disulfide	ND	10	0.41	1		1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
Carbon Tetrachloride	ND	0.50	0.23	1		1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Chlorobenzene	ND	1.0	0.17	1		Tetrachloroethene	ND	1.0	0.39	1	
Chloroethane	ND	5.0	2.3	1		Toluene	ND	0.50	0.24	1	
Chloroform	ND	1.0	0.46	1		1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
Chloromethane	ND	5.0	1.8	1		1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
2-Chlorotoluene	ND	1.0	0.24	1		1,1,1-Trichloroethane	ND	1.0	0.30	1	
4-Chlorotoluene	ND	1.0	0.13	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
Dibromochloromethane	ND	1.0	0.25	1		1,1,2-Trichloroethane	ND	1.0	0.38	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1		Trichloroethene	ND	1.0	0.37	1	
1,2-Dibromoethane	ND	1.0	0.36	1		Trichlorofluoromethane	ND	10	1.7	1	
Dibromomethane	ND	1.0	0.46	1		1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1		1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1		1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1		Vinyl Acetate	ND	10	2.8	1	
Dichlorodifluoromethane	ND	1.0	0.46	1		Vinyl Chloride	ND	0.50	0.30	1	
1,1-Dichloroethane	ND	1.0	0.28	1		p/m-Xylene	ND	0.50	0.24	1	
1,2-Dichloroethane	ND	0.50	0.24	1		o-Xylene	ND	0.50	0.23	1	
1,1-Dichloroethene	ND	1.0	0.43	1		Methyl-t-Butyl Ether (MTBE)	0.48	0.50	0.31	1	J
c-1,2-Dichloroethene	ND	1.0	0.48	1		Tert-Butyl Alcohol (TBA)	11	10	4.6	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1		Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
1,2-Dichloropropane	ND	1.0	0.42	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.30	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
2,2-Dichloropropane	ND	1.0	0.36	1		Ethanol	ND	100	50	1	
1,1-Dichloropropene	ND	1.0	0.46	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	88	80-120		Dibromofluoromethane	100	80-126	
1,2-Dichloroethane-d4	88	80-134		Toluene-d8	93	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Analytical Report



Parsons, Inc.
100 West Walnut Street
Pasadena, CA 91124-0002

Date Received: 07/11/11
Work Order No: 11-07-0612
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: NORWALK GWM

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-22(MID)	11-07-0612-9-A	07/11/11 13:33	Aqueous	GC/MS QQ	07/12/11	07/12/11 21:22	110712L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	20	6.0	1		c-1,3-Dichloropropene	ND	0.50	0.25	1	
Benzene	ND	0.50	0.14	1		t-1,3-Dichloropropene	ND	0.50	0.25	1	
Bromobenzene	ND	1.0	0.30	1		Ethylbenzene	ND	0.50	0.14	1	
Bromochloromethane	ND	1.0	0.48	1		2-Hexanone	ND	10	2.1	1	
Bromodichloromethane	ND	1.0	0.21	1		Isopropylbenzene	ND	1.0	0.58	1	
Bromoform	ND	1.0	0.50	1		p-Isopropyltoluene	ND	1.0	0.16	1	
Bromomethane	ND	5.0	3.9	1		Methylene Chloride	ND	5.0	0.64	1	
2-Butanone	ND	10	2.2	1		4-Methyl-2-Pentanone	ND	10	4.4	1	
n-Butylbenzene	ND	1.0	0.23	1		Naphthalene	ND	10	2.5	1	
sec-Butylbenzene	ND	1.0	0.25	1		n-Propylbenzene	ND	1.0	0.17	1	
tert-Butylbenzene	ND	1.0	0.28	1		Styrene	ND	1.0	0.17	1	
Carbon Disulfide	ND	10	0.41	1		1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
Carbon Tetrachloride	ND	0.50	0.23	1		1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Chlorobenzene	ND	1.0	0.17	1		Tetrachloroethene	ND	1.0	0.39	1	
Chloroethane	ND	5.0	2.3	1		Toluene	ND	0.50	0.24	1	
Chloroform	ND	1.0	0.46	1		1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
Chloromethane	ND	5.0	1.8	1		1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
2-Chlorotoluene	ND	1.0	0.24	1		1,1,1-Trichloroethane	ND	1.0	0.30	1	
4-Chlorotoluene	ND	1.0	0.13	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
Dibromochloromethane	ND	1.0	0.25	1		1,1,2-Trichloroethane	ND	1.0	0.38	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1		Trichloroethene	ND	1.0	0.37	1	
1,2-Dibromoethane	ND	1.0	0.36	1		Trichlorofluoromethane	ND	10	1.7	1	
Dibromomethane	ND	1.0	0.46	1		1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1		1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1		1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1		Vinyl Acetate	ND	10	2.8	1	
Dichlorodifluoromethane	ND	1.0	0.46	1		Vinyl Chloride	ND	0.50	0.30	1	
1,1-Dichloroethane	ND	1.0	0.28	1		p/m-Xylene	ND	0.50	0.24	1	
1,2-Dichloroethane	5.5	0.50	0.24	1		o-Xylene	ND	0.50	0.23	1	
1,1-Dichloroethene	ND	1.0	0.43	1		Methyl-t-Butyl Ether (MTBE)	7.8	0.50	0.31	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1		Tert-Butyl Alcohol (TBA)	13	10	4.6	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1		Diisopropyl Ether (DIPE)	0.48	2.0	0.33	1	J
1,2-Dichloropropane	ND	1.0	0.42	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.30	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
2,2-Dichloropropane	ND	1.0	0.36	1		Ethanol	ND	100	50	1	
1,1-Dichloropropene	ND	1.0	0.46	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	88	80-120		Dibromofluoromethane	101	80-126	
1,2-Dichloroethane-d4	88	80-134		Toluene-d8	93	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Parsons, Inc.
 100 West Walnut Street
 Pasadena, CA 91124-0002

Date Received: 07/11/11
 Work Order No: 11-07-0612
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: NORWALK GWM

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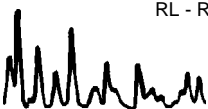
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-1	11-07-0612-10-A	07/11/11 06:30	Aqueous	GC/MS QQ	07/12/11	07/12/11 15:00	110712L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	20	6.0	1		c-1,3-Dichloropropene	ND	0.50	0.25	1	
Benzene	ND	0.50	0.14	1		t-1,3-Dichloropropene	ND	0.50	0.25	1	
Bromobenzene	ND	1.0	0.30	1		Ethylbenzene	ND	0.50	0.14	1	
Bromochloromethane	ND	1.0	0.48	1		2-Hexanone	ND	10	2.1	1	
Bromodichloromethane	ND	1.0	0.21	1		Isopropylbenzene	ND	1.0	0.58	1	
Bromoform	ND	1.0	0.50	1		p-Isopropyltoluene	ND	1.0	0.16	1	
Bromomethane	ND	5.0	3.9	1		Methylene Chloride	2.1	5.0	0.64	1	J
2-Butanone	ND	10	2.2	1		4-Methyl-2-Pentanone	ND	10	4.4	1	
n-Butylbenzene	ND	1.0	0.23	1		Naphthalene	ND	10	2.5	1	
sec-Butylbenzene	ND	1.0	0.25	1		n-Propylbenzene	ND	1.0	0.17	1	
tert-Butylbenzene	ND	1.0	0.28	1		Styrene	ND	1.0	0.17	1	
Carbon Disulfide	ND	10	0.41	1		1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
Carbon Tetrachloride	ND	0.50	0.23	1		1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Chlorobenzene	ND	1.0	0.17	1		Tetrachloroethene	ND	1.0	0.39	1	
Chloroethane	ND	5.0	2.3	1		Toluene	ND	0.50	0.24	1	
Chloroform	ND	1.0	0.46	1		1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
Chloromethane	ND	5.0	1.8	1		1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
2-Chlorotoluene	ND	1.0	0.24	1		1,1,1-Trichloroethane	ND	1.0	0.30	1	
4-Chlorotoluene	ND	1.0	0.13	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
Dibromochloromethane	ND	1.0	0.25	1		1,1,2-Trichloroethane	ND	1.0	0.38	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1		Trichloroethene	ND	1.0	0.37	1	
1,2-Dibromoethane	ND	1.0	0.36	1		Trichlorofluoromethane	ND	10	1.7	1	
Dibromomethane	ND	1.0	0.46	1		1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1		1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1		1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1		Vinyl Acetate	ND	10	2.8	1	
Dichlorodifluoromethane	ND	1.0	0.46	1		Vinyl Chloride	ND	0.50	0.30	1	
1,1-Dichloroethane	ND	1.0	0.28	1		p/m-Xylene	ND	0.50	0.24	1	
1,2-Dichloroethane	ND	0.50	0.24	1		o-Xylene	ND	0.50	0.23	1	
1,1-Dichloroethene	ND	1.0	0.43	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.31	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1		Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1		Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
1,2-Dichloropropane	ND	1.0	0.42	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.30	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
2,2-Dichloropropane	ND	1.0	0.36	1		Ethanol	ND	100	50	1	
1,1-Dichloropropene	ND	1.0	0.46	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	88	80-120		Dibromofluoromethane	100	80-126	
1,2-Dichloroethane-d4	88	80-134		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Return to Contents



Parsons, Inc.
 100 West Walnut Street
 Pasadena, CA 91124-0002

Date Received: 07/11/11
 Work Order No: 11-07-0612
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: NORWALK GWM

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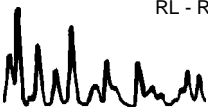
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GMW-58 dup	11-07-0612-11-A	07/11/11 00:00	Aqueous	GC/MS QQ	07/12/11	07/12/11 21:49	110712L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	20	6.0	1		c-1,3-Dichloropropene	ND	0.50	0.25	1	
Benzene	32	0.50	0.14	1		t-1,3-Dichloropropene	ND	0.50	0.25	1	
Bromobenzene	ND	1.0	0.30	1		Ethylbenzene	ND	0.50	0.14	1	
Bromochloromethane	ND	1.0	0.48	1		2-Hexanone	ND	10	2.1	1	
Bromodichloromethane	ND	1.0	0.21	1		Isopropylbenzene	3.6	1.0	0.58	1	
Bromoform	ND	1.0	0.50	1		p-Isopropyltoluene	ND	1.0	0.16	1	
Bromomethane	ND	5.0	3.9	1		Methylene Chloride	ND	5.0	0.64	1	
2-Butanone	ND	10	2.2	1		4-Methyl-2-Pentanone	ND	10	4.4	1	
n-Butylbenzene	ND	1.0	0.23	1		Naphthalene	ND	10	2.5	1	
sec-Butylbenzene	0.38	1.0	0.25	1	J	n-Propylbenzene	0.98	1.0	0.17	1	J
tert-Butylbenzene	ND	1.0	0.28	1		Styrene	ND	1.0	0.17	1	
Carbon Disulfide	ND	10	0.41	1		1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
Carbon Tetrachloride	ND	0.50	0.23	1		1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Chlorobenzene	ND	1.0	0.17	1		Tetrachloroethene	ND	1.0	0.39	1	
Chloroethane	ND	5.0	2.3	1		Toluene	ND	0.50	0.24	1	
Chloroform	ND	1.0	0.46	1		1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
Chloromethane	ND	5.0	1.8	1		1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
2-Chlorotoluene	ND	1.0	0.24	1		1,1,1-Trichloroethane	ND	1.0	0.30	1	
4-Chlorotoluene	ND	1.0	0.13	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
Dibromochloromethane	ND	1.0	0.25	1		1,1,2-Trichloroethane	ND	1.0	0.38	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1		Trichloroethene	ND	1.0	0.37	1	
1,2-Dibromoethane	ND	1.0	0.36	1		Trichlorofluoromethane	ND	10	1.7	1	
Dibromomethane	ND	1.0	0.46	1		1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1		1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1		1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1		Vinyl Acetate	ND	10	2.8	1	
Dichlorodifluoromethane	ND	1.0	0.46	1		Vinyl Chloride	ND	0.50	0.30	1	
1,1-Dichloroethane	0.52	1.0	0.28	1	J	p/m-Xylene	ND	0.50	0.24	1	
1,2-Dichloroethane	ND	0.50	0.24	1		o-Xylene	ND	0.50	0.23	1	
1,1-Dichloroethene	ND	1.0	0.43	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.31	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1		Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1		Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
1,2-Dichloropropane	ND	1.0	0.42	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.30	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
2,2-Dichloropropane	ND	1.0	0.36	1		Ethanol	ND	100	50	1	
1,1-Dichloropropene	ND	1.0	0.46	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	90	80-120		Dibromofluoromethane	100	80-126	
1,2-Dichloroethane-d4	89	80-134		Toluene-d8	93	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Return to Contents



Parsons, Inc.
 100 West Walnut Street
 Pasadena, CA 91124-0002

Date Received: 07/11/11
 Work Order No: 11-07-0612
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: NORWALK GWM

Page 12 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-001-5,138	N/A	Aqueous	GC/MS QQ	07/12/11	07/12/11 14:05	110712L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

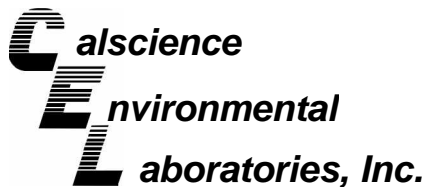
Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	20	6.0	1		c-1,3-Dichloropropene	ND	0.50	0.25	1	
Benzene	ND	0.50	0.14	1		t-1,3-Dichloropropene	ND	0.50	0.25	1	
Bromobenzene	ND	1.0	0.30	1		Ethylbenzene	ND	1.0	0.14	1	
Bromochloromethane	ND	1.0	0.48	1		2-Hexanone	ND	10	2.1	1	
Bromodichloromethane	ND	1.0	0.21	1		Isopropylbenzene	ND	1.0	0.58	1	
Bromoform	ND	1.0	0.50	1		p-Isopropyltoluene	ND	1.0	0.16	1	
Bromomethane	ND	10	3.9	1		Methylene Chloride	ND	10	0.64	1	
2-Butanone	ND	10	2.2	1		4-Methyl-2-Pentanone	ND	10	4.4	1	
n-Butylbenzene	ND	1.0	0.23	1		Naphthalene	ND	10	2.5	1	
sec-Butylbenzene	ND	1.0	0.25	1		n-Propylbenzene	ND	1.0	0.17	1	
tert-Butylbenzene	ND	1.0	0.28	1		Styrene	ND	1.0	0.17	1	
Carbon Disulfide	ND	10	0.41	1		1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
Carbon Tetrachloride	ND	0.50	0.23	1		1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Chlorobenzene	ND	1.0	0.17	1		Tetrachloroethene	ND	1.0	0.39	1	
Chloroethane	ND	5.0	2.3	1		Toluene	ND	1.0	0.24	1	
Chloroform	ND	1.0	0.46	1		1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
Chloromethane	ND	10	1.8	1		1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
2-Chlorotoluene	ND	1.0	0.24	1		1,1,1-Trichloroethane	ND	1.0	0.30	1	
4-Chlorotoluene	ND	1.0	0.13	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
Dibromochloromethane	ND	1.0	0.25	1		1,1,2-Trichloroethane	ND	1.0	0.38	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1		Trichloroethene	ND	1.0	0.37	1	
1,2-Dibromoethane	ND	1.0	0.36	1		Trichlorofluoromethane	ND	10	1.7	1	
Dibromomethane	ND	1.0	0.46	1		1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1		1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1		1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1		Vinyl Acetate	ND	10	2.8	1	
Dichlorodifluoromethane	ND	1.0	0.46	1		Vinyl Chloride	ND	0.50	0.30	1	
1,1-Dichloroethane	ND	1.0	0.28	1		p/m-Xylene	ND	1.0	0.24	1	
1,2-Dichloroethane	ND	0.50	0.24	1		o-Xylene	ND	1.0	0.23	1	
1,1-Dichloroethene	ND	1.0	0.43	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1		Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1		Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
1,2-Dichloropropane	ND	1.0	0.42	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.30	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
2,2-Dichloropropane	ND	1.0	0.36	1		Ethanol	ND	100	50	1	
1,1-Dichloropropene	ND	1.0	0.46	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	89	80-120		Dibromofluoromethane	101	80-126	
1,2-Dichloroethane-d4	89	80-134		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Return to Contents



Quality Control - Spike/Spike Duplicate



Parsons, Inc.
100 West Walnut Street
Pasadena, CA 91124-0002

Date Received: 07/11/11
Work Order No: 11-07-0612
Preparation: EPA 5030C
Method: EPA 8015B (M)

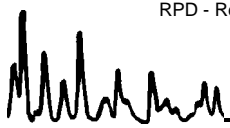
Project NORWALK GWM

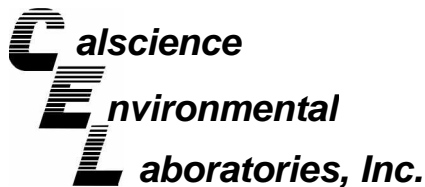
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
11-07-0609-1	Aqueous	GC 56	07/12/11	07/12/11	110712S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	95	94	68-122	0	0-18	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - Spike/Spike Duplicate



Parsons, Inc.
100 West Walnut Street
Pasadena, CA 91124-0002

Date Received: 07/11/11
Work Order No: 11-07-0612
Preparation: EPA 5030C
Method: EPA 8260B

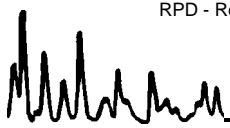
Project NORWALK GWM

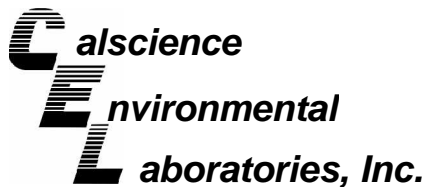
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
11-07-0558-13	Aqueous	GC/MS QQ	07/12/11	07/12/11	110712S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	94	95	78-120	1	0-20	
Carbon Tetrachloride	128	129	67-139	1	0-20	
Chlorobenzene	103	104	80-120	1	0-20	
1,2-Dibromoethane	97	97	80-123	0	0-20	
1,2-Dichlorobenzene	101	101	76-120	1	0-20	
1,2-Dichloroethane	92	91	76-130	1	0-20	
1,1-Dichloroethene	87	86	70-130	1	0-27	
Ethylbenzene	99	100	73-127	1	0-20	
Toluene	98	98	72-126	1	0-20	
Trichloroethene	95	96	74-122	1	0-20	
Vinyl Chloride	99	99	65-131	1	0-24	
Methyl-t-Butyl Ether (MTBE)	76	92	69-123	19	0-20	
Tert-Butyl Alcohol (TBA)	97	99	65-131	2	0-22	
Diisopropyl Ether (DIPE)	79	79	68-128	1	0-22	
Ethyl-t-Butyl Ether (ETBE)	74	74	69-123	0	0-21	
Tert-Amyl-Methyl Ether (TAME)	76	76	70-124	0	0-20	
Ethanol	99	111	41-155	11	0-35	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - LCS/LCS Duplicate



Parsons, Inc.
 100 West Walnut Street
 Pasadena, CA 91124-0002

Date Received: N/A
 Work Order No: 11-07-0612
 Preparation: EPA 3510C
 Method: EPA 8015B (M)

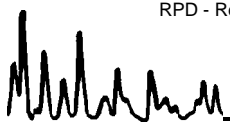
Project: NORWALK GWM

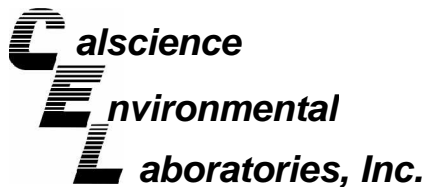
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-366-83	Aqueous	GC 45	07/12/11	07/13/11	110712B10

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as JP5	100	93	75-117	7	0-13	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - LCS/LCS Duplicate



Parsons, Inc.
 100 West Walnut Street
 Pasadena, CA 91124-0002

Date Received: N/A
 Work Order No: 11-07-0612
 Preparation: EPA 5030C
 Method: EPA 8015B (M)

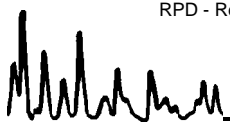
Project: NORWALK GWM

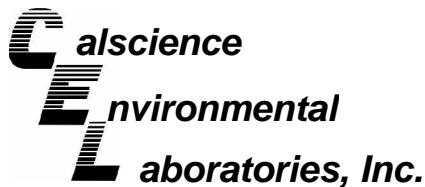
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-247-5,238	Aqueous	GC 56	07/12/11	07/12/11	110712B01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	101	102	78-120	1	0-10	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - LCS/LCS Duplicate



Parsons, Inc.
100 West Walnut Street
Pasadena, CA 91124-0002

Date Received: N/A
Work Order No: 11-07-0612
Preparation: EPA 5030C
Method: EPA 8260B

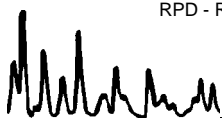
Project: NORWALK GWM

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-14-001-5,138	Aqueous	GC/MS QQ	07/12/11	07/12/11	110712L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	95	95	80-120	73-127	0	0-20	
Carbon Tetrachloride	130	132	66-138	54-150	1	0-20	
Chlorobenzene	103	105	80-120	73-127	1	0-20	
1,2-Dibromoethane	99	98	80-120	73-127	0	0-20	
1,2-Dichlorobenzene	103	102	80-120	73-127	1	0-20	
1,2-Dichloroethane	92	91	80-129	72-137	1	0-20	
1,1-Dichloroethene	88	89	71-131	61-141	2	0-20	
Ethylbenzene	99	101	80-123	73-130	1	0-20	
Toluene	98	97	79-121	72-128	1	0-20	
Trichloroethene	97	96	80-120	73-127	1	0-20	
Vinyl Chloride	99	102	70-136	59-147	2	0-20	
Methyl-t-Butyl Ether (MTBE)	77	77	72-126	63-135	0	0-22	
Tert-Butyl Alcohol (TBA)	95	93	71-125	62-134	2	0-25	
Diisopropyl Ether (DIPE)	79	79	69-129	59-139	0	0-20	
Ethyl-t-Butyl Ether (ETBE)	75	75	69-129	59-139	0	0-20	
Tert-Amyl-Methyl Ether (TAME)	78	77	67-133	56-144	0	0-20	
Ethanol	106	105	47-155	29-173	1	0-36	

Total number of LCS compounds : 17
 Total number of ME compounds : 0
 Total number of ME compounds allowed : 1
 LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

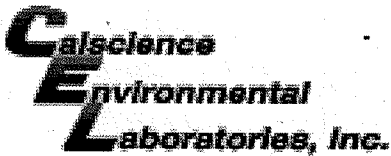


Work Order Number: 11-07-0612

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.





WORK ORDER #: 11-07-0612

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: PARSONS

DATE: 07/11/11

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0°C – 6.0°C, not frozen)

Temperature 2.7 °C + 0.5°C (CF) = 3.2 °C Blank Sample

- Sample(s) outside temperature criteria (PM/APM contacted by: _____).
- Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: Air Filter

Initial: dy

CUSTODY SEALS INTACT:

- Cooler _____ No (Not Intact) Not Present N/A
- Sample _____ No (Not Intact) Not Present

Initial: dy
Initial: js

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> No analysis requested. <input type="checkbox"/> Not relinquished. <input type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours...	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

- Solid:** 4ozCGJ 8ozCGJ 16ozCGJ Sleeve (____) EnCores® TerraCores® _____
- Water:** VOA VOAh VOAna₂ 125AGB 125AGBh 125AGBp 1AGB 1AGBna₂ 1AGBs
- 500AGB 500AGJ 500AGJs 250AGB 250CGB 250CGBs 1PB 500PB 500PBna
- 250PB 250PBn 125PB 125PBzanna 100PJ 100PJna₂ _____ _____ _____

Air: Tedlar® Summa® **Other:** _____ **Trip Blank Lot#:** 110707c **Labeled/Checked by:** js
Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** js
Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ zanna: ZnAc₂+NaOH f: Field-filtered **Scanned by:** js

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Environmental & Marine Chemistry Laboratories



CALSCIENCE

WORK ORDER NUMBER: 11-07-0717

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Parsons, Inc.

Client Project Name: NORWALK GWM

Attention: Mary Lucas
100 West Walnut Street
Pasadena, CA 91124-0002

Approved for release on 07/19/2011 by:
Ranjit Clarke
Project Manager

ResultLink ▶

Email your PM ▶



Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.





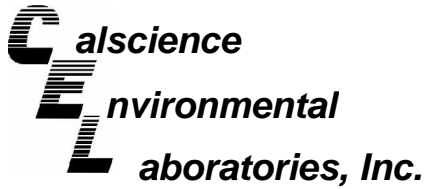
Environmental & Marine Chemistry Laboratories

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Client Project Name: NORWALK GWM

Work Order Number: 11-07-0717

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Analytical Report



Parsons, Inc.
100 West Walnut Street
Pasadena, CA 91124-0002

Date Received: 07/12/11
Work Order No: 11-07-0717
Preparation: EPA 3510C
Method: EPA 8015B (M)

Project: NORWALK GWM

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EXP-3	11-07-0717-1-J	07/12/11 07:25	Aqueous	GC 45	07/12/11	07/13/11 17:17	110712B10

Parameter	Result	RL	DF	Qual	Units
TPH as JP5	ND	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	95	68-140			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GMW-47	11-07-0717-2-G	07/12/11 08:43	Aqueous	GC 45	07/12/11	07/13/11 17:32	110712B10

Parameter	Result	RL	DF	Qual	Units
TPH as JP5	3000	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	111	68-140			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GMW-59	11-07-0717-3-J	07/12/11 09:20	Aqueous	GC 45	07/12/11	07/13/11 17:47	110712B10

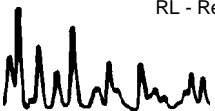
Comment(s): -The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard. Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.

Parameter	Result	RL	DF	Qual	Units
TPH as JP5	1700	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	102	68-140			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GMW-60	11-07-0717-4-J	07/12/11 09:58	Aqueous	GC 45	07/12/11	07/13/11 18:03	110712B10

Parameter	Result	RL	DF	Qual	Units
TPH as JP5	1500	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	106	68-140			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Parsons, Inc.
 100 West Walnut Street
 Pasadena, CA 91124-0002

Date Received: 07/12/11
 Work Order No: 11-07-0717
 Preparation: EPA 3510C
 Method: EPA 8015B (M)

Project: NORWALK GWM

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GMW-61	11-07-0717-5-J	07/12/11 08:06	Aqueous	GC 45	07/12/11	07/13/11 18:19	110712B10

Parameter	Result	RL	DF	Qual	Units
TPH as JP5	240	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	98	68-140			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GMW-59dup	11-07-0717-7-D	07/12/11 00:00	Aqueous	GC 45	07/12/11	07/13/11 18:35	110712B10

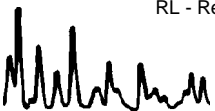
Comment(s): -The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard. Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.

Parameter	Result	RL	DF	Qual	Units
TPH as JP5	2000	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	101	68-140			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-366-83	N/A	Aqueous	GC 45	07/12/11	07/13/11 13:40	110712B10

Parameter	Result	RL	DF	Qual	Units
TPH as JP5	ND	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
Decachlorobiphenyl	94	68-140			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Parsons, Inc.
 100 West Walnut Street
 Pasadena, CA 91124-0002

Date Received: 07/12/11
 Work Order No: 11-07-0717
 Preparation: EPA 5030C
 Method: EPA 8015B (M)

Project: NORWALK GWM

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EXP-3	11-07-0717-1-G	07/12/11 07:25	Aqueous	GC 56	07/14/11	07/14/11 22:19	110714B01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	76	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GMW-59	11-07-0717-3-H	07/12/11 09:20	Aqueous	GC 56	07/15/11	07/15/11 22:35	110715B01

Comment(s): -The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard. Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	1400	200	2		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	96	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GMW-60	11-07-0717-4-G	07/12/11 09:58	Aqueous	GC 56	07/14/11	07/14/11 22:51	110714B01

Comment(s): -The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard. Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.

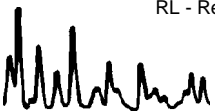
Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	2200	200	2		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	148	38-134		2,7	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GMW-61	11-07-0717-5-H	07/12/11 08:06	Aqueous	GC 56	07/15/11	07/15/11 21:32	110715B01

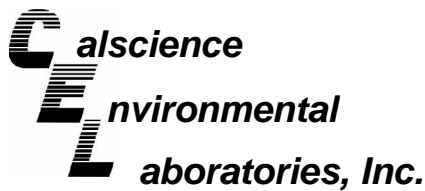
Comment(s): -The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard. Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	230	100	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	102	38-134			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Analytical Report



Parsons, Inc.
100 West Walnut Street
Pasadena, CA 91124-0002

Date Received: 07/12/11
Work Order No: 11-07-0717
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: NORWALK GWM

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-247-5,247	N/A	Aqueous	GC 56	07/14/11	07/14/11 11:46	110714B01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	100	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	73	38-134	

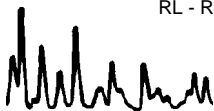
Method Blank	099-12-247-5,249	N/A	Aqueous	GC 56	07/15/11	07/15/11 12:02	110715B01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	100	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	76	38-134	

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Parsons, Inc.
 100 West Walnut Street
 Pasadena, CA 91124-0002

Date Received: 07/12/11
 Work Order No: 11-07-0717
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: NORWALK GWM

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EXP-3	11-07-0717-1-A	07/12/11 07:25	Aqueous	GC/MS Z	07/13/11	07/13/11 13:38	110713L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	20	6.0	1		c-1,3-Dichloropropene	ND	0.50	0.25	1	
Benzene	ND	0.50	0.14	1		t-1,3-Dichloropropene	ND	0.50	0.25	1	
Bromobenzene	ND	1.0	0.30	1		Ethylbenzene	ND	0.50	0.14	1	
Bromochloromethane	ND	1.0	0.48	1		2-Hexanone	ND	10	2.1	1	
Bromodichloromethane	ND	1.0	0.21	1		Isopropylbenzene	ND	1.0	0.58	1	
Bromoform	ND	1.0	0.50	1		p-Isopropyltoluene	ND	1.0	0.16	1	
Bromomethane	ND	5.0	3.9	1		Methylene Chloride	ND	5.0	0.64	1	
2-Butanone	ND	10	2.2	1		4-Methyl-2-Pentanone	ND	10	4.4	1	
n-Butylbenzene	ND	1.0	0.23	1		Naphthalene	ND	10	2.5	1	
sec-Butylbenzene	ND	1.0	0.25	1		n-Propylbenzene	ND	1.0	0.17	1	
tert-Butylbenzene	ND	1.0	0.28	1		Styrene	ND	1.0	0.17	1	
Carbon Disulfide	ND	10	0.41	1		1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
Carbon Tetrachloride	ND	0.50	0.23	1		1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Chlorobenzene	ND	1.0	0.17	1		Tetrachloroethene	ND	1.0	0.39	1	
Chloroethane	ND	5.0	2.3	1		Toluene	ND	0.50	0.24	1	
Chloroform	ND	1.0	0.46	1		1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
Chloromethane	ND	5.0	1.8	1		1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
2-Chlorotoluene	ND	1.0	0.24	1		1,1,1-Trichloroethane	ND	1.0	0.30	1	
4-Chlorotoluene	ND	1.0	0.13	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
Dibromochloromethane	ND	1.0	0.25	1		1,1,2-Trichloroethane	ND	1.0	0.38	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1		Trichloroethene	ND	1.0	0.37	1	
1,2-Dibromoethane	ND	1.0	0.36	1		Trichlorofluoromethane	ND	10	1.7	1	
Dibromomethane	ND	1.0	0.46	1		1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1		1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1		1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1		Vinyl Acetate	ND	10	2.8	1	
Dichlorodifluoromethane	ND	1.0	0.46	1		Vinyl Chloride	ND	0.50	0.30	1	
1,1-Dichloroethane	ND	1.0	0.28	1		p/m-Xylene	ND	0.50	0.24	1	
1,2-Dichloroethane	0.62	0.50	0.24	1		o-Xylene	ND	0.50	0.23	1	
1,1-Dichloroethene	ND	1.0	0.43	1		Methyl-t-Butyl Ether (MTBE)	0.45	0.50	0.31	1	J
c-1,2-Dichloroethene	ND	1.0	0.48	1		Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1		Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
1,2-Dichloropropane	ND	1.0	0.42	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.30	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
2,2-Dichloropropane	ND	1.0	0.36	1		Ethanol	ND	100	50	1	
1,1-Dichloropropene	ND	1.0	0.46	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	103	80-120		Dibromofluoromethane	114	80-126	
1,2-Dichloroethane-d4	117	80-134		Toluene-d8	103	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Parsons, Inc.
 100 West Walnut Street
 Pasadena, CA 91124-0002

Date Received: 07/12/11
 Work Order No: 11-07-0717
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: NORWALK GWM

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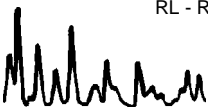
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GMW-47	11-07-0717-2-A	07/12/11 08:43	Aqueous	GC/MS Z	07/13/11	07/13/11 14:07	110713L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	20	6.0	1		c-1,3-Dichloropropene	ND	0.50	0.25	1	
Benzene	0.54	0.50	0.14	1		t-1,3-Dichloropropene	ND	0.50	0.25	1	
Bromobenzene	ND	1.0	0.30	1		Ethylbenzene	0.58	0.50	0.14	1	
Bromochloromethane	ND	1.0	0.48	1		2-Hexanone	ND	10	2.1	1	
Bromodichloromethane	ND	1.0	0.21	1		Isopropylbenzene	18	1.0	0.58	1	
Bromoform	ND	1.0	0.50	1		p-Isopropyltoluene	ND	1.0	0.16	1	
Bromomethane	ND	5.0	3.9	1		Methylene Chloride	ND	5.0	0.64	1	
2-Butanone	ND	10	2.2	1		4-Methyl-2-Pentanone	ND	10	4.4	1	
n-Butylbenzene	ND	1.0	0.23	1		Naphthalene	ND	10	2.5	1	
sec-Butylbenzene	2.4	1.0	0.25	1		n-Propylbenzene	0.53	1.0	0.17	1	J
tert-Butylbenzene	0.76	1.0	0.28	1	J	Styrene	ND	1.0	0.17	1	
Carbon Disulfide	ND	10	0.41	1		1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
Carbon Tetrachloride	ND	0.50	0.23	1		1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Chlorobenzene	ND	1.0	0.17	1		Tetrachloroethene	ND	1.0	0.39	1	
Chloroethane	ND	5.0	2.3	1		Toluene	ND	0.50	0.24	1	
Chloroform	ND	1.0	0.46	1		1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
Chloromethane	ND	5.0	1.8	1		1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
2-Chlorotoluene	ND	1.0	0.24	1		1,1,1-Trichloroethane	ND	1.0	0.30	1	
4-Chlorotoluene	ND	1.0	0.13	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
Dibromochloromethane	ND	1.0	0.25	1		1,1,2-Trichloroethane	ND	1.0	0.38	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1		Trichloroethene	ND	1.0	0.37	1	
1,2-Dibromoethane	ND	1.0	0.36	1		Trichlorofluoromethane	ND	10	1.7	1	
Dibromomethane	ND	1.0	0.46	1		1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1		1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1		1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1		Vinyl Acetate	ND	10	2.8	1	
Dichlorodifluoromethane	ND	1.0	0.46	1		Vinyl Chloride	ND	0.50	0.30	1	
1,1-Dichloroethane	0.36	1.0	0.28	1	J	p/m-Xylene	ND	0.50	0.24	1	
1,2-Dichloroethane	ND	0.50	0.24	1		o-Xylene	ND	0.50	0.23	1	
1,1-Dichloroethene	ND	1.0	0.43	1		Methyl-t-Butyl Ether (MTBE)	3.8	0.50	0.31	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1		Tert-Butyl Alcohol (TBA)	32	10	4.6	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1		Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
1,2-Dichloropropane	ND	1.0	0.42	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.30	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
2,2-Dichloropropane	ND	1.0	0.36	1		Ethanol	ND	100	50	1	
1,1-Dichloropropene	ND	1.0	0.46	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	104	80-120		Dibromofluoromethane	123	80-126	
1,2-Dichloroethane-d4	119	80-134		Toluene-d8	104	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Parsons, Inc.
 100 West Walnut Street
 Pasadena, CA 91124-0002

Date Received: 07/12/11
 Work Order No: 11-07-0717
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: NORWALK GWM

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GMW-59	11-07-0717-3-A	07/12/11 09:20	Aqueous	GC/MS Z	07/13/11	07/13/11 16:02	110713L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

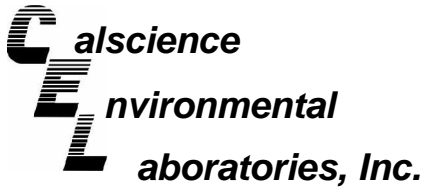
Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	6.8	20	6.0	1	J	c-1,3-Dichloropropene	ND	0.50	0.25	1	
Benzene	14	0.50	0.14	1		t-1,3-Dichloropropene	ND	0.50	0.25	1	
Bromobenzene	ND	1.0	0.30	1		Ethylbenzene	0.43	0.50	0.14	1	J
Bromochloromethane	ND	1.0	0.48	1		2-Hexanone	ND	10	2.1	1	
Bromodichloromethane	ND	1.0	0.21	1		Isopropylbenzene	27	1.0	0.58	1	
Bromoform	ND	1.0	0.50	1		p-Isopropyltoluene	ND	1.0	0.16	1	
Bromomethane	ND	5.0	3.9	1		Methylene Chloride	ND	5.0	0.64	1	
2-Butanone	ND	10	2.2	1		4-Methyl-2-Pentanone	ND	10	4.4	1	
n-Butylbenzene	1.2	1.0	0.23	1		Naphthalene	4.3	10	2.5	1	J
sec-Butylbenzene	3.4	1.0	0.25	1		n-Propylbenzene	19	1.0	0.17	1	
tert-Butylbenzene	0.76	1.0	0.28	1	J	Styrene	ND	1.0	0.17	1	
Carbon Disulfide	ND	10	0.41	1		1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
Carbon Tetrachloride	ND	0.50	0.23	1		1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Chlorobenzene	ND	1.0	0.17	1		Tetrachloroethene	ND	1.0	0.39	1	
Chloroethane	ND	5.0	2.3	1		Toluene	ND	0.50	0.24	1	
Chloroform	ND	1.0	0.46	1		1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
Chloromethane	ND	5.0	1.8	1		1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
2-Chlorotoluene	ND	1.0	0.24	1		1,1,1-Trichloroethane	ND	1.0	0.30	1	
4-Chlorotoluene	ND	1.0	0.13	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
Dibromochloromethane	ND	1.0	0.25	1		1,1,2-Trichloroethane	ND	1.0	0.38	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1		Trichloroethene	ND	1.0	0.37	1	
1,2-Dibromoethane	ND	1.0	0.36	1		Trichlorofluoromethane	ND	10	1.7	1	
Dibromomethane	ND	1.0	0.46	1		1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1		1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1		1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1		Vinyl Acetate	ND	10	2.8	1	
Dichlorodifluoromethane	ND	1.0	0.46	1		Vinyl Chloride	ND	0.50	0.30	1	
1,1-Dichloroethane	ND	1.0	0.28	1		p/m-Xylene	ND	0.50	0.24	1	
1,2-Dichloroethane	ND	0.50	0.24	1		o-Xylene	ND	0.50	0.23	1	
1,1-Dichloroethene	ND	1.0	0.43	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.31	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1		Tert-Butyl Alcohol (TBA)	8.0	10	4.6	1	J
t-1,2-Dichloroethene	ND	1.0	0.37	1		Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
1,2-Dichloropropane	ND	1.0	0.42	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.30	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
2,2-Dichloropropane	ND	1.0	0.36	1		Ethanol	ND	100	50	1	
1,1-Dichloropropene	ND	1.0	0.46	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	106	80-120		Dibromofluoromethane	123	80-126	
1,2-Dichloroethane-d4	118	80-134		Toluene-d8	102	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Analytical Report



Parsons, Inc.
100 West Walnut Street
Pasadena, CA 91124-0002

Date Received: 07/12/11
Work Order No: 11-07-0717
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: NORWALK GWM

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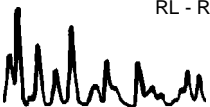
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GMW-60	11-07-0717-4-A	07/12/11 09:58	Aqueous	GC/MS Z	07/13/11	07/13/11 16:31	110713L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

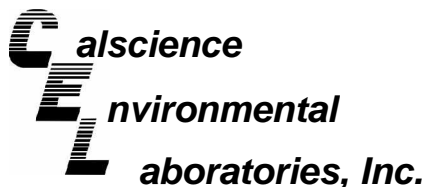
Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	20	6.0	1		c-1,3-Dichloropropene	ND	0.50	0.25	1	
Benzene	560	2.5	0.71	5		t-1,3-Dichloropropene	ND	0.50	0.25	1	
Bromobenzene	ND	1.0	0.30	1		Ethylbenzene	10	0.50	0.14	1	
Bromochloromethane	ND	1.0	0.48	1		2-Hexanone	ND	10	2.1	1	
Bromodichloromethane	ND	1.0	0.21	1		Isopropylbenzene	83	1.0	0.58	1	
Bromoform	ND	1.0	0.50	1		p-Isopropyltoluene	ND	1.0	0.16	1	
Bromomethane	ND	5.0	3.9	1		Methylene Chloride	ND	5.0	0.64	1	
2-Butanone	ND	10	2.2	1		4-Methyl-2-Pentanone	ND	10	4.4	1	
n-Butylbenzene	3.7	1.0	0.23	1		Naphthalene	150	10	2.5	1	
sec-Butylbenzene	10	1.0	0.25	1		n-Propylbenzene	85	1.0	0.17	1	
tert-Butylbenzene	1.5	1.0	0.28	1		Styrene	ND	1.0	0.17	1	
Carbon Disulfide	ND	10	0.41	1		1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
Carbon Tetrachloride	ND	0.50	0.23	1		1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Chlorobenzene	ND	1.0	0.17	1		Tetrachloroethene	ND	1.0	0.39	1	
Chloroethane	ND	5.0	2.3	1		Toluene	ND	0.50	0.24	1	
Chloroform	ND	1.0	0.46	1		1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
Chloromethane	ND	5.0	1.8	1		1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
2-Chlorotoluene	ND	1.0	0.24	1		1,1,1-Trichloroethane	ND	1.0	0.30	1	
4-Chlorotoluene	ND	1.0	0.13	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
Dibromochloromethane	ND	1.0	0.25	1		1,1,2-Trichloroethane	ND	1.0	0.38	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1		Trichloroethene	ND	1.0	0.37	1	
1,2-Dibromoethane	ND	1.0	0.36	1		Trichlorofluoromethane	ND	10	1.7	1	
Dibromomethane	ND	1.0	0.46	1		1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1		1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1		1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1		Vinyl Acetate	ND	10	2.8	1	
Dichlorodifluoromethane	ND	1.0	0.46	1		Vinyl Chloride	ND	0.50	0.30	1	
1,1-Dichloroethane	ND	1.0	0.28	1		p/m-Xylene	ND	0.50	0.24	1	
1,2-Dichloroethane	ND	0.50	0.24	1		o-Xylene	0.27	0.50	0.23	1	J
1,1-Dichloroethene	ND	1.0	0.43	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.31	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1		Tert-Butyl Alcohol (TBA)	8.8	10	4.6	1	J
t-1,2-Dichloroethene	ND	1.0	0.37	1		Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
1,2-Dichloropropane	ND	1.0	0.42	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.30	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
2,2-Dichloropropane	ND	1.0	0.36	1		Ethanol	ND	100	50	1	
1,1-Dichloropropene	ND	1.0	0.46	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	105	80-120		Dibromofluoromethane	122	80-126	
1,2-Dichloroethane-d4	116	80-134		Toluene-d8	104	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Analytical Report



Parsons, Inc.
100 West Walnut Street
Pasadena, CA 91124-0002

Date Received: 07/12/11
Work Order No: 11-07-0717
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: NORWALK GWM

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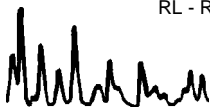
Table with 8 columns: Client Sample Number, Lab Sample Number, Date/Time Collected, Matrix, Instrument, Date Prepared, Date/Time Analyzed, QC Batch ID. Row 1: GMW-61, 11-07-0717-5-A, 07/12/11 08:06, Aqueous, GC/MS Z, 07/13/11, 07/13/11 17:29, 110713L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Main data table with columns: Parameter, Result, RL, MDL, DF, Qual, Parameter, Result, RL, MDL, DF, Qual. Lists various chemical compounds and their detection results.

Surrogates table with columns: Surrogates, REC (%), Control Limits, Qual, Surrogates, REC (%), Control Limits, Qual. Lists 1,4-Bromofluorobenzene, 1,2-Dichloroethane-d4, Dibromofluoromethane, and Toluene-d8.

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Parsons, Inc.
 100 West Walnut Street
 Pasadena, CA 91124-0002

Date Received: 07/12/11
 Work Order No: 11-07-0717
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: NORWALK GWM

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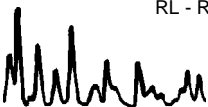
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-2	11-07-0717-6-A	07/12/11 06:30	Aqueous	GC/MS Z	07/13/11	07/13/11 17:58	110713L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	20	6.0	1		c-1,3-Dichloropropene	ND	0.50	0.25	1	
Benzene	ND	0.50	0.14	1		t-1,3-Dichloropropene	ND	0.50	0.25	1	
Bromobenzene	ND	1.0	0.30	1		Ethylbenzene	ND	0.50	0.14	1	
Bromochloromethane	ND	1.0	0.48	1		2-Hexanone	ND	10	2.1	1	
Bromodichloromethane	ND	1.0	0.21	1		Isopropylbenzene	ND	1.0	0.58	1	
Bromoform	ND	1.0	0.50	1		p-Isopropyltoluene	ND	1.0	0.16	1	
Bromomethane	ND	5.0	3.9	1		Methylene Chloride	2.2	5.0	0.64	1	J
2-Butanone	ND	10	2.2	1		4-Methyl-2-Pentanone	ND	10	4.4	1	
n-Butylbenzene	ND	1.0	0.23	1		Naphthalene	ND	10	2.5	1	
sec-Butylbenzene	ND	1.0	0.25	1		n-Propylbenzene	ND	1.0	0.17	1	
tert-Butylbenzene	ND	1.0	0.28	1		Styrene	ND	1.0	0.17	1	
Carbon Disulfide	ND	10	0.41	1		1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
Carbon Tetrachloride	ND	0.50	0.23	1		1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Chlorobenzene	ND	1.0	0.17	1		Tetrachloroethene	ND	1.0	0.39	1	
Chloroethane	ND	5.0	2.3	1		Toluene	ND	0.50	0.24	1	
Chloroform	ND	1.0	0.46	1		1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
Chloromethane	ND	5.0	1.8	1		1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
2-Chlorotoluene	ND	1.0	0.24	1		1,1,1-Trichloroethane	ND	1.0	0.30	1	
4-Chlorotoluene	ND	1.0	0.13	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
Dibromochloromethane	ND	1.0	0.25	1		1,1,2-Trichloroethane	ND	1.0	0.38	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1		Trichloroethene	ND	1.0	0.37	1	
1,2-Dibromoethane	ND	1.0	0.36	1		Trichlorofluoromethane	ND	10	1.7	1	
Dibromomethane	ND	1.0	0.46	1		1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1		1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1		1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1		Vinyl Acetate	ND	10	2.8	1	
Dichlorodifluoromethane	ND	1.0	0.46	1		Vinyl Chloride	ND	0.50	0.30	1	
1,1-Dichloroethane	ND	1.0	0.28	1		p/m-Xylene	ND	0.50	0.24	1	
1,2-Dichloroethane	ND	0.50	0.24	1		o-Xylene	ND	0.50	0.23	1	
1,1-Dichloroethene	ND	1.0	0.43	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.31	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1		Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1		Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
1,2-Dichloropropane	ND	1.0	0.42	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.30	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
2,2-Dichloropropane	ND	1.0	0.36	1		Ethanol	ND	100	50	1	
1,1-Dichloropropene	ND	1.0	0.46	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	105	80-120		Dibromofluoromethane	119	80-126	
1,2-Dichloroethane-d4	113	80-134		Toluene-d8	102	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Parsons, Inc.
 100 West Walnut Street
 Pasadena, CA 91124-0002

Date Received: 07/12/11
 Work Order No: 11-07-0717
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: NORWALK GWM

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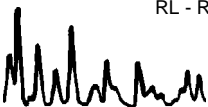
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GMW-59dup	11-07-0717-7-A	07/12/11 00:00	Aqueous	GC/MS Z	07/13/11	07/13/11 18:27	110713L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	20	6.0	1		c-1,3-Dichloropropene	ND	0.50	0.25	1	
Benzene	14	0.50	0.14	1		t-1,3-Dichloropropene	ND	0.50	0.25	1	
Bromobenzene	ND	1.0	0.30	1		Ethylbenzene	0.41	0.50	0.14	1	J
Bromochloromethane	ND	1.0	0.48	1		2-Hexanone	ND	10	2.1	1	
Bromodichloromethane	ND	1.0	0.21	1		Isopropylbenzene	27	1.0	0.58	1	
Bromoform	ND	1.0	0.50	1		p-Isopropyltoluene	ND	1.0	0.16	1	
Bromomethane	ND	5.0	3.9	1		Methylene Chloride	ND	5.0	0.64	1	
2-Butanone	ND	10	2.2	1		4-Methyl-2-Pentanone	ND	10	4.4	1	
n-Butylbenzene	1.2	1.0	0.23	1		Naphthalene	3.9	10	2.5	1	J
sec-Butylbenzene	3.4	1.0	0.25	1		n-Propylbenzene	19	1.0	0.17	1	
tert-Butylbenzene	0.76	1.0	0.28	1	J	Styrene	ND	1.0	0.17	1	
Carbon Disulfide	ND	10	0.41	1		1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
Carbon Tetrachloride	ND	0.50	0.23	1		1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Chlorobenzene	ND	1.0	0.17	1		Tetrachloroethene	ND	1.0	0.39	1	
Chloroethane	ND	5.0	2.3	1		Toluene	ND	0.50	0.24	1	
Chloroform	ND	1.0	0.46	1		1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
Chloromethane	ND	5.0	1.8	1		1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
2-Chlorotoluene	ND	1.0	0.24	1		1,1,1-Trichloroethane	ND	1.0	0.30	1	
4-Chlorotoluene	ND	1.0	0.13	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
Dibromochloromethane	ND	1.0	0.25	1		1,1,2-Trichloroethane	ND	1.0	0.38	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1		Trichloroethene	ND	1.0	0.37	1	
1,2-Dibromoethane	ND	1.0	0.36	1		Trichlorofluoromethane	ND	10	1.7	1	
Dibromomethane	ND	1.0	0.46	1		1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1		1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1		1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1		Vinyl Acetate	ND	10	2.8	1	
Dichlorodifluoromethane	ND	1.0	0.46	1		Vinyl Chloride	ND	0.50	0.30	1	
1,1-Dichloroethane	ND	1.0	0.28	1		p/m-Xylene	ND	0.50	0.24	1	
1,2-Dichloroethane	ND	0.50	0.24	1		o-Xylene	ND	0.50	0.23	1	
1,1-Dichloroethene	ND	1.0	0.43	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.31	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1		Tert-Butyl Alcohol (TBA)	7.5	10	4.6	1	J
t-1,2-Dichloroethene	ND	1.0	0.37	1		Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
1,2-Dichloropropane	ND	1.0	0.42	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.30	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
2,2-Dichloropropane	ND	1.0	0.36	1		Ethanol	ND	100	50	1	
1,1-Dichloropropene	ND	1.0	0.46	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	106	80-120		Dibromofluoromethane	119	80-126	
1,2-Dichloroethane-d4	114	80-134		Toluene-d8	104	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Parsons, Inc.
 100 West Walnut Street
 Pasadena, CA 91124-0002

Date Received: 07/12/11
 Work Order No: 11-07-0717
 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/L

Project: NORWALK GWM

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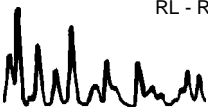
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-001-5,150	N/A	Aqueous	GC/MS Z	07/13/11	07/13/11 13:09	110713L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

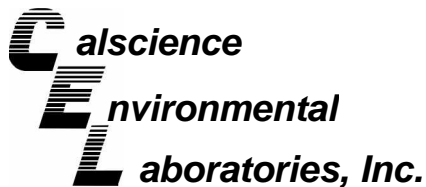
Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	20	6.0	1		c-1,3-Dichloropropene	ND	0.50	0.25	1	
Benzene	ND	0.50	0.14	1		t-1,3-Dichloropropene	ND	0.50	0.25	1	
Bromobenzene	ND	1.0	0.30	1		Ethylbenzene	ND	1.0	0.14	1	
Bromochloromethane	ND	1.0	0.48	1		2-Hexanone	ND	10	2.1	1	
Bromodichloromethane	ND	1.0	0.21	1		Isopropylbenzene	ND	1.0	0.58	1	
Bromoform	ND	1.0	0.50	1		p-Isopropyltoluene	ND	1.0	0.16	1	
Bromomethane	ND	10	3.9	1		Methylene Chloride	ND	10	0.64	1	
2-Butanone	ND	10	2.2	1		4-Methyl-2-Pentanone	ND	10	4.4	1	
n-Butylbenzene	ND	1.0	0.23	1		Naphthalene	ND	10	2.5	1	
sec-Butylbenzene	ND	1.0	0.25	1		n-Propylbenzene	ND	1.0	0.17	1	
tert-Butylbenzene	ND	1.0	0.28	1		Styrene	ND	1.0	0.17	1	
Carbon Disulfide	ND	10	0.41	1		1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
Carbon Tetrachloride	ND	0.50	0.23	1		1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Chlorobenzene	ND	1.0	0.17	1		Tetrachloroethene	ND	1.0	0.39	1	
Chloroethane	ND	5.0	2.3	1		Toluene	ND	1.0	0.24	1	
Chloroform	ND	1.0	0.46	1		1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
Chloromethane	ND	10	1.8	1		1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
2-Chlorotoluene	ND	1.0	0.24	1		1,1,1-Trichloroethane	ND	1.0	0.30	1	
4-Chlorotoluene	ND	1.0	0.13	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
Dibromochloromethane	ND	1.0	0.25	1		1,1,2-Trichloroethane	ND	1.0	0.38	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1		Trichloroethene	ND	1.0	0.37	1	
1,2-Dibromoethane	ND	1.0	0.36	1		Trichlorofluoromethane	ND	10	1.7	1	
Dibromomethane	ND	1.0	0.46	1		1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1		1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1		1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1		Vinyl Acetate	ND	10	2.8	1	
Dichlorodifluoromethane	ND	1.0	0.46	1		Vinyl Chloride	ND	0.50	0.30	1	
1,1-Dichloroethane	ND	1.0	0.28	1		p/m-Xylene	ND	1.0	0.24	1	
1,2-Dichloroethane	ND	0.50	0.24	1		o-Xylene	ND	1.0	0.23	1	
1,1-Dichloroethene	ND	1.0	0.43	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1		Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1		Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
1,2-Dichloropropane	ND	1.0	0.42	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.30	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
2,2-Dichloropropane	ND	1.0	0.36	1		Ethanol	ND	100	50	1	
1,1-Dichloropropene	ND	1.0	0.46	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	104	80-120		Dibromofluoromethane	114	80-126	
1,2-Dichloroethane-d4	118	80-134		Toluene-d8	102	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Return to Contents



Quality Control - Spike/Spike Duplicate



Parsons, Inc.
100 West Walnut Street
Pasadena, CA 91124-0002

Date Received: 07/12/11
Work Order No: 11-07-0717
Preparation: EPA 5030C
Method: EPA 8015B (M)

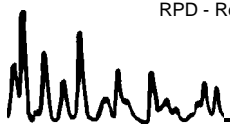
Project NORWALK GWM

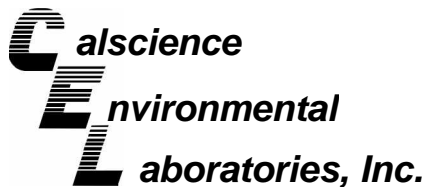
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
11-07-0786-1	Aqueous	GC 56	07/14/11	07/14/11	110714S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	97	96	68-122	1	0-18	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - Spike/Spike Duplicate



Parsons, Inc.
100 West Walnut Street
Pasadena, CA 91124-0002

Date Received: 07/12/11
Work Order No: 11-07-0717
Preparation: EPA 5030C
Method: EPA 8015B (M)

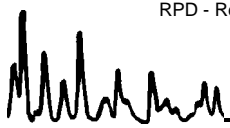
Project NORWALK GWM

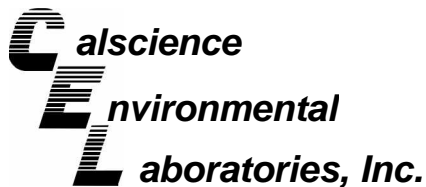
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
11-07-0863-1	Aqueous	GC 56	07/15/11	07/15/11	110715S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	101	100	70-112	1	0-17	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - Spike/Spike Duplicate



Parsons, Inc.
100 West Walnut Street
Pasadena, CA 91124-0002

Date Received: 07/12/11
Work Order No: 11-07-0717
Preparation: EPA 5030C
Method: EPA 8260B

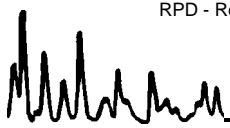
Project NORWALK GWM

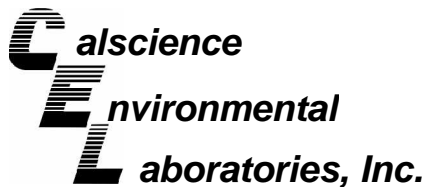
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
GMW-47	Aqueous	GC/MS Z	07/13/11	07/13/11	110713S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	92	90	78-120	2	0-20	
Carbon Tetrachloride	109	109	67-139	1	0-20	
Chlorobenzene	94	92	80-120	2	0-20	
1,2-Dibromoethane	94	92	80-123	2	0-20	
1,2-Dichlorobenzene	89	88	76-120	0	0-20	
1,2-Dichloroethane	112	110	76-130	2	0-20	
1,1-Dichloroethene	86	86	70-130	0	0-27	
Ethylbenzene	97	94	73-127	3	0-20	
Toluene	93	92	72-126	1	0-20	
Trichloroethene	92	90	74-122	2	0-20	
Vinyl Chloride	102	106	65-131	5	0-24	
Methyl-t-Butyl Ether (MTBE)	93	97	69-123	3	0-20	
Tert-Butyl Alcohol (TBA)	99	93	65-131	5	0-22	
Diisopropyl Ether (DIPE)	97	98	68-128	1	0-22	
Ethyl-t-Butyl Ether (ETBE)	99	100	69-123	1	0-21	
Tert-Amyl-Methyl Ether (TAME)	95	96	70-124	0	0-20	
Ethanol	90	85	41-155	5	0-35	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - LCS/LCS Duplicate



Parsons, Inc.
 100 West Walnut Street
 Pasadena, CA 91124-0002

Date Received: N/A
 Work Order No: 11-07-0717
 Preparation: EPA 3510C
 Method: EPA 8015B (M)

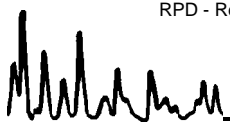
Project: NORWALK GWM

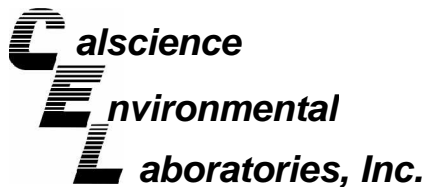
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-366-83	Aqueous	GC 45	07/12/11	07/13/11	110712B10

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as JP5	100	93	75-117	7	0-13	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - LCS/LCS Duplicate



Parsons, Inc.
100 West Walnut Street
Pasadena, CA 91124-0002

Date Received: N/A
Work Order No: 11-07-0717
Preparation: EPA 5030C
Method: EPA 8015B (M)

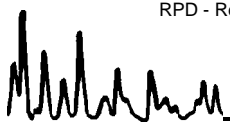
Project: NORWALK GWM

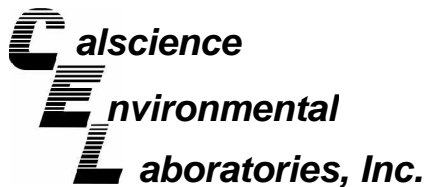
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-247-5,247	Aqueous	GC 56	07/14/11	07/14/11	110714B01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	103	100	78-120	3	0-10	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - LCS/LCS Duplicate



Parsons, Inc.
100 West Walnut Street
Pasadena, CA 91124-0002

Date Received: N/A
Work Order No: 11-07-0717
Preparation: EPA 5030C
Method: EPA 8015B (M)

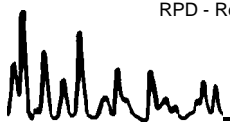
Project: NORWALK GWM

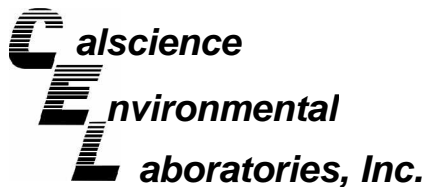
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-247-5,249	Aqueous	GC 56	07/15/11	07/15/11	110715B01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	100	100	78-120	0	0-10	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - LCS/LCS Duplicate



Parsons, Inc.
100 West Walnut Street
Pasadena, CA 91124-0002

Date Received: N/A
Work Order No: 11-07-0717
Preparation: EPA 5030C
Method: EPA 8260B

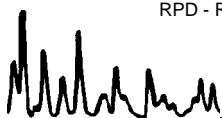
Project: NORWALK GWM

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-14-001-5,150	Aqueous	GC/MS Z	07/13/11	07/13/11	110713L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	92	91	80-120	73-127	0	0-20	
Carbon Tetrachloride	114	109	66-138	54-150	4	0-20	
Chlorobenzene	94	93	80-120	73-127	1	0-20	
1,2-Dibromoethane	94	92	80-120	73-127	2	0-20	
1,2-Dichlorobenzene	90	90	80-120	73-127	0	0-20	
1,2-Dichloroethane	111	110	80-129	72-137	0	0-20	
1,1-Dichloroethene	90	86	71-131	61-141	4	0-20	
Ethylbenzene	97	95	80-123	73-130	2	0-20	
Toluene	93	92	79-121	72-128	0	0-20	
Trichloroethene	95	91	80-120	73-127	4	0-20	
Vinyl Chloride	105	104	70-136	59-147	2	0-20	
Methyl-t-Butyl Ether (MTBE)	98	96	72-126	63-135	2	0-22	
Tert-Butyl Alcohol (TBA)	99	99	71-125	62-134	0	0-25	
Diisopropyl Ether (DIPE)	102	100	69-129	59-139	2	0-20	
Ethyl-t-Butyl Ether (ETBE)	103	102	69-129	59-139	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	96	96	67-133	56-144	0	0-20	
Ethanol	97	82	47-155	29-173	17	0-36	

Total number of LCS compounds : 17
 Total number of ME compounds : 0
 Total number of ME compounds allowed : 1
 LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

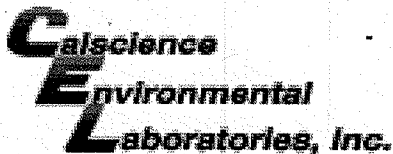


Work Order Number: 11-07-0717

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.





WORK ORDER #: 11-07-0717

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: PARSONS

DATE: 07/12/11

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0°C – 6.0°C, not frozen)

Temperature 2.4 °C + 0.5°C (CF) = 2.9 °C Blank Sample

Sample(s) outside temperature criteria (PM/APM contacted by: _____):

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: Air Filter Initial: AM

CUSTODY SEALS INTACT:

Cooler _____ No (Not Intact) Not Present N/A Initial: AM

Sample _____ No (Not Intact) Not Present Initial: TW

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> No analysis requested. <input type="checkbox"/> Not relinquished. <input type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours...	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve (____) EnCores® TerraCores® _____

Water: VOA VOAh VOAna₂ 125AGB 125AGBh 125AGBp 1AGB 1AGBna₂ 1AGBs

500AGB 500AGJ 500AGJs 250AGB 250CGB 250CGBs 1PB 500PB 500PBna

250PB 250PBn 125PB 125PBz_{na} 100PJ 100PJna₂ _____ _____ _____

Air: Tedlar® Summa® **Other:** _____ **Trip Blank Lot#:** 11070X **Labeled/Checked by:** TW

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** TW

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ z_{na}: ZnAc₂+NaOH f: Field-filtered **Scanned by:** TW

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Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135
Date Received : 07/14/11

Job: KMEP DFSP Norwalk

Total Petroleum Hydrocarbons - Extractable (TPH-E) EPA Method SW8015B
Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B

	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID :	EXP-5				
Lab ID :	CHH11071403-02A	TPH-E (Fuel Product)	0.11	0.10 mg/L	07/15/11
Date Sampled	07/11/11 11:35	Surr: Nonane	118	(49-145) %REC	07/15/11
		TPH-P (GRO)	ND	0.050 mg/L	07/18/11
		Surr: 1,2-Dichloroethane-d4	104	(70-130) %REC	07/18/11
		Surr: Toluene-d8	100	(70-130) %REC	07/18/11
		Surr: 4-Bromofluorobenzene	99	(70-130) %REC	07/18/11
Client ID :	WCW-13				
Lab ID :	CHH11071403-03A	TPH-E (Fuel Product)	ND	0.10 mg/L	07/15/11
Date Sampled	07/11/11 12:40	Surr: Nonane	112	(49-145) %REC	07/15/11
		TPH-P (GRO)	ND	0.050 mg/L	07/18/11
		Surr: 1,2-Dichloroethane-d4	103	(70-130) %REC	07/18/11
		Surr: Toluene-d8	101	(70-130) %REC	07/18/11
		Surr: 4-Bromofluorobenzene	100	(70-130) %REC	07/18/11
Client ID :	GMW-O-1				
Lab ID :	CHH11071403-04A	TPH-E (Fuel Product)	ND	0.10 mg/L	07/15/11
Date Sampled	07/11/11 13:35	Surr: Nonane	114	(49-145) %REC	07/15/11
		TPH-P (GRO)	ND	0.050 mg/L	07/18/11
		Surr: 1,2-Dichloroethane-d4	103	(70-130) %REC	07/18/11
		Surr: Toluene-d8	99	(70-130) %REC	07/18/11
		Surr: 4-Bromofluorobenzene	99	(70-130) %REC	07/18/11
Client ID :	GMW-O-3				
Lab ID :	CHH11071403-05A	TPH-E (Fuel Product)	ND	0.10 mg/L	07/15/11
Date Sampled	07/11/11 14:10	Surr: Nonane	116	(49-145) %REC	07/15/11
		TPH-P (GRO)	ND	0.050 mg/L	07/18/11
		Surr: 1,2-Dichloroethane-d4	102	(70-130) %REC	07/18/11
		Surr: Toluene-d8	95	(70-130) %REC	07/18/11
		Surr: 4-Bromofluorobenzene	98	(70-130) %REC	07/18/11
Client ID :	GMWO-19				
Lab ID :	CHH11071403-06A	TPH-E (Fuel Product)	ND	0.10 mg/L	07/15/11
Date Sampled	07/11/11 15:00	Surr: Nonane	113	(49-145) %REC	07/15/11
		TPH-P (GRO)	ND	0.050 mg/L	07/18/11
		Surr: 1,2-Dichloroethane-d4	103	(70-130) %REC	07/18/11
		Surr: Toluene-d8	97	(70-130) %REC	07/18/11
		Surr: 4-Bromofluorobenzene	98	(70-130) %REC	07/18/11
Client ID :	EB-1				
Lab ID :	CHH11071403-07A	TPH-E (Fuel Product)	ND	0.10 mg/L	07/15/11
Date Sampled	07/11/11 14:35	Surr: Nonane	117	(49-145) %REC	07/15/11
		TPH-P (GRO)	ND	0.050 mg/L	07/18/11
		Surr: 1,2-Dichloroethane-d4	104	(70-130) %REC	07/18/11
		Surr: Toluene-d8	101	(70-130) %REC	07/18/11
		Surr: 4-Bromofluorobenzene	100	(70-130) %REC	07/18/11



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Client ID : EXP-1

Lab ID :	CHH11071403-08A	TPH-E (Fuel Product)	ND	0.10 mg/L	07/15/11	07/15/11
Date Sampled	07/11/11 08:01	Surr: Nonane	113	(49-145) %REC	07/15/11	07/15/11
		TPH-P (GRO)	ND	0.050 mg/L	07/18/11	07/18/11
		Surr: 1,2-Dichloroethane-d4	102	(70-130) %REC	07/18/11	07/18/11
		Surr: Toluene-d8	99	(70-130) %REC	07/18/11	07/18/11
		Surr: 4-Bromofluorobenzene	98	(70-130) %REC	07/18/11	07/18/11

Client ID : EXP-2

Lab ID :	CHH11071403-09A	TPH-E (Fuel Product)	ND	0.10 mg/L	07/15/11	07/15/11
Date Sampled	07/11/11 08:47	Surr: Nonane	123	(49-145) %REC	07/15/11	07/15/11
		TPH-P (GRO)	ND	0.050 mg/L	07/18/11	07/18/11
		Surr: 1,2-Dichloroethane-d4	102	(70-130) %REC	07/18/11	07/18/11
		Surr: Toluene-d8	100	(70-130) %REC	07/18/11	07/18/11
		Surr: 4-Bromofluorobenzene	99	(70-130) %REC	07/18/11	07/18/11

Client ID : WCW-3

Lab ID :	CHH11071403-10A	TPH-E (Fuel Product)	ND	0.10 mg/L	07/15/11	07/15/11
Date Sampled	07/12/11 07:20	Surr: Nonane	115	(49-145) %REC	07/15/11	07/15/11
		TPH-P (GRO)	ND	0.050 mg/L	07/18/11	07/18/11
		Surr: 1,2-Dichloroethane-d4	101	(70-130) %REC	07/18/11	07/18/11
		Surr: Toluene-d8	98	(70-130) %REC	07/18/11	07/18/11
		Surr: 4-Bromofluorobenzene	97	(70-130) %REC	07/18/11	07/18/11

Client ID : EXP-3

Lab ID :	CHH11071403-11A	TPH-E (Fuel Product)	ND	0.10 mg/L	07/15/11	07/15/11
Date Sampled	07/12/11 07:25	Surr: Nonane	112	(49-145) %REC	07/15/11	07/15/11
		TPH-P (GRO)	ND	0.050 mg/L	07/18/11	07/18/11
		Surr: 1,2-Dichloroethane-d4	102	(70-130) %REC	07/18/11	07/18/11
		Surr: Toluene-d8	98	(70-130) %REC	07/18/11	07/18/11
		Surr: 4-Bromofluorobenzene	98	(70-130) %REC	07/18/11	07/18/11

Client ID : GMW-38

Lab ID :	CHH11071403-12A	TPH-E (Fuel Product)	ND	0.10 mg/L	07/15/11	07/15/11
Date Sampled	07/12/11 08:10	Surr: Nonane	119	(49-145) %REC	07/15/11	07/15/11
		TPH-P (GRO)	ND	0.050 mg/L	07/18/11	07/18/11
		Surr: 1,2-Dichloroethane-d4	102	(70-130) %REC	07/18/11	07/18/11
		Surr: Toluene-d8	98	(70-130) %REC	07/18/11	07/18/11
		Surr: 4-Bromofluorobenzene	100	(70-130) %REC	07/18/11	07/18/11

Client ID : WCW-7

Lab ID :	CHH11071403-13A	TPH-E (Fuel Product)	ND	0.10 mg/L	07/15/11	07/15/11
Date Sampled	07/12/11 09:05	Surr: Nonane	120	(49-145) %REC	07/15/11	07/15/11
		TPH-P (GRO)	ND	0.050 mg/L	07/18/11	07/18/11
		Surr: 1,2-Dichloroethane-d4	103	(70-130) %REC	07/18/11	07/18/11
		Surr: Toluene-d8	97	(70-130) %REC	07/18/11	07/18/11
		Surr: 4-Bromofluorobenzene	98	(70-130) %REC	07/18/11	07/18/11

Client ID : GMW-O-2

Lab ID :	CHH11071403-14A	TPH-E (Fuel Product)	ND	0.10 mg/L	07/15/11	07/15/11
Date Sampled	07/12/11 09:50	Surr: Nonane	123	(49-145) %REC	07/15/11	07/15/11
		TPH-P (GRO)	ND	0.050 mg/L	07/19/11	07/19/11
		Surr: 1,2-Dichloroethane-d4	102	(70-130) %REC	07/19/11	07/19/11
		Surr: Toluene-d8	99	(70-130) %REC	07/19/11	07/19/11
		Surr: 4-Bromofluorobenzene	100	(70-130) %REC	07/19/11	07/19/11

Client ID : GMW-O-16

Lab ID :	CHH11071403-15A	TPH-E (Fuel Product)	0.12	0.10 mg/L	07/15/11	07/16/11
Date Sampled	07/12/11 10:35	Surr: Nonane	112	(49-145) %REC	07/15/11	07/16/11
		TPH-P (GRO)	ND	0.050 mg/L	07/19/11	07/19/11
		Surr: 1,2-Dichloroethane-d4	100	(70-130) %REC	07/19/11	07/19/11
		Surr: Toluene-d8	98	(70-130) %REC	07/19/11	07/19/11
		Surr: 4-Bromofluorobenzene	98	(70-130) %REC	07/19/11	07/19/11



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Client ID : GMW-O-15						
Lab ID :	CHH11071403-16A	TPH-E (Fuel Product)	0.97	**	0.10 mg/L	07/15/11 07/16/11
Date Sampled	07/12/11 11:00	Surr: Nonane	123		(49-145) %REC	07/15/11 07/16/11
		TPH-P (GRO)	1.0		0.20 mg/L	07/19/11 07/19/11
		Surr: 1,2-Dichloroethane-d4	103		(70-130) %REC	07/19/11 07/19/11
		Surr: Toluene-d8	98		(70-130) %REC	07/19/11 07/19/11
		Surr: 4-Bromofluorobenzene	98		(70-130) %REC	07/19/11 07/19/11
Client ID : GMW-39						
Lab ID :	CHH11071403-17A	TPH-E (Fuel Product)	ND		0.10 mg/L	07/15/11 07/16/11
Date Sampled	07/12/11 11:40	Surr: Nonane	118		(49-145) %REC	07/15/11 07/16/11
		TPH-P (GRO)	ND		0.050 mg/L	07/19/11 07/19/11
		Surr: 1,2-Dichloroethane-d4	101		(70-130) %REC	07/19/11 07/19/11
		Surr: Toluene-d8	97		(70-130) %REC	07/19/11 07/19/11
		Surr: 4-Bromofluorobenzene	98		(70-130) %REC	07/19/11 07/19/11
Client ID : MW-SF-1						
Lab ID :	CHH11071403-18A	TPH-E (Fuel Product)	12	**	0.10 mg/L	07/15/11 07/16/11
Date Sampled	07/12/11 12:35	Surr: Nonane	116		(49-145) %REC	07/15/11 07/16/11
		TPH-P (GRO)	8.4		5.0 mg/L	07/19/11 07/19/11
		Surr: 1,2-Dichloroethane-d4	103		(70-130) %REC	07/19/11 07/19/11
		Surr: Toluene-d8	99		(70-130) %REC	07/19/11 07/19/11
		Surr: 4-Bromofluorobenzene	99		(70-130) %REC	07/19/11 07/19/11
Client ID : PZ-5						
Lab ID :	CHH11071403-19A	TPH-E (Fuel Product)	1.2		0.10 mg/L	07/15/11 07/16/11
Date Sampled	07/12/11 13:15	Surr: Nonane	128		(49-145) %REC	07/15/11 07/16/11
		TPH-P (GRO)	3.3		2.0 mg/L	07/19/11 07/19/11
		Surr: 1,2-Dichloroethane-d4	100		(70-130) %REC	07/19/11 07/19/11
		Surr: Toluene-d8	98		(70-130) %REC	07/19/11 07/19/11
		Surr: 4-Bromofluorobenzene	98		(70-130) %REC	07/19/11 07/19/11
Client ID : EB-2						
Lab ID :	CHH11071403-20A	TPH-E (Fuel Product)	ND		0.10 mg/L	07/15/11 07/16/11
Date Sampled	07/12/11 13:40	Surr: Nonane	123		(49-145) %REC	07/15/11 07/16/11
		TPH-P (GRO)	ND		0.050 mg/L	07/18/11 07/18/11
		Surr: 1,2-Dichloroethane-d4	102		(70-130) %REC	07/18/11 07/18/11
		Surr: Toluene-d8	99		(70-130) %REC	07/18/11 07/18/11
		Surr: 4-Bromofluorobenzene	100		(70-130) %REC	07/18/11 07/18/11
Client ID : MW-SF-4						
Lab ID :	CHH11071403-21A	TPH-E (Fuel Product)	10	**	0.50 mg/L	07/15/11 07/18/11
Date Sampled	07/12/11 14:10	Surr: Nonane	126		(49-145) %REC	07/15/11 07/18/11
		TPH-P (GRO)	15		5.0 mg/L	07/19/11 07/19/11
		Surr: 1,2-Dichloroethane-d4	104		(70-130) %REC	07/19/11 07/19/11
		Surr: Toluene-d8	101		(70-130) %REC	07/19/11 07/19/11
		Surr: 4-Bromofluorobenzene	98		(70-130) %REC	07/19/11 07/19/11
Client ID : GMW-O-14						
Lab ID :	CHH11071403-22A	TPH-E (Fuel Product)	5.5	**	0.10 mg/L	07/15/11 07/15/11
Date Sampled	07/12/11 15:15	Surr: Nonane	0	S51	(49-145) %REC	07/15/11 07/15/11
		TPH-P (GRO)	12		5.0 mg/L	07/19/11 07/19/11
		Surr: 1,2-Dichloroethane-d4	100		(70-130) %REC	07/19/11 07/19/11
		Surr: Toluene-d8	102		(70-130) %REC	07/19/11 07/19/11
		Surr: 4-Bromofluorobenzene	98		(70-130) %REC	07/19/11 07/19/11
Client ID : DUP-1						
Lab ID :	CHH11071403-23A	TPH-E (Fuel Product)	0.11	**	0.10 mg/L	07/15/11 07/15/11
Date Sampled	07/12/11 00:00	Surr: Nonane	108		(49-145) %REC	07/15/11 07/15/11
		TPH-P (GRO)	ND		0.050 mg/L	07/19/11 07/19/11
		Surr: 1,2-Dichloroethane-d4	99		(70-130) %REC	07/19/11 07/19/11
		Surr: Toluene-d8	98		(70-130) %REC	07/19/11 07/19/11
		Surr: 4-Bromofluorobenzene	99		(70-130) %REC	07/19/11 07/19/11



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Client ID : **DUP-2**

Lab ID :	CHH11071403-24A	TPH-E (Fuel Product)	1.3	**	0.10 mg/L	07/15/11	07/15/11
Date Sampled	07/12/11 00:00	Surr: Nonane	111		(49-145) %REC	07/15/11	07/15/11
		TPH-P (GRO)	3.2		2.0 mg/L	07/19/11	07/19/11
		Surr: 1,2-Dichloroethane-d4	102		(70-130) %REC	07/19/11	07/19/11
		Surr: Toluene-d8	99		(70-130) %REC	07/19/11	07/19/11
		Surr: 4-Bromofluorobenzene	99		(70-130) %REC	07/19/11	07/19/11

Client ID : **DUP-3**

Lab ID :	CHH11071403-25A	TPH-E (Fuel Product)	4.4	**	0.10 mg/L	07/15/11	07/15/11
Date Sampled	07/12/11 00:00	Surr: Nonane	0	S51	(49-145) %REC	07/15/11	07/15/11
		TPH-P (GRO)	12		5.0 mg/L	07/19/11	07/19/11
		Surr: 1,2-Dichloroethane-d4	102		(70-130) %REC	07/19/11	07/19/11
		Surr: Toluene-d8	101		(70-130) %REC	07/19/11	07/19/11
		Surr: 4-Bromofluorobenzene	99		(70-130) %REC	07/19/11	07/19/11

**Note: Reported TPH-E (Fuel Product) may contain undifferentiated diesel range hydrocarbons.

Gasoline Range Organics (GRO) C4-C13

S51 = Surrogate recovery could not be determined due to the presence of the co-eluting hydrocarbons.

ND = Not Detected

Roger Scholl *Randy Gardner* *Walter Hinchman*

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

7/22/11

Report Date



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ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-01A
Client I.D. Number: TB-1

Sampled: 07/11/11 08:00
Received: 07/14/11
Extracted: 07/18/11
Analyzed: 07/18/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	1.0 µg/L	45 Chlorobenzene	ND	1.0 µg/L
2 Chloromethane	ND	2.0 µg/L	46 Ethylbenzene	ND	0.50 µg/L
3 Vinyl chloride	ND	0.50 µg/L	47 m,p-Xylene	ND	0.50 µg/L
4 Chloroethane	ND	1.0 µg/L	48 Bromoform	ND	1.0 µg/L
5 Bromomethane	ND	2.0 µg/L	49 Styrene	ND	1.0 µg/L
6 Trichlorofluoromethane	ND	10 µg/L	50 o-Xylene	ND	0.50 µg/L
7 Acetone	ND	10 µg/L	51 1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
8 1,1-Dichloroethene	ND	1.0 µg/L	52 1,2,3-Trichloropropane	ND	2.0 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	53 Isopropylbenzene	ND	1.0 µg/L
10 Dichloromethane	ND	5.0 µg/L	54 Bromobenzene	ND	1.0 µg/L
11 Freon-113	ND	10 µg/L	55 n-Propylbenzene	ND	1.0 µg/L
12 Carbon disulfide	ND	2.5 µg/L	56 4-Chlorotoluene	ND	1.0 µg/L
13 trans-1,2-Dichloroethene	ND	1.0 µg/L	57 2-Chlorotoluene	ND	1.0 µg/L
14 Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	58 1,3,5-Trimethylbenzene	ND	1.0 µg/L
15 1,1-Dichloroethane	ND	1.0 µg/L	59 tert-Butylbenzene	ND	1.0 µg/L
16 Vinyl acetate	ND	50 µg/L	60 1,2,4-Trimethylbenzene	ND	1.0 µg/L
17 2-Butanone (MEK)	ND	10 µg/L	61 sec-Butylbenzene	ND	1.0 µg/L
18 Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	62 1,3-Dichlorobenzene	ND	1.0 µg/L
19 cis-1,2-Dichloroethene	ND	1.0 µg/L	63 1,4-Dichlorobenzene	ND	1.0 µg/L
20 Bromochloromethane	ND	1.0 µg/L	64 4-Isopropyltoluene	ND	1.0 µg/L
21 Chloroform	ND	1.0 µg/L	65 1,2-Dichlorobenzene	ND	1.0 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	66 n-Butylbenzene	ND	1.0 µg/L
23 2,2-Dichloropropane	ND	1.0 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0 µg/L
24 1,2-Dichloroethane	ND	0.50 µg/L	68 1,2,4-Trichlorobenzene	ND	2.0 µg/L
25 1,1,1-Trichloroethane	ND	1.0 µg/L	69 Naphthalene	ND	10 µg/L
26 1,1-Dichloropropene	ND	1.0 µg/L	70 1,2,3-Trichlorobenzene	ND	2.0 µg/L
27 Carbon tetrachloride	ND	1.0 µg/L	71 Surr: 1,2-Dichloroethane-d4	102	(70-130) %REC
28 Benzene	ND	0.50 µg/L	72 Surr: Toluene-d8	95	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	73 Surr: 4-Bromofluorobenzene	100	(70-130) %REC
30 Dibromomethane	ND	1.0 µg/L			
31 1,2-Dichloropropane	ND	1.0 µg/L			
32 Trichloroethene	ND	1.0 µg/L			
33 Bromodichloromethane	ND	1.0 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	10 µg/L			
35 cis-1,3-Dichloropropene	ND	0.50 µg/L			
36 trans-1,3-Dichloropropene	ND	0.50 µg/L			
37 1,1,2-Trichloroethane	ND	1.0 µg/L			
38 Toluene	ND	0.50 µg/L			
39 1,3-Dichloropropane	ND	1.0 µg/L			
40 2-Hexanone	ND	5.0 µg/L			
41 Dibromochloromethane	ND	1.0 µg/L			
42 1,2-Dibromoethane (EDB)	ND	2.0 µg/L			
43 Tetrachloroethene	ND	1.0 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	1.0 µg/L			

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

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JSJ

7/22/11

Report Date

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ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-02A
Client I.D. Number: EXP-5

Sampled: 07/11/11 11:35
Received: 07/14/11
Extracted: 07/18/11
Analyzed: 07/18/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	1.0 µg/L	45 Chlorobenzene	ND	1.0 µg/L
2 Chloromethane	ND	2.0 µg/L	46 Ethylbenzene	ND	0.50 µg/L
3 Vinyl chloride	ND	0.50 µg/L	47 m,p-Xylene	ND	0.50 µg/L
4 Chloroethane	ND	1.0 µg/L	48 Bromoform	ND	1.0 µg/L
5 Bromomethane	ND	2.0 µg/L	49 Styrene	ND	1.0 µg/L
6 Trichlorofluoromethane	ND	10 µg/L	50 o-Xylene	ND	0.50 µg/L
7 Acetone	ND	10 µg/L	51 1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
8 1,1-Dichloroethene	ND	1.0 µg/L	52 1,2,3-Trichloropropane	ND	2.0 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	53 Isopropylbenzene	ND	1.0 µg/L
10 Dichloromethane	ND	5.0 µg/L	54 Bromobenzene	ND	1.0 µg/L
11 Freon-113	ND	10 µg/L	55 n-Propylbenzene	ND	1.0 µg/L
12 Carbon disulfide	ND	2.5 µg/L	56 4-Chlorotoluene	ND	1.0 µg/L
13 trans-1,2-Dichloroethene	ND	1.0 µg/L	57 2-Chlorotoluene	ND	1.0 µg/L
14 Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	58 1,3,5-Trimethylbenzene	ND	1.0 µg/L
15 1,1-Dichloroethane	ND	1.0 µg/L	59 tert-Butylbenzene	ND	1.0 µg/L
16 Vinyl acetate	ND	50 µg/L	60 1,2,4-Trimethylbenzene	ND	1.0 µg/L
17 2-Butanone (MEK)	ND	10 µg/L	61 sec-Butylbenzene	ND	1.0 µg/L
18 Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	62 1,3-Dichlorobenzene	ND	1.0 µg/L
19 cis-1,2-Dichloroethene	ND	1.0 µg/L	63 1,4-Dichlorobenzene	ND	1.0 µg/L
20 Bromochloromethane	ND	1.0 µg/L	64 4-Isopropyltoluene	ND	1.0 µg/L
21 Chloroform	ND	1.0 µg/L	65 1,2-Dichlorobenzene	ND	1.0 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	66 n-Butylbenzene	ND	1.0 µg/L
23 2,2-Dichloropropane	ND	1.0 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0 µg/L
24 1,2-Dichloroethane	ND	0.50 µg/L	68 1,2,4-Trichlorobenzene	ND	2.0 µg/L
25 1,1,1-Trichloroethane	ND	1.0 µg/L	69 Naphthalene	ND	10 µg/L
26 1,1-Dichloropropene	ND	1.0 µg/L	70 1,2,3-Trichlorobenzene	ND	2.0 µg/L
27 Carbon tetrachloride	ND	1.0 µg/L	71 Surr: 1,2-Dichloroethane-d4	104	(70-130) %REC
28 Benzene	ND	0.50 µg/L	72 Surr: Toluene-d8	100	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	73 Surr: 4-Bromofluorobenzene	99	(70-130) %REC
30 Dibromomethane	ND	1.0 µg/L			
31 1,2-Dichloropropane	ND	1.0 µg/L			
32 Trichloroethene	ND	1.0 µg/L			
33 Bromodichloromethane	ND	1.0 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	10 µg/L			
35 cis-1,3-Dichloropropene	ND	0.50 µg/L			
36 trans-1,3-Dichloropropene	ND	0.50 µg/L			
37 1,1,2-Trichloroethane	ND	1.0 µg/L			
38 Toluene	ND	0.50 µg/L			
39 1,3-Dichloropropane	ND	1.0 µg/L			
40 2-Hexanone	ND	5.0 µg/L			
41 Dibromochloromethane	ND	1.0 µg/L			
42 1,2-Dibromoethane (EDB)	ND	2.0 µg/L			
43 Tetrachloroethene	ND	1.0 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	1.0 µg/L			

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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7/22/11

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-03A
Client I.D. Number: WCW-13

Sampled: 07/11/11 12:40
Received: 07/14/11
Extracted: 07/18/11
Analyzed: 07/18/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	1.0 µg/L	45 Chlorobenzene	ND	1.0 µg/L
2 Chloromethane	ND	2.0 µg/L	46 Ethylbenzene	ND	0.50 µg/L
3 Vinyl chloride	ND	0.50 µg/L	47 m,p-Xylene	ND	0.50 µg/L
4 Chloroethane	ND	1.0 µg/L	48 Bromoform	ND	1.0 µg/L
5 Bromomethane	ND	2.0 µg/L	49 Styrene	ND	1.0 µg/L
6 Trichlorofluoromethane	ND	10 µg/L	50 o-Xylene	ND	0.50 µg/L
7 Acetone	ND	10 µg/L	51 1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
8 1,1-Dichloroethene	ND	1.0 µg/L	52 1,2,3-Trichloropropane	ND	2.0 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	53 Isopropylbenzene	ND	1.0 µg/L
10 Dichloromethane	ND	5.0 µg/L	54 Bromobenzene	ND	1.0 µg/L
11 Freon-113	ND	10 µg/L	55 n-Propylbenzene	ND	1.0 µg/L
12 Carbon disulfide	ND	2.5 µg/L	56 4-Chlorotoluene	ND	1.0 µg/L
13 trans-1,2-Dichloroethene	ND	1.0 µg/L	57 2-Chlorotoluene	ND	1.0 µg/L
14 Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	58 1,3,5-Trimethylbenzene	ND	1.0 µg/L
15 1,1-Dichloroethane	ND	1.0 µg/L	59 tert-Butylbenzene	ND	1.0 µg/L
16 Vinyl acetate	ND	50 µg/L	60 1,2,4-Trimethylbenzene	ND	1.0 µg/L
17 2-Butanone (MEK)	ND	10 µg/L	61 sec-Butylbenzene	ND	1.0 µg/L
18 Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	62 1,3-Dichlorobenzene	ND	1.0 µg/L
19 cis-1,2-Dichloroethene	ND	1.0 µg/L	63 1,4-Dichlorobenzene	ND	1.0 µg/L
20 Bromochloromethane	ND	1.0 µg/L	64 4-Isopropyltoluene	ND	1.0 µg/L
21 Chloroform	ND	1.0 µg/L	65 1,2-Dichlorobenzene	ND	1.0 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	66 n-Butylbenzene	ND	1.0 µg/L
23 2,2-Dichloropropane	ND	1.0 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0 µg/L
24 1,2-Dichloroethane	ND	0.50 µg/L	68 1,2,4-Trichlorobenzene	ND	2.0 µg/L
25 1,1,1-Trichloroethane	ND	1.0 µg/L	69 Naphthalene	ND	10 µg/L
26 1,1-Dichloropropene	ND	1.0 µg/L	70 1,2,3-Trichlorobenzene	ND	2.0 µg/L
27 Carbon tetrachloride	ND	1.0 µg/L	71 Surr: 1,2-Dichloroethane-d4	103	(70-130) %REC
28 Benzene	ND	0.50 µg/L	72 Surr: Toluene-d8	101	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	73 Surr: 4-Bromofluorobenzene	100	(70-130) %REC
30 Dibromomethane	ND	1.0 µg/L			
31 1,2-Dichloropropane	ND	1.0 µg/L			
32 Trichloroethene	ND	1.0 µg/L			
33 Bromodichloromethane	ND	1.0 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	10 µg/L			
35 cis-1,3-Dichloropropene	ND	0.50 µg/L			
36 trans-1,3-Dichloropropene	ND	0.50 µg/L			
37 1,1,2-Trichloroethane	ND	1.0 µg/L			
38 Toluene	ND	0.50 µg/L			
39 1,3-Dichloropropane	ND	1.0 µg/L			
40 2-Hexanone	ND	5.0 µg/L			
41 Dibromochloromethane	ND	1.0 µg/L			
42 1,2-Dibromoethane (EDB)	ND	2.0 µg/L			
43 Tetrachloroethene	ND	1.0 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	1.0 µg/L			

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

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7/22/11

Report Date



Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-04A
Client I.D. Number: GMW-O-1

Sampled: 07/11/11 13:35
Received: 07/14/11
Extracted: 07/18/11
Analyzed: 07/18/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	1.0 µg/L	45 Chlorobenzene	ND	1.0 µg/L
2 Chloromethane	ND	2.0 µg/L	46 Ethylbenzene	ND	0.50 µg/L
3 Vinyl chloride	ND	0.50 µg/L	47 m,p-Xylene	ND	0.50 µg/L
4 Chloroethane	ND	1.0 µg/L	48 Bromoform	ND	1.0 µg/L
5 Bromomethane	ND	2.0 µg/L	49 Styrene	ND	1.0 µg/L
6 Trichlorofluoromethane	ND	10 µg/L	50 o-Xylene	ND	0.50 µg/L
7 Acetone	ND	10 µg/L	51 1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
8 1,1-Dichloroethene	ND	1.0 µg/L	52 1,2,3-Trichloropropane	ND	2.0 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	53 Isopropylbenzene	ND	1.0 µg/L
10 Dichloromethane	ND	5.0 µg/L	54 Bromobenzene	ND	1.0 µg/L
11 Freon-113	ND	10 µg/L	55 n-Propylbenzene	ND	1.0 µg/L
12 Carbon disulfide	ND	2.5 µg/L	56 4-Chlorotoluene	ND	1.0 µg/L
13 trans-1,2-Dichloroethene	ND	1.0 µg/L	57 2-Chlorotoluene	ND	1.0 µg/L
14 Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	58 1,3,5-Trimethylbenzene	ND	1.0 µg/L
15 1,1-Dichloroethane	ND	1.0 µg/L	59 tert-Butylbenzene	ND	1.0 µg/L
16 Vinyl acetate	ND	50 µg/L	60 1,2,4-Trimethylbenzene	ND	1.0 µg/L
17 2-Butanone (MEK)	ND	10 µg/L	61 sec-Butylbenzene	ND	1.0 µg/L
18 Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	62 1,3-Dichlorobenzene	ND	1.0 µg/L
19 cis-1,2-Dichloroethene	ND	1.0 µg/L	63 1,4-Dichlorobenzene	ND	1.0 µg/L
20 Bromochloromethane	ND	1.0 µg/L	64 4-Isopropyltoluene	ND	1.0 µg/L
21 Chloroform	ND	1.0 µg/L	65 1,2-Dichlorobenzene	ND	1.0 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	66 n-Butylbenzene	ND	1.0 µg/L
23 2,2-Dichloropropane	ND	1.0 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0 µg/L
24 1,2-Dichloroethane	ND	0.50 µg/L	68 1,2,4-Trichlorobenzene	ND	2.0 µg/L
25 1,1,1-Trichloroethane	ND	1.0 µg/L	69 Naphthalene	ND	10 µg/L
26 1,1-Dichloropropene	ND	1.0 µg/L	70 1,2,3-Trichlorobenzene	ND	2.0 µg/L
27 Carbon tetrachloride	ND	1.0 µg/L	71 Surr: 1,2-Dichloroethane-d4	103	(70-130) %REC
28 Benzene	ND	0.50 µg/L	72 Surr: Toluene-d8	99	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	73 Surr: 4-Bromofluorobenzene	99	(70-130) %REC
30 Dibromomethane	ND	1.0 µg/L			
31 1,2-Dichloropropane	ND	1.0 µg/L			
32 Trichloroethene	ND	1.0 µg/L			
33 Bromodichloromethane	ND	1.0 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	10 µg/L			
35 cis-1,3-Dichloropropene	ND	0.50 µg/L			
36 trans-1,3-Dichloropropene	ND	0.50 µg/L			
37 1,1,2-Trichloroethane	ND	1.0 µg/L			
38 Toluene	ND	0.50 µg/L			
39 1,3-Dichloropropane	ND	1.0 µg/L			
40 2-Hexanone	ND	5.0 µg/L			
41 Dibromochloromethane	ND	1.0 µg/L			
42 1,2-Dibromoethane (EDB)	ND	2.0 µg/L			
43 Tetrachloroethene	ND	1.0 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	1.0 µg/L			

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

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PS

7/22/11

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-05A
Client I.D. Number: GMW-O-3

Sampled: 07/11/11 14:10
Received: 07/14/11
Extracted: 07/18/11
Analyzed: 07/18/11

Volatile Organics by GC/MS EPA Method SW8260B

Reporting			Reporting		
Compound	Concentration	Limit	Compound	Concentration	Limit
1 Dichlorodifluoromethane	ND	1.0 µg/L	45 Chlorobenzene	ND	1.0 µg/L
2 Chloromethane	ND	2.0 µg/L	46 Ethylbenzene	ND	0.50 µg/L
3 Vinyl chloride	ND	0.50 µg/L	47 m,p-Xylene	ND	0.50 µg/L
4 Chloroethane	ND	1.0 µg/L	48 Bromoform	ND	1.0 µg/L
5 Bromomethane	ND	2.0 µg/L	49 Styrene	ND	1.0 µg/L
6 Trichlorofluoromethane	ND	10 µg/L	50 o-Xylene	ND	0.50 µg/L
7 Acetone	ND	10 µg/L	51 1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
8 1,1-Dichloroethene	ND	1.0 µg/L	52 1,2,3-Trichloropropane	ND	2.0 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	53 Isopropylbenzene	ND	1.0 µg/L
10 Dichloromethane	ND	5.0 µg/L	54 Bromobenzene	ND	1.0 µg/L
11 Freon-113	ND	10 µg/L	55 n-Propylbenzene	ND	1.0 µg/L
12 Carbon disulfide	ND	2.5 µg/L	56 4-Chlorotoluene	ND	1.0 µg/L
13 trans-1,2-Dichloroethene	ND	1.0 µg/L	57 2-Chlorotoluene	ND	1.0 µg/L
14 Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	58 1,3,5-Trimethylbenzene	ND	1.0 µg/L
15 1,1-Dichloroethane	ND	1.0 µg/L	59 tert-Butylbenzene	ND	1.0 µg/L
16 Vinyl acetate	ND	50 µg/L	60 1,2,4-Trimethylbenzene	ND	1.0 µg/L
17 2-Butanone (MEK)	ND	10 µg/L	61 sec-Butylbenzene	ND	1.0 µg/L
18 Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	62 1,3-Dichlorobenzene	ND	1.0 µg/L
19 cis-1,2-Dichloroethene	ND	1.0 µg/L	63 1,4-Dichlorobenzene	ND	1.0 µg/L
20 Bromochloromethane	ND	1.0 µg/L	64 4-Isopropyltoluene	ND	1.0 µg/L
21 Chloroform	ND	1.0 µg/L	65 1,2-Dichlorobenzene	ND	1.0 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	66 n-Butylbenzene	ND	1.0 µg/L
23 2,2-Dichloropropane	ND	1.0 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0 µg/L
24 1,2-Dichloroethane	ND	0.50 µg/L	68 1,2,4-Trichlorobenzene	ND	2.0 µg/L
25 1,1,1-Trichloroethane	ND	1.0 µg/L	69 Naphthalene	ND	10 µg/L
26 1,1-Dichloropropene	ND	1.0 µg/L	70 1,2,3-Trichlorobenzene	ND	2.0 µg/L
27 Carbon tetrachloride	ND	1.0 µg/L	71 Surr: 1,2-Dichloroethane-d4	102	(70-130) %REC
28 Benzene	ND	0.50 µg/L	72 Surr: Toluene-d8	95	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	73 Surr: 4-Bromofluorobenzene	98	(70-130) %REC
30 Dibromomethane	ND	1.0 µg/L			
31 1,2-Dichloropropane	ND	1.0 µg/L			
32 Trichloroethene	ND	1.0 µg/L			
33 Bromodichloromethane	ND	1.0 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	10 µg/L			
35 cis-1,3-Dichloropropene	ND	0.50 µg/L			
36 trans-1,3-Dichloropropene	ND	0.50 µg/L			
37 1,1,2-Trichloroethane	ND	1.0 µg/L			
38 Toluene	ND	0.50 µg/L			
39 1,3-Dichloropropane	ND	1.0 µg/L			
40 2-Hexanone	ND	5.0 µg/L			
41 Dibromochloromethane	ND	1.0 µg/L			
42 1,2-Dibromoethane (EDB)	ND	2.0 µg/L			
43 Tetrachloroethene	ND	1.0 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	1.0 µg/L			

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
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PS
7/22/11

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-06A
Client I.D. Number: GMWO-19

Sampled: 07/11/11 15:00
Received: 07/14/11
Extracted: 07/18/11
Analyzed: 07/18/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	1.0 µg/L	45 Chlorobenzene	ND	1.0 µg/L
2 Chloromethane	ND	2.0 µg/L	46 Ethylbenzene	ND	0.50 µg/L
3 Vinyl chloride	ND	0.50 µg/L	47 m,p-Xylene	ND	0.50 µg/L
4 Chloroethane	ND	1.0 µg/L	48 Bromoform	ND	1.0 µg/L
5 Bromomethane	ND	2.0 µg/L	49 Styrene	ND	1.0 µg/L
6 Trichlorofluoromethane	ND	10 µg/L	50 o-Xylene	ND	0.50 µg/L
7 Acetone	ND	10 µg/L	51 1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
8 1,1-Dichloroethene	ND	1.0 µg/L	52 1,2,3-Trichloropropane	ND	2.0 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	53 Isopropylbenzene	ND	1.0 µg/L
10 Dichloromethane	ND	5.0 µg/L	54 Bromobenzene	ND	1.0 µg/L
11 Freon-113	ND	10 µg/L	55 n-Propylbenzene	ND	1.0 µg/L
12 Carbon disulfide	ND	2.5 µg/L	56 4-Chlorotoluene	ND	1.0 µg/L
13 trans-1,2-Dichloroethene	ND	1.0 µg/L	57 2-Chlorotoluene	ND	1.0 µg/L
14 Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	58 1,3,5-Trimethylbenzene	ND	1.0 µg/L
15 1,1-Dichloroethane	ND	1.0 µg/L	59 tert-Butylbenzene	ND	1.0 µg/L
16 Vinyl acetate	ND	50 µg/L	60 1,2,4-Trimethylbenzene	ND	1.0 µg/L
17 2-Butanone (MEK)	ND	10 µg/L	61 sec-Butylbenzene	ND	1.0 µg/L
18 Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	62 1,3-Dichlorobenzene	ND	1.0 µg/L
19 cis-1,2-Dichloroethene	ND	1.0 µg/L	63 1,4-Dichlorobenzene	ND	1.0 µg/L
20 Bromochloromethane	ND	1.0 µg/L	64 4-Isopropyltoluene	ND	1.0 µg/L
21 Chloroform	ND	1.0 µg/L	65 1,2-Dichlorobenzene	ND	1.0 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	66 n-Butylbenzene	ND	1.0 µg/L
23 2,2-Dichloropropane	ND	1.0 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0 µg/L
24 1,2-Dichloroethane	ND	0.50 µg/L	68 1,2,4-Trichlorobenzene	ND	2.0 µg/L
25 1,1,1-Trichloroethane	ND	1.0 µg/L	69 Naphthalene	ND	10 µg/L
26 1,1-Dichloropropene	ND	1.0 µg/L	70 1,2,3-Trichlorobenzene	ND	2.0 µg/L
27 Carbon tetrachloride	ND	1.0 µg/L	71 Surr: 1,2-Dichloroethane-d4	103	(70-130) %REC
28 Benzene	ND	0.50 µg/L	72 Surr: Toluene-d8	97	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	73 Surr: 4-Bromofluorobenzene	98	(70-130) %REC
30 Dibromomethane	ND	1.0 µg/L			
31 1,2-Dichloropropane	ND	1.0 µg/L			
32 Trichloroethene	ND	1.0 µg/L			
33 Bromodichloromethane	ND	1.0 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	10 µg/L			
35 cis-1,3-Dichloropropene	ND	0.50 µg/L			
36 trans-1,3-Dichloropropene	ND	0.50 µg/L			
37 1,1,2-Trichloroethane	ND	1.0 µg/L			
38 Toluene	ND	0.50 µg/L			
39 1,3-Dichloropropane	ND	1.0 µg/L			
40 2-Hexanone	ND	5.0 µg/L			
41 Dibromochloromethane	ND	1.0 µg/L			
42 1,2-Dibromoethane (EDB)	ND	2.0 µg/L			
43 Tetrachloroethene	ND	1.0 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	1.0 µg/L			

ND = Not Detected

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7/22/11

Report Date

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Alpha Analytical, Inc.

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ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-07A
Client I.D. Number: EB-1

Sampled: 07/11/11 14:35
Received: 07/14/11
Extracted: 07/18/11
Analyzed: 07/18/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	1.0 µg/L	45 Chlorobenzene	ND	1.0 µg/L
2 Chloromethane	ND	2.0 µg/L	46 Ethylbenzene	ND	0.50 µg/L
3 Vinyl chloride	ND	0.50 µg/L	47 m,p-Xylene	ND	0.50 µg/L
4 Chloroethane	ND	1.0 µg/L	48 Bromoform	ND	1.0 µg/L
5 Bromomethane	ND	2.0 µg/L	49 Styrene	ND	1.0 µg/L
6 Trichlorofluoromethane	ND	10 µg/L	50 o-Xylene	ND	0.50 µg/L
7 Acetone	ND	10 µg/L	51 1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
8 1,1-Dichloroethene	ND	1.0 µg/L	52 1,2,3-Trichloropropane	ND	2.0 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	53 Isopropylbenzene	ND	1.0 µg/L
10 Dichloromethane	ND	5.0 µg/L	54 Bromobenzene	ND	1.0 µg/L
11 Freon-113	ND	10 µg/L	55 n-Propylbenzene	ND	1.0 µg/L
12 Carbon disulfide	ND	2.5 µg/L	56 4-Chlorotoluene	ND	1.0 µg/L
13 trans-1,2-Dichloroethene	ND	1.0 µg/L	57 2-Chlorotoluene	ND	1.0 µg/L
14 Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	58 1,3,5-Trimethylbenzene	ND	1.0 µg/L
15 1,1-Dichloroethane	ND	1.0 µg/L	59 tert-Butylbenzene	ND	1.0 µg/L
16 Vinyl acetate	ND	50 µg/L	60 1,2,4-Trimethylbenzene	ND	1.0 µg/L
17 2-Butanone (MEK)	ND	10 µg/L	61 sec-Butylbenzene	ND	1.0 µg/L
18 Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	62 1,3-Dichlorobenzene	ND	1.0 µg/L
19 cis-1,2-Dichloroethene	ND	1.0 µg/L	63 1,4-Dichlorobenzene	ND	1.0 µg/L
20 Bromochloromethane	ND	1.0 µg/L	64 4-Isopropyltoluene	ND	1.0 µg/L
21 Chloroform	ND	1.0 µg/L	65 1,2-Dichlorobenzene	ND	1.0 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	66 n-Butylbenzene	ND	1.0 µg/L
23 2,2-Dichloropropane	ND	1.0 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0 µg/L
24 1,2-Dichloroethane	ND	0.50 µg/L	68 1,2,4-Trichlorobenzene	ND	2.0 µg/L
25 1,1,1-Trichloroethane	ND	1.0 µg/L	69 Naphthalene	ND	10 µg/L
26 1,1-Dichloropropene	ND	1.0 µg/L	70 1,2,3-Trichlorobenzene	ND	2.0 µg/L
27 Carbon tetrachloride	ND	1.0 µg/L	71 Surr: 1,2-Dichloroethane-d4	104	(70-130) %REC
28 Benzene	ND	0.50 µg/L	72 Surr: Toluene-d8	101	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	73 Surr: 4-Bromofluorobenzene	100	(70-130) %REC
30 Dibromomethane	ND	1.0 µg/L			
31 1,2-Dichloropropane	ND	1.0 µg/L			
32 Trichloroethene	ND	1.0 µg/L			
33 Bromodichloromethane	ND	1.0 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	10 µg/L			
35 cis-1,3-Dichloropropene	ND	0.50 µg/L			
36 trans-1,3-Dichloropropene	ND	0.50 µg/L			
37 1,1,2-Trichloroethane	ND	1.0 µg/L			
38 Toluene	ND	0.50 µg/L			
39 1,3-Dichloropropane	ND	1.0 µg/L			
40 2-Hexanone	ND	5.0 µg/L			
41 Dibromochloromethane	ND	1.0 µg/L			
42 1,2-Dibromoethane (EDB)	ND	2.0 µg/L			
43 Tetrachloroethene	ND	1.0 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	1.0 µg/L			

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
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PS
7/22/11

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-08A
Client I.D. Number: EXP-1

Sampled: 07/11/11 08:01
Received: 07/14/11
Extracted: 07/18/11
Analyzed: 07/18/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	1.0 µg/L	45 Chlorobenzene	ND	1.0 µg/L
2 Chloromethane	ND	2.0 µg/L	46 Ethylbenzene	ND	0.50 µg/L
3 Vinyl chloride	ND	0.50 µg/L	47 m,p-Xylene	ND	0.50 µg/L
4 Chloroethane	ND	1.0 µg/L	48 Bromoform	ND	1.0 µg/L
5 Bromomethane	ND	2.0 µg/L	49 Styrene	ND	1.0 µg/L
6 Trichlorofluoromethane	ND	10 µg/L	50 o-Xylene	ND	0.50 µg/L
7 Acetone	ND	10 µg/L	51 1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
8 1,1-Dichloroethene	ND	1.0 µg/L	52 1,2,3-Trichloropropane	ND	2.0 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	53 Isopropylbenzene	ND	1.0 µg/L
10 Dichloromethane	ND	5.0 µg/L	54 Bromobenzene	ND	1.0 µg/L
11 Freon-113	ND	10 µg/L	55 n-Propylbenzene	ND	1.0 µg/L
12 Carbon disulfide	ND	2.5 µg/L	56 4-Chlorotoluene	ND	1.0 µg/L
13 trans-1,2-Dichloroethene	ND	1.0 µg/L	57 2-Chlorotoluene	ND	1.0 µg/L
14 Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	58 1,3,5-Trimethylbenzene	ND	1.0 µg/L
15 1,1-Dichloroethane	ND	1.0 µg/L	59 tert-Butylbenzene	ND	1.0 µg/L
16 Vinyl acetate	ND	50 µg/L	60 1,2,4-Trimethylbenzene	ND	1.0 µg/L
17 2-Butanone (MEK)	ND	10 µg/L	61 sec-Butylbenzene	ND	1.0 µg/L
18 Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	62 1,3-Dichlorobenzene	ND	1.0 µg/L
19 cis-1,2-Dichloroethene	ND	1.0 µg/L	63 1,4-Dichlorobenzene	ND	1.0 µg/L
20 Bromochloromethane	ND	1.0 µg/L	64 4-Isopropyltoluene	ND	1.0 µg/L
21 Chloroform	ND	1.0 µg/L	65 1,2-Dichlorobenzene	ND	1.0 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	66 n-Butylbenzene	ND	1.0 µg/L
23 2,2-Dichloropropane	ND	1.0 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0 µg/L
24 1,2-Dichloroethane	ND	0.50 µg/L	68 1,2,4-Trichlorobenzene	ND	2.0 µg/L
25 1,1,1-Trichloroethane	ND	1.0 µg/L	69 Naphthalene	ND	10 µg/L
26 1,1-Dichloropropene	ND	1.0 µg/L	70 1,2,3-Trichlorobenzene	ND	2.0 µg/L
27 Carbon tetrachloride	ND	1.0 µg/L	71 Surr: 1,2-Dichloroethane-d4	102	(70-130) %REC
28 Benzene	ND	0.50 µg/L	72 Surr: Toluene-d8	99	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	73 Surr: 4-Bromofluorobenzene	98	(70-130) %REC
30 Dibromomethane	ND	1.0 µg/L			
31 1,2-Dichloropropane	ND	1.0 µg/L			
32 Trichloroethene	ND	1.0 µg/L			
33 Bromodichloromethane	ND	1.0 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	10 µg/L			
35 cis-1,3-Dichloropropene	ND	0.50 µg/L			
36 trans-1,3-Dichloropropene	ND	0.50 µg/L			
37 1,1,2-Trichloroethane	ND	1.0 µg/L			
38 Toluene	ND	0.50 µg/L			
39 1,3-Dichloropropane	ND	1.0 µg/L			
40 2-Hexanone	ND	5.0 µg/L			
41 Dibromochloromethane	ND	1.0 µg/L			
42 1,2-Dibromoethane (EDB)	ND	2.0 µg/L			
43 Tetrachloroethene	ND	1.0 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	1.0 µg/L			

ND = Not Detected

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Randy Gardner

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PS
7/22/11

Report Date



Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-09A
Client I.D. Number: EXP-2

Sampled: 07/11/11 08:47
Received: 07/14/11
Extracted: 07/18/11
Analyzed: 07/18/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	1.0 µg/L	45 Chlorobenzene	ND	1.0 µg/L
2 Chloromethane	ND	2.0 µg/L	46 Ethylbenzene	ND	0.50 µg/L
3 Vinyl chloride	ND	0.50 µg/L	47 m,p-Xylene	ND	0.50 µg/L
4 Chloroethane	ND	1.0 µg/L	48 Bromoform	ND	1.0 µg/L
5 Bromomethane	ND	2.0 µg/L	49 Styrene	ND	1.0 µg/L
6 Trichlorofluoromethane	ND	10 µg/L	50 o-Xylene	ND	0.50 µg/L
7 Acetone	ND	10 µg/L	51 1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
8 1,1-Dichloroethene	ND	1.0 µg/L	52 1,2,3-Trichloropropane	ND	2.0 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	53 Isopropylbenzene	ND	1.0 µg/L
10 Dichloromethane	ND	5.0 µg/L	54 Bromobenzene	ND	1.0 µg/L
11 Freon-113	ND	10 µg/L	55 n-Propylbenzene	ND	1.0 µg/L
12 Carbon disulfide	ND	2.5 µg/L	56 4-Chlorotoluene	ND	1.0 µg/L
13 trans-1,2-Dichloroethene	ND	1.0 µg/L	57 2-Chlorotoluene	ND	1.0 µg/L
14 Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	58 1,3,5-Trimethylbenzene	ND	1.0 µg/L
15 1,1-Dichloroethane	ND	1.0 µg/L	59 tert-Butylbenzene	ND	1.0 µg/L
16 Vinyl acetate	ND	50 µg/L	60 1,2,4-Trimethylbenzene	ND	1.0 µg/L
17 2-Butanone (MEK)	ND	10 µg/L	61 sec-Butylbenzene	ND	1.0 µg/L
18 Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	62 1,3-Dichlorobenzene	ND	1.0 µg/L
19 cis-1,2-Dichloroethene	ND	1.0 µg/L	63 1,4-Dichlorobenzene	ND	1.0 µg/L
20 Bromochloromethane	ND	1.0 µg/L	64 4-Isopropyltoluene	ND	1.0 µg/L
21 Chloroform	ND	1.0 µg/L	65 1,2-Dichlorobenzene	ND	1.0 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	66 n-Butylbenzene	ND	1.0 µg/L
23 2,2-Dichloropropane	ND	1.0 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0 µg/L
24 1,2-Dichloroethane	ND	0.50 µg/L	68 1,2,4-Trichlorobenzene	ND	2.0 µg/L
25 1,1,1-Trichloroethane	ND	1.0 µg/L	69 Naphthalene	ND	10 µg/L
26 1,1-Dichloropropene	ND	1.0 µg/L	70 1,2,3-Trichlorobenzene	ND	2.0 µg/L
27 Carbon tetrachloride	ND	1.0 µg/L	71 Surr: 1,2-Dichloroethane-d4	102	(70-130) %REC
28 Benzene	ND	0.50 µg/L	72 Surr: Toluene-d8	100	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	73 Surr: 4-Bromofluorobenzene	99	(70-130) %REC
30 Dibromomethane	ND	1.0 µg/L			
31 1,2-Dichloropropane	ND	1.0 µg/L			
32 Trichloroethene	ND	1.0 µg/L			
33 Bromodichloromethane	ND	1.0 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	10 µg/L			
35 cis-1,3-Dichloropropene	ND	0.50 µg/L			
36 trans-1,3-Dichloropropene	ND	0.50 µg/L			
37 1,1,2-Trichloroethane	ND	1.0 µg/L			
38 Toluene	ND	0.50 µg/L			
39 1,3-Dichloropropane	ND	1.0 µg/L			
40 2-Hexanone	ND	5.0 µg/L			
41 Dibromochloromethane	ND	1.0 µg/L			
42 1,2-Dibromoethane (EDB)	ND	2.0 µg/L			
43 Tetrachloroethene	ND	1.0 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	1.0 µg/L			

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

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RS

7/22/11

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-10A
Client I.D. Number: WCW-3

Sampled: 07/12/11 07:20
Received: 07/14/11
Extracted: 07/18/11
Analyzed: 07/18/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	1.0 µg/L	45 Chlorobenzene	ND	1.0 µg/L
2 Chloromethane	ND	2.0 µg/L	46 Ethylbenzene	ND	0.50 µg/L
3 Vinyl chloride	ND	0.50 µg/L	47 m,p-Xylene	ND	0.50 µg/L
4 Chloroethane	ND	1.0 µg/L	48 Bromoform	ND	1.0 µg/L
5 Bromomethane	ND	2.0 µg/L	49 Styrene	ND	1.0 µg/L
6 Trichlorofluoromethane	ND	10 µg/L	50 o-Xylene	ND	0.50 µg/L
7 Acetone	ND	10 µg/L	51 1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
8 1,1-Dichloroethene	ND	1.0 µg/L	52 1,2,3-Trichloropropane	ND	2.0 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	53 Isopropylbenzene	ND	1.0 µg/L
10 Dichloromethane	ND	5.0 µg/L	54 Bromobenzene	ND	1.0 µg/L
11 Freon-113	ND	10 µg/L	55 n-Propylbenzene	ND	1.0 µg/L
12 Carbon disulfide	ND	2.5 µg/L	56 4-Chlorotoluene	ND	1.0 µg/L
13 trans-1,2-Dichloroethene	ND	1.0 µg/L	57 2-Chlorotoluene	ND	1.0 µg/L
14 Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	58 1,3,5-Trimethylbenzene	ND	1.0 µg/L
15 1,1-Dichloroethane	ND	1.0 µg/L	59 tert-Butylbenzene	ND	1.0 µg/L
16 Vinyl acetate	ND	50 µg/L	60 1,2,4-Trimethylbenzene	ND	1.0 µg/L
17 2-Butanone (MEK)	ND	10 µg/L	61 sec-Butylbenzene	ND	1.0 µg/L
18 Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	62 1,3-Dichlorobenzene	ND	1.0 µg/L
19 cis-1,2-Dichloroethene	ND	1.0 µg/L	63 1,4-Dichlorobenzene	ND	1.0 µg/L
20 Bromochloromethane	ND	1.0 µg/L	64 4-Isopropyltoluene	ND	1.0 µg/L
21 Chloroform	ND	1.0 µg/L	65 1,2-Dichlorobenzene	ND	1.0 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	66 n-Butylbenzene	ND	1.0 µg/L
23 2,2-Dichloropropane	ND	1.0 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0 µg/L
24 1,2-Dichloroethane	4.5	0.50 µg/L	68 1,2,4-Trichlorobenzene	ND	2.0 µg/L
25 1,1,1-Trichloroethane	ND	1.0 µg/L	69 Naphthalene	ND	10 µg/L
26 1,1-Dichloropropene	ND	1.0 µg/L	70 1,2,3-Trichlorobenzene	ND	2.0 µg/L
27 Carbon tetrachloride	ND	1.0 µg/L	71 Surr: 1,2-Dichloroethane-d4	101	(70-130) %REC
28 Benzene	ND	0.50 µg/L	72 Surr: Toluene-d8	98	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	73 Surr: 4-Bromofluorobenzene	97	(70-130) %REC
30 Dibromomethane	ND	1.0 µg/L			
31 1,2-Dichloropropane	ND	1.0 µg/L			
32 Trichloroethene	ND	1.0 µg/L			
33 Bromodichloromethane	ND	1.0 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	10 µg/L			
35 cis-1,3-Dichloropropene	ND	0.50 µg/L			
36 trans-1,3-Dichloropropene	ND	0.50 µg/L			
37 1,1,2-Trichloroethane	ND	1.0 µg/L			
38 Toluene	ND	0.50 µg/L			
39 1,3-Dichloropropane	ND	1.0 µg/L			
40 2-Hexanone	ND	5.0 µg/L			
41 Dibromochloromethane	ND	1.0 µg/L			
42 1,2-Dibromoethane (EDB)	ND	2.0 µg/L			
43 Tetrachloroethene	ND	1.0 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	1.0 µg/L			

ND = Not Detected

Roger Scholl

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RS
7/22/11

Report Date



Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-11A
Client I.D. Number: EXP-3

Sampled: 07/12/11 07:25
Received: 07/14/11
Extracted: 07/18/11
Analyzed: 07/18/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	1.0 µg/L	45 Chlorobenzene	ND	1.0 µg/L
2 Chloromethane	ND	2.0 µg/L	46 Ethylbenzene	ND	0.50 µg/L
3 Vinyl chloride	ND	0.50 µg/L	47 m,p-Xylene	ND	0.50 µg/L
4 Chloroethane	ND	1.0 µg/L	48 Bromoform	ND	1.0 µg/L
5 Bromomethane	ND	2.0 µg/L	49 Styrene	ND	1.0 µg/L
6 Trichlorofluoromethane	ND	10 µg/L	50 o-Xylene	ND	0.50 µg/L
7 Acetone	ND	10 µg/L	51 1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
8 1,1-Dichloroethene	ND	1.0 µg/L	52 1,2,3-Trichloropropane	ND	2.0 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	53 Isopropylbenzene	ND	1.0 µg/L
10 Dichloromethane	ND	5.0 µg/L	54 Bromobenzene	ND	1.0 µg/L
11 Freon-113	ND	10 µg/L	55 n-Propylbenzene	ND	1.0 µg/L
12 Carbon disulfide	ND	2.5 µg/L	56 4-Chlorotoluene	ND	1.0 µg/L
13 trans-1,2-Dichloroethene	ND	1.0 µg/L	57 2-Chlorotoluene	ND	1.0 µg/L
14 Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	58 1,3,5-Trimethylbenzene	ND	1.0 µg/L
15 1,1-Dichloroethane	ND	1.0 µg/L	59 tert-Butylbenzene	ND	1.0 µg/L
16 Vinyl acetate	ND	50 µg/L	60 1,2,4-Trimethylbenzene	ND	1.0 µg/L
17 2-Butanone (MEK)	ND	10 µg/L	61 sec-Butylbenzene	ND	1.0 µg/L
18 Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	62 1,3-Dichlorobenzene	ND	1.0 µg/L
19 cis-1,2-Dichloroethene	ND	1.0 µg/L	63 1,4-Dichlorobenzene	ND	1.0 µg/L
20 Bromochloromethane	ND	1.0 µg/L	64 4-Isopropyltoluene	ND	1.0 µg/L
21 Chloroform	ND	1.0 µg/L	65 1,2-Dichlorobenzene	ND	1.0 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	66 n-Butylbenzene	ND	1.0 µg/L
23 2,2-Dichloropropane	ND	1.0 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0 µg/L
24 1,2-Dichloroethane	0.61	0.50 µg/L	68 1,2,4-Trichlorobenzene	ND	2.0 µg/L
25 1,1,1-Trichloroethane	ND	1.0 µg/L	69 Naphthalene	ND	10 µg/L
26 1,1-Dichloropropene	ND	1.0 µg/L	70 1,2,3-Trichlorobenzene	ND	2.0 µg/L
27 Carbon tetrachloride	ND	1.0 µg/L	71 Surr: 1,2-Dichloroethane-d4	102	(70-130) %REC
28 Benzene	ND	0.50 µg/L	72 Surr: Toluene-d8	98	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	73 Surr: 4-Bromofluorobenzene	98	(70-130) %REC
30 Dibromomethane	ND	1.0 µg/L			
31 1,2-Dichloropropane	ND	1.0 µg/L			
32 Trichloroethene	ND	1.0 µg/L			
33 Bromodichloromethane	ND	1.0 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	10 µg/L			
35 cis-1,3-Dichloropropene	ND	0.50 µg/L			
36 trans-1,3-Dichloropropene	ND	0.50 µg/L			
37 1,1,2-Trichloroethane	ND	1.0 µg/L			
38 Toluene	ND	0.50 µg/L			
39 1,3-Dichloropropane	ND	1.0 µg/L			
40 2-Hexanone	ND	5.0 µg/L			
41 Dibromochloromethane	ND	1.0 µg/L			
42 1,2-Dibromoethane (EDB)	ND	2.0 µg/L			
43 Tetrachloroethene	ND	1.0 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	1.0 µg/L			

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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PS

7/22/11

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-12A
Client I.D. Number: GMW-38

Sampled: 07/12/11 08:10
Received: 07/14/11
Extracted: 07/18/11
Analyzed: 07/18/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	1.0 µg/L	45 Chlorobenzene	ND	1.0 µg/L
2 Chloromethane	ND	2.0 µg/L	46 Ethylbenzene	ND	0.50 µg/L
3 Vinyl chloride	ND	0.50 µg/L	47 m,p-Xylene	ND	0.50 µg/L
4 Chloroethane	ND	1.0 µg/L	48 Bromoform	ND	1.0 µg/L
5 Bromomethane	ND	2.0 µg/L	49 Styrene	ND	1.0 µg/L
6 Trichlorofluoromethane	ND	10 µg/L	50 o-Xylene	ND	0.50 µg/L
7 Acetone	ND	10 µg/L	51 1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
8 1,1-Dichloroethene	ND	1.0 µg/L	52 1,2,3-Trichloropropane	ND	2.0 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	53 Isopropylbenzene	ND	1.0 µg/L
10 Dichloromethane	ND	5.0 µg/L	54 Bromobenzene	ND	1.0 µg/L
11 Freon-113	ND	10 µg/L	55 n-Propylbenzene	ND	1.0 µg/L
12 Carbon disulfide	ND	2.5 µg/L	56 4-Chlorotoluene	ND	1.0 µg/L
13 trans-1,2-Dichloroethene	ND	1.0 µg/L	57 2-Chlorotoluene	ND	1.0 µg/L
14 Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	58 1,3,5-Trimethylbenzene	ND	1.0 µg/L
15 1,1-Dichloroethane	ND	1.0 µg/L	59 tert-Butylbenzene	ND	1.0 µg/L
16 Vinyl acetate	ND	50 µg/L	60 1,2,4-Trimethylbenzene	ND	1.0 µg/L
17 2-Butanone (MEK)	ND	10 µg/L	61 sec-Butylbenzene	ND	1.0 µg/L
18 Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	62 1,3-Dichlorobenzene	ND	1.0 µg/L
19 cis-1,2-Dichloroethene	ND	1.0 µg/L	63 1,4-Dichlorobenzene	ND	1.0 µg/L
20 Bromochloromethane	ND	1.0 µg/L	64 4-Isopropyltoluene	ND	1.0 µg/L
21 Chloroform	ND	1.0 µg/L	65 1,2-Dichlorobenzene	ND	1.0 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	66 n-Butylbenzene	ND	1.0 µg/L
23 2,2-Dichloropropane	ND	1.0 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0 µg/L
24 1,2-Dichloroethane	ND	0.50 µg/L	68 1,2,4-Trichlorobenzene	ND	2.0 µg/L
25 1,1,1-Trichloroethane	ND	1.0 µg/L	69 Naphthalene	ND	10 µg/L
26 1,1-Dichloropropene	ND	1.0 µg/L	70 1,2,3-Trichlorobenzene	ND	2.0 µg/L
27 Carbon tetrachloride	ND	1.0 µg/L	71 Surr: 1,2-Dichloroethane-d4	102	(70-130) %REC
28 Benzene	ND	0.50 µg/L	72 Surr: Toluene-d8	98	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	73 Surr: 4-Bromofluorobenzene	100	(70-130) %REC
30 Dibromomethane	ND	1.0 µg/L			
31 1,2-Dichloropropane	ND	1.0 µg/L			
32 Trichloroethene	ND	1.0 µg/L			
33 Bromodichloromethane	ND	1.0 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	10 µg/L			
35 cis-1,3-Dichloropropene	ND	0.50 µg/L			
36 trans-1,3-Dichloropropene	ND	0.50 µg/L			
37 1,1,2-Trichloroethane	ND	1.0 µg/L			
38 Toluene	ND	0.50 µg/L			
39 1,3-Dichloropropane	ND	1.0 µg/L			
40 2-Hexanone	ND	5.0 µg/L			
41 Dibromochloromethane	ND	1.0 µg/L			
42 1,2-Dibromoethane (EDB)	ND	2.0 µg/L			
43 Tetrachloroethene	ND	1.0 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	1.0 µg/L			

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
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7/22/11

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-13A
Client I.D. Number: WCW-7

Sampled: 07/12/11 09:05
Received: 07/14/11
Extracted: 07/18/11
Analyzed: 07/18/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	1.0 µg/L	45 Chlorobenzene	ND	1.0 µg/L
2 Chloromethane	ND	2.0 µg/L	46 Ethylbenzene	ND	0.50 µg/L
3 Vinyl chloride	ND	0.50 µg/L	47 m,p-Xylene	ND	0.50 µg/L
4 Chloroethane	ND	1.0 µg/L	48 Bromoform	ND	1.0 µg/L
5 Bromomethane	ND	2.0 µg/L	49 Styrene	ND	1.0 µg/L
6 Trichlorofluoromethane	ND	10 µg/L	50 o-Xylene	ND	0.50 µg/L
7 Acetone	ND	10 µg/L	51 1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
8 1,1-Dichloroethene	ND	1.0 µg/L	52 1,2,3-Trichloropropane	ND	2.0 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	53 Isopropylbenzene	ND	1.0 µg/L
10 Dichloromethane	ND	5.0 µg/L	54 Bromobenzene	ND	1.0 µg/L
11 Freon-113	ND	10 µg/L	55 n-Propylbenzene	ND	1.0 µg/L
12 Carbon disulfide	ND	2.5 µg/L	56 4-Chlorotoluene	ND	1.0 µg/L
13 trans-1,2-Dichloroethene	ND	1.0 µg/L	57 2-Chlorotoluene	ND	1.0 µg/L
14 Methyl tert-butyl ether (MTBE)	1.2	0.50 µg/L	58 1,3,5-Trimethylbenzene	ND	1.0 µg/L
15 1,1-Dichloroethane	ND	1.0 µg/L	59 tert-Butylbenzene	ND	1.0 µg/L
16 Vinyl acetate	ND	50 µg/L	60 1,2,4-Trimethylbenzene	ND	1.0 µg/L
17 2-Butanone (MEK)	ND	10 µg/L	61 sec-Butylbenzene	ND	1.0 µg/L
18 Di-isopropyl Ether (DIPE)	2.6	1.0 µg/L	62 1,3-Dichlorobenzene	ND	1.0 µg/L
19 cis-1,2-Dichloroethene	ND	1.0 µg/L	63 1,4-Dichlorobenzene	ND	1.0 µg/L
20 Bromochloromethane	ND	1.0 µg/L	64 4-Isopropyltoluene	ND	1.0 µg/L
21 Chloroform	ND	1.0 µg/L	65 1,2-Dichlorobenzene	ND	1.0 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	66 n-Butylbenzene	ND	1.0 µg/L
23 2,2-Dichloropropane	ND	1.0 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0 µg/L
24 1,2-Dichloroethane	21	0.50 µg/L	68 1,2,4-Trichlorobenzene	ND	2.0 µg/L
25 1,1,1-Trichloroethane	ND	1.0 µg/L	69 Naphthalene	ND	10 µg/L
26 1,1-Dichloropropene	ND	1.0 µg/L	70 1,2,3-Trichlorobenzene	ND	2.0 µg/L
27 Carbon tetrachloride	ND	1.0 µg/L	71 Surr: 1,2-Dichloroethane-d4	103	(70-130) %REC
28 Benzene	ND	0.50 µg/L	72 Surr: Toluene-d8	97	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	73 Surr: 4-Bromofluorobenzene	98	(70-130) %REC
30 Dibromomethane	ND	1.0 µg/L			
31 1,2-Dichloropropane	ND	1.0 µg/L			
32 Trichloroethene	ND	1.0 µg/L			
33 Bromodichloromethane	ND	1.0 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	10 µg/L			
35 cis-1,3-Dichloropropene	ND	0.50 µg/L			
36 trans-1,3-Dichloropropene	ND	0.50 µg/L			
37 1,1,2-Trichloroethane	ND	1.0 µg/L			
38 Toluene	ND	0.50 µg/L			
39 1,3-Dichloropropane	ND	1.0 µg/L			
40 2-Hexanone	ND	5.0 µg/L			
41 Dibromochloromethane	ND	1.0 µg/L			
42 1,2-Dibromoethane (EDB)	ND	2.0 µg/L			
43 Tetrachloroethene	ND	1.0 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	1.0 µg/L			

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

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PS
7/22/11

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-14A
Client I.D. Number: GMW-O-2

Sampled: 07/12/11 09:50
Received: 07/14/11
Extracted: 07/19/11
Analyzed: 07/19/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	1.0 µg/L	45 Chlorobenzene	ND	1.0 µg/L
2 Chloromethane	ND	2.0 µg/L	46 Ethylbenzene	ND	0.50 µg/L
3 Vinyl chloride	ND	0.50 µg/L	47 m,p-Xylene	ND	0.50 µg/L
4 Chloroethane	ND	1.0 µg/L	48 Bromoform	ND	1.0 µg/L
5 Bromomethane	ND	2.0 µg/L	49 Styrene	ND	1.0 µg/L
6 Trichlorofluoromethane	ND	10 µg/L	50 o-Xylene	ND	0.50 µg/L
7 Acetone	ND	10 µg/L	51 1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
8 1,1-Dichloroethene	ND	1.0 µg/L	52 1,2,3-Trichloropropane	ND	2.0 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	53 Isopropylbenzene	ND	1.0 µg/L
10 Dichloromethane	ND	5.0 µg/L	54 Bromobenzene	ND	1.0 µg/L
11 Freon-113	ND	10 µg/L	55 n-Propylbenzene	ND	1.0 µg/L
12 Carbon disulfide	ND	2.5 µg/L	56 4-Chlorotoluene	ND	1.0 µg/L
13 trans-1,2-Dichloroethene	ND	1.0 µg/L	57 2-Chlorotoluene	ND	1.0 µg/L
14 Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	58 1,3,5-Trimethylbenzene	ND	1.0 µg/L
15 1,1-Dichloroethane	ND	1.0 µg/L	59 tert-Butylbenzene	ND	1.0 µg/L
16 Vinyl acetate	ND	50 µg/L	60 1,2,4-Trimethylbenzene	ND	1.0 µg/L
17 2-Butanone (MEK)	ND	10 µg/L	61 sec-Butylbenzene	ND	1.0 µg/L
18 Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	62 1,3-Dichlorobenzene	ND	1.0 µg/L
19 cis-1,2-Dichloroethene	ND	1.0 µg/L	63 1,4-Dichlorobenzene	ND	1.0 µg/L
20 Bromochloromethane	ND	1.0 µg/L	64 4-Isopropyltoluene	ND	1.0 µg/L
21 Chloroform	ND	1.0 µg/L	65 1,2-Dichlorobenzene	ND	1.0 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	66 n-Butylbenzene	ND	1.0 µg/L
23 2,2-Dichloropropane	ND	1.0 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0 µg/L
24 1,2-Dichloroethane	ND	0.50 µg/L	68 1,2,4-Trichlorobenzene	ND	2.0 µg/L
25 1,1,1-Trichloroethane	ND	1.0 µg/L	69 Naphthalene	ND	10 µg/L
26 1,1-Dichloropropene	ND	1.0 µg/L	70 1,2,3-Trichlorobenzene	ND	2.0 µg/L
27 Carbon tetrachloride	ND	1.0 µg/L	71 Surr: 1,2-Dichloroethane-d4	102	(70-130) %REC
28 Benzene	ND	0.50 µg/L	72 Surr: Toluene-d8	99	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	73 Surr: 4-Bromofluorobenzene	100	(70-130) %REC
30 Dibromomethane	ND	1.0 µg/L			
31 1,2-Dichloropropane	ND	1.0 µg/L			
32 Trichloroethene	ND	1.0 µg/L			
33 Bromodichloromethane	ND	1.0 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	10 µg/L			
35 cis-1,3-Dichloropropene	ND	0.50 µg/L			
36 trans-1,3-Dichloropropene	ND	0.50 µg/L			
37 1,1,2-Trichloroethane	ND	1.0 µg/L			
38 Toluene	ND	0.50 µg/L			
39 1,3-Dichloropropane	ND	1.0 µg/L			
40 2-Hexanone	ND	5.0 µg/L			
41 Dibromochloromethane	ND	1.0 µg/L			
42 1,2-Dibromoethane (EDB)	ND	2.0 µg/L			
43 Tetrachloroethene	ND	1.0 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	1.0 µg/L			

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

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[Signature]

7/22/11

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-15A
Client I.D. Number: GMW-O-16

Sampled: 07/12/11 10:35
Received: 07/14/11
Extracted: 07/19/11
Analyzed: 07/19/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	1.0 µg/L	45 Chlorobenzene	ND	1.0 µg/L
2 Chloromethane	ND	2.0 µg/L	46 Ethylbenzene	ND	0.50 µg/L
3 Vinyl chloride	ND	0.50 µg/L	47 m,p-Xylene	ND	0.50 µg/L
4 Chloroethane	ND	1.0 µg/L	48 Bromoform	ND	1.0 µg/L
5 Bromomethane	ND	2.0 µg/L	49 Styrene	ND	1.0 µg/L
6 Trichlorofluoromethane	ND	10 µg/L	50 o-Xylene	ND	0.50 µg/L
7 Acetone	ND	10 µg/L	51 1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
8 1,1-Dichloroethene	ND	1.0 µg/L	52 1,2,3-Trichloropropane	ND	2.0 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	53 Isopropylbenzene	ND	1.0 µg/L
10 Dichloromethane	ND	5.0 µg/L	54 Bromobenzene	ND	1.0 µg/L
11 Freon-113	ND	10 µg/L	55 n-Propylbenzene	ND	1.0 µg/L
12 Carbon disulfide	ND	2.5 µg/L	56 4-Chlorotoluene	ND	1.0 µg/L
13 trans-1,2-Dichloroethene	ND	1.0 µg/L	57 2-Chlorotoluene	ND	1.0 µg/L
14 Methyl tert-butyl ether (MTBE)	1.8	0.50 µg/L	58 1,3,5-Trimethylbenzene	ND	1.0 µg/L
15 1,1-Dichloroethane	ND	1.0 µg/L	59 tert-Butylbenzene	ND	1.0 µg/L
16 Vinyl acetate	ND	50 µg/L	60 1,2,4-Trimethylbenzene	ND	1.0 µg/L
17 2-Butanone (MEK)	ND	10 µg/L	61 sec-Butylbenzene	ND	1.0 µg/L
18 Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	62 1,3-Dichlorobenzene	ND	1.0 µg/L
19 cis-1,2-Dichloroethene	ND	1.0 µg/L	63 1,4-Dichlorobenzene	ND	1.0 µg/L
20 Bromochloromethane	ND	1.0 µg/L	64 4-Isopropyltoluene	ND	1.0 µg/L
21 Chloroform	ND	1.0 µg/L	65 1,2-Dichlorobenzene	ND	1.0 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	66 n-Butylbenzene	ND	1.0 µg/L
23 2,2-Dichloropropane	ND	1.0 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0 µg/L
24 1,2-Dichloroethane	ND	0.50 µg/L	68 1,2,4-Trichlorobenzene	ND	2.0 µg/L
25 1,1,1-Trichloroethane	ND	1.0 µg/L	69 Naphthalene	ND	10 µg/L
26 1,1-Dichloropropene	ND	1.0 µg/L	70 1,2,3-Trichlorobenzene	ND	2.0 µg/L
27 Carbon tetrachloride	ND	1.0 µg/L	71 Surr: 1,2-Dichloroethane-d4	100	(70-130) %REC
28 Benzene	ND	0.50 µg/L	72 Surr: Toluene-d8	98	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	73 Surr: 4-Bromofluorobenzene	98	(70-130) %REC
30 Dibromomethane	ND	1.0 µg/L			
31 1,2-Dichloropropane	ND	1.0 µg/L			
32 Trichloroethene	ND	1.0 µg/L			
33 Bromodichloromethane	ND	1.0 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	10 µg/L			
35 cis-1,3-Dichloropropene	ND	0.50 µg/L			
36 trans-1,3-Dichloropropene	ND	0.50 µg/L			
37 1,1,2-Trichloroethane	ND	1.0 µg/L			
38 Toluene	ND	0.50 µg/L			
39 1,3-Dichloropropane	ND	1.0 µg/L			
40 2-Hexanone	ND	5.0 µg/L			
41 Dibromochloromethane	ND	1.0 µg/L			
42 1,2-Dibromoethane (EDB)	ND	2.0 µg/L			
43 Tetrachloroethene	ND	1.0 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	1.0 µg/L			

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
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[Signature]

7/22/11

Report Date



Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-16A
Client I.D. Number: GMW-O-15

Sampled: 07/12/11 11:00
Received: 07/14/11
Extracted: 07/19/11
Analyzed: 07/19/11

Volatile Organics by GC/MS EPA Method SW8260B

Reporting			Reporting		
Compound	Concentration	Limit	Compound	Concentration	Limit
1 Dichlorodifluoromethane	ND	2.0 µg/L	45 Chlorobenzene	ND	2.0 µg/L
2 Chloromethane	ND	8.0 µg/L	46 Ethylbenzene	14	1.0 µg/L
3 Vinyl chloride	ND	2.0 µg/L	47 m,p-Xylene	73	1.0 µg/L
4 Chloroethane	ND	2.0 µg/L	48 Bromoform	ND	2.0 µg/L
5 Bromomethane	ND	8.0 µg/L	49 Styrene	ND	2.0 µg/L
6 Trichlorofluoromethane	ND	10 µg/L	50 o-Xylene	24	1.0 µg/L
7 Acetone	ND	40 µg/L	51 1,1,2,2-Tetrachloroethane	ND	2.0 µg/L
8 1,1-Dichloroethene	ND	2.0 µg/L	52 1,2,3-Trichloropropane	ND	8.0 µg/L
9 Tertiary Butyl Alcohol (TBA)	6,400	100 µg/L	53 Isopropylbenzene	ND	2.0 µg/L
10 Dichloromethane	ND	8.0 µg/L	54 Bromobenzene	ND	2.0 µg/L
11 Freon-113	ND	10 µg/L	55 n-Propylbenzene	2.4	2.0 µg/L
12 Carbon disulfide	ND	10 µg/L	56 4-Chlorotoluene	ND	2.0 µg/L
13 trans-1,2-Dichloroethene	ND	2.0 µg/L	57 2-Chlorotoluene	ND	2.0 µg/L
14 Methyl tert-butyl ether (MTBE)	220	1.0 µg/L	58 1,3,5-Trimethylbenzene	9.9	2.0 µg/L
15 1,1-Dichloroethane	ND	2.0 µg/L	59 tert-Butylbenzene	3.6	2.0 µg/L
16 Vinyl acetate	ND	200 µg/L	60 1,2,4-Trimethylbenzene	29	2.0 µg/L
17 2-Butanone (MEK)	ND	40 µg/L	61 sec-Butylbenzene	ND	2.0 µg/L
18 Di-isopropyl Ether (DIPE)	ND	2.0 µg/L	62 1,3-Dichlorobenzene	ND	2.0 µg/L
19 cis-1,2-Dichloroethene	ND	2.0 µg/L	63 1,4-Dichlorobenzene	ND	2.0 µg/L
20 Bromochloromethane	ND	2.0 µg/L	64 4-Isopropyltoluene	ND	2.0 µg/L
21 Chloroform	ND	2.0 µg/L	65 1,2-Dichlorobenzene	ND	2.0 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	2.0 µg/L	66 n-Butylbenzene	ND	2.0 µg/L
23 2,2-Dichloropropane	ND	2.0 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	12 µg/L
24 1,2-Dichloroethane	ND	2.0 µg/L	68 1,2,4-Trichlorobenzene	ND	8.0 µg/L
25 1,1,1-Trichloroethane	ND	2.0 µg/L	69 Naphthalene	12	10 µg/L
26 1,1-Dichloropropene	ND	2.0 µg/L	70 1,2,3-Trichlorobenzene	ND	8.0 µg/L
27 Carbon tetrachloride	ND	2.0 µg/L	71 Surr: 1,2-Dichloroethane-d4	103	(70-130) %REC
28 Benzene	150	1.0 µg/L	72 Surr: Toluene-d8	98	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	2.0 µg/L	73 Surr: 4-Bromofluorobenzene	98	(70-130) %REC
30 Dibromomethane	ND	2.0 µg/L			
31 1,2-Dichloropropane	ND	2.0 µg/L			
32 Trichloroethene	ND	2.0 µg/L			
33 Bromodichloromethane	ND	2.0 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	10 µg/L			
35 cis-1,3-Dichloropropene	ND	2.0 µg/L			
36 trans-1,3-Dichloropropene	ND	2.0 µg/L			
37 1,1,2-Trichloroethane	ND	2.0 µg/L			
38 Toluene	17	1.0 µg/L			
39 1,3-Dichloropropane	ND	2.0 µg/L			
40 2-Hexanone	ND	20 µg/L			
41 Dibromochloromethane	ND	2.0 µg/L			
42 1,2-Dibromoethane (EDB)	ND	4.0 µg/L			
43 Tetrachloroethene	ND	2.0 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	2.0 µg/L			

*This analyte was analyzed separately on 7/19/11 in order to achieve lower reporting limits for the other analytes.

Reporting Limits were increased due to high concentrations of target analytes.

ND = Not Detected

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7/22/11

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMFP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-17A
Client I.D. Number: GMW-39

Sampled: 07/12/11 11:40
Received: 07/14/11
Extracted: 07/19/11
Analyzed: 07/19/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	1.0 µg/L	45 Chlorobenzene	ND	1.0 µg/L
2 Chloromethane	ND	2.0 µg/L	46 Ethylbenzene	ND	0.50 µg/L
3 Vinyl chloride	ND	0.50 µg/L	47 m,p-Xylene	ND	0.50 µg/L
4 Chloroethane	ND	1.0 µg/L	48 Bromoform	ND	1.0 µg/L
5 Bromomethane	ND	2.0 µg/L	49 Styrene	ND	1.0 µg/L
6 Trichlorofluoromethane	ND	10 µg/L	50 o-Xylene	ND	0.50 µg/L
7 Acetone	ND	10 µg/L	51 1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
8 1,1-Dichloroethene	ND	1.0 µg/L	52 1,2,3-Trichloropropane	ND	2.0 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	53 Isopropylbenzene	ND	1.0 µg/L
10 Dichloromethane	ND	5.0 µg/L	54 Bromobenzene	ND	1.0 µg/L
11 Freon-113	ND	10 µg/L	55 n-Propylbenzene	ND	1.0 µg/L
12 Carbon disulfide	ND	2.5 µg/L	56 4-Chlorotoluene	ND	1.0 µg/L
13 trans-1,2-Dichloroethene	ND	1.0 µg/L	57 2-Chlorotoluene	ND	1.0 µg/L
14 Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	58 1,3,5-Trimethylbenzene	ND	1.0 µg/L
15 1,1-Dichloroethane	ND	1.0 µg/L	59 tert-Butylbenzene	ND	1.0 µg/L
16 Vinyl acetate	ND	50 µg/L	60 1,2,4-Trimethylbenzene	ND	1.0 µg/L
17 2-Butanone (MEK)	ND	10 µg/L	61 sec-Butylbenzene	ND	1.0 µg/L
18 Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	62 1,3-Dichlorobenzene	ND	1.0 µg/L
19 cis-1,2-Dichloroethene	ND	1.0 µg/L	63 1,4-Dichlorobenzene	ND	1.0 µg/L
20 Bromochloromethane	ND	1.0 µg/L	64 4-Isopropyltoluene	ND	1.0 µg/L
21 Chloroform	ND	1.0 µg/L	65 1,2-Dichlorobenzene	ND	1.0 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	66 n-Butylbenzene	ND	1.0 µg/L
23 2,2-Dichloropropane	ND	1.0 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0 µg/L
24 1,2-Dichloroethane	ND	0.50 µg/L	68 1,2,4-Trichlorobenzene	ND	2.0 µg/L
25 1,1,1-Trichloroethane	ND	1.0 µg/L	69 Naphthalene	ND	10 µg/L
26 1,1-Dichloropropene	ND	1.0 µg/L	70 1,2,3-Trichlorobenzene	ND	2.0 µg/L
27 Carbon tetrachloride	ND	1.0 µg/L	71 Surr: 1,2-Dichloroethane-d4	101	(70-130) %REC
28 Benzene	ND	0.50 µg/L	72 Surr: Toluene-d8	97	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	73 Surr: 4-Bromofluorobenzene	98	(70-130) %REC
30 Dibromomethane	ND	1.0 µg/L			
31 1,2-Dichloropropane	ND	1.0 µg/L			
32 Trichloroethene	ND	1.0 µg/L			
33 Bromodichloromethane	ND	1.0 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	10 µg/L			
35 cis-1,3-Dichloropropene	ND	0.50 µg/L			
36 trans-1,3-Dichloropropene	ND	0.50 µg/L			
37 1,1,2-Trichloroethane	ND	1.0 µg/L			
38 Toluene	ND	0.50 µg/L			
39 1,3-Dichloropropane	ND	1.0 µg/L			
40 2-Hexanone	ND	5.0 µg/L			
41 Dibromochloromethane	ND	1.0 µg/L			
42 1,2-Dibromoethane (EDB)	ND	2.0 µg/L			
43 Tetrachloroethene	ND	1.0 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	1.0 µg/L			

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

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Report Date



Alpha Analytical, Inc.

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ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-18A
Client I.D. Number: MW-SF-1

Sampled: 07/12/11 12:35
Received: 07/14/11
Extracted: 07/19/11
Analyzed: 07/19/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	50 µg/L	45 Chlorobenzene	ND	50 µg/L
2 Chloromethane	ND	200 µg/L	46 Ethylbenzene	76	25 µg/L
3 Vinyl chloride	ND	50 µg/L	47 m,p-Xylene	38	25 µg/L
4 Chloroethane	ND	50 µg/L	48 Bromoform	ND	50 µg/L
5 Bromomethane	ND	200 µg/L	49 Styrene	ND	50 µg/L
6 Trichlorofluoromethane	ND	50 µg/L	50 o-Xylene	ND	25 µg/L
7 Acetone	ND	1,000 µg/L	51 1,1,2,2-Tetrachloroethane	ND	50 µg/L
8 1,1-Dichloroethene	ND	50 µg/L	52 1,2,3-Trichloropropane	ND	200 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	500 µg/L	53 Isopropylbenzene	ND	50 µg/L
10 Dichloromethane	ND	200 µg/L	54 Bromobenzene	ND	50 µg/L
11 Freon-113	ND	50 µg/L	55 n-Propylbenzene	ND	50 µg/L
12 Carbon disulfide	ND	250 µg/L	56 4-Chlorotoluene	ND	50 µg/L
13 trans-1,2-Dichloroethene	ND	50 µg/L	57 2-Chlorotoluene	ND	50 µg/L
14 Methyl tert-butyl ether (MTBE)	240	25 µg/L	58 1,3,5-Trimethylbenzene	ND	50 µg/L
15 1,1-Dichloroethane	ND	50 µg/L	59 tert-Butylbenzene	ND	50 µg/L
16 Vinyl acetate	ND	5,000 µg/L	60 1,2,4-Trimethylbenzene	ND	50 µg/L
17 2-Butanone (MEK)	ND	1,000 µg/L	61 sec-Butylbenzene	ND	50 µg/L
18 Di-isopropyl Ether (DIPE)	ND	50 µg/L	62 1,3-Dichlorobenzene	ND	50 µg/L
19 cis-1,2-Dichloroethene	ND	50 µg/L	63 1,4-Dichlorobenzene	ND	50 µg/L
20 Bromochloromethane	ND	50 µg/L	64 4-Isopropyltoluene	ND	50 µg/L
21 Chloroform	ND	50 µg/L	65 1,2-Dichlorobenzene	ND	50 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	50 µg/L	66 n-Butylbenzene	ND	50 µg/L
23 2,2-Dichloropropane	ND	50 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	300 µg/L
24 1,2-Dichloroethane	ND	50 µg/L	68 1,2,4-Trichlorobenzene	ND	200 µg/L
25 1,1,1-Trichloroethane	ND	50 µg/L	69 Naphthalene	ND	200 µg/L
26 1,1-Dichloropropene	ND	50 µg/L	70 1,2,3-Trichlorobenzene	ND	200 µg/L
27 Carbon tetrachloride	ND	50 µg/L	71 Surr: 1,2-Dichloroethane-d4	103	(70-130) %REC
28 Benzene	4,700	25 µg/L	72 Surr: Toluene-d8	99	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	50 µg/L	73 Surr: 4-Bromofluorobenzene	99	(70-130) %REC
30 Dibromomethane	ND	50 µg/L			
31 1,2-Dichloropropane	ND	50 µg/L			
32 Trichloroethene	ND	50 µg/L			
33 Bromodichloromethane	ND	50 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	250 µg/L			
35 cis-1,3-Dichloropropene	ND	50 µg/L			
36 trans-1,3-Dichloropropene	ND	50 µg/L			
37 1,1,2-Trichloroethane	ND	50 µg/L			
38 Toluene	34	25 µg/L			
39 1,3-Dichloropropane	ND	50 µg/L			
40 2-Hexanone	ND	500 µg/L			
41 Dibromochloromethane	ND	50 µg/L			
42 1,2-Dibromoethane (EDB)	ND	100 µg/L			
43 Tetrachloroethene	ND	50 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	50 µg/L			

Reporting Limits were increased due to high concentrations of target analytes.

ND = Not Detected

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7/22/11

Report Date



Alpha Analytical, Inc.

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ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-19A
Client I.D. Number: PZ-5

Sampled: 07/12/11 13:15
Received: 07/14/11
Extracted: 07/19/11
Analyzed: 07/19/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	20 µg/L	45 Chlorobenzene	ND	20 µg/L
2 Chloromethane	ND	80 µg/L	46 Ethylbenzene	50	10 µg/L
3 Vinyl chloride	ND	20 µg/L	47 m,p-Xylene	36	10 µg/L
4 Chloroethane	ND	20 µg/L	48 Bromoform	ND	20 µg/L
5 Bromomethane	ND	80 µg/L	49 Styrene	ND	20 µg/L
6 Trichlorofluoromethane	ND	20 µg/L	50 o-Xylene	41	10 µg/L
7 Acetone	ND	400 µg/L	51 1,1,2,2-Tetrachloroethane	ND	20 µg/L
8 1,1-Dichloroethene	ND	20 µg/L	52 1,2,3-Trichloropropane	ND	80 µg/L
9 Tertiary Butyl Alcohol (TBA)	34,000	200 µg/L	53 Isopropylbenzene	ND	20 µg/L
10 Dichloromethane	ND	80 µg/L	54 Bromobenzene	ND	20 µg/L
11 Freon-113	ND	20 µg/L	55 n-Propylbenzene	ND	20 µg/L
12 Carbon disulfide	ND	100 µg/L	56 4-Chlorotoluene	ND	20 µg/L
13 trans-1,2-Dichloroethene	ND	20 µg/L	57 2-Chlorotoluene	ND	20 µg/L
14 Methyl tert-butyl ether (MTBE)	110	10 µg/L	58 1,3,5-Trimethylbenzene	ND	20 µg/L
15 1,1-Dichloroethane	ND	20 µg/L	59 tert-Butylbenzene	ND	20 µg/L
16 Vinyl acetate	ND	2,000 µg/L	60 1,2,4-Trimethylbenzene	29	20 µg/L
17 2-Butanone (MEK)	ND	400 µg/L	61 sec-Butylbenzene	ND	20 µg/L
18 Di-isopropyl Ether (DIPE)	ND	20 µg/L	62 1,3-Dichlorobenzene	ND	20 µg/L
19 cis-1,2-Dichloroethene	ND	20 µg/L	63 1,4-Dichlorobenzene	ND	20 µg/L
20 Bromochloromethane	ND	20 µg/L	64 4-Isopropyltoluene	ND	20 µg/L
21 Chloroform	ND	20 µg/L	65 1,2-Dichlorobenzene	ND	20 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	20 µg/L	66 n-Butylbenzene	ND	20 µg/L
23 2,2-Dichloropropane	ND	20 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	120 µg/L
24 1,2-Dichloroethane	ND	20 µg/L	68 1,2,4-Trichlorobenzene	ND	80 µg/L
25 1,1,1-Trichloroethane	ND	20 µg/L	69 Naphthalene	ND	80 µg/L
26 1,1-Dichloropropene	ND	20 µg/L	70 1,2,3-Trichlorobenzene	ND	80 µg/L
27 Carbon tetrachloride	ND	20 µg/L	71 Surr: 1,2-Dichloroethane-d4	100	(70-130) %REC
28 Benzene	1,500	10 µg/L	72 Surr: Toluene-d8	98	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	20 µg/L	73 Surr: 4-Bromofluorobenzene	98	(70-130) %REC
30 Dibromomethane	ND	20 µg/L			
31 1,2-Dichloropropane	ND	20 µg/L			
32 Trichloroethene	ND	20 µg/L			
33 Bromodichloromethane	ND	20 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	100 µg/L			
35 cis-1,3-Dichloropropene	ND	20 µg/L			
36 trans-1,3-Dichloropropene	ND	20 µg/L			
37 1,1,2-Trichloroethane	ND	20 µg/L			
38 Toluene	16	10 µg/L			
39 1,3-Dichloropropane	ND	20 µg/L			
40 2-Hexanone	ND	200 µg/L			
41 Dibromochloromethane	ND	20 µg/L			
42 1,2-Dibromoethane (EDB)	ND	40 µg/L			
43 Tetrachloroethene	ND	20 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	20 µg/L			

Reporting Limits were increased due to high concentrations of target analytes.

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
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7/22/11

Report Date



Alpha Analytical, Inc.

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ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-20A
Client I.D. Number: EB-2

Sampled: 07/12/11 13:40
Received: 07/14/11
Extracted: 07/18/11
Analyzed: 07/18/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	1.0 µg/L	45 Chlorobenzene	ND	1.0 µg/L
2 Chloromethane	ND	2.0 µg/L	46 Ethylbenzene	ND	0.50 µg/L
3 Vinyl chloride	ND	0.50 µg/L	47 m,p-Xylene	ND	0.50 µg/L
4 Chloroethane	ND	1.0 µg/L	48 Bromoform	ND	1.0 µg/L
5 Bromomethane	ND	2.0 µg/L	49 Styrene	ND	1.0 µg/L
6 Trichlorofluoromethane	ND	10 µg/L	50 o-Xylene	ND	0.50 µg/L
7 Acetone	ND	10 µg/L	51 1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
8 1,1-Dichloroethene	ND	1.0 µg/L	52 1,2,3-Trichloropropane	ND	2.0 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	53 Isopropylbenzene	ND	1.0 µg/L
10 Dichloromethane	ND	5.0 µg/L	54 Bromobenzene	ND	1.0 µg/L
11 Freon-113	ND	10 µg/L	55 n-Propylbenzene	ND	1.0 µg/L
12 Carbon disulfide	ND	2.5 µg/L	56 4-Chlorotoluene	ND	1.0 µg/L
13 trans-1,2-Dichloroethene	ND	1.0 µg/L	57 2-Chlorotoluene	ND	1.0 µg/L
14 Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	58 1,3,5-Trimethylbenzene	ND	1.0 µg/L
15 1,1-Dichloroethane	ND	1.0 µg/L	59 tert-Butylbenzene	ND	1.0 µg/L
16 Vinyl acetate	ND	50 µg/L	60 1,2,4-Trimethylbenzene	ND	1.0 µg/L
17 2-Butanone (MEK)	ND	10 µg/L	61 sec-Butylbenzene	ND	1.0 µg/L
18 Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	62 1,3-Dichlorobenzene	ND	1.0 µg/L
19 cis-1,2-Dichloroethene	ND	1.0 µg/L	63 1,4-Dichlorobenzene	ND	1.0 µg/L
20 Bromochloromethane	ND	1.0 µg/L	64 4-Isopropyltoluene	ND	1.0 µg/L
21 Chloroform	ND	1.0 µg/L	65 1,2-Dichlorobenzene	ND	1.0 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	66 n-Butylbenzene	ND	1.0 µg/L
23 2,2-Dichloropropane	ND	1.0 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0 µg/L
24 1,2-Dichloroethane	ND	0.50 µg/L	68 1,2,4-Trichlorobenzene	ND	2.0 µg/L
25 1,1,1-Trichloroethane	ND	1.0 µg/L	69 Naphthalene	ND	10 µg/L
26 1,1-Dichloropropene	ND	1.0 µg/L	70 1,2,3-Trichlorobenzene	ND	2.0 µg/L
27 Carbon tetrachloride	ND	1.0 µg/L	71 Surr: 1,2-Dichloroethane-d4	102	(70-130) %REC
28 Benzene	ND	0.50 µg/L	72 Surr: Toluene-d8	99	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	73 Surr: 4-Bromofluorobenzene	100	(70-130) %REC
30 Dibromomethane	ND	1.0 µg/L			
31 1,2-Dichloropropane	ND	1.0 µg/L			
32 Trichloroethene	ND	1.0 µg/L			
33 Bromodichloromethane	ND	1.0 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	10 µg/L			
35 cis-1,3-Dichloropropene	ND	0.50 µg/L			
36 trans-1,3-Dichloropropene	ND	0.50 µg/L			
37 1,1,2-Trichloroethane	ND	1.0 µg/L			
38 Toluene	ND	0.50 µg/L			
39 1,3-Dichloropropane	ND	1.0 µg/L			
40 2-Hexanone	ND	5.0 µg/L			
41 Dibromochloromethane	ND	1.0 µg/L			
42 1,2-Dibromoethane (EDB)	ND	2.0 µg/L			
43 Tetrachloroethene	ND	1.0 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	1.0 µg/L			

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

JS
7/22/11

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-21A
Client I.D. Number: MW-SF-4

Sampled: 07/12/11 14:10
Received: 07/14/11
Extracted: 07/19/11
Analyzed: 07/19/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	50 µg/L	45 Chlorobenzene	ND	50 µg/L
2 Chloromethane	ND	200 µg/L	46 Ethylbenzene	530	25 µg/L
3 Vinyl chloride	ND	50 µg/L	47 m,p-Xylene	490	25 µg/L
4 Chloroethane	ND	50 µg/L	48 Bromoform	ND	50 µg/L
5 Bromomethane	ND	200 µg/L	49 Styrene	ND	50 µg/L
6 Trichlorofluoromethane	ND	50 µg/L	50 o-Xylene	48	25 µg/L
7 Acetone	ND	1,000 µg/L	51 1,1,2,2-Tetrachloroethane	ND	50 µg/L
8 1,1-Dichloroethene	ND	50 µg/L	52 1,2,3-Trichloropropane	ND	200 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	500 µg/L	53 Isopropylbenzene	ND	50 µg/L
10 Dichloromethane	ND	200 µg/L	54 Bromobenzene	ND	50 µg/L
11 Freon-113	ND	50 µg/L	55 n-Propylbenzene	56	50 µg/L
12 Carbon disulfide	ND	250 µg/L	56 4-Chlorotoluene	ND	50 µg/L
13 trans-1,2-Dichloroethene	ND	50 µg/L	57 2-Chlorotoluene	ND	50 µg/L
14 Methyl tert-butyl ether (MTBE)	220	25 µg/L	58 1,3,5-Trimethylbenzene	ND	50 µg/L
15 1,1-Dichloroethane	ND	50 µg/L	59 tert-Butylbenzene	ND	50 µg/L
16 Vinyl acetate	ND	5,000 µg/L	60 1,2,4-Trimethylbenzene	250	50 µg/L
17 2-Butanone (MEK)	ND	1,000 µg/L	61 sec-Butylbenzene	ND	50 µg/L
18 Di-isopropyl Ether (DIPE)	ND	50 µg/L	62 1,3-Dichlorobenzene	ND	50 µg/L
19 cis-1,2-Dichloroethene	ND	50 µg/L	63 1,4-Dichlorobenzene	ND	50 µg/L
20 Bromochloromethane	ND	50 µg/L	64 4-Isopropyltoluene	ND	50 µg/L
21 Chloroform	ND	50 µg/L	65 1,2-Dichlorobenzene	ND	50 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	50 µg/L	66 n-Butylbenzene	ND	50 µg/L
23 2,2-Dichloropropane	ND	50 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	300 µg/L
24 1,2-Dichloroethane	ND	50 µg/L	68 1,2,4-Trichlorobenzene	ND	200 µg/L
25 1,1,1-Trichloroethane	ND	50 µg/L	69 Naphthalene	ND	200 µg/L
26 1,1-Dichloropropene	ND	50 µg/L	70 1,2,3-Trichlorobenzene	ND	200 µg/L
27 Carbon tetrachloride	ND	50 µg/L	71 Surr: 1,2-Dichloroethane-d4	104	(70-130) %REC
28 Benzene	4,500	25 µg/L	72 Surr: Toluene-d8	101	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	50 µg/L	73 Surr: 4-Bromofluorobenzene	98	(70-130) %REC
30 Dibromomethane	ND	50 µg/L			
31 1,2-Dichloropropane	ND	50 µg/L			
32 Trichloroethene	ND	50 µg/L			
33 Bromodichloromethane	ND	50 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	250 µg/L			
35 cis-1,3-Dichloropropene	ND	50 µg/L			
36 trans-1,3-Dichloropropene	ND	50 µg/L			
37 1,1,2-Trichloroethane	ND	50 µg/L			
38 Toluene	36	25 µg/L			
39 1,3-Dichloropropane	ND	50 µg/L			
40 2-Hexanone	ND	500 µg/L			
41 Dibromochloromethane	ND	50 µg/L			
42 1,2-Dibromoethane (EDB)	ND	100 µg/L			
43 Tetrachloroethene	ND	50 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	50 µg/L			

Reporting Limits were increased due to high concentrations of target analytes.

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
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7/22/11

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Alpha Analytical, Inc.

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ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-22A
Client I.D. Number: GMW-O-14

Sampled: 07/12/11 15:15
Received: 07/14/11
Extracted: 07/19/11
Analyzed: 07/19/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	50 µg/L	45 Chlorobenzene	ND	50 µg/L
2 Chloromethane	ND	200 µg/L	46 Ethylbenzene	ND	25 µg/L
3 Vinyl chloride	ND	50 µg/L	47 m,p-Xylene	1,200	25 µg/L
4 Chloroethane	ND	50 µg/L	48 Bromoform	ND	50 µg/L
5 Bromomethane	ND	200 µg/L	49 Styrene	ND	50 µg/L
6 Trichlorofluoromethane	ND	50 µg/L	50 o-Xylene	610	25 µg/L
7 Acetone	ND	1,000 µg/L	51 1,1,2,2-Tetrachloroethane	ND	50 µg/L
8 1,1-Dichloroethene	ND	50 µg/L	52 1,2,3-Trichloropropane	ND	200 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	500 µg/L	53 Isopropylbenzene	ND	50 µg/L
10 Dichloromethane	ND	200 µg/L	54 Bromobenzene	ND	50 µg/L
11 Freon-113	ND	50 µg/L	55 n-Propylbenzene	ND	50 µg/L
12 Carbon disulfide	ND	250 µg/L	56 4-Chlorotoluene	ND	50 µg/L
13 trans-1,2-Dichloroethene	ND	50 µg/L	57 2-Chlorotoluene	ND	50 µg/L
14 Methyl tert-butyl ether (MTBE)	ND	25 µg/L	58 1,3,5-Trimethylbenzene	ND	50 µg/L
15 1,1-Dichloroethane	ND	50 µg/L	59 tert-Butylbenzene	ND	50 µg/L
16 Vinyl acetate	ND	5,000 µg/L	60 1,2,4-Trimethylbenzene	280	50 µg/L
17 2-Butanone (MEK)	ND	1,000 µg/L	61 sec-Butylbenzene	ND	50 µg/L
18 Di-isopropyl Ether (DIPE)	ND	50 µg/L	62 1,3-Dichlorobenzene	ND	50 µg/L
19 cis-1,2-Dichloroethene	ND	50 µg/L	63 1,4-Dichlorobenzene	ND	50 µg/L
20 Bromochloromethane	ND	50 µg/L	64 4-Isopropyltoluene	ND	50 µg/L
21 Chloroform	ND	50 µg/L	65 1,2-Dichlorobenzene	ND	50 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	50 µg/L	66 n-Butylbenzene	ND	50 µg/L
23 2,2-Dichloropropane	ND	50 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	300 µg/L
24 1,2-Dichloroethane	ND	50 µg/L	68 1,2,4-Trichlorobenzene	ND	200 µg/L
25 1,1,1-Trichloroethane	ND	50 µg/L	69 Naphthalene	ND	200 µg/L
26 1,1-Dichloropropene	ND	50 µg/L	70 1,2,3-Trichlorobenzene	ND	200 µg/L
27 Carbon tetrachloride	ND	50 µg/L	71 Surr: 1,2-Dichloroethane-d4	100	(70-130) %REC
28 Benzene	3,800	25 µg/L	72 Surr: Toluene-d8	102	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	50 µg/L	73 Surr: 4-Bromofluorobenzene	98	(70-130) %REC
30 Dibromomethane	ND	50 µg/L			
31 1,2-Dichloropropane	ND	50 µg/L			
32 Trichloroethene	ND	50 µg/L			
33 Bromodichloromethane	ND	50 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	250 µg/L			
35 cis-1,3-Dichloropropene	ND	50 µg/L			
36 trans-1,3-Dichloropropene	ND	50 µg/L			
37 1,1,2-Trichloroethane	ND	50 µg/L			
38 Toluene	50	25 µg/L			
39 1,3-Dichloropropane	ND	50 µg/L			
40 2-Hexanone	ND	500 µg/L			
41 Dibromochloromethane	ND	50 µg/L			
42 1,2-Dibromoethane (EDB)	ND	100 µg/L			
43 Tetrachloroethene	ND	50 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	50 µg/L			

Reporting Limits were increased due to high concentrations of target analytes.

ND = Not Detected

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7/22/11

Report Date

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Alpha Analytical, Inc.

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ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-23A
Client I.D. Number: DUP-1

Sampled: 07/12/11 00:00
Received: 07/14/11
Extracted: 07/19/11
Analyzed: 07/19/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	1.0 µg/L	45 Chlorobenzene	ND	1.0 µg/L
2 Chloromethane	ND	2.0 µg/L	46 Ethylbenzene	ND	0.50 µg/L
3 Vinyl chloride	ND	0.50 µg/L	47 m,p-Xylene	ND	0.50 µg/L
4 Chloroethane	ND	1.0 µg/L	48 Bromoform	ND	1.0 µg/L
5 Bromomethane	ND	2.0 µg/L	49 Styrene	ND	1.0 µg/L
6 Trichlorofluoromethane	ND	10 µg/L	50 o-Xylene	ND	0.50 µg/L
7 Acetone	ND	10 µg/L	51 1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
8 1,1-Dichloroethene	ND	1.0 µg/L	52 1,2,3-Trichloropropane	ND	2.0 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	53 Isopropylbenzene	ND	1.0 µg/L
10 Dichloromethane	ND	5.0 µg/L	54 Bromobenzene	ND	1.0 µg/L
11 Freon-113	ND	10 µg/L	55 n-Propylbenzene	ND	1.0 µg/L
12 Carbon disulfide	ND	2.5 µg/L	56 4-Chlorotoluene	ND	1.0 µg/L
13 trans-1,2-Dichloroethene	ND	1.0 µg/L	57 2-Chlorotoluene	ND	1.0 µg/L
14 Methyl tert-butyl ether (MTBE)	0.95	0.50 µg/L	58 1,3,5-Trimethylbenzene	ND	1.0 µg/L
15 1,1-Dichloroethane	ND	1.0 µg/L	59 tert-Butylbenzene	ND	1.0 µg/L
16 Vinyl acetate	ND	50 µg/L	60 1,2,4-Trimethylbenzene	ND	1.0 µg/L
17 2-Butanone (MEK)	ND	10 µg/L	61 sec-Butylbenzene	ND	1.0 µg/L
18 Di-isopropyl Ether (DIPE)	2.2	1.0 µg/L	62 1,3-Dichlorobenzene	ND	1.0 µg/L
19 cis-1,2-Dichloroethene	ND	1.0 µg/L	63 1,4-Dichlorobenzene	ND	1.0 µg/L
20 Bromochloromethane	ND	1.0 µg/L	64 4-Isopropyltoluene	ND	1.0 µg/L
21 Chloroform	ND	1.0 µg/L	65 1,2-Dichlorobenzene	ND	1.0 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	66 n-Butylbenzene	ND	1.0 µg/L
23 2,2-Dichloropropane	ND	1.0 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0 µg/L
24 1,2-Dichloroethane	18	0.50 µg/L	68 1,2,4-Trichlorobenzene	ND	2.0 µg/L
25 1,1,1-Trichloroethane	ND	1.0 µg/L	69 Naphthalene	ND	10 µg/L
26 1,1-Dichloropropene	ND	1.0 µg/L	70 1,2,3-Trichlorobenzene	ND	2.0 µg/L
27 Carbon tetrachloride	ND	1.0 µg/L	71 Surr: 1,2-Dichloroethane-d4	99	(70-130) %REC
28 Benzene	ND	0.50 µg/L	72 Surr: Toluene-d8	98	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	73 Surr: 4-Bromofluorobenzene	99	(70-130) %REC
30 Dibromomethane	ND	1.0 µg/L			
31 1,2-Dichloropropane	ND	1.0 µg/L			
32 Trichloroethene	ND	1.0 µg/L			
33 Bromodichloromethane	ND	1.0 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	10 µg/L			
35 cis-1,3-Dichloropropene	ND	0.50 µg/L			
36 trans-1,3-Dichloropropene	ND	0.50 µg/L			
37 1,1,2-Trichloroethane	ND	1.0 µg/L			
38 Toluene	ND	0.50 µg/L			
39 1,3-Dichloropropane	ND	1.0 µg/L			
40 2-Hexanone	ND	5.0 µg/L			
41 Dibromochloromethane	ND	1.0 µg/L			
42 1,2-Dibromoethane (EDB)	ND	2.0 µg/L			
43 Tetrachloroethene	ND	1.0 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	1.0 µg/L			

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
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[Signature]

7/22/11

Report Date

Page 1 of 1



Alpha Analytical, Inc.

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ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-24A
Client I.D. Number: DUP-2

Sampled: 07/12/11 00:00
Received: 07/14/11
Extracted: 07/19/11
Analyzed: 07/19/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	20 µg/L	45 Chlorobenzene	ND	20 µg/L
2 Chloromethane	ND	80 µg/L	46 Ethylbenzene	48	10 µg/L
3 Vinyl chloride	ND	20 µg/L	47 m,p-Xylene	33	10 µg/L
4 Chloroethane	ND	20 µg/L	48 Bromoform	ND	20 µg/L
5 Bromomethane	ND	80 µg/L	49 Styrene	ND	20 µg/L
6 Trichlorofluoromethane	ND	20 µg/L	50 o-Xylene	37	10 µg/L
7 Acetone	ND	400 µg/L	51 1,1,2,2-Tetrachloroethane	ND	20 µg/L
8 1,1-Dichloroethene	ND	20 µg/L	52 1,2,3-Trichloropropane	ND	80 µg/L
9 Tertiary Butyl Alcohol (TBA)	35,000	200 µg/L	53 Isopropylbenzene	ND	20 µg/L
10 Dichloromethane	ND	80 µg/L	54 Bromobenzene	ND	20 µg/L
11 Freon-113	ND	20 µg/L	55 n-Propylbenzene	ND	20 µg/L
12 Carbon disulfide	ND	100 µg/L	56 4-Chlorotoluene	ND	20 µg/L
13 trans-1,2-Dichloroethene	ND	20 µg/L	57 2-Chlorotoluene	ND	20 µg/L
14 Methyl tert-butyl ether (MTBE)	110	10 µg/L	58 1,3,5-Trimethylbenzene	ND	20 µg/L
15 1,1-Dichloroethane	ND	20 µg/L	59 tert-Butylbenzene	ND	20 µg/L
16 Vinyl acetate	ND	2,000 µg/L	60 1,2,4-Trimethylbenzene	25	20 µg/L
17 2-Butanone (MEK)	ND	400 µg/L	61 sec-Butylbenzene	ND	20 µg/L
18 Di-isopropyl Ether (DIPE)	ND	20 µg/L	62 1,3-Dichlorobenzene	ND	20 µg/L
19 cis-1,2-Dichloroethene	ND	20 µg/L	63 1,4-Dichlorobenzene	ND	20 µg/L
20 Bromochloromethane	ND	20 µg/L	64 4-Isopropyltoluene	ND	20 µg/L
21 Chloroform	ND	20 µg/L	65 1,2-Dichlorobenzene	ND	20 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	20 µg/L	66 n-Butylbenzene	ND	20 µg/L
23 2,2-Dichloropropane	ND	20 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	120 µg/L
24 1,2-Dichloroethane	ND	20 µg/L	68 1,2,4-Trichlorobenzene	ND	80 µg/L
25 1,1,1-Trichloroethane	ND	20 µg/L	69 Naphthalene	ND	80 µg/L
26 1,1-Dichloropropene	ND	20 µg/L	70 1,2,3-Trichlorobenzene	ND	80 µg/L
27 Carbon tetrachloride	ND	20 µg/L	71 Surr: 1,2-Dichloroethane-d4	102	(70-130) %REC
28 Benzene	1,400	10 µg/L	72 Surr: Toluene-d8	99	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	20 µg/L	73 Surr: 4-Bromofluorobenzene	99	(70-130) %REC
30 Dibromomethane	ND	20 µg/L			
31 1,2-Dichloropropane	ND	20 µg/L			
32 Trichloroethene	ND	20 µg/L			
33 Bromodichloromethane	ND	20 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	100 µg/L			
35 cis-1,3-Dichloropropene	ND	20 µg/L			
36 trans-1,3-Dichloropropene	ND	20 µg/L			
37 1,1,2-Trichloroethane	ND	20 µg/L			
38 Toluene	15	10 µg/L			
39 1,3-Dichloropropane	ND	20 µg/L			
40 2-Hexanone	ND	200 µg/L			
41 Dibromochloromethane	ND	20 µg/L			
42 1,2-Dibromoethane (EDB)	ND	40 µg/L			
43 Tetrachloroethene	ND	20 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	20 µg/L			

Reporting Limits were increased due to high concentrations of target analytes.

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
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7/22/11

Report Date



Alpha Analytical, Inc.

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ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11071403-25A
Client I.D. Number: DUP-3

Sampled: 07/12/11 00:00
Received: 07/14/11
Extracted: 07/19/11
Analyzed: 07/19/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	50 µg/L	45 Chlorobenzene	ND	50 µg/L
2 Chloromethane	ND	200 µg/L	46 Ethylbenzene	ND	25 µg/L
3 Vinyl chloride	ND	50 µg/L	47 m,p-Xylene	1,100	25 µg/L
4 Chloroethane	ND	50 µg/L	48 Bromoform	ND	50 µg/L
5 Bromomethane	ND	200 µg/L	49 Styrene	ND	50 µg/L
6 Trichlorofluoromethane	ND	50 µg/L	50 o-Xylene	600	25 µg/L
7 Acetone	ND	1,000 µg/L	51 1,1,2,2-Tetrachloroethane	ND	50 µg/L
8 1,1-Dichloroethene	ND	50 µg/L	52 1,2,3-Trichloropropane	ND	200 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	500 µg/L	53 Isopropylbenzene	ND	50 µg/L
10 Dichloromethane	ND	200 µg/L	54 Bromobenzene	ND	50 µg/L
11 Freon-113	ND	50 µg/L	55 n-Propylbenzene	ND	50 µg/L
12 Carbon disulfide	ND	250 µg/L	56 4-Chlorotoluene	ND	50 µg/L
13 trans-1,2-Dichloroethene	ND	50 µg/L	57 2-Chlorotoluene	ND	50 µg/L
14 Methyl tert-butyl ether (MTBE)	ND	25 µg/L	58 1,3,5-Trimethylbenzene	ND	50 µg/L
15 1,1-Dichloroethane	ND	50 µg/L	59 tert-Butylbenzene	ND	50 µg/L
16 Vinyl acetate	ND	5,000 µg/L	60 1,2,4-Trimethylbenzene	270	50 µg/L
17 2-Butanone (MEK)	ND	1,000 µg/L	61 sec-Butylbenzene	ND	50 µg/L
18 Di-isopropyl Ether (DIPE)	ND	50 µg/L	62 1,3-Dichlorobenzene	ND	50 µg/L
19 cis-1,2-Dichloroethene	ND	50 µg/L	63 1,4-Dichlorobenzene	ND	50 µg/L
20 Bromochloromethane	ND	50 µg/L	64 4-Isopropyltoluene	ND	50 µg/L
21 Chloroform	ND	50 µg/L	65 1,2-Dichlorobenzene	ND	50 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	50 µg/L	66 n-Butylbenzene	ND	50 µg/L
23 2,2-Dichloropropane	ND	50 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	300 µg/L
24 1,2-Dichloroethane	ND	50 µg/L	68 1,2,4-Trichlorobenzene	ND	200 µg/L
25 1,1,1-Trichloroethane	ND	50 µg/L	69 Naphthalene	ND	200 µg/L
26 1,1-Dichloropropene	ND	50 µg/L	70 1,2,3-Trichlorobenzene	ND	200 µg/L
27 Carbon tetrachloride	ND	50 µg/L	71 Surr: 1,2-Dichloroethane-d4	102	(70-130) %REC
28 Benzene	3,700	25 µg/L	72 Surr: Toluene-d8	101	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	50 µg/L	73 Surr: 4-Bromofluorobenzene	99	(70-130) %REC
30 Dibromomethane	ND	50 µg/L			
31 1,2-Dichloropropane	ND	50 µg/L			
32 Trichloroethene	ND	50 µg/L			
33 Bromodichloromethane	ND	50 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	250 µg/L			
35 cis-1,3-Dichloropropene	ND	50 µg/L			
36 trans-1,3-Dichloropropene	ND	50 µg/L			
37 1,1,2-Trichloroethane	ND	50 µg/L			
38 Toluene	49	25 µg/L			
39 1,3-Dichloropropane	ND	50 µg/L			
40 2-Hexanone	ND	500 µg/L			
41 Dibromochloromethane	ND	50 µg/L			
42 1,2-Dibromoethane (EDB)	ND	100 µg/L			
43 Tetrachloroethene	ND	50 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	50 µg/L			

Reporting Limits were increased due to high concentrations of target analytes.

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

7/22/11

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

VOC Sample Preservation Report

Work Order: CHH11071403

Job: KMEP DFSP Norwalk

Alpha's Sample ID	Client's Sample ID	Matrix	pH
11071403-01A	TB-1	Aqueous	2
11071403-02A	EXP-5	Aqueous	2
11071403-03A	WCW-13	Aqueous	2
11071403-04A	GMW-O-1	Aqueous	2
11071403-05A	GMW-O-3	Aqueous	2
11071403-06A	GMWO-19	Aqueous	2
11071403-07A	EB-1	Aqueous	2
11071403-08A	EXP-1	Aqueous	2
11071403-09A	EXP-2	Aqueous	2
11071403-10A	WCW-3	Aqueous	2
11071403-11A	EXP-3	Aqueous	2
11071403-12A	GMW-38	Aqueous	2
11071403-13A	WCW-7	Aqueous	2
11071403-14A	GMW-O-2	Aqueous	2
11071403-15A	GMW-O-16	Aqueous	2
11071403-16A	GMW-O-15	Aqueous	2
11071403-17A	GMW-39	Aqueous	2
11071403-18A	MW-SF-1	Aqueous	2
11071403-19A	PZ-5	Aqueous	2
11071403-20A	EB-2	Aqueous	2
11071403-21A	MW-SF-4	Aqueous	2
11071403-22A	GMW-O-14	Aqueous	2
11071403-23A	DUP-1	Aqueous	2
11071403-24A	DUP-2	Aqueous	5
11071403-25A	DUP-3	Aqueous	2

7/22/11

Report Date

Page 1 of 1



Alpha Analytical, Inc.

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Date:
22-Jul-11

QC Summary Report

Work Order:
11071403

Method Blank

Type: **MBLK** Test Code: **EPA Method SW8015B/C Ext**

File ID: **1A07121186.D**

Batch ID: **26920**

Analysis Date: **07/15/2011 15:19**

Sample ID: **MBLK-26920**

Units : **mg/L**

Run ID: **FID_1_110715A**

Prep Date: **07/15/2011 10:31**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (Fuel Product)	ND	0.1								
Surr: Nonane	0.16		0.15		107	49	145			

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method SW8015B/C Ext**

File ID: **1A07121187.D**

Batch ID: **26920**

Analysis Date: **07/15/2011 15:44**

Sample ID: **LCS-26920**

Units : **mg/L**

Run ID: **FID_1_110715A**

Prep Date: **07/15/2011 10:31**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	2.32	0.05	2.5		93	70	130			
Surr: Nonane	0.179		0.15		119	49	145			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method SW8015B/C Ext**

File ID: **1A07121189.D**

Batch ID: **26920**

Analysis Date: **07/15/2011 16:35**

Sample ID: **11071403-02AMS**

Units : **mg/L**

Run ID: **FID_1_110715A**

Prep Date: **07/15/2011 10:31**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	2.67	0.05	2.5	0	107	53	150			
Surr: Nonane	0.106		0.15		71	49	145			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method SW8015B/C Ext**

File ID: **1A07121190.D**

Batch ID: **26920**

Analysis Date: **07/15/2011 17:00**

Sample ID: **11071403-02AMSD**

Units : **mg/L**

Run ID: **FID_1_110715A**

Prep Date: **07/15/2011 10:31**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	2.18	0.05	2.5	0	87	53	150	2.673	20.2(47)	
Surr: Nonane	0.093		0.15		62	49	145			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



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Date:
22-Jul-11

QC Summary Report

Work Order:
11071403

Method Blank

Type: **MBLK** Test Code: **EPA Method SW8015B/C Ext**

File ID: **7A07151106.D**

Batch ID: **26922**

Analysis Date: **07/15/2011 16:20**

Sample ID: **MBLK-26922**

Units : **mg/L**

Run ID: **FID_7_110715B**

Prep Date: **07/15/2011 11:21**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (Fuel Product)	ND	0.1								
Surr: Nonane	0.143		0.15		95	49	145			

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method SW8015B/C Ext**

File ID: **7A07151108.D**

Batch ID: **26922**

Analysis Date: **07/15/2011 17:14**

Sample ID: **LCS-26922**

Units : **mg/L**

Run ID: **FID_7_110715B**

Prep Date: **07/15/2011 11:21**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	2.19	0.05	2.5		88	70	130			
Surr: Nonane	0.165		0.15		110	49	145			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method SW8015B/C Ext**

File ID: **7A07151131.D**

Batch ID: **26922**

Analysis Date: **07/16/2011 03:28**

Sample ID: **11071345-14AMS**

Units : **mg/L**

Run ID: **FID_7_110715B**

Prep Date: **07/15/2011 11:21**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	3.81	0.05	2.5	1.509	92	53	150			
Surr: Nonane	0.176		0.15		117	49	145			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method SW8015B/C Ext**

File ID: **7A07151132.D**

Batch ID: **26922**

Analysis Date: **07/16/2011 03:55**

Sample ID: **11071345-14AMSD**

Units : **mg/L**

Run ID: **FID_7_110715B**

Prep Date: **07/15/2011 11:21**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	3.89	0.05	2.5	1.509	95	53	150	3.812	2.1(47)	
Surr: Nonane	0.181		0.15		121	49	145			

Comments:

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Date:
22-Jul-11

QC Summary Report

Work Order:
11071403

Method Blank

Type: **MBLK** Test Code: **EPA Method SW8015B/C**

File ID: C:\HPCHEM\MS07\DATA\110718\11071807.D

Batch ID: **MS07W0718B**

Analysis Date: **07/18/2011 10:53**

Sample ID: **MBLK MS07W0718B**

Units: **mg/L**

Run ID: **MSD_07_110718A**

Prep Date: **07/18/2011 10:53**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	0.05								
Surr: 1,2-Dichloroethane-d4	0.01		0.01		100	70	130			
Surr: Toluene-d8	0.0102		0.01		102	70	130			
Surr: 4-Bromofluorobenzene	0.00992		0.01		99	70	130			

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method SW8015B/C**

File ID: C:\HPCHEM\MS07\DATA\110718\11071804.D

Batch ID: **MS07W0718B**

Analysis Date: **07/18/2011 09:41**

Sample ID: **GLCS MS07W0718B**

Units: **mg/L**

Run ID: **MSD_07_110718A**

Prep Date: **07/18/2011 09:41**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	0.425	0.05	0.4		106	70	130			
Surr: 1,2-Dichloroethane-d4	0.00981		0.01		98	70	130			
Surr: Toluene-d8	0.0101		0.01		101	70	130			
Surr: 4-Bromofluorobenzene	0.0101		0.01		101	70	130			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method SW8015B/C**

File ID: C:\HPCHEM\MS07\DATA\110718\11071814.D

Batch ID: **MS07W0718B**

Analysis Date: **07/18/2011 13:42**

Sample ID: **11071403-02AGS**

Units: **mg/L**

Run ID: **MSD_07_110718A**

Prep Date: **07/18/2011 13:42**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	2.06	0.25	2	0	103	51	144			
Surr: 1,2-Dichloroethane-d4	0.0493		0.05		99	70	130			
Surr: Toluene-d8	0.0488		0.05		98	70	130			
Surr: 4-Bromofluorobenzene	0.0494		0.05		99	70	130			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method SW8015B/C**

File ID: C:\HPCHEM\MS07\DATA\110718\11071815.D

Batch ID: **MS07W0718B**

Analysis Date: **07/18/2011 14:06**

Sample ID: **11071403-02AGSD**

Units: **mg/L**

Run ID: **MSD_07_110718A**

Prep Date: **07/18/2011 14:06**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	2.15	0.25	2	0	107	51	144	2.063	4.0(29)	
Surr: 1,2-Dichloroethane-d4	0.05		0.05		100	70	130			
Surr: Toluene-d8	0.0495		0.05		99	70	130			
Surr: 4-Bromofluorobenzene	0.0501		0.05		100	70	130			

Comments:

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Alpha Analytical, Inc.

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Date:
22-Jul-11

QC Summary Report

Work Order:
11071403

Method Blank

Type: **MBLK** Test Code: **EPA Method SW8015B/C**

File ID: C:\HPCHEM\MS07\DATA\110719\11071907.D

Batch ID: **MS07W0719B**

Analysis Date: **07/19/2011 10:29**

Sample ID: **MBLK MS07W0719B**

Units: **mg/L**

Run ID: **MSD_07_110719A**

Prep Date: **07/19/2011 10:29**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	0.05								
Surr: 1,2-Dichloroethane-d4	0.0103		0.01		103	70	130			
Surr: Toluene-d8	0.0102		0.01		102	70	130			
Surr: 4-Bromofluorobenzene	0.00998		0.01		99.8	70	130			

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method SW8015B/C**

File ID: C:\HPCHEM\MS07\DATA\110719\11071904.D

Batch ID: **MS07W0719B**

Analysis Date: **07/19/2011 09:16**

Sample ID: **GLCS MS07W0719B**

Units: **mg/L**

Run ID: **MSD_07_110719A**

Prep Date: **07/19/2011 09:16**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	0.417	0.05	0.4		104	70	130			
Surr: 1,2-Dichloroethane-d4	0.00986		0.01		99	70	130			
Surr: Toluene-d8	0.0102		0.01		102	70	130			
Surr: 4-Bromofluorobenzene	0.0101		0.01		101	70	130			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method SW8015B/C**

File ID: C:\HPCHEM\MS07\DATA\110719\11071911.D

Batch ID: **MS07W0719B**

Analysis Date: **07/19/2011 12:05**

Sample ID: **11071403-23AGS**

Units: **mg/L**

Run ID: **MSD_07_110719A**

Prep Date: **07/19/2011 12:05**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	2.19	0.25	2		0 110	51	144			
Surr: 1,2-Dichloroethane-d4	0.0515		0.05		103	70	130			
Surr: Toluene-d8	0.0484		0.05		97	70	130			
Surr: 4-Bromofluorobenzene	0.0491		0.05		98	70	130			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method SW8015B/C**

File ID: C:\HPCHEM\MS07\DATA\110719\11071912.D

Batch ID: **MS07W0719B**

Analysis Date: **07/19/2011 12:29**

Sample ID: **11071403-23AGSD**

Units: **mg/L**

Run ID: **MSD_07_110719A**

Prep Date: **07/19/2011 12:29**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	2.2	0.25	2		0 110	51	144	2.193	0.2(29)	
Surr: 1,2-Dichloroethane-d4	0.0515		0.05		103	70	130			
Surr: Toluene-d8	0.0489		0.05		98	70	130			
Surr: 4-Bromofluorobenzene	0.0492		0.05		98	70	130			

Comments:

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Date:
22-Jul-11

QC Summary Report

Work Order:
11071403

Method Blank

Type: **MBLK** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS07\DATA\110718\11071807.D**

Batch ID: **MS07W0718A**

Analysis Date: **07/18/2011 10:53**

Sample ID: **MBLK MS07W0718A**

Units: **µg/L**

Run ID: **MSD_07_110718A**

Prep Date: **07/18/2011 10:53**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Dichlorodifluoromethane	ND		1							
Chloromethane	ND		2							
Vinyl chloride	ND	0.5								
Chloroethane	ND		1							
Bromomethane	ND		2							
Trichlorofluoromethane	ND		10							
Acetone	ND		10							
1,1-Dichloroethene	ND		1							
Tertiary Butyl Alcohol (TBA)	ND		10							
Dichloromethane	ND		5							
Freon-113	ND		10							
Carbon disulfide	ND	2.5								
trans-1,2-Dichloroethene	ND		1							
Methyl tert-butyl ether (MTBE)	ND	0.5								
1,1-Dichloroethane	ND		1							
Vinyl acetate	ND		50							
2-Butanone (MEK)	ND		10							
Di-isopropyl Ether (DIPE)	ND		1							
cis-1,2-Dichloroethene	ND		1							
Bromochloromethane	ND		1							
Chloroform	ND		1							
Ethyl Tertiary Butyl Ether (ETBE)	ND		1							
2,2-Dichloropropane	ND		1							
1,2-Dichloroethane	ND	0.5								
1,1,1-Trichloroethane	ND		1							
1,1-Dichloropropene	ND		1							
Carbon tetrachloride	ND		1							
Benzene	ND	0.5								
Tertiary Amyl Methyl Ether (TAME)	ND		1							
Dibromomethane	ND		1							
1,2-Dichloropropane	ND		1							
Trichloroethene	ND		1							
Bromodichloromethane	ND		1							
4-Methyl-2-pentanone (MIBK)	ND	10								
cis-1,3-Dichloropropene	ND	0.5								
trans-1,3-Dichloropropene	ND	0.5								
1,1,2-Trichloroethane	ND		1							
Toluene	ND	0.5								
1,3-Dichloropropane	ND		1							
2-Hexanone	ND	5								
Dibromochloromethane	ND		1							
1,2-Dibromoethane (EDB)	ND	2								
Tetrachloroethene	ND		1							
1,1,1,2-Tetrachloroethane	ND		1							
Chlorobenzene	ND		1							
Ethylbenzene	ND	0.5								
m,p-Xylene	ND	0.5								
Bromoform	ND		1							
Styrene	ND		1							
o-Xylene	ND	0.5								
1,1,2,2-Tetrachloroethane	ND		1							
1,2,3-Trichloropropane	ND	2								
Isopropylbenzene	ND		1							
Bromobenzene	ND		1							
n-Propylbenzene	ND		1							
4-Chlorotoluene	ND		1							
2-Chlorotoluene	ND		1							
1,3,5-Trimethylbenzene	ND		1							
tert-Butylbenzene	ND		1							
1,2,4-Trimethylbenzene	ND		1							
sec-Butylbenzene	ND		1							
1,3-Dichlorobenzene	ND		1							
1,4-Dichlorobenzene	ND		1							
4-Isopropyltoluene	ND		1							
1,2-Dichlorobenzene	ND		1							



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Date:
22-Jul-11

QC Summary Report

Work Order:
11071403

n-Butylbenzene	ND	1								
1,2-Dibromo-3-chloropropane (DBCP)	ND	5								
1,2,4-Trichlorobenzene	ND	2								
Naphthalene	ND	10								
1,2,3-Trichlorobenzene	ND	2								
Surr: 1,2-Dichloroethane-d4	10		10		100	70	130			
Surr: Toluene-d8	10.2		10		102	70	130			
Surr: 4-Bromofluorobenzene	9.92		10		99	70	130			

Laboratory Control Spike

Type: LCS

Test Code: EPA Method SW8260B

File ID: C:\HPCHEM\MS07\DATA\110718\11071803.D

Batch ID: MS07W0718A

Analysis Date: 07/18/2011 09:17

Sample ID: LCS MS07W0718A

Units: µg/L

Run ID: MSD_07_110718A

Prep Date: 07/18/2011 09:17

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
1,1-Dichloroethene	10.5	1	10		105	80	120			
Methyl tert-butyl ether (MTBE)	13.8	0.5	10		138	65	140			
Benzene	10.6	0.5	10		106	70	130			
Trichloroethene	9.81	1	10		98	65	144			
Toluene	10.6	0.5	10		106	80	120			
Chlorobenzene	10.4	1	10		104	70	130			
Ethylbenzene	10.7	0.5	10		107	80	120			
m,p-Xylene	10.6	0.5	10		106	70	130			
o-Xylene	10.4	0.5	10		104	70	130			
Surr: 1,2-Dichloroethane-d4	9.41		10		94	70	130			
Surr: Toluene-d8	10.3		10		103	70	130			
Surr: 4-Bromofluorobenzene	10.2		10		102	70	130			

Sample Matrix Spike

Type: MS

Test Code: EPA Method SW8260B

File ID: C:\HPCHEM\MS07\DATA\110718\11071812.D

Batch ID: MS07W0718A

Analysis Date: 07/18/2011 12:54

Sample ID: 11071403-02AMS

Units: µg/L

Run ID: MSD_07_110718A

Prep Date: 07/18/2011 12:54

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
1,1-Dichloroethene	49.2	2.5	50		0 98	64	130			
Methyl tert-butyl ether (MTBE)	47.5	1.3	50		0 95	47	150			
Benzene	48.2	1.3	50		0 96	59	138			
Trichloroethene	45.2	2.5	50		0 90	65	144			
Toluene	48.8	1.3	50		0 98	68	130			
Chlorobenzene	48.2	2.5	50		0 96	70	130			
Ethylbenzene	48.8	1.3	50		0 98	68	130			
m,p-Xylene	49	1.3	50		0 98	68	131			
o-Xylene	48	1.3	50		0 96	70	130			
Surr: 1,2-Dichloroethane-d4	51.1		50		102	70	130			
Surr: Toluene-d8	51.8		50		104	70	130			
Surr: 4-Bromofluorobenzene	51.1		50		102	70	130			

Sample Matrix Spike Duplicate

Type: MSD

Test Code: EPA Method SW8260B

File ID: C:\HPCHEM\MS07\DATA\110718\11071813.D

Batch ID: MS07W0718A

Analysis Date: 07/18/2011 13:18

Sample ID: 11071403-02AMSD

Units: µg/L

Run ID: MSD_07_110718A

Prep Date: 07/18/2011 13:18

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
1,1-Dichloroethene	48.3	2.5	50		0 97	64	130	49.17	1.9(21)	
Methyl tert-butyl ether (MTBE)	47.1	1.3	50		0 94	47	150	47.46	0.8(40)	
Benzene	46.4	1.3	50		0 93	59	138	48.16	3.7(21)	
Trichloroethene	43.6	2.5	50		0 87	65	144	45.23	3.6(20)	
Toluene	46.8	1.3	50		0 94	68	130	48.76	4.2(20)	
Chlorobenzene	45.7	2.5	50		0 91	70	130	48.22	5.3(20)	
Ethylbenzene	46.6	1.3	50		0 93	68	130	48.8	4.7(20)	
m,p-Xylene	46.2	1.3	50		0 92	68	131	48.98	5.9(20)	
o-Xylene	45.8	1.3	50		0 92	70	130	47.97	4.5(20)	
Surr: 1,2-Dichloroethane-d4	51.4		50		103	70	130			
Surr: Toluene-d8	52.1		50		104	70	130			
Surr: 4-Bromofluorobenzene	50.6		50		101	70	130			



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:

22-Jul-11

QC Summary Report

Work Order:

11071403

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:
22-Jul-11

QC Summary Report

Work Order:
11071403

Method Blank

Type: MBLK Test Code: EPA Method SW8260B

File ID: C:\HPCHEM\MS07\DATA\110719\11071907.D

Batch ID: MS07W0719A

Analysis Date: 07/19/2011 10:29

Sample ID: MBLK MS07W0719A

Units: µg/L

Run ID: MSD_07_110719A

Prep Date: 07/19/2011 10:29

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Dichlorodifluoromethane	ND		1							
Chloromethane	ND		2							
Vinyl chloride	ND	0.5								
Chloroethane	ND		1							
Bromomethane	ND		2							
Trichlorofluoromethane	ND		10							
Acetone	ND		10							
1,1-Dichloroethene	ND		1							
Tertiary Butyl Alcohol (TBA)	ND		10							
Dichloromethane	ND		5							
Freon-113	ND		10							
Carbon disulfide	ND	2.5								
trans-1,2-Dichloroethene	ND		1							
Methyl tert-butyl ether (MTBE)	ND	0.5								
1,1-Dichloroethane	ND		1							
Vinyl acetate	ND		50							
2-Butanone (MEK)	ND		10							
Di-isopropyl Ether (DIPE)	ND		1							
cis-1,2-Dichloroethene	ND		1							
Bromochloromethane	ND		1							
Chloroform	ND		1							
Ethyl Tertiary Butyl Ether (ETBE)	ND		1							
2,2-Dichloropropane	ND		1							
1,2-Dichloroethane	ND	0.5								
1,1,1-Trichloroethane	ND		1							
1,1-Dichloropropene	ND		1							
Carbon tetrachloride	ND		1							
Benzene	ND	0.5								
Tertiary Amyl Methyl Ether (TAME)	ND		1							
Dibromomethane	ND		1							
1,2-Dichloropropane	ND		1							
Trichloroethene	ND		1							
Bromodichloromethane	ND		1							
4-Methyl-2-pentanone (MIBK)	ND		10							
cis-1,3-Dichloropropene	ND	0.5								
trans-1,3-Dichloropropene	ND	0.5								
1,1,2-Trichloroethane	ND		1							
Toluene	ND	0.5								
1,3-Dichloropropane	ND		1							
2-Hexanone	ND		5							
Dibromochloromethane	ND		1							
1,2-Dibromoethane (EDB)	ND		2							
Tetrachloroethene	ND		1							
1,1,1,2-Tetrachloroethane	ND		1							
Chlorobenzene	ND		1							
Ethylbenzene	ND	0.5								
m,p-Xylene	ND	0.5								
Bromoform	ND		1							
Styrene	ND		1							
o-Xylene	ND	0.5								
1,1,2,2-Tetrachloroethane	ND		1							
1,2,3-Trichloropropane	ND		2							
Isopropylbenzene	ND		1							
Bromobenzene	ND		1							
n-Propylbenzene	ND		1							
4-Chlorotoluene	ND		1							
2-Chlorotoluene	ND		1							
1,3,5-Trimethylbenzene	ND		1							
tert-Butylbenzene	ND		1							
1,2,4-Trimethylbenzene	ND		1							
sec-Butylbenzene	ND		1							
1,3-Dichlorobenzene	ND		1							
1,4-Dichlorobenzene	ND		1							
4-Isopropyltoluene	ND		1							
1,2-Dichlorobenzene	ND		1							



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:

22-Jul-11

QC Summary Report

Work Order:

11071403

n-Butylbenzene	ND	1				
1,2-Dibromo-3-chloropropane (DBCP)	ND	5				
1,2,4-Trichlorobenzene	ND	2				
Naphthalene	ND	10				
1,2,3-Trichlorobenzene	ND	2				
Surr: 1,2-Dichloroethane-d4	10.3		10	103	70	130
Surr: Toluene-d8	10.2		10	102	70	130
Surr: 4-Bromofluorobenzene	9.98		10	99.8	70	130

Laboratory Control Spike

Type: LCS

Test Code: EPA Method SW8260B

File ID: C:\HPCHEM\MS07\DATA\110719\11071903.D

Batch ID: MS07W0719A

Analysis Date: 07/19/2011 08:52

Sample ID: LCS MS07W0719A

Units: µg/L

Run ID: MSD_07_110719A

Prep Date: 07/19/2011 08:52

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
1,1-Dichloroethene	11	1	10		110	80	120			
Methyl tert-butyl ether (MTBE)	8.53	0.5	10		85	65	140			
Benzene	10.6	0.5	10		106	70	130			
Trichloroethene	10.1	1	10		101	65	144			
Toluene	10.8	0.5	10		108	80	120			
Chlorobenzene	10.6	1	10		106	70	130			
Ethylbenzene	10.9	0.5	10		109	80	120			
m,p-Xylene	10.8	0.5	10		108	70	130			
o-Xylene	10.6	0.5	10		106	70	130			
Surr: 1,2-Dichloroethane-d4	9.95		10		100	70	130			
Surr: Toluene-d8	10.4		10		104	70	130			
Surr: 4-Bromofluorobenzene	10.2		10		102	70	130			

Sample Matrix Spike

Type: MS

Test Code: EPA Method SW8260B

File ID: C:\HPCHEM\MS07\DATA\110719\11071909.D

Batch ID: MS07W0719A

Analysis Date: 07/19/2011 11:17

Sample ID: 11071403-23AMS

Units: µg/L

Run ID: MSD_07_110719A

Prep Date: 07/19/2011 11:17

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
1,1-Dichloroethene	51.3	2.5	50	0	103	64	130			
Methyl tert-butyl ether (MTBE)	35.8	1.3	50	0.95	70	47	150			
Benzene	48.9	1.3	50	0	98	59	138			
Trichloroethene	47.3	2.5	50	0	95	65	144			
Toluene	49.3	1.3	50	0	99	68	130			
Chlorobenzene	48.7	2.5	50	0	97	70	130			
Ethylbenzene	50.1	1.3	50	0	100	68	130			
m,p-Xylene	49.4	1.3	50	0	99	68	131			
o-Xylene	48.6	1.3	50	0	97	70	130			
Surr: 1,2-Dichloroethane-d4	51.6		50		103	70	130			
Surr: Toluene-d8	50.7		50		101	70	130			
Surr: 4-Bromofluorobenzene	49.4		50		99	70	130			

Sample Matrix Spike Duplicate

Type: MSD

Test Code: EPA Method SW8260B

File ID: C:\HPCHEM\MS07\DATA\110719\11071910.D

Batch ID: MS07W0719A

Analysis Date: 07/19/2011 11:41

Sample ID: 11071403-23AMSD

Units: µg/L

Run ID: MSD_07_110719A

Prep Date: 07/19/2011 11:41

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
1,1-Dichloroethene	48.5	2.5	50	0	97	64	130	51.32	5.7(21)	
Methyl tert-butyl ether (MTBE)	36.4	1.3	50	0.95	71	47	150	35.8	1.7(40)	
Benzene	48.2	1.3	50	0	96	59	138	48.88	1.5(21)	
Trichloroethene	46.5	2.5	50	0	93	65	144	47.34	1.8(20)	
Toluene	48.2	1.3	50	0	96	68	130	49.27	2.3(20)	
Chlorobenzene	49	2.5	50	0	98	70	130	48.69	0.6(20)	
Ethylbenzene	49.7	1.3	50	0	99	68	130	50.1	0.8(20)	
m,p-Xylene	49.2	1.3	50	0	98	68	131	49.39	0.4(20)	
o-Xylene	48.4	1.3	50	0	97	70	130	48.61	0.5(20)	
Surr: 1,2-Dichloroethane-d4	50.1		50		100	70	130			
Surr: Toluene-d8	50.3		50		101	70	130			
Surr: 4-Bromofluorobenzene	49.9		50		99.7	70	130			



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:

22-Jul-11

QC Summary Report

Work Order:

11071403

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Alpha Analytical, Inc.
 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
 TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : CHHL11071403
Report Due By : 5:00 PM On : 22-Jul-2011

Client:
 CH2M Hill
 1000 Wilshire Boulevard
 21st Floor
 Los Angeles, CA 90017

Report Attention **Phone Number** **Email Address**
 Daniel Jablonski (213) 228-8271 x daniel.jablonski@ch2m.com
 Vladimir Carino (213) 228-8271 x vladimir.carino@ch2m.com

EDD Required : Yes

Sampled by : Andy Wolf

PO :

Cooler Temp **14-Jul-2011** Samples Received **14-Jul-2011**
 Date Printed

Client's COC # : none = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Job : KMEP DFSP Norwalk

Alpha Sample ID	Client Sample ID	Collection Matrix Date	No. of Bottles Alpha Sub TAT	Requested Tests			Sample Remarks
				TPHE_w	TPHP_w	VOC_w	
CHH11071403-09A	EXP-2	AQ 07/11/11 08:47	6 0 6	TPHE(0.10) +Vmyl acetate	TPHP(0.10) +Vmyl acetate	TPHE(0.10) +Vmyl acetate	2 HCl voas received broken.
CHH11071403-10A	WCW-3	AQ 07/12/11 07:20	8 0 6	TPHE(0.10) +Vmyl acetate	TPHP(0.10) +Vmyl acetate	TPHE(0.10) +Vmyl acetate	
CHH11071403-11A	EXP-3	AQ 07/12/11 07:25	8 0 6	TPHE(0.10) +Vmyl acetate	TPHP(0.10) +Vmyl acetate	TPHE(0.10) +Vmyl acetate	
CHH11071403-12A	GMW-38	AQ 07/12/11 08:10	8 0 6	TPHE(0.10) +Vmyl acetate	TPHP(0.10) +Vmyl acetate	TPHE(0.10) +Vmyl acetate	
CHH11071403-13A	WCW-7	AQ 07/12/11 09:05	8 0 6	TPHE(0.10) +Vmyl acetate	TPHP(0.10) +Vmyl acetate	TPHE(0.10) +Vmyl acetate	
CHH11071403-14A	GMW-O-2	AQ 07/12/11 09:50	8 0 6	TPHE(0.10) +Vmyl acetate	TPHP(0.10) +Vmyl acetate	TPHE(0.10) +Vmyl acetate	
CHH11071403-15A	GMW-O-16	AQ 07/12/11 10:35	8 0 6	TPHE(0.10) +Vmyl acetate	TPHP(0.10) +Vmyl acetate	TPHE(0.10) +Vmyl acetate	
CHH11071403-16A	GMW-O-15	AQ 07/12/11 11:00	8 0 6	TPHE(0.10) +Vmyl acetate	TPHP(0.10) +Vmyl acetate	TPHE(0.10) +Vmyl acetate	

Comments: Security seals intact. Frozen ice. Analysis: Run two analyses in order to achieve lower reporting limits for all other analytes due to high TBA values. .

Logged in by: Elizabeth Aldcox Signature: [Signature] Print Name: Elizabeth Aldcox Company: Alpha Analytical, Inc. Date/Time: 7-14-11 1332

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report. Matrix Type : AQA(Aqueous) AR(Air) SO(Soil) WSW(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tecliar B-Brass P-Plastic OT-Other

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
 TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : CHH11071403

Report Due By : 5:00 PM On : 22-Jul-2011

Client:

CH2M Hill
 1000 Wilshire Boulevard
 21st Floor
 Los Angeles, CA 90017

Report Attention

Daniel Jablonski (213) 228-8271 x daniel.jablonski@ch2m.com
 Vladimir Carino (213) 228-8271 x vladimir.carino@ch2m.com

Email Address

EDD Required : Yes

Sampled by : Andy Wolff

Cooler Temp

Samples Received

Date Printed

0 °C

14-Jul-2011

14-Jul-2011

Client's COC # : none

Job : KMEP DFSP Norwalk

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Date	No. of Bottles		Matrix	Requested Tests			Sample Remarks
			Alpha	Sub		TPHE_W	TPHP_W	VOC_W	
CHH11071403-01A	TB-1	07/11/11 08:00	2	0	AQ			TPHE(0.10) +Vmyl	2 Reno Trip Blanks: (1) 4/21/11 (1) 5/3/11
CHH11071403-02A	EXP-5	07/11/11 11:35	8	0	AQ			TPHE(0.10) +Vmyl acetate	
CHH11071403-03A	WCV-13	07/11/11 12:40	8	0	AQ			TPHE(0.10) +Vmyl acetate	
CHH11071403-04A	GMW-O-1	07/11/11 13:35	8	0	AQ			TPHE(0.10) +Vmyl acetate	
CHH11071403-05A	GMW-O-3	07/11/11 14:10	8	0	AQ			TPHE(0.10) +Vmyl acetate	
CHH11071403-06A	GMW/O-19	07/11/11 15:00	8	0	AQ			TPHE(0.10) +Vmyl acetate	
CHH11071403-07A	EB-1	07/11/11 14:35	8	0	AQ			TPHE(0.10) +Vmyl acetate	
CHH11071403-08A	EXP-1	07/11/11 08:01	8	0	AQ			TPHE(0.10) +Vmyl acetate	

Comments: Security seals intact. Frozen ice. Analysts: Run two analyses in order to achieve lower reporting limits for all other analytes due to high TBA values.

Logged in by: Elizabeth Alder Signature Elizabeth Alder Print Name Elizabeth Alder Company Alpha Analytical, Inc. Date/Time 7/14/11 1322

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
 The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
 Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
 TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : CHHL11071403

Report Due By : 5:00 PM On : 22-Jul-2011

Client:

CH2M Hill
 1000 Wilshire Boulevard
 21st Floor
 Los Angeles, CA 90017

Report Attention

Daniel Jablonski (213) 228-8271 x daniel.jablonski@ch2m.com
 Vladimir Carino (213) 228-8271 x vladimir.carino@ch2m.com

Phone Number

Email Address

EDD Required : Yes

Sampled by : Andy Wolff

Cooler Temp

0 °C

Samples Received

14-Jul-2011

Date Printed

14-Jul-2011

Client's COC # : none

Job : KMEP DFSP Norwalk

OC Level : S3 = Final Rpt. MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix Date	No. of Bottles Alpha Sub TAT	Requested Tests			Sample Remarks
				TPHE_W	TPHP_W	VOC_W	
CHH11071403-17A	GMW-39	AQ 07/12/11 11:40	8 0 6	TPHE(0.10) +Vnvl acetate	TPHE(0.10) +Vnvl acetate	TPHE(0.10) +Vnvl acetate	
CHH11071403-18A	NW-SF-1	AQ 07/12/11 12:35	8 0 6	TPHE(0.10) +Vnvl acetate	TPHE(0.10) +Vnvl acetate	TPHE(0.10) +Vnvl acetate	
CHH11071403-19A	PZ-5	AQ 07/12/11 13:15	8 0 6	TPHE(0.10) +Vnvl acetate	TPHE(0.10) +Vnvl acetate	TPHE(0.10) +Vnvl acetate	
CHH11071403-20A	EB-2	AQ 07/12/11 13:40	8 0 6	TPHE(0.10) +Vnvl acetate	TPHE(0.10) +Vnvl acetate	TPHE(0.10) +Vnvl acetate	
CHH11071403-21A	NW-SF-4	AQ 07/12/11 14:10	8 0 6	TPHE(0.10) +Vnvl acetate	TPHE(0.10) +Vnvl acetate	TPHE(0.10) +Vnvl acetate	
CHH11071403-22A	GMW-O-14	AQ 07/12/11 15:15	8 0 6	TPHE(0.10) +Vnvl acetate	TPHE(0.10) +Vnvl acetate	TPHE(0.10) +Vnvl acetate	
CHH11071403-23A	DUP-1	AQ 07/12/11 00:00	8 0 6	TPHE(0.10) +Vnvl acetate	TPHE(0.10) +Vnvl acetate	TPHE(0.10) +Vnvl acetate	
CHH11071403-24A	DUP-2	AQ 07/12/11 00:00	8 0 6	TPHE(0.10) +Vnvl acetate	TPHE(0.10) +Vnvl acetate	TPHE(0.10) +Vnvl acetate	

Comments: Security seals intact. Frozen ice. Analysis: Run two analyses in order to achieve lower reporting limits for all other analytes due to high TBA values. :

Logged in by: <i>Elizabeth Alder</i>	Signature	<i>Elizabeth Alder</i>	Print Name	Company	Date/Time
			Elizabeth Alder	Alpha Analytical, Inc.	7-14-11 1322

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report. Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Lier V-Voa S-Soil Jar O-Obo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
 TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : CHHL11071403
Report Due By : 5:00 PM On : 22-Jul-2011

Client:

CH2M Hill
 1000 Wilshire Boulevard
 21st Floor
 Los Angeles, CA 90017

Report Attention

Daniel Jablonski (213) 228-8271 x
 Vladimir Carrino (213) 228-8271 x

Phone Number

Email Address

daniel.jablonski@ch2m.com
 vladimir.carrino@ch2m.com

EDD Required : Yes

Sampled by : Andy Wolf

Cooler Temp

0 °C

Samples Received

14-Jul-2011

Date Printed

14-Jul-2011

Client's COC # : none

Job : KMEP DFSP Norwalk

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix Date	No. of Bottles			Requested Tests			Sample Remarks
			Alpha	Sub	TAT	TPHE_W +Vmg/l acetate	TPHP_W +Vmg/l acetate	VOC_W +Vmg/l acetate	
CHH11071403-25A	DUP-3	AQ 07/12/11 00:00	8	0	6				

Comments: Security seals intact. Frozen ice. Analysis: Run two analyses in order to achieve lower reporting limits for all other analytes due to high TBA values. .

Logged in by: <i>Elizabeth Aldcox</i> Signature	Print Name Elizabeth Aldcox	Company Alpha Analytical, Inc.	Date/Time 7:14:11 1322
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NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report. Matrix Type : Aq(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orto T-Tedlar B-Brass P-Plastic OT-Other

BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE
 SAN JOSE, CALIFORNIA 95112-1105
 FAX (408) 573-7771
 PHONE (408) 573-0555

Alpha Analytical COC 1 of 3

CHAIN OF CUSTODY

CLIENT: Kinder Morgan
 SITE: DFSP Norwalk
 15306 Norwalk Blvd, Norwalk

LAB Billing Information:
 Kinder Morgan
 1100 Town and Country Rd.
 Orange CA 95112
 Kinder Morgan Norwalk
 Report to:
 Dan Jablonski
 CH2M-HILL
 1000 Wilshire Blvd 21st floor
 Los Angeles, CA 90017

SAMPLE I.D.	DATE	TIME	MATRIX	#	Preservation Type	CONTAINERS		TPHg, TPHfp (EPA 8015M)	VOC's & Oxygenates (EPA 8260B)	CONDUCT ANALYSIS TO DETECT	LAB	RESULTS NEEDED NO LATER THAN	STATUS	CONDITION	LAB SAMPLE #
						AD=	Water								
TR-1	7-11-11	0800	AQ	2	HCl	VGA		X	X			Standard			CH111071408-01
EXP-5		1135		8				X	X						-02
WCD-13		1240		8				X	X						-03
GMD-0.1		1335		8				X	X						-04
GMD-0.3		1410		8				X	X						-05
GMD-0.19		1500		8				X	X						-06
EB-1		1435		8				X	X						-07
EXP-1		0801		8				X	X						-08
EXP-2		0847		8				X	X						-09
EXP-3		0951		8				X	X						

SAMPLING COMPLETED: 7-11-11 1500
 ANALYST: Andrew Wolf

RELEASED BY: [Signature]
 TIME: 1650
 RECEIVED BY: [Signature]
 TIME: 1310

RELEASED BY: Nicole (Sample Custodian)
 TIME: 1310
 RECEIVED BY: [Signature]
 TIME: 1310

SHIPPED VIA: [Signature]
 TIME SENT: 1310
 COOLER #: [Signature]
 DATE: 7-14-11
 TIME: 1322

BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE
 SAN JOSE, CALIFORNIA 95112-1105
 FAX (408) 573-7771
 PHONE (408) 573-0555

Alpha Analytical COC 2 of 3

CHAIN OF CUSTODY

CLIENT: Kinder Morgan
 SITE: DFSP Norwalk
 15306 Norwalk Blvd, Norwalk

LAB: Billing Information:
 Kinder Morgan
 1100 Town and Country Rd.
 Orange CA 95112
 Kinder Morgan Norwalk
 Report to:
 Dan Jablonski
 CH2M-HILL
 1000 Wilshire Blvd 21st floor
 Los Angeles, CA 90017

SAMPLE I.D.	DATE	TIME	MATRIX	CONTAINERS		TPHg, TPHfp (EPA 8015M)	VOC's & Oxygenates (EPA 8260B)	CONDUCT ANALYSIS TO DETECT		RESULTS NEEDED
				#	Type					
W20-3	7-12-11	0720	ACQ	8	HC1 NOA	X	X			Standard
EXP-3		0725				X	X			
GMM-38		0810				X	X			
W20-7		0905				X	X			
GMM-02		0950				X	X			
GMM-016		1035				X	X			
GMM-015		1100				X	X			
GMM-39		1140				X	X			
GMM-SF-1		1235				X	X			
PZ-5		1315				X	X			

RELEASED BY: *[Signature]* TIME: 1650 DATE: 7-12-11

RECEIVED BY: *[Signature]* TIME: 1650

RELEASED BY: *[Signature]* TIME: 1300 DATE: 7-13-11

RECEIVED BY: *[Signature]* TIME: 1300

RELEASED BY: *[Signature]* TIME: 1300 DATE: 7-14-11

RECEIVED BY: *[Signature]* TIME: 1300

SHIPPED VIA: *[Signature]*

BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE
 SAN JOSE, CALIFORNIA 95112-1105
 FAX (408) 573-7771
 PHONE (408) 573-0555

CONDUCT ANALYSIS TO DETECT

LAB

Alpha Analytical COC 3 of 3

Billing Information:
 Kinder Morgan
 1100 Town and Country Rd.
 Orange CA 95112

Kinder Morgan Norwalk
 Report to:
 Dan Jablonski
 CH2MHILL
 1000 Wilshire Blvd 21st floor
 Los Angeles, CA 90017

CHAIN OF CUSTODY

CLIENT: Kinder Morgan
 SITE: DFSP Norwalk
 15306 Norwalk Blvd, Norwalk

SAMPLE I.D.	DATE	TIME	MATRIX AQ= Water	CONTAINERS		TPHg, TPHfp (EPA 8015M)	VOC's & Oxygenates (EPA 8260B)	RECEIVED BY	TIME	RESULTS NEEDED NO LATER THAN	STATUS	CONDITION	LAB SAMPLE #	
				#	Preservation Type									
EB-2	7-12-11	1340	AQ	8	HCl	VOA	X	X						.20
MWSF-4		1410					X	X						.21
MM-0-14		1515					X	X						.22
DUP-1							X	X						.23
DUP-2							X	X						.24
DUP-3							X	X						.25

SAMPLING DATE: 7-12-11 TIME: 155 SAMPLING PERFORMED BY: *AKW/DF*

RELEASED BY: *AKW/DF* TIME: 1650 RECEIVED BY: *AKW/DF* DATE: 7-12-11 TIME: 1658

RELEASED BY: *Nicole (Sample Custodian)* TIME: 1310 RECEIVED BY: *[Signature]* DATE: 7-13-11 TIME: 1320

RELEASED BY: *[Signature]* TIME: 1310 RECEIVED BY: *Engelbert O'Leary* DATE: 7-14-11 TIME: 1322

SHIPPED VIA: [Blank] TIME SENT: [Blank] COOLER #: [Blank]



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135
Date Received : 08/02/11

Job: KMEP DFSP Norwalk

Total Petroleum Hydrocarbons - Extractable (TPH-E) EPA Method SW8015B
Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B

	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID :	TB-1				
Lab ID :	CHH11080203-01A	TPH-E (Fuel Product)	ND	0.10 mg/L	08/04/11
Date Sampled	07/29/11 15:00	Surr: Nonane	108	(49-145) %REC	08/04/11
		TPH-P (GRO)	ND	0.050 mg/L	08/05/11
		Surr: 1,2-Dichloroethane-d4	101	(70-130) %REC	08/05/11
		Surr: Toluene-d8	102	(70-130) %REC	08/05/11
		Surr: 4-Bromofluorobenzene	100	(70-130) %REC	08/05/11
Client ID :	GMW-36				
Lab ID :	CHH11080203-02A	TPH-E (Fuel Product)	3.2 **	0.10 mg/L	08/04/11
Date Sampled	07/29/11 15:04	Surr: Nonane	0 S51	(49-145) %REC	08/04/11
		TPH-P (GRO)	7.3	1.0 mg/L	08/05/11
		Surr: 1,2-Dichloroethane-d4	107	(70-130) %REC	08/05/11
		Surr: Toluene-d8	102	(70-130) %REC	08/05/11
		Surr: 4-Bromofluorobenzene	95	(70-130) %REC	08/05/11

**Note: Reported TPH-E (Fuel Product) may contain undifferentiated diesel range hydrocarbons.
Gasoline Range Organics (GRO) C4-C13
S51 = Surrogate recovery could not be determined due to the presence of co-eluting hydrocarbons.
ND = Not Detected

Roger Scholl *Randy Gardner* *Walter Hinchman*
Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com
Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

8/10/11
Report Date

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.



Alpha Analytical, Inc.

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ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11080203-01A
Client I.D. Number: TB-1

Sampled: 07/29/11 15:00
Received: 08/02/11
Extracted: 08/05/11
Analyzed: 08/05/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	1.0 µg/L	45 Chlorobenzene	ND	1.0 µg/L
2 Chloromethane	ND	2.0 µg/L	46 Ethylbenzene	ND	0.50 µg/L
3 Vinyl chloride	ND	0.50 µg/L	47 m,p-Xylene	ND	0.50 µg/L
4 Chloroethane	ND	1.0 µg/L	48 Bromoform	ND	1.0 µg/L
5 Bromomethane	ND	2.0 µg/L	49 Styrene	ND	1.0 µg/L
6 Trichlorofluoromethane	ND	10 µg/L	50 o-Xylene	ND	0.50 µg/L
7 Acetone	ND	10 µg/L	51 1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
8 1,1-Dichloroethene	ND	1.0 µg/L	52 1,2,3-Trichloropropane	ND	2.0 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	53 Isopropylbenzene	ND	1.0 µg/L
10 Dichloromethane	ND	5.0 µg/L	54 Bromobenzene	ND	1.0 µg/L
11 Freon-113	ND	10 µg/L	55 n-Propylbenzene	ND	1.0 µg/L
12 Carbon disulfide	ND	2.5 µg/L	56 4-Chlorotoluene	ND	1.0 µg/L
13 trans-1,2-Dichloroethene	ND	1.0 µg/L	57 2-Chlorotoluene	ND	1.0 µg/L
14 Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	58 1,3,5-Trimethylbenzene	ND	1.0 µg/L
15 1,1-Dichloroethane	ND	1.0 µg/L	59 tert-Butylbenzene	ND	1.0 µg/L
16 Vinyl acetate	ND	50 µg/L	60 1,2,4-Trimethylbenzene	ND	1.0 µg/L
17 2-Butanone (MEK)	ND	10 µg/L	61 sec-Butylbenzene	ND	1.0 µg/L
18 Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	62 1,3-Dichlorobenzene	ND	1.0 µg/L
19 cis-1,2-Dichloroethene	ND	1.0 µg/L	63 1,4-Dichlorobenzene	ND	1.0 µg/L
20 Bromochloromethane	ND	1.0 µg/L	64 4-Isopropyltoluene	ND	1.0 µg/L
21 Chloroform	ND	1.0 µg/L	65 1,2-Dichlorobenzene	ND	1.0 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	66 n-Butylbenzene	ND	1.0 µg/L
23 2,2-Dichloropropane	ND	1.0 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0 µg/L
24 1,2-Dichloroethane	ND	0.50 µg/L	68 1,2,4-Trichlorobenzene	ND	2.0 µg/L
25 1,1,1-Trichloroethane	ND	1.0 µg/L	69 Naphthalene	ND	10 µg/L
26 1,1-Dichloropropene	ND	1.0 µg/L	70 1,2,3-Trichlorobenzene	ND	2.0 µg/L
27 Carbon tetrachloride	ND	1.0 µg/L	71 Surr: 1,2-Dichloroethane-d4	101	(70-130) %REC
28 Benzene	ND	0.50 µg/L	72 Surr: Toluene-d8	102	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	73 Surr: 4-Bromofluorobenzene	100	(70-130) %REC
30 Dibromomethane	ND	1.0 µg/L			
31 1,2-Dichloropropane	ND	1.0 µg/L			
32 Trichloroethene	ND	1.0 µg/L			
33 Bromodichloromethane	ND	1.0 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	10 µg/L			
35 cis-1,3-Dichloropropene	ND	0.50 µg/L			
36 trans-1,3-Dichloropropene	ND	0.50 µg/L			
37 1,1,2-Trichloroethane	ND	1.0 µg/L			
38 Toluene	ND	0.50 µg/L			
39 1,3-Dichloropropane	ND	1.0 µg/L			
40 2-Hexanone	ND	5.0 µg/L			
41 Dibromochloromethane	ND	1.0 µg/L			
42 1,2-Dibromoethane (EDB)	ND	2.0 µg/L			
43 Tetrachloroethene	ND	1.0 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	1.0 µg/L			

Reporting Limits were increased due to high concentrations of target analytes.

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

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AS

8/10/11

Report Date

Page 1 of 1



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11080203-02A
Client I.D. Number: GMW-36

Sampled: 07/29/11 15:04
Received: 08/02/11
Extracted: 08/05/11
Analyzed: 08/05/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	10 µg/L	45 Chlorobenzene	ND	10 µg/L
2 Chloromethane	ND	40 µg/L	46 Ethylbenzene	61	5.0 µg/L
3 Vinyl chloride	ND	10 µg/L	47 m,p-Xylene	670	5.0 µg/L
4 Chloroethane	ND	10 µg/L	48 Bromoform	ND	10 µg/L
5 Bromomethane	ND	40 µg/L	49 Styrene	ND	10 µg/L
6 Trichlorofluoromethane	ND	10 µg/L	50 o-Xylene	320	5.0 µg/L
7 Acetone	ND	200 µg/L	51 1,1,2,2-Tetrachloroethane	ND	10 µg/L
8 1,1-Dichloroethene	ND	10 µg/L	52 1,2,3-Trichloropropane	ND	40 µg/L
9 Tertiary Butyl Alcohol (TBA)	4,600	100 µg/L	53 Isopropylbenzene	ND	10 µg/L
10 Dichloromethane	ND	40 µg/L	54 Bromobenzene	ND	10 µg/L
11 Freon-113	ND	10 µg/L	55 n-Propylbenzene	ND	10 µg/L
12 Carbon disulfide	ND	50 µg/L	56 4-Chlorotoluene	ND	10 µg/L
13 trans-1,2-Dichloroethene	ND	10 µg/L	57 2-Chlorotoluene	ND	10 µg/L
14 Methyl tert-butyl ether (MTBE)	350	5.0 µg/L	58 1,3,5-Trimethylbenzene	83	10 µg/L
15 1,1-Dichloroethane	ND	10 µg/L	59 tert-Butylbenzene	ND	10 µg/L
16 Vinyl acetate	ND	1,000 µg/L	60 1,2,4-Trimethylbenzene	200	10 µg/L
17 2-Butanone (MEK)	ND	200 µg/L	61 sec-Butylbenzene	ND	10 µg/L
18 Di-isopropyl Ether (DIPE)	ND	10 µg/L	62 1,3-Dichlorobenzene	ND	10 µg/L
19 cis-1,2-Dichloroethene	ND	10 µg/L	63 1,4-Dichlorobenzene	ND	10 µg/L
20 Bromochloromethane	ND	10 µg/L	64 4-Isopropyltoluene	ND	10 µg/L
21 Chloroform	ND	10 µg/L	65 1,2-Dichlorobenzene	ND	10 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	10 µg/L	66 n-Butylbenzene	ND	10 µg/L
23 2,2-Dichloropropane	ND	10 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	60 µg/L
24 1,2-Dichloroethane	ND	10 µg/L	68 1,2,4-Trichlorobenzene	ND	40 µg/L
25 1,1,1-Trichloroethane	ND	10 µg/L	69 Naphthalene	74	40 µg/L
26 1,1-Dichloropropene	ND	10 µg/L	70 1,2,3-Trichlorobenzene	ND	40 µg/L
27 Carbon tetrachloride	ND	10 µg/L	71 Surr: 1,2-Dichloroethane-d4	107	(70-130) %REC
28 Benzene	560	5.0 µg/L	72 Surr: Toluene-d8	102	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	10 µg/L	73 Surr: 4-Bromofluorobenzene	95	(70-130) %REC
30 Dibromomethane	ND	10 µg/L			
31 1,2-Dichloropropane	ND	10 µg/L			
32 Trichloroethene	ND	10 µg/L			
33 Bromodichloromethane	ND	10 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	50 µg/L			
35 cis-1,3-Dichloropropene	ND	10 µg/L			
36 trans-1,3-Dichloropropene	ND	10 µg/L			
37 1,1,2-Trichloroethane	ND	10 µg/L			
38 Toluene	570	5.0 µg/L			
39 1,3-Dichloropropane	ND	10 µg/L			
40 2-Hexanone	ND	100 µg/L			
41 Dibromochloromethane	ND	10 µg/L			
42 1,2-Dibromoethane (EDB)	ND	20 µg/L			
43 Tetrachloroethene	ND	10 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	10 µg/L			

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
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PS

8/10/11

Report Date

Page 1 of 1



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

VOC Sample Preservation Report

Work Order: CHH11080203

Job: KMEP DFSP Norwalk

Alpha's Sample ID	Client's Sample ID	Matrix	pH
11080203-01A	TB-1	Aqueous	2
11080203-02A	GMW-36	Aqueous	2

8/10/11
Report Date

Page 1 of 1



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:
09-Aug-11

QC Summary Report

Work Order:
11080203

Method Blank

Type: **MBLK** Test Code: **EPA Method SW8015B/C Ext**

File ID: **7A08021180.D**

Batch ID: **27053**

Analysis Date: **08/04/2011 18:17**

Sample ID: **MBLK-27053**

Units : **mg/L**

Run ID: **FID_7_110804A**

Prep Date: **08/04/2011 14:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (Fuel Product)	ND	0.1								
Surr: Nonane	0.164		0.15		109	49	145			

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method SW8015B/C Ext**

File ID: **7A08021179.D**

Batch ID: **27053**

Analysis Date: **08/04/2011 17:51**

Sample ID: **LCS-27053**

Units : **mg/L**

Run ID: **FID_7_110804A**

Prep Date: **08/04/2011 14:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	2.18	0.05	2.5		87	70	130			
Surr: Nonane	0.156		0.15		104	49	145			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method SW8015B/C Ext**

File ID: **7A08021199.D**

Batch ID: **27053**

Analysis Date: **08/05/2011 02:42**

Sample ID: **11080445-12AMS**

Units : **mg/L**

Run ID: **FID_7_110804A**

Prep Date: **08/04/2011 14:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	2.32	0.05	2.5	0	93	53	150			
Surr: Nonane	0.167		0.15		111	49	145			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method SW8015B/C Ext**

File ID: **7A08021200.D**

Batch ID: **27053**

Analysis Date: **08/05/2011 03:09**

Sample ID: **11080445-12AMSD**

Units : **mg/L**

Run ID: **FID_7_110804A**

Prep Date: **08/04/2011 14:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	2.27	0.05	2.5	0	91	53	150	2.32	2.0(47)	
Surr: Nonane	0.151		0.15		101	49	145			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:
09-Aug-11

QC Summary Report

Work Order:
11080203

Method Blank

Type: **MBLK** Test Code: **EPA Method SW8015B/C**

File ID: C:\HPCHEM\MS07\DATA\110805\11080506.D

Batch ID: **MS07W0805B**

Analysis Date: **08/05/2011 10:17**

Sample ID: **MBLK MS07W0805B**

Units : **mg/L**

Run ID: **MSD_07_110805A**

Prep Date: **08/05/2011 10:17**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	0.05								
Surr: 1,2-Dichloroethane-d4	0.0108		0.01		108	70	130			
Surr: Toluene-d8	0.0102		0.01		102	70	130			
Surr: 4-Bromofluorobenzene	0.0101		0.01		101	70	130			

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method SW8015B/C**

File ID: C:\HPCHEM\MS07\DATA\110805\11080504.D

Batch ID: **MS07W0805B**

Analysis Date: **08/05/2011 09:29**

Sample ID: **GLCS MS07W0805B**

Units : **mg/L**

Run ID: **MSD_07_110805A**

Prep Date: **08/05/2011 09:29**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	0.449	0.05	0.4		112	70	130			
Surr: 1,2-Dichloroethane-d4	0.0104		0.01		104	70	130			
Surr: Toluene-d8	0.00993		0.01		99	70	130			
Surr: 4-Bromofluorobenzene	0.00992		0.01		99	70	130			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method SW8015B/C**

File ID: C:\HPCHEM\MS07\DATA\110805\11080510.D

Batch ID: **MS07W0805B**

Analysis Date: **08/05/2011 11:54**

Sample ID: **11080446-04AGS**

Units : **mg/L**

Run ID: **MSD_07_110805A**

Prep Date: **08/05/2011 11:54**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	2.19	0.25	2	0	110	51	144			
Surr: 1,2-Dichloroethane-d4	0.0498		0.05		99.5	70	130			
Surr: Toluene-d8	0.0511		0.05		102	70	130			
Surr: 4-Bromofluorobenzene	0.05		0.05		100	70	130			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method SW8015B/C**

File ID: C:\HPCHEM\MS07\DATA\110805\11080511.D

Batch ID: **MS07W0805B**

Analysis Date: **08/05/2011 12:18**

Sample ID: **11080446-04AGSD**

Units : **mg/L**

Run ID: **MSD_07_110805A**

Prep Date: **08/05/2011 12:18**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	2.35	0.25	2	0	118	51	144	2.191	7.0(29)	
Surr: 1,2-Dichloroethane-d4	0.0503		0.05		101	70	130			
Surr: Toluene-d8	0.0507		0.05		101	70	130			
Surr: 4-Bromofluorobenzene	0.05		0.05		100	70	130			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



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Date:
09-Aug-11

QC Summary Report

Work Order:
11080203

n-Butylbenzene	ND	1				
1,2-Dibromo-3-chloropropane (DBCP)	ND	5				
1,2,4-Trichlorobenzene	ND	2				
Naphthalene	ND	10				
1,2,3-Trichlorobenzene	ND	2				
Surr: 1,2-Dichloroethane-d4	10.8	10	108	70	130	
Surr: Toluene-d8	10.2	10	102	70	130	
Surr: 4-Bromofluorobenzene	10.1	10	101	70	130	

Laboratory Control Spike

Type: LCS

Test Code: EPA Method SW8260B

File ID: C:\HPCHEM\MS07\DATA\110805\11080503.D

Batch ID: MS07W0805A

Analysis Date: 08/05/2011 09:05

Sample ID: LCS MS07W0805A

Units: µg/L

Run ID: MSD_07_110805A

Prep Date: 08/05/2011 09:05

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
1,1-Dichloroethene	11	1	10		110	80	120			
Methyl tert-butyl ether (MTBE)	8.33	0.5	10		83	65	140			
Benzene	10.2	0.5	10		102	70	130			
Trichloroethene	10.4	1	10		104	65	144			
Toluene	10.3	0.5	10		103	80	120			
Chlorobenzene	10.3	1	10		103	70	130			
Ethylbenzene	10.8	0.5	10		108	80	120			
m,p-Xylene	10.8	0.5	10		108	70	130			
o-Xylene	10.7	0.5	10		107	70	130			
Surr: 1,2-Dichloroethane-d4	10.2		10		102	70	130			
Surr: Toluene-d8	10.3		10		103	70	130			
Surr: 4-Bromofluorobenzene	9.99		10		99.9	70	130			

Sample Matrix Spike

Type: MS

Test Code: EPA Method SW8260B

File ID: C:\HPCHEM\MS07\DATA\110805\11080508.D

Batch ID: MS07W0805A

Analysis Date: 08/05/2011 11:05

Sample ID: 11080446-04AMS

Units: µg/L

Run ID: MSD_07_110805A

Prep Date: 08/05/2011 11:05

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
1,1-Dichloroethene	48.9	2.5	50	0	98	64	130			
Methyl tert-butyl ether (MTBE)	44.1	1.3	50	0.86	87	47	150			
Benzene	48.4	1.3	50	0	97	59	138			
Trichloroethene	48.3	2.5	50	0	97	65	144			
Toluene	49.5	1.3	50	0	99	68	130			
Chlorobenzene	48.3	2.5	50	0	97	70	130			
Ethylbenzene	51.3	1.3	50	0	103	68	130			
m,p-Xylene	51.1	1.3	50	0	102	68	131			
o-Xylene	51	1.3	50	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	48.6		50		97	70	130			
Surr: Toluene-d8	52.3		50		105	70	130			
Surr: 4-Bromofluorobenzene	50		50		100	70	130			

Sample Matrix Spike Duplicate

Type: MSD

Test Code: EPA Method SW8260B

File ID: C:\HPCHEM\MS07\DATA\110805\11080509.D

Batch ID: MS07W0805A

Analysis Date: 08/05/2011 11:29

Sample ID: 11080446-04AMSD

Units: µg/L

Run ID: MSD_07_110805A

Prep Date: 08/05/2011 11:29

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
1,1-Dichloroethene	48.7	2.5	50	0	97	64	130	48.91	0.4(21)	
Methyl tert-butyl ether (MTBE)	46.6	1.3	50	0.86	91	47	150	44.13	5.3(40)	
Benzene	48.1	1.3	50	0	96	59	138	48.37	0.5(21)	
Trichloroethene	48.5	2.5	50	0	97	65	144	48.3	0.5(20)	
Toluene	49.5	1.3	50	0	99	68	130	49.51	0.0(20)	
Chlorobenzene	48.7	2.5	50	0	97	70	130	48.28	0.8(20)	
Ethylbenzene	51.8	1.3	50	0	104	68	130	51.34	0.9(20)	
m,p-Xylene	51.4	1.3	50	0	103	68	131	51.11	0.6(20)	
o-Xylene	50.7	1.3	50	0	101	70	130	50.96	0.5(20)	
Surr: 1,2-Dichloroethane-d4	48.9		50		98	70	130			
Surr: Toluene-d8	52.1		50		104	70	130			
Surr: 4-Bromofluorobenzene	49.4		50		99	70	130			



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Date:

09-Aug-11

QC Summary Report

Work Order:

11080203

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



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ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135
Date Received : 09/26/11

Job: KMEP DFSP Norwalk

Total Petroleum Hydrocarbons - Extractable (TPH-E) EPA Method SW8015B
Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B

Client ID :	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
EXP-5					
Lab ID : CHH11092602-01A	TPH-E (Fuel Product)	ND	0.10 mg/L	09/27/11	09/27/11
Date Sampled 09/22/11 10:35	Surr: Nonane	109	(49-145) %REC	09/27/11	09/27/11
	TPH-P (GRO)	ND	0.050 mg/L	09/28/11	09/28/11
	Surr: 1,2-Dichloroethane-d4	117	(70-130) %REC	09/28/11	09/28/11
	Surr: Toluene-d8	96	(70-130) %REC	09/28/11	09/28/11
	Surr: 4-Bromofluorobenzene	90	(70-130) %REC	09/28/11	09/28/11

Gasoline Range Organics (GRO) C4-C13

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

PS

10/4/11

Report Date



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ANALYTICAL REPORT

CH2M Hill
1000 Wilshire Boulevard
Los Angeles, CA 90017
Job: KMEP DFSP Norwalk

Attn: Daniel Jablonski
Phone: (213) 228-8271
Fax: (714) 424-2135

Alpha Analytical Number: CHH11092602-01A
Client I.D. Number: EXP-5

Sampled: 09/22/11 10:35
Received: 09/26/11
Extracted: 09/28/11
Analyzed: 09/28/11

Volatile Organics by GC/MS EPA Method SW8260B

Compound	Concentration	Reporting Limit	Compound	Concentration	Reporting Limit
1 Dichlorodifluoromethane	ND	1.0 µg/L	45 Chlorobenzene	ND	1.0 µg/L
2 Chloromethane	ND	2.0 µg/L	46 Ethylbenzene	ND	0.50 µg/L
3 Vinyl chloride	ND	0.50 µg/L	47 m,p-Xylene	ND	0.50 µg/L
4 Chloroethane	ND	1.0 µg/L	48 Bromoform	ND	1.0 µg/L
5 Bromomethane	ND	2.0 µg/L	49 Styrene	ND	1.0 µg/L
6 Trichlorofluoromethane	ND	10 µg/L	50 o-Xylene	ND	0.50 µg/L
7 Acetone	ND	10 µg/L	51 1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
8 1,1-Dichloroethene	ND	1.0 µg/L	52 1,2,3-Trichloropropane	ND	2.0 µg/L
9 Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	53 Isopropylbenzene	ND	1.0 µg/L
10 Dichloromethane	ND	5.0 µg/L	54 Bromobenzene	ND	1.0 µg/L
11 Freon-113	ND	10 µg/L	55 n-Propylbenzene	ND	1.0 µg/L
12 Carbon disulfide	ND	2.5 µg/L	56 4-Chlorotoluene	ND	1.0 µg/L
13 trans-1,2-Dichloroethene	ND	1.0 µg/L	57 2-Chlorotoluene	ND	1.0 µg/L
14 Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	58 1,3,5-Trimethylbenzene	ND	1.0 µg/L
15 1,1-Dichloroethane	ND	1.0 µg/L	59 tert-Butylbenzene	ND	1.0 µg/L
16 Vinyl acetate	ND	50 µg/L	60 1,2,4-Trimethylbenzene	ND	1.0 µg/L
17 2-Butanone (MEK)	ND	10 µg/L	61 sec-Butylbenzene	ND	1.0 µg/L
18 Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	62 1,3-Dichlorobenzene	ND	1.0 µg/L
19 cis-1,2-Dichloroethene	ND	1.0 µg/L	63 1,4-Dichlorobenzene	ND	1.0 µg/L
20 Bromochloromethane	ND	1.0 µg/L	64 4-Isopropyltoluene	ND	1.0 µg/L
21 Chloroform	ND	1.0 µg/L	65 1,2-Dichlorobenzene	ND	1.0 µg/L
22 Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	66 n-Butylbenzene	ND	1.0 µg/L
23 2,2-Dichloropropane	ND	1.0 µg/L	67 1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0 µg/L
24 1,2-Dichloroethane	ND	0.50 µg/L	68 1,2,4-Trichlorobenzene	ND	2.0 µg/L
25 1,1,1-Trichloroethane	ND	1.0 µg/L	69 Naphthalene	ND	10 µg/L
26 1,1-Dichloropropene	ND	1.0 µg/L	70 1,2,3-Trichlorobenzene	ND	2.0 µg/L
27 Carbon tetrachloride	ND	1.0 µg/L	71 Surr: 1,2-Dichloroethane-d4	117	(70-130) %REC
28 Benzene	ND	0.50 µg/L	72 Surr: Toluene-d8	96	(70-130) %REC
29 Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	73 Surr: 4-Bromofluorobenzene	90	(70-130) %REC
30 Dibromomethane	ND	1.0 µg/L			
31 1,2-Dichloropropane	ND	1.0 µg/L			
32 Trichloroethene	ND	1.0 µg/L			
33 Bromodichloromethane	ND	1.0 µg/L			
34 4-Methyl-2-pentanone (MIBK)	ND	10 µg/L			
35 cis-1,3-Dichloropropene	ND	0.50 µg/L			
36 trans-1,3-Dichloropropene	ND	0.50 µg/L			
37 1,1,2-Trichloroethane	ND	1.0 µg/L			
38 Toluene	ND	0.50 µg/L			
39 1,3-Dichloropropane	ND	1.0 µg/L			
40 2-Hexanone	ND	5.0 µg/L			
41 Dibromochloromethane	ND	1.0 µg/L			
42 1,2-Dibromoethane (EDB)	ND	2.0 µg/L			
43 Tetrachloroethene	ND	1.0 µg/L			
44 1,1,1,2-Tetrachloroethane	ND	1.0 µg/L			

ND = Not Detected

Roger Scholl

Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
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10/4/11

Report Date

Page 1 of 1



Alpha Analytical, Inc.

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VOC Sample Preservation Report

Work Order: CHH11092602

Job: KMEP DFSP Norwalk

Alpha's Sample ID	Client's Sample ID	Matrix	pH
11092602-01A	EXP-5	Aqueous	2

10/4/11
Report Date

Page 1 of 1



Alpha Analytical, Inc.

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Date:
04-Oct-11

QC Summary Report

Work Order:
11092602

Method Blank

File ID: 7A09271106.D	Type MBLK	Test Code: EPA Method SW8015B/C Ext	Batch ID: 27384	Analysis Date: 09/27/2011 17:08						
Sample ID: MBLK-27384	Units : mg/L	Run ID: FID_7_110927A	Prep Date: 09/27/2011 09:57							
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (Fuel Product)	ND	0.1								
Surr: Nonane	0.147		0.15		98	49	145			

Laboratory Control Spike

File ID: 7A09271107.D	Type LCS	Test Code: EPA Method SW8015B/C Ext	Batch ID: 27384	Analysis Date: 09/27/2011 17:35						
Sample ID: LCS-27384	Units : mg/L	Run ID: FID_7_110927A	Prep Date: 09/27/2011 09:57							
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	2.42	0.05	2.5		97	70	130			
Surr: Nonane	0.164		0.15		109	49	145			

Sample Matrix Spike

File ID: 7A09271123.D	Type MS	Test Code: EPA Method SW8015B/C Ext	Batch ID: 27384	Analysis Date: 09/28/2011 00:41						
Sample ID: 11092608-04AMS	Units : mg/L	Run ID: FID_7_110927A	Prep Date: 09/27/2011 09:57							
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	2.02	0.05	2.5	0	81	53	150			
Surr: Nonane	0.171		0.15		114	49	145			

Sample Matrix Spike Duplicate

File ID: 7A09271124.D	Type MSD	Test Code: EPA Method SW8015B/C Ext	Batch ID: 27384	Analysis Date: 09/28/2011 01:07						
Sample ID: 11092608-04AMSD	Units : mg/L	Run ID: FID_7_110927A	Prep Date: 09/27/2011 09:57							
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-E (DRO)	2.05	0.05	2.5	0	82	53	150	2.017	1.4(47)	
Surr: Nonane	0.175		0.15		117	49	145			

Comments:

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Date:
04-Oct-11

QC Summary Report

Work Order:
11092602

Method Blank

Type **MBLK** Test Code: **EPA Method SW8015B/C**

File ID: **11092807.D**

Batch ID: **MS15W0928B**

Analysis Date: **09/28/2011 10:05**

Sample ID: **MBLK MS15W0928B**

Units : **mg/L**

Run ID: **MSD_15_110928A**

Prep Date: **09/28/2011 10:05**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	0.05								
Surr: 1,2-Dichloroethane-d4	0.011		0.01		110	70	130			
Surr: Toluene-d8	0.0098		0.01		98	70	130			
Surr: 4-Bromofluorobenzene	0.00907		0.01		91	70	130			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8015B/C**

File ID: **11092803.D**

Batch ID: **MS15W0928B**

Analysis Date: **09/28/2011 08:29**

Sample ID: **GLCS MS15W0928B**

Units : **mg/L**

Run ID: **MSD_15_110928A**

Prep Date: **09/28/2011 08:29**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	0.413	0.05	0.4		103	70	130			
Surr: 1,2-Dichloroethane-d4	0.0112		0.01		112	70	130			
Surr: Toluene-d8	0.00955		0.01		96	70	130			
Surr: 4-Bromofluorobenzene	0.00902		0.01		90	70	130			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW8015B/C**

File ID: **11092810.D**

Batch ID: **MS15W0928B**

Analysis Date: **09/28/2011 11:10**

Sample ID: **11092640-01AGS**

Units : **mg/L**

Run ID: **MSD_15_110928A**

Prep Date: **09/28/2011 11:10**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	2.1	0.25	2	0	105	51	144			
Surr: 1,2-Dichloroethane-d4	0.0545		0.05		109	70	130			
Surr: Toluene-d8	0.0485		0.05		97	70	130			
Surr: 4-Bromofluorobenzene	0.0452		0.05		90	70	130			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW8015B/C**

File ID: **11092811.D**

Batch ID: **MS15W0928B**

Analysis Date: **09/28/2011 11:31**

Sample ID: **11092640-01AGSD**

Units : **mg/L**

Run ID: **MSD_15_110928A**

Prep Date: **09/28/2011 11:31**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	2.1	0.25	2	0	105	51	144	2.102	0.3(29)	
Surr: 1,2-Dichloroethane-d4	0.0625		0.05		125	70	130			
Surr: Toluene-d8	0.0476		0.05		95	70	130			
Surr: 4-Bromofluorobenzene	0.0448		0.05		90	70	130			

Comments:

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Alpha Analytical, Inc.

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Date:

04-Oct-11

QC Summary Report

Work Order:

11092602

n-Butylbenzene	ND	1				
1,2-Dibromo-3-chloropropane (DBCP)	ND	5				
1,2,4-Trichlorobenzene	ND	2				
Naphthalene	ND	10				
1,2,3-Trichlorobenzene	ND	2				
Surr: 1,2-Dichloroethane-d4	11	10	110	70	130	
Surr: Toluene-d8	9.8	10	98	70	130	
Surr: 4-Bromofluorobenzene	9.07	10	91	70	130	



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Date:
04-Oct-11

QC Summary Report

Work Order:
11092602

Laboratory Control Spike

Type LCS

Test Code: EPA Method SW8260B

File ID: 11092804.D

Batch ID: MS15W0928A

Analysis Date: 09/28/2011 08:51

Sample ID: LCS MS15W0928A

Units: µg/L

Run ID: MSD_15_110928A

Prep Date: 09/28/2011 08:51

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Dichlorodifluoromethane	7.36	1	10		74	37	137			
Chloromethane	10.1	2	10		101	43	140			
Vinyl chloride	9.31	1	10		93	80	120			
Chloroethane	11.3	1	10		113	43	141			
Bromomethane	7.48	2	10		75	11	160			
Trichlorofluoromethane	11.6	1	10		116	40	148			
Acetone	234	10	200		117	36	171			
1,1-Dichloroethene	9.41	1	10		94	80	120			
Tertiary Butyl Alcohol (TBA)	105	10	100		105	44	156			
Dichloromethane	9.26	2	10		93	69	130			
Freon-113	10.7	1	10		107	70	137			
trans-1,2-Dichloroethene	9.71	1	10		97	70	130			
Methyl tert-butyl ether (MTBE)	10.8	0.5	10		108	65	140			
1,1-Dichloroethane	9.96	1	10		99.6	70	130			
2-Butanone (MEK)	242	10	200		121	23	182			
Di-isopropyl Ether (DIPE)	10.3	1	10		103	70	130			
cis-1,2-Dichloroethene	9.79	1	10		98	70	130			
Bromochloromethane	10.3	1	10		103	70	132			
Chloroform	10.4	1	10		104	80	120			
Ethyl Tertiary Butyl Ether (ETBE)	10	1	10		100	65	139			
2,2-Dichloropropane	10.3	1	10		103	68	154			
1,2-Dichloroethane	11.2	1	10		112	70	132			
1,1,1-Trichloroethane	10.5	1	10		105	70	135			
1,1-Dichloropropene	10.7	1	10		107	70	130			
Carbon tetrachloride	9.76	1	10		98	61	148			
Benzene	10.1	0.5	10		101	70	130			
Tertiary Amyl Methyl Ether (TAME)	11.1	1	10		111	68	134			
Dibromomethane	10.6	1	10		106	70	130			
1,2-Dichloropropane	9.83	1	10		98	80	120			
Trichloroethene	10	1	10		100	65	144			
Bromodichloromethane	10	1	10		100	50	157			
4-Methyl-2-pentanone (MIBK)	28.9	2.5	25		115	20	182			
cis-1,3-Dichloropropene	9.93	1	10		99	70	131			
trans-1,3-Dichloropropene	9.42	1	10		94	70	136			
1,1,2-Trichloroethane	10.6	1	10		106	70	130			
Toluene	9.64	0.5	10		96	80	120			
1,3-Dichloropropane	9.76	1	10		98	70	130			
2-Hexanone	92.4	5	100		92	20	182			
Dibromochloromethane	8.16	1	10		82	42	155			
1,2-Dibromoethane (EDB)	19.6	2	20		98	70	130			
Tetrachloroethene	9.59	1	10		96	70	130			
1,1,1,2-Tetrachloroethane	9.69	1	10		97	70	130			
Chlorobenzene	9.7	1	10		97	70	130			
Ethylbenzene	10.4	0.5	10		104	80	120			
m,p-Xylene	10.2	0.5	10		102	70	130			
Bromoform	7.73	1	10		77	68	143			
Styrene	8.82	1	10		88	64	153			
o-Xylene	10.2	0.5	10		102	70	130			
1,1,2,2-Tetrachloroethane	9.43	1	10		94	70	130			
1,2,3-Trichloropropane	20.6	2	20		103	70	130			
Isopropylbenzene	9.16	1	10		92	68	138			
Bromobenzene	9.48	1	10		95	70	130			
n-Propylbenzene	9.41	1	10		94	70	133			
4-Chlorotoluene	9.11	1	10		91	70	130			
2-Chlorotoluene	9.01	1	10		90	70	130			
1,3,5-Trimethylbenzene	9.69	1	10		97	70	134			
tert-Butylbenzene	9.4	1	10		94	55	147			
1,2,4-Trimethylbenzene	9.82	1	10		98	70	134			
sec-Butylbenzene	9.27	1	10		93	70	135			
1,3-Dichlorobenzene	9.75	1	10		98	70	130			
1,4-Dichlorobenzene	9.07	1	10		91	70	130			
4-Isopropyltoluene	9.64	1	10		96	70	132			
1,2-Dichlorobenzene	9.11	1	10		91	70	130			
n-Butylbenzene	9.83	1	10		98	70	134			
1,2-Dibromo-3-chloropropane (DBCP)	47.3	3	50		95	67	130			



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:

04-Oct-11

QC Summary Report

Work Order:

11092602

1,2,4-Trichlorobenzene	8.86	2	10	89	67	132
Naphthalene	9.13	2	10	91	38	154
1,2,3-Trichlorobenzene	9.75	2	10	98	56	137
Surr: 1,2-Dichloroethane-d4	11.2		10	112	70	130
Surr: Toluene-d8	9.45		10	95	70	130
Surr: 4-Bromofluorobenzene	9.13		10	91	70	130



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Date:
04-Oct-11

QC Summary Report

Work Order:
11092602

Sample Matrix Spike

File ID: 11092808.D

Sample ID: 11092640-01AMS

Type MS

Test Code: EPA Method SW8260B

Batch ID: MS15W0928A

Analysis Date: 09/28/2011 10:27

Units : µg/L

Run ID: MSD_15_110928A

Prep Date: 09/28/2011 10:27

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Dichlorodifluoromethane	44.3	2.5	50	0	89	21	138			
Chloromethane	53.5	10	50	0	107	23	144			
Vinyl chloride	61	2.5	50	0	122	49	136			
Chloroethane	57.9	2.5	50	0	116	21	159			
Bromomethane	38.5	10	50	0	77	10	174			
Trichlorofluoromethane	62.4	2.5	50	0	125	32	154			
Acetone	666	50	1000	0	67	10	171			
1,1-Dichloroethene	47.5	2.5	50	0	95	64	130			
Tertiary Butyl Alcohol (TBA)	537	25	500	0	107	41	157			
Dichloromethane	46.2	10	50	0	92	69	130			
Freon-113	53.7	2.5	50	0	107	55	141			
trans-1,2-Dichloroethene	48.2	2.5	50	0	96	63	130			
Methyl tert-butyl ether (MTBE)	58.5	1.3	50	5.97	105	47	150			
1,1-Dichloroethane	49.4	2.5	50	0	99	66	130			
2-Butanone (MEK)	920	50	1000	0	92	23	182			
Di-isopropyl Ether (DIPE)	50.1	2.5	50	0	100	59	139			
cis-1,2-Dichloroethene	48.7	2.5	50	0	97	70	130			
Bromochloromethane	50.4	2.5	50	0	101	70	132			
Chloroform	51.8	2.5	50	0	104	70	130			
Ethyl Tertiary Butyl Ether (ETBE)	48.8	2.5	50	0	98	59	182			
2,2-Dichloropropane	50.8	2.5	50	0	102	38	154			
1,2-Dichloroethane	114	2.5	50	55.46	117	65	134			
1,1,1-Trichloroethane	52.6	2.5	50	0	105	65	136			
1,1-Dichloropropene	53.1	2.5	50	0	106	68	132			
Carbon tetrachloride	50.1	2.5	50	0	100	58	148			
Benzene	50	1.3	50	0	100	59	138			
Tertiary Amyl Methyl Ether (TAME)	54.4	2.5	50	0	109	63	135			
Dibromomethane	52	2.5	50	0	104	70	130			
1,2-Dichloropropane	48.4	2.5	50	0	97	70	131			
Trichloroethene	49.5	2.5	50	0	99	65	144			
Bromodichloromethane	49.8	2.5	50	0	99.6	50	157			
4-Methyl-2-pentanone (MIBK)	136	13	125	0	109	20	182			
cis-1,3-Dichloropropene	47.1	2.5	50	0	94	63	131			
trans-1,3-Dichloropropene	45.2	2.5	50	0	90	65	136			
1,1,2-Trichloroethane	51.6	2.5	50	0	103	70	131			
Toluene	47.3	1.3	50	0	95	68	130			
1,3-Dichloropropane	47.2	2.5	50	0	94	70	130			
2-Hexanone	329	25	500	0	66	20	182			
Dibromochloromethane	39.7	2.5	50	0	79	42	155			
1,2-Dibromoethane (EDB)	95	5	100	0	95	70	130			
Tetrachloroethene	47.4	2.5	50	0	95	65	130			
1,1,1,2-Tetrachloroethane	47.6	2.5	50	0	95	70	130			
Chlorobenzene	47.4	2.5	50	0	95	70	130			
Ethylbenzene	51.4	1.3	50	0	103	68	130			
m,p-Xylene	49.4	1.3	50	0	99	68	131			
Bromoform	37.6	2.5	50	0	75	65	143			
Styrene	43	2.5	50	0	86	59	153			
o-Xylene	50	1.3	50	0	100	70	130			
1,1,2,2-Tetrachloroethane	45.6	2.5	50	0	91	67	130			
1,2,3-Trichloropropane	99.4	10	100	0	99	70	130			
Isopropylbenzene	46.6	2.5	50	0	93	55	138			
Bromobenzene	47.8	2.5	50	0	96	70	130			
n-Propylbenzene	48.4	2.5	50	0	97	67	133			
4-Chlorotoluene	46.8	2.5	50	0	94	70	130			
2-Chlorotoluene	46.2	2.5	50	0	92	70	130			
1,3,5-Trimethylbenzene	49.9	2.5	50	0	99.7	67	134			
tert-Butylbenzene	47.7	2.5	50	0	95	55	147			
1,2,4-Trimethylbenzene	49.3	2.5	50	0	99	65	135			
sec-Butylbenzene	47.7	2.5	50	0	95	68	135			
1,3-Dichlorobenzene	49.3	2.5	50	0	99	70	130			
1,4-Dichlorobenzene	45.4	2.5	50	0	91	70	130			
4-Isopropyltoluene	49.1	2.5	50	0	98	68	132			
1,2-Dichlorobenzene	45.3	2.5	50	0	91	70	130			
n-Butylbenzene	50.3	2.5	50	0	101	62	134			
1,2-Dibromo-3-chloropropane (DBCP)	223	15	250	0	89	64	130			



Alpha Analytical, Inc.

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Date:

04-Oct-11

QC Summary Report

Work Order:

11092602

1,2,4-Trichlorobenzene	43.8	10	50	0	88	62	133
Naphthalene	43	10	50	0	86	32	166
1,2,3-Trichlorobenzene	46.4	10	50	0	93	55	138
Surr: 1,2-Dichloroethane-d4	56.9		50		114	70	130
Surr: Toluene-d8	47		50		94	70	130
Surr: 4-Bromofluorobenzene	46.8		50		94	70	130



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Date:
04-Oct-11

QC Summary Report

Work Order:
11092602

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW8260B**

File ID: **11092809.D**

Batch ID: **MS15W0928A**

Analysis Date: **09/28/2011 10:48**

Sample ID: **11092640-01AMSD**

Units: **µg/L**

Run ID: **MSD_15_110928A**

Prep Date: **09/28/2011 10:48**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Dichlorodifluoromethane	46.2	2.5	50	0	92	21	138	44.3	4.2(33)	
Chloromethane	58.4	10	50	0	117	23	144	53.52	8.7(27)	
Vinyl chloride	64.2	2.5	50	0	128	49	136	60.96	5.1(21)	
Chloroethane	61.5	2.5	50	0	123	21	159	57.89	6.1(40)	
Bromomethane	46.7	10	50	0	93	10	174	38.48	19.2(40)	
Trichlorofluoromethane	65.2	2.5	50	0	130	32	154	62.39	4.3(37)	
Acetone	696	50	1000	0	70	10	171	665.8	4.5(23)	
1,1-Dichloroethene	49.2	2.5	50	0	98	64	130	47.49	3.5(21)	
Tertiary Butyl Alcohol (TBA)	574	25	500	0	115	41	157	537.1	6.7(30)	
Dichloromethane	47.8	10	50	0	96	69	130	46.17	3.4(20)	
Freon-113	56	2.5	50	0	112	55	141	53.65	4.2(40)	
trans-1,2-Dichloroethene	50.2	2.5	50	0	100	63	130	48.15	4.1(20)	
Methyl tert-butyl ether (MTBE)	61.4	1.3	50	5.97	111	47	150	58.54	4.7(40)	
1,1-Dichloroethane	51.6	2.5	50	0	103	66	130	49.42	4.3(20)	
2-Butanone (MEK)	933	50	1000	0	93	23	182	920.5	1.4(22)	
Di-isopropyl Ether (DIPE)	52.2	2.5	50	0	104	59	139	50.09	4.1(20)	
cis-1,2-Dichloroethene	50.7	2.5	50	0	101	70	130	48.69	4.0(20)	
Bromochloromethane	52.8	2.5	50	0	106	70	132	50.41	4.5(20)	
Chloroform	53	2.5	50	0	106	70	130	51.8	2.3(20)	
Ethyl Tertiary Butyl Ether (ETBE)	50.7	2.5	50	0	101	59	182	48.76	3.9(40)	
2,2-Dichloropropane	53.6	2.5	50	0	107	38	154	50.82	5.3(22)	
1,2-Dichloroethane	122	2.5	50	55.46	134	65	134	114.2	6.9(20)	
1,1,1-Trichloroethane	54.6	2.5	50	0	109	65	136	52.59	3.7(20)	
1,1-Dichloropropene	55.1	2.5	50	0	110	68	132	53.08	3.7(20)	
Carbon tetrachloride	52.7	2.5	50	0	105	58	148	50.07	5.0(20)	
Benzene	51.7	1.3	50	0	103	59	138	49.99	3.4(21)	
Tertiary Amyl Methyl Ether (TAME)	54.2	2.5	50	0	108	63	135	54.44	0.4(40)	
Dibromomethane	53.2	2.5	50	0	106	70	130	51.96	2.4(20)	
1,2-Dichloropropane	50	2.5	50	0	100	70	131	48.35	3.3(20)	
Trichloroethene	51	2.5	50	0	102	65	144	49.47	3.1(20)	
Bromodichloromethane	51.4	2.5	50	0	103	50	157	49.81	3.1(20)	
4-Methyl-2-pentanone (MIBK)	137	13	125	0	110	20	182	136.4	0.8(20)	
cis-1,3-Dichloropropene	48.2	2.5	50	0	96	63	131	47.14	2.1(20)	
trans-1,3-Dichloropropene	46.2	2.5	50	0	92	65	136	45.24	2.1(20)	
1,1,2-Trichloroethane	51.2	2.5	50	0	102	70	131	51.59	0.7(20)	
Toluene	49.2	1.3	50	0	98	68	130	47.33	3.9(20)	
1,3-Dichloropropane	48.7	2.5	50	0	97	70	130	47.2	3.0(20)	
2-Hexanone	334	25	500	0	67	20	182	328.8	1.7(20)	
Dibromochloromethane	41.7	2.5	50	0	83	42	155	39.68	4.8(20)	
1,2-Dibromoethane (EDB)	97.2	5	100	0	97	70	130	95.02	2.2(20)	
Tetrachloroethene	49.4	2.5	50	0	99	65	130	47.41	4.1(20)	
1,1,1,2-Tetrachloroethane	49.4	2.5	50	0	99	70	130	47.62	3.8(20)	
Chlorobenzene	48.5	2.5	50	0	97	70	130	47.43	2.3(20)	
Ethylbenzene	53.2	1.3	50	0	106	68	130	51.43	3.4(20)	
m,p-Xylene	51.3	1.3	50	0	103	68	131	49.39	3.7(20)	
Bromoform	38.7	2.5	50	0	77	65	143	37.62	2.9(20)	
Styrene	43.9	2.5	50	0	88	59	153	43	2.2(37)	
o-Xylene	51.3	1.3	50	0	103	70	130	50.04	2.4(20)	
1,1,2,2-Tetrachloroethane	46	2.5	50	0	92	67	130	45.56	0.9(20)	
1,2,3-Trichloropropane	101	10	100	0	101	70	130	99.37	1.2(20)	
Isopropylbenzene	47.6	2.5	50	0	95	55	138	46.58	2.3(20)	
Bromobenzene	48.4	2.5	50	0	97	70	130	47.75	1.4(20)	
n-Propylbenzene	49.6	2.5	50	0	99	67	133	48.37	2.5(30)	
4-Chlorotoluene	47.2	2.5	50	0	94	70	130	46.77	1.0(20)	
2-Chlorotoluene	46.7	2.5	50	0	93	70	130	46.18	1.1(20)	
1,3,5-Trimethylbenzene	50.9	2.5	50	0	102	67	134	49.85	2.1(21)	
tert-Butylbenzene	49.4	2.5	50	0	99	55	147	47.67	3.6(20)	
1,2,4-Trimethylbenzene	50.5	2.5	50	0	101	65	135	49.34	2.4(25)	
sec-Butylbenzene	48.8	2.5	50	0	98	68	135	47.71	2.3(20)	
1,3-Dichlorobenzene	50.4	2.5	50	0	101	70	130	49.29	2.2(20)	
1,4-Dichlorobenzene	46.6	2.5	50	0	93	70	130	45.44	2.4(20)	
4-Isopropyltoluene	50.8	2.5	50	0	102	68	132	49.07	3.4(20)	
1,2-Dichlorobenzene	46.5	2.5	50	0	93	70	130	45.27	2.6(20)	
n-Butylbenzene	52	2.5	50	0	104	62	134	50.29	3.3(21)	
1,2-Dibromo-3-chloropropane (DBCP)	231	15	250	0	92	64	130	223.4	3.4(20)	



Alpha Analytical, Inc.

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Date: 04-Oct-11 **QC Summary Report** **Work Order:** 11092602

1,2,4-Trichlorobenzene	47.6	10	50	0	95	62	133	43.8	8.4(29)
Naphthalene	46.6	10	50	0	93	32	166	42.98	8.0(40)
1,2,3-Trichlorobenzene	51.2	10	50	0	102	55	138	46.43	9.8(36)
Surr: 1,2-Dichloroethane-d4	56.8		50		114	70	130		
Surr: Toluene-d8	47.3		50		95	70	130		
Surr: 4-Bromofluorobenzene	45.4		50		91	70	130		

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : CHHL11092602

Report Due By : 5:00 PM On : 05-Oct-11

Client: CH2M Hill
1000 Wilshire Boulevard
21st Floor
Los Angeles, CA 90017

Report Attention: Daniel Jablonski
Phone Number: (213) 228-8271 x
Email Address: daniel.jablonski@ch2m.com
Mathew Mayry (213) 228-8271 x mathew.mayry@ch2m.com

EDD Required : Yes

Sampled by : Matthew Linder

Client's COC # : none
Job : KMEP DFSP Norwalk
QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Cooler Temp : 3 °C
Samples Received : 26-Sep-11
Date Printed : 26-Sep-11

Alpha Sample ID	Client Sample ID	Collection Matrix	Date	No. of Bottles Alpha	Sub	TAT	TPHE(0.10) +Vinyl acetate	TPHP(0.10) +Vinyl acetate	VOC_W TPHE(0.10) +Vinyl acetate	Requested Tests	Sample Remarks
CHH11092602-01A	EXP-5	AQ	09/22/11 10:35	6	0	7					

Comments: Security seals intact. Melted Ice. Analysts: Run two analyses in order to achieve lower reporting limits for all other analytes due to high TBA values. :

Logged in by:  Signature  Print Name  Company  Date/Time

Alpha Analytical, Inc. 9/26/11 12:00

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report. Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

