Appendix A

Endpoint Sample Analytical Data Report

AMERICAN ANALYTICAL LABORATORIES

NYSDOH 11418
NJDEP NY050
CTDOH PH-0205
PADEP 68-00573

Thursday, April 11, 2013

Jim DeMartinis
J.R. Holzmacher P.E. LLC
300 Wheeler Road, Suite 402
Hauppauge, NY 11788

TEL: (631) 234-2220
FAX (631) 234-2221

RE: 127-13 Merrick Blvd., Queens

Order No.: 1304021

Dear Jim DeMartinis:

American Analytical Laboratories, LLC. received 5 sample(s) on 4/3/2013 for the analyses presented in the following report.

Samples were analyzed in accordance with the test procedures documented on the chain of custody and detailed throughout the text of this report.

The results reported herein relate only to the items tested or to the samples as received by the laboratory. This report may not be reproduced, except in full, without the approval of American Analytical Laboratories, LLC and is not considered complete without a cover page and chain of custody documentation. The limits (LOQ) provided in the data package are analytical reporting limits and not Federal or Local mandated values to which the sample results should be compared.

There were no problems with the analyses and all data for associated QC met laboratory specifications. If there are any exceptions a Case Narrative is provided in the report or the data is qualified either on the sample results or in the QC section of the report. This package has been reviewed by American Analytical Laboratories' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. This report consists of 32 pages.

If you have any questions regarding these tests results, please do not hesitate to call (631) 454-6100 or email me directly at lbeyer@american-analytical.com.

Sincerely,

Lori Beyer
Lab Director

56 TOLEDO STREET • FARMINGDALE, NEW YORK 11735
(631) 454-6100 • FAX: (631) 454-8027

American Analytical Laboratories, LLC.

Date: *11-Apr-13*

CLIENT: J.R. Holzmacher P.E. LLC
Project: 127-13 Merrick Blvd., Queens
Lab Order: 1304021

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date Collected	Date Received
1304021-01A	EP-1 (3 ft)	4/3/2013 11:12:00 AM	4/3/2013
1304021-02A	EP-2 (3 ft.)	4/3/2013 11:15:00 AM	4/3/2013
1304021-03A	EP-3 (3 ft.)	4/3/2013 11:20:00 AM	4/3/2013
1304021-04A	EP-4 (3 ft.)	4/3/2013 11:22:00 AM	4/3/2013
1304021-05A	EP-5 (Bott. Sample ~5ft. BG)	4/3/2013 11:25:00 AM	4/3/2013

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NYSDOH	11418
CTDOH	PH-0205
NJDEP	NY050
PADEP	68-573

CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

CLIENT NAME/ADDRESS: J.R. Holzmacher

CONTACT: Jim DeMasteris

SAMPLER (SIGNATURE):

SAMPLER NAME (PRINT): Heather Sonnenberg

SAMPLE(S) SEALED: YES / NO

CORRECT CONTAINER(S): YES / NO

TEMPERATURE (° C): 4.1

PROJECT LOCATION: 127-13 Merrick Blvd., Queens

ANALYSIS REQUIRED: 8260 Complete List

LABORATORY ID# LAB USE ONLY	MATRIX/ TYPE	NO. OF CONTAINERS	SAMPLING DATE	SAMPLING TIME	SAMPLE # - LOCATION	8260 Complete List
1304021-01A	S	1	4-3-13	11:12AM	EP-1 (3-ft)	✓
02A	S	1		11:15AM	EP-2 (3-ft)	✓
03A	S	1		11:20AM	EP-3 (3-ft)	✓
04A	S	1		11:22AM	EP-4 (3-ft)	✓
05A	S	1		11:25AM	EP-5 (Bott Sample - ~5-ft BG)	✓

COMMENTS / INSTRUCTIONS

Samples must be on ICE (<6° C)

MATRIX S=SOIL; W=WATER; SL=SLUDGE; A=AIR; M=MISCELLANEOUS
TYPE G=GRAB; C=COMPOSITE

TURNAROUND REQUIRED: STANDARD ☑ (7-10 business days) STAT ☐ BY / /

E-MAIL ADDRESS FOR RESULTS:

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME
	4-3-13 1:50 pm	Heather Sonnenberg		4/3/13 1350	Cate Ferrara
RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME

WHITE-OFFICE / CANARY-LAB / PINK-SAMPLE CUSTODIAN / GOLDENROD-CLIENT

American Analytical Laboratories, LLC. **Date:** *11-Apr-13*

CLIENT: J.R. Holzmacher P.E. LLC
Project: 127-13 Merrick Blvd., Queens
Lab Order: 1304021

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846 and additional methods as detailed throughout the text of the report.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives with exceptions notated in this Narrative discussion and/or in the QC Summary Section of the lab report with appropriate qualifiers.

Additional quality control information such as surrogate recovery values for organic testing is provided as part of the analytical results.

Soil sample results analyzed for Volatile Organics via preparation method SW846 Method 5035A via the Low Level procedures potentially may be estimated, "J" (biased low) since the samples for this test were not collected according to the 5035A Method.

Volatile LCS are analyzed with preservatives - HCL/NaHSO4/Methanol depending on level of analysis (high/low) similar to sample analysis. Outliers can be attributed to the presence of chemical preservatives.

The test results meet the requirements of the NYSDOH and NELAC standards, except where noted. The information contained in this analytical reports is the sole property of American Analytical Laboratories, LLC. or the client for which this report was issued. The results contained in this report are only representative of the samples received. The sample receipt checklist is included as part of this lab report. Conditions can vary at different times and at different sampling conditions. American Analytical is not responsible for the use or interpretation of the data included herein.

Lori Beyer
Laboratory Director

American Analytical Laboratories, LLC.

Sample Receipt Checklist

Client Name HOLZMACHER | Date and Time Receive 4/3/2013 2:10:10 PM

Work Order Numbe 1304021 | RcptNo: 1 | Received by CF

COC ID: | CoolerID:

Checklist completed by Signature 4/3/13 Date | Reviewed by Initials 4/3/13 Date

Matrix: | Carrier name Courier

Shipping container/cooler in good condition?	Yes ✔	No	Not Presen
Custody seals intact on shippping container/cooler?	Yes	No	Not Presen ✔
Custody seals intact on sample bottles?	Yes	No	Not Presen ✔
Chain of custody present?	Yes ✔	No	
Chain of custody signed when relinquished and received?	Yes ✔	No	
Chain of custody agrees with sample labels?	Yes ✔	No	
Samples in proper container/bottle?	Yes	No ✔	
Sample containers intact?	Yes ✔	No	
Sufficient sample volume for indicated test?	Yes ✔	No	
All samples received within holding time?	Yes ✔	No	
Container/Temp Blank temperature in compliance?	Yes ✔	No	
Water - VOA vials have zero headspace?	No VOA vials submitted ✔	Yes	No
Water - pH acceptable upon receipt?	Yes	No	N/A

Adjusted? | Checked b

Any No and/or NA (not applicable) response must be detailed in the comments section be

Client contacted | Date contacted: | Person contacted

Contacted by: | Regarding:

Comments: Samples were not collected according to Method 5035A.

Corrective Action

American Analytical Laboratories, LLC.

Date: *11-Apr-13*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	EP-1 (3 ft)
Lab Order:	1304021	**Collection Date:**	4/3/2013 11:12:00 AM
Project:	127-13 Merrick Blvd., Queens	**Matrix:**	SOIL
Lab ID:	1304021-01A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PERCENT MOISTURE			**D2216**				Analyst: **CF**
Percent Moisture	3.40	0	0		wt%	1	4/9/2013
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
1,1,1,2-Tetrachloroethane	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
1,1,1-Trichloroethane	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
1,1,2,2-Tetrachloroethane	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethan	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
1,1,2-Trichloroethane	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
1,1-Dichloroethane	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
1,1-Dichloroethene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
1,1-Dichloropropene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
1,2,3-Trichlorobenzene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
1,2,3-Trichloropropane	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
1,2,4,5-Tetramethylbenzene	U	5.28	26	N	µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
1,2,4-Trichlorobenzene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
1,2,4-Trimethylbenzene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
1,2-Dibromo-3-chloropropane	U	10.6	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
1,2-Dibromoethane	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
1,2-Dichlorobenzene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
1,2-Dichloroethane	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
1,2-Dichloropropane	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
1,3,5-Trimethylbenzene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
1,3-Dichlorobenzene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
1,3-dichloropropane	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
1,4-Dichlorobenzene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
1,4-Dioxane	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
2,2-Dichloropropane	U	5.28	26	C	µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
2-Butanone	U	26.4	53		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
2-Chloroethyl vinyl ether	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
2-Chlorotoluene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
2-Hexanone	U	26.4	53		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
2-Propanol	U	10.6	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
4-Chlorotoluene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM

American Analytical Laboratories, LLC., 56 Toledo Street, Farmingdale, NY, Zip - 11735
Tel - 6314546100 Fax - 6314548027 www.American-Analytical.com

Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte
E	Value above quantitation range	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection
LOQ	Limit of Quantitation	N	Parameter not offered by NY ELAP
P	>40% diff for detected conc between the two GC columns	S	Spike Recovery outside accepted recovery limits
U	Compound was analyzed but not detected.		

American Analytical Laboratories, LLC.

Date: *11-Apr-13*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	EP-1 (3 ft)
Lab Order:	1304021	**Collection Date:**	4/3/2013 11:12:00 AM
Project:	127-13 Merrick Blvd., Queens	**Matrix:**	SOIL
Lab ID:	1304021-01A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: LA
4-Isopropyltoluene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
4-Methyl-2-pentanone	U	26.4	53		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Acetone	56	26.4	53	BC	µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Acrolein	U	66.0	130	C	µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Acrylonitrile	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Benzene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Bromobenzene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Bromochloromethane	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Bromodichloromethane	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Bromoform	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Bromomethane	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Carbon disulfide	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Carbon tetrachloride	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Chlorobenzene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Chlorodifluoromethane	U	5.28	26	N	µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Chloroethane	U	5.28	26	C	µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Chloroform	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Chloromethane	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
cis-1,2-Dichloroethene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
cis-1,3-Dichloropropene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Dibromochloromethane	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Dibromomethane	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Dichlorodifluoromethane	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Diisopropyl ether	U	5.28	26	N	µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Ethanol	U	66.0	130	N	µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Ethylbenzene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Freon-114	U	5.28	26	N	µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Hexachlorobutadiene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Isopropylbenzene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
m,p-Xylene	U	10.6	53		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Methyl Acetate	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Methyl tert-butyl ether	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Methylene chloride	23	5.28	26	JBC	µg/Kg-dry	5.102	4/11/2013 2:53:00 AM

American Analytical Laboratories, LLC., 56 Toledo Street, Farmingdale, NY, Zip - 11735
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Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte
E	Value above quantitation range	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection
LOQ	Limit of Quantitation	N	Parameter not offered by NY ELAP
P	>40% diff for detected conc between the two GC columns	S	Spike Recovery outside accepted recovery limits
U	Compound was analyzed but not detected.		

American Analytical Laboratories, LLC.

Date: *11-Apr-13*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	EP-1 (3 ft)
Lab Order:	1304021	**Collection Date:**	4/3/2013 11:12:00 AM
Project:	127-13 Merrick Blvd., Queens	**Matrix:**	SOIL
Lab ID:	1304021-01A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
Naphthalene	12	5.28	26	JBC	µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
n-Butylbenzene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
n-Propylbenzene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
o-Xylene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
p-Diethylbenzene	U	5.28	26	N	µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
p-Ethyltoluene	U	5.28	26	N	µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
sec-Butylbenzene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Styrene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
t-Butyl alcohol	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
tert-Butylbenzene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Tetrachloroethene	4900	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Toluene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
trans-1,2-Dichloroethene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
trans-1,3-Dichloropropene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Trichloroethene	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Trichlorofluoromethane	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Vinyl acetate	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Vinyl chloride	U	5.28	26		µg/Kg-dry	5.102	4/11/2013 2:53:00 AM
Surr: 4-Bromofluorobenzene	83.4	0	40-140		%REC	5.102	4/11/2013 2:53:00 AM
Surr: Dibromofluoromethane	102	0	21-140		%REC	5.102	4/11/2013 2:53:00 AM
Surr: Toluene-d8	92.5	0	35-137		%REC	5.102	4/11/2013 2:53:00 AM

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Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte
E	Value above quantitation range	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection
LOQ	Limit of Quantitation	N	Parameter not offered by NY ELAP
P	>40% diff for detected conc between the two GC columns	S	Spike Recovery outside accepted recovery limits
U	Compound was analyzed but not detected.		

American Analytical Laboratories, LLC.

Date: *11-Apr-13*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	EP-2 (3 ft.)
Lab Order:	1304021	**Collection Date:**	4/3/2013 11:15:00 AM
Project:	127-13 Merrick Blvd., Queens	**Matrix:**	SOIL
Lab ID:	1304021-02A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PERCENT MOISTURE			**D2216**				Analyst: **CF**
Percent Moisture	3.53	0	0		wt%	1	4/9/2013
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
1,1,1,2-Tetrachloroethane	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
1,1,1-Trichloroethane	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
1,1,2,2-Tetrachloroethane	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethan	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
1,1,2-Trichloroethane	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
1,1-Dichloroethane	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
1,1-Dichloroethene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
1,1-Dichloropropene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
1,2,3-Trichlorobenzene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
1,2,3-Trichloropropane	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
1,2,4,5-Tetramethylbenzene	U	4.55	23	N	µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
1,2,4-Trichlorobenzene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
1,2,4-Trimethylbenzene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
1,2-Dibromo-3-chloropropane	U	9.09	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
1,2-Dibromoethane	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
1,2-Dichlorobenzene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
1,2-Dichloroethane	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
1,2-Dichloropropane	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
1,3,5-Trimethylbenzene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
1,3-Dichlorobenzene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
1,3-dichloropropane	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
1,4-Dichlorobenzene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
1,4-Dioxane	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
2,2-Dichloropropane	U	4.55	23	C	µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
2-Butanone	U	22.7	45		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
2-Chloroethyl vinyl ether	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
2-Chlorotoluene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
2-Hexanone	U	22.7	45		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
2-Propanol	U	9.09	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
4-Chlorotoluene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM

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Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte
E	Value above quantitation range	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection
LOQ	Limit of Quantitation	N	Parameter not offered by NY ELAP
P	>40% diff for detected conc between the two GC columns	S	Spike Recovery outside accepted recovery limits
U	Compound was analyzed but not detected.		

American Analytical Laboratories, LLC.

Date: *11-Apr-13*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	EP-2 (3 ft.)
Lab Order:	1304021	**Collection Date:**	4/3/2013 11:15:00 AM
Project:	127-13 Merrick Blvd., Queens	**Matrix:**	SOIL
Lab ID:	1304021-02A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
4-Isopropyltoluene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
4-Methyl-2-pentanone	U	22.7	45		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Acetone	49	22.7	45	BC	µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Acrolein	U	56.8	110	C	µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Acrylonitrile	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Benzene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Bromobenzene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Bromochloromethane	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Bromodichloromethane	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Bromoform	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Bromomethane	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Carbon disulfide	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Carbon tetrachloride	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Chlorobenzene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Chlorodifluoromethane	U	4.55	23	N	µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Chloroethane	U	4.55	23	C	µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Chloroform	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Chloromethane	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
cis-1,2-Dichloroethene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
cis-1,3-Dichloropropene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Dibromochloromethane	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Dibromomethane	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Dichlorodifluoromethane	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Diisopropyl ether	U	4.55	23	N	µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Ethanol	U	56.8	110	N	µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Ethylbenzene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Freon-114	U	4.55	23	N	µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Hexachlorobutadiene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Isopropylbenzene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
m,p-Xylene	U	9.09	45		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Methyl Acetate	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Methyl tert-butyl ether	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Methylene chloride	19	4.55	23	JBC	µg/Kg-dry	4.386	4/11/2013 3:19:00 AM

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Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte
E	Value above quantitation range	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection
LOQ	Limit of Quantitation	N	Parameter not offered by NY ELAP
P	>40% diff for detected conc between the two GC columns	S	Spike Recovery outside accepted recovery limits
U	Compound was analyzed but not detected.		

American Analytical Laboratories, LLC.

Date: *11-Apr-13*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	EP-2 (3 ft.)
Lab Order:	1304021	**Collection Date:**	4/3/2013 11:15:00 AM
Project:	127-13 Merrick Blvd., Queens	**Matrix:**	SOIL
Lab ID:	1304021-02A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
Naphthalene	U	4.55	23	BC	µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
n-Butylbenzene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
n-Propylbenzene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
o-Xylene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
p-Diethylbenzene	U	4.55	23	N	µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
p-Ethyltoluene	U	4.55	23	N	µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
sec-Butylbenzene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Styrene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
t-Butyl alcohol	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
tert-Butylbenzene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Tetrachloroethene	960	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Toluene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
trans-1,2-Dichloroethene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
trans-1,3-Dichloropropene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Trichloroethene	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Trichlorofluoromethane	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Vinyl acetate	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Vinyl chloride	U	4.55	23		µg/Kg-dry	4.386	4/11/2013 3:19:00 AM
Surr: 4-Bromofluorobenzene	82.5	0	40-140		%REC	4.386	4/11/2013 3:19:00 AM
Surr: Dibromofluoromethane	110	0	21-140		%REC	4.386	4/11/2013 3:19:00 AM
Surr: Toluene-d8	93.7	0	35-137		%REC	4.386	4/11/2013 3:19:00 AM

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Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte
E	Value above quantitation range	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection
LOQ	Limit of Quantitation	N	Parameter not offered by NY ELAP
P	>40% diff for detected conc between the two GC columns	S	Spike Recovery outside accepted recovery limits
U	Compound was analyzed but not detected.		

American Analytical Laboratories, LLC.

Date: *11-Apr-13*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	EP-3 (3 ft.)
Lab Order:	1304021	**Collection Date:**	4/3/2013 11:20:00 AM
Project:	127-13 Merrick Blvd., Queens	**Matrix:**	SOIL
Lab ID:	1304021-03A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PERCENT MOISTURE			**D2216**				Analyst: **CF**
Percent Moisture	4.49	0	0		wt%	1	4/9/2013
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
1,1,1,2-Tetrachloroethane	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
1,1,1-Trichloroethane	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
1,1,2,2-Tetrachloroethane	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethan	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
1,1,2-Trichloroethane	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
1,1-Dichloroethane	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
1,1-Dichloroethene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
1,1-Dichloropropene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
1,2,3-Trichlorobenzene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
1,2,3-Trichloropropane	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
1,2,4,5-Tetramethylbenzene	U	4.55	23	N	µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
1,2,4-Trichlorobenzene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
1,2,4-Trimethylbenzene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
1,2-Dibromo-3-chloropropane	U	9.10	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
1,2-Dibromoethane	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
1,2-Dichlorobenzene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
1,2-Dichloroethane	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
1,2-Dichloropropane	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
1,3,5-Trimethylbenzene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
1,3-Dichlorobenzene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
1,3-dichloropropane	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
1,4-Dichlorobenzene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
1,4-Dioxane	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
2,2-Dichloropropane	U	4.55	23	C	µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
2-Butanone	U	22.8	46		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
2-Chloroethyl vinyl ether	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
2-Chlorotoluene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
2-Hexanone	U	22.8	46		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
2-Propanol	U	9.10	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
4-Chlorotoluene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM

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Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte
E	Value above quantitation range	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection
LOQ	Limit of Quantitation	N	Parameter not offered by NY ELAP
P	>40% diff for detected conc between the two GC columns	S	Spike Recovery outside accepted recovery limits
U	Compound was analyzed but not detected.		

American Analytical Laboratories, LLC.

Date: *11-Apr-13*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	EP-3 (3 ft.)
Lab Order:	1304021	**Collection Date:**	4/3/2013 11:20:00 AM
Project:	127-13 Merrick Blvd., Queens	**Matrix:**	SOIL
Lab ID:	1304021-03A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
4-Isopropyltoluene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
4-Methyl-2-pentanone	U	22.8	46		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Acetone	59	22.8	46	BC	µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Acrolein	U	56.9	110	C	µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Acrylonitrile	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Benzene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Bromobenzene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Bromochloromethane	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Bromodichloromethane	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Bromoform	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Bromomethane	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Carbon disulfide	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Carbon tetrachloride	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Chlorobenzene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Chlorodifluoromethane	U	4.55	23	N	µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Chloroethane	U	4.55	23	C	µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Chloroform	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Chloromethane	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
cis-1,2-Dichloroethene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
cis-1,3-Dichloropropene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Dibromochloromethane	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Dibromomethane	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Dichlorodifluoromethane	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Diisopropyl ether	U	4.55	23	N	µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Ethanol	U	56.9	110	N	µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Ethylbenzene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Freon-114	U	4.55	23	N	µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Hexachlorobutadiene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Isopropylbenzene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
m,p-Xylene	U	9.10	46		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Methyl Acetate	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Methyl tert-butyl ether	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Methylene chloride	20	4.55	23	JBC	µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM

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Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte
E	Value above quantitation range	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection
LOQ	Limit of Quantitation	N	Parameter not offered by NY ELAP
P	>40% diff for detected conc between the two GC columns	S	Spike Recovery outside accepted recovery limits
U	Compound was analyzed but not detected.		

American Analytical Laboratories, LLC.

Date: *11-Apr-13*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	EP-3 (3 ft.)
Lab Order:	1304021	**Collection Date:**	4/3/2013 11:20:00 AM
Project:	127-13 Merrick Blvd., Queens	**Matrix:**	SOIL
Lab ID:	1304021-03A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
Naphthalene	6.5	4.55	23	JBC	µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
n-Butylbenzene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
n-Propylbenzene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
o-Xylene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
p-Diethylbenzene	U	4.55	23	N	µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
p-Ethyltoluene	U	4.55	23	N	µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
sec-Butylbenzene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Styrene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
t-Butyl alcohol	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
tert-Butylbenzene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Tetrachloroethene	840	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Toluene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
trans-1,2-Dichloroethene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
trans-1,3-Dichloropropene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Trichloroethene	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Trichlorofluoromethane	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Vinyl acetate	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Vinyl chloride	U	4.55	23		µg/Kg-dry	4.3478	4/11/2013 3:44:00 AM
Surr: 4-Bromofluorobenzene	81.6	0	40-140		%REC	4.3478	4/11/2013 3:44:00 AM
Surr: Dibromofluoromethane	104	0	21-140		%REC	4.3478	4/11/2013 3:44:00 AM
Surr: Toluene-d8	96.1	0	35-137		%REC	4.3478	4/11/2013 3:44:00 AM

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Qualifiers:

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E	Value above quantitation range	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection
LOQ	Limit of Quantitation	N	Parameter not offered by NY ELAP
P	>40% diff for detected conc between the two GC columns	S	Spike Recovery outside accepted recovery limits
U	Compound was analyzed but not detected.		

American Analytical Laboratories, LLC.

Date: *11-Apr-13*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	EP-4 (3 ft.)
Lab Order:	1304021	**Collection Date:**	4/3/2013 11:22:00 AM
Project:	127-13 Merrick Blvd., Queens	**Matrix:**	SOIL
Lab ID:	1304021-04A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PERCENT MOISTURE			**D2216**				Analyst: **CF**
Percent Moisture	4.29	0	0		wt%	1	4/9/2013
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
1,1,1,2-Tetrachloroethane	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
1,1,1-Trichloroethane	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
1,1,2,2-Tetrachloroethane	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethan	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
1,1,2-Trichloroethane	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
1,1-Dichloroethane	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
1,1-Dichloroethene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
1,1-Dichloropropene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
1,2,3-Trichlorobenzene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
1,2,3-Trichloropropane	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
1,2,4,5-Tetramethylbenzene	U	4.71	24	N	µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
1,2,4-Trichlorobenzene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
1,2,4-Trimethylbenzene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
1,2-Dibromo-3-chloropropane	U	9.41	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
1,2-Dibromoethane	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
1,2-Dichlorobenzene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
1,2-Dichloroethane	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
1,2-Dichloropropane	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
1,3,5-Trimethylbenzene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
1,3-Dichlorobenzene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
1,3-dichloropropane	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
1,4-Dichlorobenzene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
1,4-Dioxane	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
2,2-Dichloropropane	U	4.71	24	C	µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
2-Butanone	U	23.5	47		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
2-Chloroethyl vinyl ether	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
2-Chlorotoluene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
2-Hexanone	U	23.5	47		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
2-Propanol	U	9.41	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
4-Chlorotoluene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM

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Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte
E	Value above quantitation range	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection
LOQ	Limit of Quantitation	N	Parameter not offered by NY ELAP
P	>40% diff for detected conc between the two GC columns	S	Spike Recovery outside accepted recovery limits
U	Compound was analyzed but not detected.		

American Analytical Laboratories, LLC.

Date: *11-Apr-13*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	EP-4 (3 ft.)
Lab Order:	1304021	**Collection Date:**	4/3/2013 11:22:00 AM
Project:	127-13 Merrick Blvd., Queens	**Matrix:**	SOIL
Lab ID:	1304021-04A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
4-Isopropyltoluene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
4-Methyl-2-pentanone	U	23.5	47		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Acetone	43	23.5	47	JBC	µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Acrolein	U	58.8	120	C	µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Acrylonitrile	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Benzene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Bromobenzene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Bromochloromethane	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Bromodichloromethane	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Bromoform	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Bromomethane	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Carbon disulfide	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Carbon tetrachloride	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Chlorobenzene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Chlorodifluoromethane	U	4.71	24	N	µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Chloroethane	U	4.71	24	C	µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Chloroform	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Chloromethane	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
cis-1,2-Dichloroethene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
cis-1,3-Dichloropropene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Dibromochloromethane	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Dibromomethane	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Dichlorodifluoromethane	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Diisopropyl ether	U	4.71	24	N	µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Ethanol	U	58.8	120	N	µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Ethylbenzene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Freon-114	U	4.71	24	N	µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Hexachlorobutadiene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Isopropylbenzene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
m,p-Xylene	U	9.41	47		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Methyl Acetate	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Methyl tert-butyl ether	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Methylene chloride	20	4.71	24	JBC	µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM

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Qualifiers:

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E	Value above quantitation range	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection
LOQ	Limit of Quantitation	N	Parameter not offered by NY ELAP
P	>40% diff for detected conc between the two GC columns	S	Spike Recovery outside accepted recovery limits
U	Compound was analyzed but not detected.		

American Analytical Laboratories, LLC.

Date: *11-Apr-13*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	EP-4 (3 ft.)
Lab Order:	1304021	**Collection Date:**	4/3/2013 11:22:00 AM
Project:	127-13 Merrick Blvd., Queens	**Matrix:**	SOIL
Lab ID:	1304021-04A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
Naphthalene	5.9	4.71	24	JBC	µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
n-Butylbenzene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
n-Propylbenzene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
o-Xylene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
p-Diethylbenzene	U	4.71	24	N	µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
p-Ethyltoluene	U	4.71	24	N	µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
sec-Butylbenzene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Styrene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
t-Butyl alcohol	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
tert-Butylbenzene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Tetrachloroethene	3700	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Toluene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
trans-1,2-Dichloroethene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
trans-1,3-Dichloropropene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Trichloroethene	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Trichlorofluoromethane	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Vinyl acetate	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Vinyl chloride	U	4.71	24		µg/Kg-dry	4.5045	4/11/2013 4:09:00 AM
Surr: 4-Bromofluorobenzene	82.9	0	40-140		%REC	4.5045	4/11/2013 4:09:00 AM
Surr: Dibromofluoromethane	106	0	21-140		%REC	4.5045	4/11/2013 4:09:00 AM
Surr: Toluene-d8	92.4	0	35-137		%REC	4.5045	4/11/2013 4:09:00 AM

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Qualifiers:

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E	Value above quantitation range	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection
LOQ	Limit of Quantitation	N	Parameter not offered by NY ELAP
P	>40% diff for detected conc between the two GC columns	S	Spike Recovery outside accepted recovery limits
U	Compound was analyzed but not detected.		

American Analytical Laboratories, LLC.

Date: *11-Apr-13*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	EP-5 (Bott. Sample ~5ft. BG)
Lab Order:	1304021	**Collection Date:**	4/3/2013 11:25:00 AM
Project:	127-13 Merrick Blvd., Queens	**Matrix:**	SOIL
Lab ID:	1304021-05A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PERCENT MOISTURE			**D2216**				Analyst: **CF**
Percent Moisture	18.9	0	0		wt%	1	4/9/2013
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
1,1,1,2-Tetrachloroethane	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
1,1,1-Trichloroethane	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
1,1,2,2-Tetrachloroethane	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethan	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
1,1,2-Trichloroethane	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
1,1-Dichloroethane	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
1,1-Dichloroethene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
1,1-Dichloropropene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
1,2,3-Trichlorobenzene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
1,2,3-Trichloropropane	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
1,2,4,5-Tetramethylbenzene	440	5.55	28	N	µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
1,2,4-Trichlorobenzene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
1,2,4-Trimethylbenzene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
1,2-Dibromo-3-chloropropane	U	11.1	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
1,2-Dibromoethane	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
1,2-Dichlorobenzene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
1,2-Dichloroethane	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
1,2-Dichloropropane	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
1,3,5-Trimethylbenzene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
1,3-Dichlorobenzene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
1,3-dichloropropane	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
1,4-Dichlorobenzene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
1,4-Dioxane	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
2,2-Dichloropropane	U	5.55	28	C	µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
2-Butanone	U	27.8	56		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
2-Chloroethyl vinyl ether	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
2-Chlorotoluene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
2-Hexanone	U	27.8	56		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
2-Propanol	U	11.1	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
4-Chlorotoluene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM

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Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte
E	Value above quantitation range	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection
LOQ	Limit of Quantitation	N	Parameter not offered by NY ELAP
P	>40% diff for detected conc between the two GC columns	S	Spike Recovery outside accepted recovery limits
U	Compound was analyzed but not detected.		

American Analytical Laboratories, LLC.

Date: *11-Apr-13*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	EP-5 (Bott. Sample ~5ft. BG)
Lab Order:	1304021	**Collection Date:**	4/3/2013 11:25:00 AM
Project:	127-13 Merrick Blvd., Queens	**Matrix:**	SOIL
Lab ID:	1304021-05A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
4-Isopropyltoluene	21	5.55	28	J	µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
4-Methyl-2-pentanone	U	27.8	56		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Acetone	84	27.8	56	BC	µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Acrolein	U	69.4	140	C	µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Acrylonitrile	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Benzene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Bromobenzene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Bromochloromethane	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Bromodichloromethane	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Bromoform	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Bromomethane	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Carbon disulfide	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Carbon tetrachloride	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Chlorobenzene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Chlorodifluoromethane	U	5.55	28	N	µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Chloroethane	U	5.55	28	C	µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Chloroform	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Chloromethane	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
cis-1,2-Dichloroethene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
cis-1,3-Dichloropropene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Dibromochloromethane	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Dibromomethane	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Dichlorodifluoromethane	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Diisopropyl ether	U	5.55	28	N	µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Ethanol	U	69.4	140	N	µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Ethylbenzene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Freon-114	U	5.55	28	N	µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Hexachlorobutadiene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Isopropylbenzene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
m,p-Xylene	U	11.1	56		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Methyl Acetate	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Methyl tert-butyl ether	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Methylene chloride	32	5.55	28	BC	µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM

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Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte
E	Value above quantitation range	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection
LOQ	Limit of Quantitation	N	Parameter not offered by NY ELAP
P	>40% diff for detected conc between the two GC columns	S	Spike Recovery outside accepted recovery limits
U	Compound was analyzed but not detected.		

American Analytical Laboratories, LLC.

Date: *11-Apr-13*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	EP-5 (Bott. Sample ~5ft. BG)
Lab Order:	1304021	**Collection Date:**	4/3/2013 11:25:00 AM
Project:	127-13 Merrick Blvd., Queens	**Matrix:**	SOIL
Lab ID:	1304021-05A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
Naphthalene	U	5.55	28	BC	µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
n-Butylbenzene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
n-Propylbenzene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
o-Xylene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
p-Diethylbenzene	32	5.55	28	N	µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
p-Ethyltoluene	U	5.55	28	N	µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
sec-Butylbenzene	31	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Styrene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
t-Butyl alcohol	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
tert-Butylbenzene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Tetrachloroethene	7600	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Toluene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
trans-1,2-Dichloroethene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
trans-1,3-Dichloropropene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Trichloroethene	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Trichlorofluoromethane	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Vinyl acetate	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Vinyl chloride	U	5.55	28		µg/Kg-dry	4.5045	4/11/2013 4:35:00 AM
Surr: 4-Bromofluorobenzene	87.4	0	40-140		%REC	4.5045	4/11/2013 4:35:00 AM
Surr: Dibromofluoromethane	109	0	21-140		%REC	4.5045	4/11/2013 4:35:00 AM
Surr: Toluene-d8	94.2	0	35-137		%REC	4.5045	4/11/2013 4:35:00 AM

American Analytical Laboratories, LLC., 56 Toledo Street, Farmingdale, NY, Zip - 11735
Tel - 6314546100 Fax - 6314548027 www.American-Analytical.com

Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte
E	Value above quantitation range	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection
LOQ	Limit of Quantitation	N	Parameter not offered by NY ELAP
P	>40% diff for detected conc between the two GC columns	S	Spike Recovery outside accepted recovery limits
U	Compound was analyzed but not detected.		

American Analytical Laboratories, LLC.

Date: *11-Apr-13*

CLIENT: J.R. Holzmacher P.E. LLC
Work Order: 1304021
Project: 127-13 Merrick Blvd., Queens

ANALYTICAL QC SUMMARY REPORT

TestCode: DryFull8260_Soil

Sample ID: **LCS-39796** SampType: **LCS** TestCode: **DryFull8260_** Units: **µg/Kg** Prep Date: **4/10/2013** RunNo: **68095**
Client ID: **LCSS** Batch ID: **39796** TestNo: **SW8260C** **SW5035A** Analysis Date: **4/10/2013** SeqNo: **971884**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	38	5.0	50.00	0	75.0	40	125				
1,1,2,2-Tetrachloroethane	47	5.0	50.00	0	93.4	35	139				
1,1,2-Trichloroethane	38	5.0	50.00	0	75.7	40	124				
1,1-Dichloroethane	41	5.0	50.00	0	82.7	33	134				
1,1-Dichloroethene	38	5.0	50.00	0	75.8	30	141				
1,2-Dichlorobenzene	40	5.0	50.00	0	80.9	33	126				
1,2-Dichloroethane	38	5.0	50.00	0	76.0	36	131				
1,2-Dichloropropane	38	5.0	50.00	0	76.0	38	131				
1,3-Dichlorobenzene	42	5.0	50.00	0	84.3	31	130				
1,4-Dichlorobenzene	39	5.0	50.00	0	78.2	33	121				
2-Chloroethyl vinyl ether	13	5.0	50.00	0	26.3	36	138				S
Benzene	38	5.0	50.00	0	75.2	36	126				
Bromodichloromethane	37	5.0	50.00	0	74.8	38	125				
Bromoform	44	5.0	50.00	0	87.6	36	131				
Bromomethane	24	5.0	50.00	0	47.7	23	135				
Carbon tetrachloride	36	5.0	50.00	0	71.2	37	130				
Chlorobenzene	37	5.0	50.00	0	74.5	41	123				
Chloroethane	37	5.0	50.00	0	73.7	20	128				C
Chloroform	41	5.0	50.00	0	82.0	39	125				
Chloromethane	25	5.0	50.00	0	50.4	33	143				
cis-1,3-Dichloropropene	35	5.0	50.00	0	70.9	34	125				
Dibromochloromethane	37	5.0	50.00	0	74.3	36	125				
Ethylbenzene	36	5.0	50.00	0	72.0	42	124				
Methylene chloride	24	5.0	50.00	0	48.8	33	135				BC
Tetrachloroethene	31	5.0	50.00	0	62.2	30	121				
Toluene	36	5.0	50.00	0	71.5	43	121				
trans-1,2-Dichloroethene	37	5.0	50.00	0	74.2	32	124				
trans-1,3-Dichloropropene	33	5.0	50.00	0	66.4	33	120				
Trichloroethene	38	5.0	50.00	0	75.2	40	124				
Vinyl chloride	31	5.0	50.00	0	61.2	40	146				

Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection	LOQ	Limit of Quantitation
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits	U	Compound was analyzed but not dete

CLIENT: J.R. Holzmacher P.E. LLC
Work Order: 1304021
Project: 127-13 Merrick Blvd., Queens

ANALYTICAL QC SUMMARY REPORT

TestCode: DryFull8260_Soil

Sample ID: **LCS-39796** SampType: **LCS** TestCode: **DryFull8260_** Units: **µg/Kg** Prep Date: **4/10/2013** RunNo: **68095**
Client ID: **LCSS** Batch ID: **39796** TestNo: **SW8260C** **SW5035A** Analysis Date: **4/10/2013** SeqNo: **971884**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	51		50.00		102	40	140				
Surr: Dibromofluoromethane	50		50.00		100	21	140				
Surr: Toluene-d8	50		50.00		99.3	35	137				

Sample ID: **MB-39796** SampType: **MBLK** TestCode: **DryFull8260_** Units: **µg/Kg** Prep Date: **4/10/2013** RunNo: **68095**
Client ID: **PBS** Batch ID: **39796** TestNo: **SW8260C** **SW5035A** Analysis Date: **4/10/2013** SeqNo: **971885**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	U	5.0									
1,1,1-Trichloroethane	U	5.0									
1,1,2,2-Tetrachloroethane	U	5.0									
1,1,2-Trichloro-1,2,2-trifluoroethane	U	5.0									
1,1,2-Trichloroethane	U	5.0									
1,1-Dichloroethane	U	5.0									
1,1-Dichloroethene	U	5.0									
1,1-Dichloropropene	U	5.0									
1,2,3-Trichlorobenzene	U	5.0									
1,2,3-Trichloropropane	U	5.0									
1,2,4,5-Tetramethylbenzene	U	5.0									
1,2,4-Trichlorobenzene	U	5.0									
1,2,4-Trimethylbenzene	U	5.0									
1,2-Dibromo-3-chloropropane	U	5.0									
1,2-Dibromoethane	U	5.0									
1,2-Dichlorobenzene	U	5.0									
1,2-Dichloroethane	U	5.0									
1,2-Dichloropropane	U	5.0									
1,3,5-Trimethylbenzene	U	5.0									
1,3-Dichlorobenzene	U	5.0									
1,3-dichloropropane	U	5.0									
1,4-Dichlorobenzene	U	5.0									
1,4-Dioxane	U	5.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection	LOQ	Limit of Quantitation
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits	U	Compound was analyzed but not dete

CLIENT: J.R. Holzmacher P.E. LLC
Work Order: 1304021
Project: 127-13 Merrick Blvd., Queens

ANALYTICAL QC SUMMARY REPORT

TestCode: DryFull8260_Soil

Sample ID: **MB-39796** SampType: **MBLK** TestCode: **DryFull8260_** Units: **µg/Kg** Prep Date: **4/10/2013** RunNo: **68095**
Client ID: **PBS** Batch ID: **39796** TestNo: **SW8260C SW5035A** Analysis Date: **4/10/2013** SeqNo: **971885**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,2-Dichloropropane	U	5.0									C
2-Butanone	U	10									
2-Chloroethyl vinyl ether	U	5.0									
2-Chlorotoluene	U	5.0									
2-Hexanone	U	10									
2-Propanol	U	5.0									
4-Chlorotoluene	U	5.0									
4-Isopropyltoluene	U	5.0									
4-Methyl-2-pentanone	U	10									
Acetone	16	10									C
Acrolein	U	25									C
Acrylonitrile	U	5.0									
Benzene	U	5.0									
Bromobenzene	U	5.0									
Bromochloromethane	U	5.0									
Bromodichloromethane	U	5.0									
Bromoform	U	5.0									
Bromomethane	U	5.0									
Carbon disulfide	U	5.0									
Carbon tetrachloride	U	5.0									
Chlorobenzene	U	5.0									
Chlorodifluoromethane	U	5.0									
Chloroethane	U	5.0									C
Chloroform	U	5.0									
Chloromethane	U	5.0									
cis-1,2-Dichloroethene	U	5.0									
cis-1,3-Dichloropropene	U	5.0									
Dibromochloromethane	U	5.0									
Dibromomethane	U	5.0									
Dichlorodifluoromethane	U	5.0									
Diisopropyl ether	U	5.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection	LOQ	Limit of Quantitation
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits	U	Compound was analyzed but not dete

CLIENT: J.R. Holzmacher P.E. LLC
Work Order: 1304021
Project: 127-13 Merrick Blvd., Queens

ANALYTICAL QC SUMMARY REPORT

TestCode: DryFull8260_Soil

Sample ID: **MB-39796** SampType: **MBLK** TestCode: **DryFull8260_** Units: **µg/Kg** Prep Date: **4/10/2013** RunNo: **68095**
Client ID: **PBS** Batch ID: **39796** TestNo: **SW8260C SW5035A** Analysis Date: **4/10/2013** SeqNo: **971885**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethanol	U	25									
Ethylbenzene	U	5.0									
Freon-114	U	5.0									
Hexachlorobutadiene	U	5.0									
Isopropylbenzene	U	5.0									
m,p-Xylene	U	10									
Methyl Acetate	U	5.0									
Methyl tert-butyl ether	U	5.0									
Methylene chloride	4.0	5.0									JC
Naphthalene	1.1	5.0									JC
n-Butylbenzene	U	5.0									
n-Propylbenzene	U	5.0									
o-Xylene	U	5.0									
p-Diethylbenzene	U	5.0									
p-Ethyltoluene	U	5.0									
sec-Butylbenzene	U	5.0									
Styrene	U	5.0									
t-Butyl alcohol	U	5.0									
tert-Butylbenzene	U	5.0									
Tetrachloroethene	U	5.0									
Toluene	U	5.0									
trans-1,2-Dichloroethene	U	5.0									
trans-1,3-Dichloropropene	U	5.0									
Trichloroethene	U	5.0									
Trichlorofluoromethane	U	5.0									
Vinyl acetate	U	5.0									
Vinyl chloride	U	5.0									
Surr: 4-Bromofluorobenzene	48		50.00		95.0	40	140				
Surr: Dibromofluoromethane	55		50.00		110	21	140				
Surr: Toluene-d8	48		50.00		96.7	35	137				
Ethyl acetate	U	5.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection	LOQ	Limit of Quantitation
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits	U	Compound was analyzed but not dete

CLIENT: J.R. Holzmacher P.E. LLC
Work Order: 1304021
Project: 127-13 Merrick Blvd., Queens

ANALYTICAL QC SUMMARY REPORT

TestCode: DryFull8260_Soil

Sample ID: **MB-39796** SampType: **MBLK** TestCode: **DryFull8260_** Units: **µg/Kg** Prep Date: **4/10/2013** RunNo: **68095**
Client ID: **PBS** Batch ID: **39796** TestNo: **SW8260C SW5035A** Analysis Date: **4/10/2013** SeqNo: **971885**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Isopropyl acetate	U	5.0									
n-Amyl acetate	U	5.0									
n-Butyl acetate	U	5.0									
n-Propyl acetate	U	5.0									

Sample ID: **LCS-39796** SampType: **LCS** TestCode: **DryFull8260_** Units: **µg/Kg** Prep Date: **4/10/2013** RunNo: **68099**
Client ID: **LCSS** Batch ID: **39796** TestNo: **SW8260C SW5035A** Analysis Date: **4/10/2013** SeqNo: **972028**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	38	5.0	50.00	0	75.0	40	125				
1,1,2,2-Tetrachloroethane	47	5.0	50.00	0	93.4	35	139				
1,1,2-Trichloroethane	38	5.0	50.00	0	75.7	40	124				
1,1-Dichloroethane	41	5.0	50.00	0	82.7	33	134				
1,1-Dichloroethene	38	5.0	50.00	0	75.8	30	141				
1,2-Dichlorobenzene	40	5.0	50.00	0	80.9	33	126				
1,2-Dichloroethane	38	5.0	50.00	0	76.0	36	131				
1,2-Dichloropropane	38	5.0	50.00	0	76.0	38	131				
1,3-Dichlorobenzene	42	5.0	50.00	0	84.3	31	130				
1,4-Dichlorobenzene	39	5.0	50.00	0	78.2	33	121				
2-Chloroethyl vinyl ether	13	5.0	50.00	0	26.3	36	138				S
Benzene	38	5.0	50.00	0	75.2	36	126				
Bromodichloromethane	37	5.0	50.00	0	74.8	38	125				
Bromoform	44	5.0	50.00	0	87.6	36	131				
Bromomethane	24	5.0	50.00	0	47.7	23	135				
Carbon tetrachloride	36	5.0	50.00	0	71.2	37	130				
Chlorobenzene	37	5.0	50.00	0	74.5	41	123				
Chloroethane	37	5.0	50.00	0	73.7	20	128				C
Chloroform	41	5.0	50.00	0	82.0	39	125				
Chloromethane	25	5.0	50.00	0	50.4	33	143				
cis-1,3-Dichloropropene	35	5.0	50.00	0	70.9	34	125				
Dibromochloromethane	37	5.0	50.00	0	74.3	36	125				

Qualifiers:
B Analyte detected in the associated Method Blank
C Calibration acceptability criteria exceeded for this analyte
H Holding time was exceeded
J Analyte detected below quantitation limits
LOD Limit of Detection
LOQ Limit of Quantitation
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits
U Compound was analyzed but not dete

CLIENT: J.R. Holzmacher P.E. LLC
Work Order: 1304021
Project: 127-13 Merrick Blvd., Queens

ANALYTICAL QC SUMMARY REPORT

TestCode: DryFull8260_Soil

Sample ID: **LCS-39796** SampType: **LCS** TestCode: **DryFull8260_** Units: **µg/Kg** Prep Date: **4/10/2013** RunNo: **68099**
Client ID: **LCSS** Batch ID: **39796** TestNo: **SW8260C** **SW5035A** Analysis Date: **4/10/2013** SeqNo: **972028**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	36	5.0	50.00	0	72.0	42	124				
Methylene chloride	24	5.0	50.00	0	48.8	33	135				BC
Tetrachloroethene	31	5.0	50.00	0	62.2	30	121				
Toluene	36	5.0	50.00	0	71.5	43	121				
trans-1,2-Dichloroethene	37	5.0	50.00	0	74.2	32	124				
trans-1,3-Dichloropropene	33	5.0	50.00	0	66.4	33	120				
Trichloroethene	38	5.0	50.00	0	75.2	40	124				
Vinyl chloride	31	5.0	50.00	0	61.2	40	146				
Surr: 4-Bromofluorobenzene	51		50.00		102	40	140				
Surr: Dibromofluoromethane	50		50.00		100	21	140				
Surr: Toluene-d8	50		50.00		99.3	35	137				

Sample ID: **MB-39796** SampType: **MBLK** TestCode: **DryFull8260_** Units: **µg/Kg** Prep Date: **4/10/2013** RunNo: **68099**
Client ID: **PBS** Batch ID: **39796** TestNo: **SW8260C** **SW5035A** Analysis Date: **4/10/2013** SeqNo: **972029**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	U	5.0									
1,1,1-Trichloroethane	U	5.0									
1,1,2,2-Tetrachloroethane	U	5.0									
1,1,2-Trichloro-1,2,2-trifluoroethane	U	5.0									
1,1,2-Trichloroethane	U	5.0									
1,1-Dichloroethane	U	5.0									
1,1-Dichloroethene	U	5.0									
1,1-Dichloropropene	U	5.0									
1,2,3-Trichlorobenzene	U	5.0									
1,2,3-Trichloropropane	U	5.0									
1,2,4,5-Tetramethylbenzene	U	5.0									
1,2,4-Trichlorobenzene	U	5.0									
1,2,4-Trimethylbenzene	U	5.0									
1,2-Dibromo-3-chloropropane	U	5.0									
1,2-Dibromoethane	U	5.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection	LOQ	Limit of Quantitation
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits	U	Compound was analyzed but not dete

CLIENT: J.R. Holzmacher P.E. LLC
Work Order: 1304021
Project: 127-13 Merrick Blvd., Queens

ANALYTICAL QC SUMMARY REPORT

TestCode: DryFull8260_Soil

Sample ID: **MB-39796** SampType: **MBLK** TestCode: **DryFull8260_** Units: **µg/Kg** Prep Date: **4/10/2013** RunNo: **68099**
Client ID: **PBS** Batch ID: **39796** TestNo: **SW8260C** **SW5035A** Analysis Date: **4/10/2013** SeqNo: **972029**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichlorobenzene	U	5.0									
1,2-Dichloroethane	U	5.0									
1,2-Dichloropropane	U	5.0									
1,3,5-Trimethylbenzene	U	5.0									
1,3-Dichlorobenzene	U	5.0									
1,3-dichloropropane	U	5.0									
1,4-Dichlorobenzene	U	5.0									
1,4-Dioxane	U	5.0									
2,2-Dichloropropane	U	5.0									C
2-Butanone	U	10									
2-Chloroethyl vinyl ether	U	5.0									
2-Chlorotoluene	U	5.0									
2-Hexanone	U	10									
2-Propanol	U	5.0									
4-Chlorotoluene	U	5.0									
4-Isopropyltoluene	U	5.0									
4-Methyl-2-pentanone	U	10									
Acetone	16	10									BC
Acrolein	U	25									C
Acrylonitrile	U	5.0									
Benzene	U	5.0									
Bromobenzene	U	5.0									
Bromochloromethane	U	5.0									
Bromodichloromethane	U	5.0									
Bromoform	U	5.0									
Bromomethane	U	5.0									
Carbon disulfide	U	5.0									
Carbon tetrachloride	U	5.0									
Chlorobenzene	U	5.0									
Chlorodifluoromethane	U	5.0									
Chloroethane	U	5.0									C

Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection	LOQ	Limit of Quantitation
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits	U	Compound was analyzed but not dete

CLIENT: J.R. Holzmacher P.E. LLC
Work Order: 1304021
Project: 127-13 Merrick Blvd., Queens

ANALYTICAL QC SUMMARY REPORT

TestCode: DryFull8260_Soil

Sample ID: MB-39796	SampType: MBLK	TestCode: DryFull8260_	Units: µg/Kg	Prep Date: 4/10/2013	RunNo: 68099
Client ID: PBS	Batch ID: 39796	TestNo: SW8260C	SW5035A	Analysis Date: 4/10/2013	SeqNo: 972029

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	U	5.0									
Chloromethane	U	5.0									
cis-1,2-Dichloroethene	U	5.0									
cis-1,3-Dichloropropene	U	5.0									
Dibromochloromethane	U	5.0									
Dibromomethane	U	5.0									
Dichlorodifluoromethane	U	5.0									
Diisopropyl ether	U	5.0									
Ethanol	U	25									
Ethylbenzene	U	5.0									
Freon-114	U	5.0									
Hexachlorobutadiene	U	5.0									
Isopropylbenzene	U	5.0									
m,p-Xylene	U	10									
Methyl Acetate	U	5.0									
Methyl tert-butyl ether	U	5.0									
Methylene chloride	4.0	5.0									JC
Naphthalene	1.1	5.0									JC
n-Butylbenzene	U	5.0									
n-Propylbenzene	U	5.0									
o-Xylene	U	5.0									
p-Diethylbenzene	U	5.0									
p-Ethyltoluene	U	5.0									
sec-Butylbenzene	U	5.0									
Styrene	U	5.0									
t-Butyl alcohol	U	5.0									
tert-Butylbenzene	U	5.0									
Tetrachloroethene	U	5.0									
Toluene	U	5.0									
trans-1,2-Dichloroethene	U	5.0									
trans-1,3-Dichloropropene	U	5.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection	LOQ	Limit of Quantitation
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits	U	Compound was analyzed but not dete

CLIENT: J.R. Holzmacher P.E. LLC
Work Order: 1304021
Project: 127-13 Merrick Blvd., Queens

ANALYTICAL QC SUMMARY REPORT

TestCode: DryFull8260_Soil

Sample ID: **MB-39796** SampType: **MBLK** TestCode: **DryFull8260_** Units: **µg/Kg** Prep Date: **4/10/2013** RunNo: **68099**
Client ID: **PBS** Batch ID: **39796** TestNo: **SW8260C** **SW5035A** Analysis Date: **4/10/2013** SeqNo: **972029**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	U	5.0									
Trichlorofluoromethane	U	5.0									
Vinyl acetate	U	5.0									
Vinyl chloride	U	5.0									
Surr: 4-Bromofluorobenzene	48		50.00		95.0	40	140				
Surr: Dibromofluoromethane	55		50.00		110	21	140				
Surr: Toluene-d8	48		50.00		96.7	35	137				
Ethyl acetate	U	5.0									
Isopropyl acetate	U	5.0									
n-Amyl acetate	U	5.0									
n-Butyl acetate	U	5.0									
n-Propyl acetate	U	5.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection	LOQ	Limit of Quantitation
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits	U	Compound was analyzed but not dete

American Analytical Laboratories, LLC.

Date: *11-Apr-13*

CLIENT: J.R. Holzmacher P.E. LLC
Work Order: 1304021
Project: 127-13 Merrick Blvd., Queens

ANALYTICAL QC SUMMARY REPORT

TestCode: DryFull8260_Soil

Sample ID: **1304041-01A-MS** SampType: **MS** TestCode: **DryFull8260_** Units: **µg/Kg-dry** Prep Date: **4/10/2013** RunNo: **68095**
Client ID: **ZZZZZZ** Batch ID: **39796** TestNo: **SW8260C SW5035A** Analysis Date: **4/11/2013** SeqNo: **971922**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	25	5.3	52.82	0	48.1	26	108				
1,1,2,2-Tetrachloroethane	28	5.3	52.82	0	53.3	18	109				
1,1,2-Trichloroethane	27	5.3	52.82	0	51.1	21	105				
1,1-Dichloroethane	34	5.3	52.82	0	64.0	28	108				
1,1-Dichloroethene	29	5.3	52.82	0	54.3	24	110				
1,2-Dichlorobenzene	15	5.3	52.82	0	28.8	18	108				
1,2-Dichloroethane	28	5.3	52.82	0	52.7	21	105				
1,2-Dichloropropane	30	5.3	52.82	0	56.1	29	107				
1,3-Dichlorobenzene	16	5.3	52.82	0	30.1	20	115				
1,4-Dichlorobenzene	15	5.3	52.82	0	29.2	21	117				
2-Chloroethyl vinyl ether	U	5.3	52.82	0	0	18	113				S
Benzene	27	5.3	52.82	0	52.0	30	103				
Bromodichloromethane	27	5.3	52.82	0	51.5	22	106				
Bromoform	24	5.3	52.82	0	45.6	20	113				
Bromomethane	23	5.3	52.82	0	42.7	20	130				
Carbon tetrachloride	21	5.3	52.82	0	39.3	23	111				
Chlorobenzene	21	5.3	52.82	0	39.4	27	117				
Chloroethane	33	5.3	52.82	0	63.2	30	130				C
Chloroform	31	5.3	52.82	0	59.1	24	112				
Chloromethane	23	5.3	52.82	0	43.8	21	130				
cis-1,3-Dichloropropene	23	5.3	52.82	0	44.3	20	104				
Dibromochloromethane	24	5.3	52.82	0	44.9	22	104				
Ethylbenzene	19	5.3	52.82	0	35.5	30	115				
Methylene chloride	23	5.3	52.82	5.806	32.0	22	104				BC
Tetrachloroethene	18	5.3	52.82	0	34.8	20	103				
Toluene	22	5.3	52.82	0	40.9	20	115				
trans-1,2-Dichloroethene	26	5.3	52.82	0	49.3	23	107				
trans-1,3-Dichloropropene	19	5.3	52.82	0	36.7	20	105				
Trichloroethene	26	5.3	52.82	0	49.7	22	138				
Vinyl chloride	27	5.3	52.82	0	50.8	30	130				

Qualifiers:
B Analyte detected in the associated Method Blank
C Calibration acceptability criteria exceeded for this analyte
H Holding time was exceeded
J Analyte detected below quantitation limits
LOD Limit of Detection
LOQ Limit of Quantitation
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits
U Compound was analyzed but not dete

CLIENT: J.R. Holzmacher P.E. LLC
Work Order: 1304021
Project: 127-13 Merrick Blvd., Queens

ANALYTICAL QC SUMMARY REPORT

TestCode: DryFull8260_Soil

Sample ID: **1304041-01A-MS** SampType: **MS** TestCode: **DryFull8260_** Units: **µg/Kg-dry** Prep Date: **4/10/2013** RunNo: **68095**
Client ID: **ZZZZZZ** Batch ID: **39796** TestNo: **SW8260C** **SW5035A** Analysis Date: **4/11/2013** SeqNo: **971922**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	50		52.82		94.5	40	140				
Surr: Dibromofluoromethane	48		52.82		91.0	21	140				
Surr: Toluene-d8	50		52.82		93.8	35	137				

Sample ID: **1304041-01A-MSD** SampType: **MSD** TestCode: **DryFull8260_** Units: **µg/Kg-dry** Prep Date: **4/10/2013** RunNo: **68095**
Client ID: **ZZZZZZ** Batch ID: **39796** TestNo: **SW8260C** **SW5035A** Analysis Date: **4/11/2013** SeqNo: **971923**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	29	5.3	53.46	0	54.8	26	108	25.40	14.3	20	
1,1,2,2-Tetrachloroethane	28	5.3	53.46	0	52.2	18	109	28.14	0.881	20	
1,1,2-Trichloroethane	29	5.3	53.46	0	53.4	21	105	27.00	5.60	20	
1,1-Dichloroethane	35	5.3	53.46	0	65.5	28	108	33.83	3.52	20	
1,1-Dichloroethene	31	5.3	53.46	0	57.5	24	110	28.66	7.04	20	
1,2-Dichlorobenzene	20	5.3	53.46	0	38.0	18	108	15.22	28.7	20	R
1,2-Dichloroethane	29	5.3	53.46	0	54.8	21	105	27.83	5.11	20	
1,2-Dichloropropane	32	5.3	53.46	0	59.6	29	107	29.63	7.25	20	
1,3-Dichlorobenzene	21	5.3	53.46	0	39.8	20	115	15.89	29.0	20	R
1,4-Dichlorobenzene	20	5.3	53.46	0	37.1	21	117	15.44	24.9	20	R
2-Chloroethyl vinyl ether	U	5.3	53.46	0	0	18	113	0	0	20	S
Benzene	30	5.3	53.46	0	56.7	30	103	27.45	10.0	20	
Bromodichloromethane	30	5.3	53.46	0	55.5	22	106	27.18	8.76	20	
Bromoform	29	5.3	53.46	0	54.5	20	113	24.11	18.8	20	
Bromomethane	22	5.3	53.46	0	40.4	20	130	22.57	4.33	20	
Carbon tetrachloride	27	5.3	53.46	0	50.5	23	111	20.77	26.0	20	R
Chlorobenzene	27	5.3	53.46	0	49.8	27	117	20.79	24.6	20	R
Chloroethane	31	5.3	53.46	0	58.6	30	130	33.37	6.39	20	C
Chloroform	33	5.3	53.46	0	62.5	24	112	31.21	6.83	20	
Chloromethane	22	5.3	53.46	0	40.6	21	130	23.15	6.43	20	
cis-1,3-Dichloropropene	27	5.3	53.46	0	49.9	20	104	23.40	13.1	20	
Dibromochloromethane	27	5.3	53.46	0	50.0	22	104	23.70	12.1	20	
Ethylbenzene	25	5.3	53.46	0	46.9	30	115	18.75	28.9	20	R

Qualifiers:
B Analyte detected in the associated Method Blank
C Calibration acceptability criteria exceeded for this analyte
H Holding time was exceeded
J Analyte detected below quantitation limits
LOD Limit of Detection
LOQ Limit of Quantitation
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits
U Compound was analyzed but not dete

CLIENT: J.R. Holzmacher P.E. LLC
Work Order: 1304021
Project: 127-13 Merrick Blvd., Queens

ANALYTICAL QC SUMMARY REPORT

TestCode: DryFull8260_Soil

Sample ID: **1304041-01A-MSD** SampType: **MSD** TestCode: **DryFull8260_** Units: **µg/Kg-dry** Prep Date: **4/10/2013** RunNo: **68095**
Client ID: **ZZZZZZ** Batch ID: **39796** TestNo: **SW8260C SW5035A** Analysis Date: **4/11/2013** SeqNo: **971923**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	22	5.3	53.46	5.806	30.6	22	104	22.72	2.59	20	BC
Tetrachloroethene	22	5.3	53.46	0	41.9	20	103	18.36	19.7	20	
Toluene	28	5.3	53.46	0	51.5	20	115	21.61	24.0	20	R
trans-1,2-Dichloroethene	28	5.3	53.46	0	53.1	23	107	26.05	8.62	20	
trans-1,3-Dichloropropene	23	5.3	53.46	0	42.6	20	105	19.36	16.2	20	
Trichloroethene	33	5.3	53.46	0	61.4	22	138	26.25	22.2	20	R
Vinyl chloride	27	5.3	53.46	0	49.6	30	130	26.85	1.26	20	
Surr: 4-Bromofluorobenzene	51		53.46		94.6	40	140		0	0	
Surr: Dibromofluoromethane	51		53.46		95.0	21	140		0	0	
Surr: Toluene-d8	52		53.46		97.2	35	137		0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection	LOQ	Limit of Quantitation
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits	U	Compound was analyzed but not dete

Appendix B

Remediation Photos

127-13 Merrick Blvd
Queens, New York
Site Code 241128
Attachment B-Remediation Photos

Photo 1 – Vactor hose into 127-13 Unit.

Photo 2 - Vactor truck and container set up on Merrick Blvd.

Photo 3 – Breaking up concrete at former floor drain.

Photo 4 – Begin soil removal.

Photo 5 – Continued soil removal around existing monitoring well. Installed in former floor drain.

Photo 6 – Continued soil removal.

Photo 7 – Proximity of SSDS piping to former floor drain (Source).

Photo 8 – Final excavation around floor drain.

Appendix C

Soil Disposal Manifests

5008

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYR000199299
2. Page 1 of 1
3. Emergency Response Phone: (908) 354-0210
4. Manifest Tracking Number: 003532635 JJK

5. Generator's Name and Mailing Address: MYRTLE IRVING REALTY ASSOC.
102--10 METROPOLITAN AVE. STE. 200
FOREST HILLS, NY 11375
Generator's Phone: (718) 268-1200

Generator's Site Address (if different than mailing address): 127-13 MERRICK BLVD.
SPRINGFIELD GARDENS NY 11413

6. Transporter 1 Company Name: CLEAN VENTURE INC.
U.S. EPA ID Number: NJ0000027193

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Cycle Chem Inc.
217 South First Street
Elizabeth, NJ 07206
Facility's Phone: (908) 355-5800
U.S. EPA ID Number: NJD002200046

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. NA3077 HAZARDOUS WASTE, SOLID, N.O.S. (F002 B) 9 PG III ERG# 171	XX	CM	20	Y	F002		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information: 65939722774459582991294 (1) BOX-1 SOIL W/PERCHLOROETHYLENE

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: James M. DeMarchi (Partner) Signature: [signature] Month 4 Day 3 Year 13

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: KARL GUZMAN Signature: [signature] Month 4 Day 3 Year 13
Transporter 2 Printed/Typed Name: Signature: Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H141 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: [illegible] Signature: [illegible] Month 4 Day 4 Year 13

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY'S COPY

SOLUTION
CENTRE DE TRAITEMENT DE SOL

Centre de traitement de sol / Soil Treatment Facility
8365, Broadway Nord, Montréal (Québec) H1B 5X7

SOLUTION
SOIL TREATMENT FACILITY

P- 5254

N° d'autorisation / Authorization No.: 46735

Vente de sable / Sand purchase:

Classe / Class: ☐ A ☐ B

Autres / Other:

Plage de contamination / Contamination level:

☐ AB ☐ BC ☒ >C ☐ >RESC (>D)

☐ à caractériser / sampling on arrival (n° échantillon / sample ID):

☐ Autres / Other:

Transporteur / Carrier:

Immatriculation / Truck ID:

Signature du conducteur / Drivers signature

Acceptation des sols / Soil acceptance

Pesée / Weighing:

Remarques / Remarks:

Appendix D

SSDS Installation Photos

Photo 1 - 2013-03-26 Riser pipe being connected to SSDS piping and vapor barrier being prepared to be laid down (127-13 Unit).

Photo 2 -2013-03-26 Scar of SSDS trench #2.

Photo 3 - 2013-03-26 Scar of SSDS trench.

Photo 4 - 2013-03-26 Vapor barrier being laid over SSDS trench.

Photo 5 - 2013-04-03 SSDS piping near remediation area.

Photo 6 - 2013-04-03 Scar of SSDS trench #3.

Photo 7 - 2013-04-03 SSDS piping near remediation area with 1 stone and covered with vapor barrier.

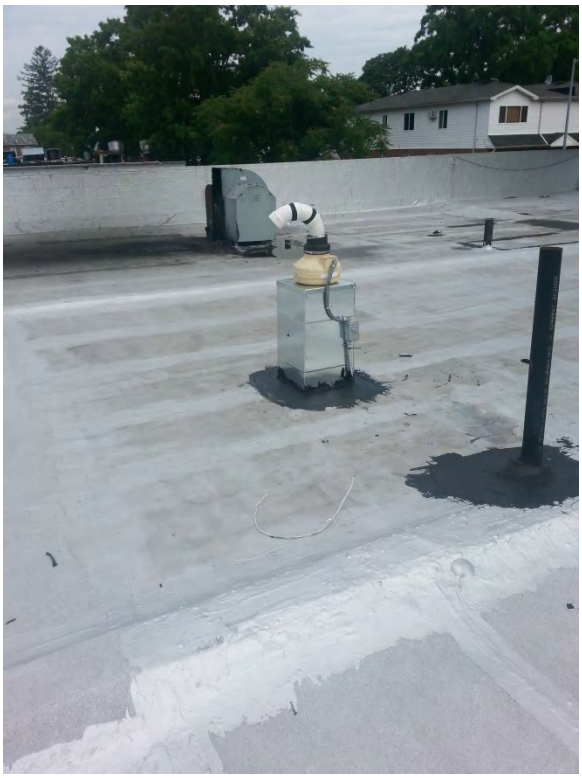

Photo 8 - 2013-07-03 Location of effluent fan # 1.

Fan # 2 will be located where black pole is located.

Photo 9 - 2013-08-23 Location of both effluent fans. Fan # 1 is further away.

Photo 10 - 2013-09-26 close up of rear of 127-13 pressure reading location.

Photo 11 - 2013-09-26 Rear of 127-21 pressure reading location.

Photo 12 - 2013-09-26 Sampling of EF-1 and EF-2.

Photo 13 - 2013-12-10 Close-up of pressure reading located in *front* of 127-01.

Photo 14 - 2013-12-10 Location of pressure readings taken in *rear* of 127-01.

Photo 15 - 2013-12-10 Pressure reading being taken, located in *front* of 127-01.

Appendix E

SSDS Effluent Sampling Analytical Data Reports

AMERICAN ANALYTICAL LABORATORIES

NYSDOH 11418
NJDEP NY050
CTDOH PH-0205
PADEP 68-00573

Monday, July 08, 2013

Jim DeMartinis
J.R. Holzmacher P.E. LLC
3555 Veterans Memorial Hwy., Suite A
Ronkonkoma, NY 11788

TEL: (631) 234-2220
FAX (631) 234-2221

RE: 127-13 Merrick Boulevard

Order No.: 1307024

Dear Jim DeMartinis:

American Analytical Laboratories, LLC. received 1 sample(s) on 7/3/2013 for the analyses presented in the following report.

Samples were analyzed in accordance with the test procedures documented on the chain of custody and detailed throughout the text of this report.

The results reported herein relate only to the items tested or to the samples as received by the laboratory. This report may not be reproduced, except in full, without the approval of American Analytical Laboratories, LLC and is not considered complete without a cover page and chain of custody documentation. The limits (LOQ) provided in the data package are analytical reporting limits and not Federal or Local mandated values to which the sample results should be compared.

There were no problems with the analyses and all data for associated QC met laboratory specifications. If there are any exceptions a Case Narrative is provided in the report or the data is qualified either on the sample results or in the QC section of the report. This package has been reviewed by American Analytical Laboratories' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. This report consists of 8 pages.

If you have any questions regarding these tests results, please do not hesitate to call (631) 454-6100 or email me directly at lbeyer@american-analytical.com.

Sincerely,

Lori Beyer
Lab Director

56 TOLEDO STREET • FARMINGDALE, NEW YORK 11735
(631) 454-6100 • FAX: (631) 454-8027

American Analytical Laboratories, LLC.

Date: *08-Jul-13*

CLIENT: J.R. Holzmacher P.E. LLC
Project: 127-13 Merrick Boulevard
Lab Order: 1307024

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date Collected	Date Received
1307024-01A	EF-1	7/3/2013 11:15:00 AM	7/3/2013

AMERICAN ANALYTICAL LABORATORIES
56 TOLEDO STREET • FARMINGDALE, NEW YORK 11735
(631) 454-6100 • FAX (631) 454-8027
www.american-analytical.com

NYSDOH	11418
CTDOH	PH-0205
NJDEP	NY050
PADEP	68-573

CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

CLIENT NAME/ADDRESS: JR HOLZMACHER

CONTACT: JIM DEMARTINIS

SAMPLER (SIGNATURE): [signature]

SAMPLER NAME (PRINT): PHILIP HOFFKEN

SAMPLE(S) SEALED: YES / NO

CORRECT CONTAINER(S): YES / NO

TEMPERATURE (° C): NA

PROJECT LOCATION: 127-13 MERRICK BLVD

ANALYSIS REQUIRED: PERCHLORATE (PCE)

LABORATORY ID# LAB USE ONLY	MATRIX/ TYPE	NO. OF CONTAINERS	SAMPLING DATE	SAMPLING TIME	SAMPLE # - LOCATION	PERCHLORATE (PCE)
1307024-01	A/G	1	7/3/13	1115	EF-1	X

COMMENTS / INSTRUCTIONS

Samples must be on ICE (<6° C)

MATRIX S=SOIL; W=WATER; SL=SLUDGE; A=AIR; M=MISCELLANEOUS
TYPE G=GRAB; C=COMPOSITE

TURNAROUND REQUIRED: STANDARD ☒ (7-10 business days) STAT ☐ BY / /

E-MAIL ADDRESS FOR RESULTS:

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME
[signature]	7/3/13 1207	PHIL HOFFKEN	Karen Kelly	7/3/13 12:07	K Kelly
RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME

WHITE-OFFICE / CANARY-LAB / PINK-SAMPLE CUSTODIAN / GOLDENROD-CLIENT

American Analytical Laboratories, LLC.

Sample Receipt Checklist

Client Name HOLZMACHER

Date and Time Receive 7/3/2013 12:04:56 PM

Work Order Numbe 1307024

RcptNo: 1

Received by KK

COC_ID:

CoolerID:

Checklist completed b Signature 7/3/13 Date

Reviewed by KBK Initials 7/3/13 Date

Matrix

Carrier name Client

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Presen ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Presen ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Presen ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐	No ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☐

Adjusted _____ Checked b _____

Any No and/or NA (not applicable) response must be detailed in the comments section b

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments:

Corrective Action _____

American Analytical Laboratories, LLC.

Date: *08-Jul-13*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	EF-1
Lab Order:	1307024	**Collection Date:**	7/3/2013 11:15:00 AM
Project:	127-13 Merrick Boulevard	**Matrix:**	AIR
Lab ID:	1307024-01A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260 - AIR			**SW8260C**		**SW5030C**		Analyst: **LA**
Tetrachloroethene	6800	0.2	1.0		ppbv	1	7/3/2013 3:41:00 PM
Surr: 4-Bromofluorobenzene	93.1	0	68-126		%REC	1	7/3/2013 3:41:00 PM
Surr: Dibromofluoromethane	97.9	0	70-126		%REC	1	7/3/2013 3:41:00 PM
Surr: Toluene-d8	95.8	0	72-122		%REC	1	7/3/2013 3:41:00 PM

American Analytical Laboratories, LLC., 56 Toledo Street, Farmingdale, NY, Zip - 11735
Tel - 6314546100 Fax - 6314548027 www.American-Analytical.com

Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte
E	Value above quantitation range	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection
LOQ	Limit of Quantitation	N	Parameter not offered by NY ELAP
P	>40% diff for detected conc between the two GC columns	S	Spike Recovery outside accepted recovery limits
U	Compound was analyzed but not detected.		

American Analytical Laboratories, LLC.

Date: *08-Jul-13*

CLIENT: J.R. Holzmacher P.E. LLC
Work Order: 1307024
Project: 127-13 Merrick Boulevard

ANALYTICAL QC SUMMARY REPORT

TestCode: Full8260_AirBag

Sample ID: **LCS-40911** SampType: **LCS** TestCode: **Full8260_Air** Units: **ppbv** Prep Date: **7/3/2013** RunNo: **69342**
Client ID: **ZZZZZZ** Batch ID: **40911** TestNo: **SW8260C** **SW5030C** Analysis Date: **7/3/2013** SeqNo: **988989**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachloroethene	4800	1.0	7364	0	65.6	45	120				
Surr: 4-Bromofluorobenzene	7200		7026		102	68	126				
Surr: Dibromofluoromethane	10000		10820		95.1	70	126				
Surr: Toluene-d8	13000		12470		103	72	122				

Sample ID: **MB-40911** SampType: **MBLK** TestCode: **Full8260_Air** Units: **ppbv** Prep Date: **7/3/2013** RunNo: **69342**
Client ID: **ZZZZZZ** Batch ID: **40911** TestNo: **SW8260C** **SW5030C** Analysis Date: **7/3/2013** SeqNo: **988990**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	U	150									
1,1,1-Trichloroethane	U	180									
1,1,2,2-Tetrachloroethane	U	150									
1,1,2-Trichloro-1,2,2-trifluoroethane	U	130									
1,1,2-Trichloroethane	U	180									
1,1-Dichloroethane	U	250									
1,1-Dichloroethene	U	250									
1,1-Dichloropropene	U	220									
1,2,3-Trichlorobenzene	U	140									
1,2,3-Trichloropropane	U	170									
1,2,4,5-Tetramethylbenzene	U	180									
1,2,4-Trichlorobenzene	U	140									
1,2,4-Trimethylbenzene	U	200									
1,2-Dibromo-3-chloropropane	U	210									
1,2-Dibromoethane	U	130									
1,2-Dichlorobenzene	U	170									
1,2-Dichloroethane	U	130									
1,2-Dichloropropane	U	220									
1,3,5-Trimethylbenzene	U	200									
1,3-Dichlorobenzene	U	170									

Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection	LOQ	Limit of Quantitation
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits	U	Compound was analyzed but not dete

CLIENT: J.R. Holzmacher P.E. LLC
Work Order: 1307024
Project: 127-13 Merrick Boulevard

ANALYTICAL QC SUMMARY REPORT

TestCode: Full8260_AirBag

Sample ID: **MB-40911** SampType: **MBLK** TestCode: **Full8260_Air** Units: **ppbv** Prep Date: **7/3/2013** RunNo: **69342**
Client ID: **ZZZZZZ** Batch ID: **40911** TestNo: **SW8260C SW5030C** Analysis Date: **7/3/2013** SeqNo: **988990**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-dichloropropane	U	220									
1,4-Dichlorobenzene	U	170									
1,4-Dioxane	U	280									
2,2-Dichloropropane	U	220									
2-Butanone	U	850									
2-Chloroethyl vinyl ether	U	390									
2-Chlorotoluene	U	190									
2-Hexanone	U	850									
2-Propanol	U	410									
4-Chlorotoluene	U	190									
4-Isopropyltoluene	U	180									
4-Methyl-2-pentanone	U	610									
Acetone	U	1100									
Acrolein	U	2200									
Acrylonitrile	U	460									
Benzene	U	310									
Bromobenzene	U	160									
Bromochloromethane	U	500									
Bromodichloromethane	U	150									
Bromoform	U	97									
Bromomethane	U	260									
Carbon disulfide	U	320									
Carbon tetrachloride	U	160									
Chlorobenzene	U	220									
Chlorodifluoromethane	U	280									
Chloroethane	U	380									
Chloroform	U	200									
Chloromethane	U	480									
cis-1,2-Dichloroethene	U	250									
cis-1,3-Dichloropropene	U	250									
Dibromochloromethane	U	120									

Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection	LOQ	Limit of Quantitation
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits	U	Compound was analyzed but not dete

CLIENT: J.R. Holzmacher P.E. LLC
Work Order: 1307024
Project: 127-13 Merrick Boulevard

ANALYTICAL QC SUMMARY REPORT

TestCode: Full8260_AirBag

Sample ID: **MB-40911**	SampType: **MBLK**	TestCode: **Full8260_Air**	Units: **ppbv**	Prep Date: **7/3/2013**	RunNo: **69342**
Client ID: **ZZZZZZ**	Batch ID: **40911**	TestNo: **SW8260C**	**SW5030C**	Analysis Date: **7/3/2013**	SeqNo: **988990**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibromomethane	U	140									
Dichlorodifluoromethane	U	200									
Diisopropyl ether	U	240									
Ethanol	U	2600									
Ethyl acetate	U	280									
Ethylbenzene	U	230									
Freon-114	U	140									
Hexachlorobutadiene	U	94									
Isopropyl acetate	U	240									
Isopropylbenzene	U	200									
m,p-Xylene	U	460									
Methyl tert-butyl ether	U	280									
Methylene chloride	U	290									
n-Amyl acetate	U	190									
Naphthalene	U	190									
n-Butyl acetate	U	210									
n-Butylbenzene	U	180									
n-Propyl acetate	U	240									
n-Propylbenzene	U	200									
o-Xylene	U	230									
p-Diethylbenzene	U	180									
p-Ethyltoluene	U	200									
sec-Butylbenzene	U	180									
Styrene	U	240									
t-Butyl alcohol	U	330									
tert-Butylbenzene	U	180									
Tetrachloroethene	U	1.0									
Toluene	U	270									
trans-1,2-Dichloroethene	U	250									
trans-1,3-Dichloropropene	U	220									
Trichloroethene	U	190									

Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection	LOQ	Limit of Quantitation
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits	U	Compound was analyzed but not dete

CLIENT: J.R. Holzmacher P.E. LLC
Work Order: 1307024
Project: 127-13 Merrick Boulevard

ANALYTICAL QC SUMMARY REPORT

TestCode: Full8260_AirBag

Sample ID: **MB-40911** SampType: **MBLK** TestCode: **Full8260_Air** Units: **ppbv** Prep Date: **7/3/2013** RunNo: **69342**
Client ID: **ZZZZZZ** Batch ID: **40911** TestNo: **SW8260C** **SW5030C** Analysis Date: **7/3/2013** SeqNo: **988990**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichlorofluoromethane	U	180									
Vinyl acetate	U	280									
Vinyl chloride	U	390									
Surr: 4-Bromofluorobenzene	6800		7026		97.4	68	126				
Surr: Dibromofluoromethane	11000		10820		101	70	126				
Surr: Toluene-d8	12000		12470		95.4	72	122				

Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection	LOQ	Limit of Quantitation
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits	U	Compound was analyzed but not dete

AMERICAN ANALYTICAL LABORATORIES

NYSDOH 11418
NJDEP NY050
CTDOH PH-0205
PADEP 68-00573

Thursday, July 18, 2013

Jim DeMartinis
J.R. Holzmacher P.E. LLC
3555 Veterans Memorial Hwy., Suite A
Ronkonkoma, NY 11788

TEL: (631) 234-2220
FAX (631) 234-2221

RE: 127-13 Merrick Blvd., Queen, NY

Order No.: 1307084

Dear Jim DeMartinis:

American Analytical Laboratories, LLC. received 1 sample(s) on 7/17/2013 for the analyses presented in the following report.

Samples were analyzed in accordance with the test procedures documented on the chain of custody and detailed throughout the text of this report.

The results reported herein relate only to the items tested or to the samples as received by the laboratory. This report may not be reproduced, except in full, without the approval of American Analytical Laboratories, LLC and is not considered complete without a cover page and chain of custody documentation. The limits (LOQ) provided in the data package are analytical reporting limits and not Federal or Local mandated values to which the sample results should be compared.

There were no problems with the analyses and all data for associated QC met laboratory specifications. If there are any exceptions a Case Narrative is provided in the report or the data is qualified either on the sample results or in the QC section of the report. This package has been reviewed by American Analytical Laboratories' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. This report consists of 5 pages.

If you have any questions regarding these tests results, please do not hesitate to call (631) 454-6100 or email me directly at lbeyer@american-analytical.com.

Sincerely,

Lori Beyer
Lab Director

56 TOLEDO STREET • FARMINGDALE, NEW YORK 11735
(631) 454-6100 • FAX: (631) 454-8027

American Analytical Laboratories, LLC.

Date: *18-Jul-13*

CLIENT: J.R. Holzmacher P.E. LLC
Project: 127-13 Merrick Blvd., Queen, NY
Lab Order: 1307084

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date Collected	Date Received
1307084-01A	EF-1B	7/17/2013 10:00:00 AM	7/17/2013

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(631) 454-6100 • FAX (631) 454-8027
www.american-analytical.com

NYSDOH	11418
CTDOH	PH-0205
NJDEP	NY050
PADEP	68-573

CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

CLIENT NAME/ADDRESS: JR HOLZMACHER, 3555 VETERANS MEMORIAL HWY, RONKONKOMA, NY

CONTACT: JIM DE MARTINIS

SAMPLER (SIGNATURE): [signature]

SAMPLER NAME (PRINT): PHILIP HOFFKEN

SAMPLE(S) SEALED: YES / NO

CORRECT CONTAINER(S): YES / NO

TEMPERATURE (° C): 25

PROJECT LOCATION: 127-13 MERRICK BLVD, QUEEN, NY

LABORATORY ID# LAB USE ONLY	MATRIX/ TYPE	NO. OF CONTAINERS	SAMPLING DATE	SAMPLING TIME	SAMPLE # - LOCATION	ANALYSIS REQUIRED: ~~PERCHLORATE~~ (PERC) Tetrachloroethene	
1307084-01A	A	1	7/17/13	10:00	EF-1B	X	1-Tedlar

COMMENTS / INSTRUCTIONS

Samples must be on ICE (<6° C)

MATRIX S=SOIL; W=WATER; SL=SLUDGE; A=AIR; M=MISCELLANEOUS
TYPE G=GRAB; C=COMPOSITE

TURNAROUND REQUIRED: STANDARD ☒ (7-10 business days) STAT ☐ BY / /

E-MAIL ADDRESS FOR RESULTS:

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME
[signature]	DATE 7/17/13 TIME 1405	PHILIP HOFFKEN	P mass	DATE 7/17/13 TIME 2:05	P. mass
	DATE TIME			DATE TIME	

WHITE-OFFICE / CANARY-LAB / PINK-SAMPLE CUSTODIAN / GOLDENROD-CLIENT

American Analytical Laboratories, LLC.

Sample Receipt Checklist

Client Name **HOLZMACHER** Date and Time Receive **7/17/2013 2:41:44 PM**

Work Order Numbe **1307084** RcptNo: **1** Received by **PM**

COC_ID: CoolerID:

Checklist completed by Signature 7/17/13 Date Reviewed by Initials 7/17/13 Date

Matrix: Carrier name Courier

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Presen ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Presen ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Presen ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐	No ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☐

Adjusted? Checked b

Any No and/or NA (not applicable) response must be detailed in the comments section be

Client contacted Date contacted: Person contacted

Contacted by: Regarding:

Comments:

Corrective Action

American Analytical Laboratories, LLC.

Date: *18-Jul-13*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	EF-1B
Lab Order:	1307084	**Collection Date:**	7/17/2013 10:00:00 AM
Project:	127-13 Merrick Blvd., Queen, NY	**Matrix:**	AIR
Lab ID:	1307084-01A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260 - AIR			**SW8260C**		**SW5030C**		Analyst: **LA**
Tetrachloroethene	3400	0.2	1.0		ppbv	1	7/17/2013 6:34:00 PM
Surr: 4-Bromofluorobenzene	91.4	0	68-126		%REC	1	7/17/2013 6:34:00 PM
Surr: Dibromofluoromethane	108	0	70-126		%REC	1	7/17/2013 6:34:00 PM
Surr: Toluene-d8	96.7	0	72-122		%REC	1	7/17/2013 6:34:00 PM

American Analytical Laboratories, LLC., 56 Toledo Street, Farmingdale, NY, Zip - 11735
Tel - 6314546100 Fax - 6314548027 www.American-Analytical.com

Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte
E	Value above quantitation range	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection
LOQ	Limit of Quantitation	N	Parameter not offered by NY ELAP
P	>40% diff for detected conc between the two GC columns	S	Spike Recovery outside accepted recovery limits
U	Compound was analyzed but not detected.		

American Analytical Laboratories, LLC.

Date: *18-Jul-13*

CLIENT: J.R. Holzmacher P.E. LLC
Work Order: 1307084
Project: 127-13 Merrick Blvd., Queen, NY

ANALYTICAL QC SUMMARY REPORT

TestCode: TetraTri8260_Air

Sample ID: **LCS-41052** SampType: **LCS** TestCode: **TetraTri8260_** Units: **ppbv** Prep Date: **7/17/2013** RunNo: **69517**
Client ID: **ZZZZZZ** Batch ID: **41052** TestNo: **SW8260C SW5030C** Analysis Date: **7/17/2013** SeqNo: **990991**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	6300		7026		89.4	68	126				
Surr: Dibromofluoromethane	11000		10820		100	70	126				
Surr: Toluene-d8	13000		12470		102	72	122				

Sample ID: **MB-41052** SampType: **MBLK** TestCode: **TetraTri8260_** Units: **ppbv** Prep Date: **7/17/2013** RunNo: **69517**
Client ID: **ZZZZZZ** Batch ID: **41052** TestNo: **SW8260C SW5030C** Analysis Date: **7/17/2013** SeqNo: **990992**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	U	250									
Tetrachloroethene	U	1.0									
Surr: 4-Bromofluorobenzene	6300		7026		89.7	68	126				
Surr: Dibromofluoromethane	12000		10820		107	70	126				
Surr: Toluene-d8	12000		12470		97.2	72	122				

Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection	LOQ	Limit of Quantitation
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits	U	Compound was analyzed but not dete

AMERICAN ANALYTICAL LABORATORIES

NYSDOH 11418
NJDEP NY050
CTDOH PH-0205
PADEP 68-00573

Wednesday, August 28, 2013

Jim DeMartinis
J.R. Holzmacher P.E. LLC
3555 Veterans Memorial Hwy., Suite A
Ronkonkoma, NY 11788

TEL: (631) 234-2220
FAX (631) 234-2221

RE: 127-13 Merrick Blvd., Queen, NY

Order No.: 1308139

Dear Jim DeMartinis:

American Analytical Laboratories, LLC. received 1 sample(s) on 8/23/2013 for the analyses presented in the following report.

Samples were analyzed in accordance with the test procedures documented on the chain of custody and detailed throughout the text of this report.

The results reported herein relate only to the items tested or to the samples as received by the laboratory. This report may not be reproduced, except in full, without the approval of American Analytical Laboratories, LLC and is not considered complete without a cover page and chain of custody documentation. The limits (LOQ) provided in the data package are analytical reporting limits and not Federal or Local mandated values to which the sample results should be compared.

There were no problems with the analyses and all data for associated QC met laboratory specifications. If there are any exceptions a Case Narrative is provided in the report or the data is qualified either on the sample results or in the QC section of the report. This package has been reviewed by American Analytical Laboratories' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. This report consists of 6 pages.

If you have any questions regarding these tests results, please do not hesitate to call (631) 454-6100 or email me directly at lbeyer@american-analytical.com.

Sincerely,

Lori Beyer
Lab Director

56 TOLEDO STREET • FARMINGDALE, NEW YORK 11735
(631) 454-6100 • FAX: (631) 454-8027

American Analytical Laboratories, LLC.

Date: *28-Aug-13*

CLIENT: J.R. Holzmacher P.E. LLC
Project: 127-13 Merrick Blvd., Queen, NY
Lab Order: 1308139

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date Collected	Date Received
1308139-01A	EF-2A	8/23/2013 1:40:00 PM	8/23/2013

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NYSDOH	11418
CTDOH	PH-0205
NJDEP	NY050
PADEP	68-573

CHAIN OF CUSTODY / REQUEST FOR ANALYSIS DOCUMENT

CLIENT NAME/ADDRESS: JR HOLZMACHER

CONTACT: JIM DE MARTINIS

SAMPLER (SIGNATURE):

SAMPLER NAME (PRINT): PHILIP HOFFKEN JR

SAMPLE(S) SEALED: YES / NO

CORRECT CONTAINER(S): YES / NO

TEMPERATURE (° C): 25

PROJECT LOCATION: 127-13 MERRICK BLVD, QUEENS NY

ANALYSIS REQUIRED: PERC

LABORATORY ID# LAB USE ONLY	MATRIX/ TYPE	NO. OF CONTAINERS	SAMPLING DATE	SAMPLING TIME	SAMPLE # - LOCATION	PERC	
1308139-01A	A	1	8/23/13	1340	EF-2A	X	1-Tedlar

COMMENTS / INSTRUCTIONS

Samples must be on ICE (<6° C)

MATRIX S=SOIL; W=WATER; SL=SLUDGE; A=AIR; M=MISCELLANEOUS
TYPE G=GRAB; C=COMPOSITE

TURNAROUND REQUIRED: STANDARD ☒ (7-10 business days) STAT ☐ BY / /

E-MAIL ADDRESS FOR RESULTS:

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME
	8/23/13 1440	PHILIP HOFFKEN	C Genara	8/23/13 1440	Cate Ferrare
RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME

WHITE-OFFICE / CANARY-LAB / PINK-SAMPLE CUSTODIAN / GOLDENROD-CLIENT

American Analytical Laboratories, LLC.

Sample Receipt Checklist

Client Name **HOLZMACHER** Date and Time Receive **8/23/2013 2:09:25 PM**

Work Order Numbe **1308139** RcptNo: **1** Received by **CF**

COC_ID: CoolerID:

Checklist completed by Signature 8/23/13 Date Reviewed by Initials 8/23/13 Date

Matrix: Carrier name Courier

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Presen ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Presen ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Presen ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐	No ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☐

Adjusted? Checked b

Any No and/or NA (not applicable) response must be detailed in the comments section be

Client contacted Date contacted: Person contacted

Contacted by: Regarding:

Comments:

Corrective Action

American Analytical Laboratories, LLC.

Date: *28-Aug-13*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	EF-2A
Lab Order:	1308139	**Collection Date:**	8/23/2013 1:40:00 PM
Project:	127-13 Merrick Blvd., Queen, NY	**Matrix:**	AIR
Lab ID:	1308139-01A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260 - AIR			**SW8260C**		**SW5030C**		Analyst: **LA**
Tetrachloroethene	1400	0.2	1.0		ppbv	1	8/24/2013 6:21:00 AM
Surr: 4-Bromofluorobenzene	91.3	0	68-126		%REC	1	8/24/2013 6:21:00 AM
Surr: Dibromofluoromethane	103	0	70-126		%REC	1	8/24/2013 6:21:00 AM
Surr: Toluene-d8	91.1	0	72-122		%REC	1	8/24/2013 6:21:00 AM

American Analytical Laboratories, LLC., 56 Toledo Street, Farmingdale, NY, Zip - 11735
Tel - 6314546100 Fax - 6314548027 www.American-Analytical.com

Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte
E	Value above quantitation range	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection
LOQ	Limit of Quantitation	N	Parameter not offered by NY ELAP
P	>40% diff for detected conc between the two GC columns	S	Spike Recovery outside accepted recovery limits
U	Compound was analyzed but not detected.		

American Analytical Laboratories, LLC.

Date: *28-Aug-13*

CLIENT: J.R. Holzmacher P.E. LLC
Work Order: 1308139
Project: 127-13 Merrick Blvd., Queen, NY

ANALYTICAL QC SUMMARY REPORT

TestCode: TetraTri8260_Air

Sample ID: **LCS-41527** SampType: **LCS** TestCode: **TetraTri8260_** Units: **ppbv** Prep Date: **8/23/2013** RunNo: **70092**
Client ID: **ZZZZZZ** Batch ID: **41527** TestNo: **SW8260C SW5030C** Analysis Date: **8/24/2013** SeqNo: **999492**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	11000	1.0	12600	0	88.1	70	130				
Tetrachloroethene	5900	1.0	7364	0	80.4	70	130				
Surr: 4-Bromofluorobenzene	6700		7026		95.5	68	126				
Surr: Dibromofluoromethane	11000		10820		99.0	70	126				
Surr: Toluene-d8	13000		12470		102	72	122				

Sample ID: **MB-41527** SampType: **MBLK** TestCode: **TetraTri8260_** Units: **ppbv** Prep Date: **8/23/2013** RunNo: **70092**
Client ID: **ZZZZZZ** Batch ID: **41527** TestNo: **SW8260C SW5030C** Analysis Date: **8/24/2013** SeqNo: **999493**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	U	1.0									
Tetrachloroethene	U	1.0									
Surr: 4-Bromofluorobenzene	6500		7026		93.2	68	126				
Surr: Dibromofluoromethane	13000		10820		118	70	126				
Surr: Toluene-d8	11000		12470		91.0	72	122				

Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection	LOQ	Limit of Quantitation
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits	U	Compound was analyzed but not dete

American Analytical Laboratories, LLC.

Date: *28-Aug-13*

CLIENT: J.R. Holzmacher P.E. LLC
Work Order: 1308139
Project: 127-13 Merrick Blvd., Queen, NY

ANALYTICAL QC SUMMARY REPORT

TestCode: TetraTri8260_Air

Sample ID: **1308139-01A-MS** SampType: **MS** TestCode: **TetraTri8260_** Units: **ppbv** Prep Date: **8/23/2013** RunNo: **70092**
Client ID: **EF-2A** Batch ID: **41527** TestNo: **SW8260C SW5030C** Analysis Date: **8/24/2013** SeqNo: **999495**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachloroethene	9600	1.0	7364	1389	111	70	130				
Surr: 4-Bromofluorobenzene	7000		7026		99.7	68	126				
Surr: Dibromofluoromethane	12000		10820		110	70	126				
Surr: Toluene-d8	12000		12470		97.8	72	122				

Sample ID: **1308139-01A-MSD** SampType: **MSD** TestCode: **TetraTri8260_** Units: **ppbv** Prep Date: **8/23/2013** RunNo: **70092**
Client ID: **EF-2A** Batch ID: **41527** TestNo: **SW8260C SW5030C** Analysis Date: **8/24/2013** SeqNo: **999496**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachloroethene	8600	1.0	7364	1389	98.2	70	130	9552	10.3	20	
Surr: 4-Bromofluorobenzene	6700		7026		95.2	68	126		0	0	
Surr: Dibromofluoromethane	12000		10820		109	70	126		0	0	
Surr: Toluene-d8	13000		12470		102	72	122		0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	C	Calibration acceptability criteria exceeded for this analyte	H	Holding time was exceeded
J	Analyte detected below quantitation limits	LOD	Limit of Detection	LOQ	Limit of Quantitation
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits	U	Compound was analyzed but not dete

Appendix F

DAR-1 Calculations

127-13 Merrick Blvd.
Queens, New York 11413
Site Code 241128

Division of Air Policy DAR-1

Chemical Compound	Sample Location	Sample Date	Stack Height	Outlet Concentration	Emission Flow Rate Measured		Outlet Concentration (Qp)	Outlet Concentration (Qa)	Max Annual Impact (Ca)	Max Potential Impact (Cp)	Max Short-term Impact (Cst)	DAR-1 Standards		Emission Restrication Required (if Cp > AGC and Ca < AGC)	SGC Emission Exceedance (if Cst > SGC)	AGC Emission Exceedance (if Ca > AGC)	Annual Cavity Impact (C_C)	Short-Term Cavity Impact (C_{CST})
			(ft)	(ug/m3)	(ft3/min)	(m3/min)	(lbs/hr)	(lbs/yr)	(ug/m3)	(ug/m3)	(ug/m3)	SGC (ug/m3)	AGC (ug/m3)				(ug/m3)	(ug/m3)
Tetrachloroethene(PERC)	**EF-1**	**9/26/2013**	30	2373	300	8.49504	0.002666516	23.35868155	0.066539	0.066463	4.320103	1,000	1.00	NO	NO	NO	0.100442	0.602632652
	EF-2	**9/26/2013**	30	1559	300	8.49504	0.001751833	15.34605332	0.043714	0.043665	2.838196	1,000	1.00	NO	NO	NO	0.065988	0.395914161
	Combined	**9/26/2013**	30	3932	300	8.49504	0.004418349	38.70473488	0.110254	0.110128	7.158299	1,000	1.00	NO	NO	NO	0.16643	0.998546813

	(ft)
Building Height (h_b) =	20
Shortest Distance to Property Line (D_{pl}) =	10
Building Cavity Height (h_c) =	30
Physical Stack Height (h_s) =	30

Appendix G

Off-Site Ambient Air and Sub-Slab Vapor Analytical Data Report

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

DATA PACKAGE

VOLATILE ORGANICS

PROJECT NAME : KOPTD 12-01

J.R.HOLZMACHER P.E., LLC

300 Wheeler Avenue

Suite 402

Hauppauge, NY - 11788

Phone No: 631-234-2220

ORDER ID : D5213

ATTENTION : Heather Sonnenberg

ACCREDITED IN ACCORDANCE WITH nelac

DoD ELAP

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Cover Page

Order ID : D5213

Project ID : KoptD 12-01

Client : J.R.Holzmacher P.E., LLC

Lab Sample Number	Client Sample Number
D5213-01	VP-1(12-14-12)
D5213-02	VP-2(12-14-12)
D5213-03	VP-3(12-14-12)

I certify that the data package is in compliance with the terms and conditions of the contract,both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 1/3/2013

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CHEMTECH
284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CASE NARRATIVE

J.R.Holzmacher P.E., LLC
Project Name: KoptD 12-01
Project # N/A
Chemtech Project # D5213
Test Name: TO-15

A. Number of Samples and Date of Receipt:
3 Air samples were received on 12/18/2012.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: SUMMA Canister Rental and TO-15. This data package contains results for TO-15.

C. Analytical Techniques:
The analysis performed on instrument MSVOA_L were done using GC column RTX-1, which is 60 meters, 0.32 mm id, 1.0 um df, Restek Cat. #10157. The Trap was supplied by Entech, glass bead and Tenax , Entech 7100A Preconcentrator.The analysis of TO-15 was based on method TO-15.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The Blank Spike met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .
The Tuning criteria met requirements.

E. Additional Comments:

F. Manual Integration Comments:

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

CHEMTECH
284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 922

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value**.** This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: D5213

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	✓
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

1st Level QA Review Signature: HIRAL PATEL **Date:** 01/03/2013

2nd Level QA Review Signature: _____ **Date:** _____

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

LAB CHRONICLE

OrderID:	D5213	**OrderDate:**	12/18/2012 9:55:56 AM
Client:	J.R.Holzmacher P.E., LLC	**Project:**	KoptD 12-01
Contact:	Heather Sonnenberg	**Location:**	Air Lab

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
D5213-01	**VP-1(12-14-12)**	**AIR**			**12/15/12**			**12/18/12**
			TO-15	TO-15			12/19/12	
D5213-02	**VP-2(12-14-12)**	**AIR**			**12/15/12**			**12/18/12**
			TO-15	TO-15			12/19/12	
D5213-03	**VP-3(12-14-12)**	**AIR**			**12/15/12**			**12/18/12**
			TO-15	TO-15			12/19/12	

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: D5213

Client: J.R.Holzmacher P.E., LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID:	**VP-1(12-14-12)**								
D5213-01	VP-1(12-14-12)	AIR	Dichlorodifluoromethane	0.30		0.040	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	Chloromethane	0.33		0.060	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	Trichlorofluoromethane	0.20		0.040	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	Heptane	0.16		0.060	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	Acetone	4.65		0.100	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	Methylene Chloride	1.39		0.050	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	2-Butanone	0.44		0.100	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	2,2,4-Trimethylpentane	0.22		0.040	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	Benzene	0.38		0.040	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	Toluene	1.03		0.050	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	Ethyl Benzene	0.11		0.080	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	m/p-Xylene	0.40		0.110	0.1	0.20	ppbv
D5213-01	VP-1(12-14-12)	AIR	o-Xylene	0.15		0.070	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	1,2,4-Trimethylbenzene	0.11		0.100	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	Hexane	1.25		0.040	0.05	0.10	ppbv
			Total Voc :	**11.12**					
			Total Concentration:	**11.12**					
Client ID:	**VP-2(12-14-12)**								
D5213-02	VP-2(12-14-12)	AIR	Dichlorodifluoromethane	0.30		0.040	0.05	0.10	ppbv
D5213-02	VP-2(12-14-12)	AIR	Chloromethane	0.31		0.060	0.05	0.10	ppbv
D5213-02	VP-2(12-14-12)	AIR	Trichlorofluoromethane	0.20		0.040	0.05	0.10	ppbv
D5213-02	VP-2(12-14-12)	AIR	Acetone	2.53		0.100	0.05	0.10	ppbv
D5213-02	VP-2(12-14-12)	AIR	Methylene Chloride	0.26		0.050	0.05	0.10	ppbv
D5213-02	VP-2(12-14-12)	AIR	2-Butanone	0.22		0.100	0.05	0.10	ppbv
D5213-02	VP-2(12-14-12)	AIR	2,2,4-Trimethylpentane	0.33		0.040	0.05	0.10	ppbv
D5213-02	VP-2(12-14-12)	AIR	Benzene	0.26		0.040	0.05	0.10	ppbv
D5213-02	VP-2(12-14-12)	AIR	Trichloroethene	0.10		0.030	0.015	0.03	ppbv
D5213-02	VP-2(12-14-12)	AIR	Toluene	0.46		0.050	0.05	0.10	ppbv
D5213-02	VP-2(12-14-12)	AIR	Tetrachloroethene	0.17		0.030	0.015	0.03	ppbv
D5213-02	VP-2(12-14-12)	AIR	Hexane	0.29		0.040	0.05	0.10	ppbv
			Total Voc :	**5.43**					
			Total Concentration:	**5.43**					
Client ID:	**VP-3(12-14-12)**								
D5213-03	VP-3(12-14-12)	AIR	Dichlorodifluoromethane	0.31		0.040	0.05	0.10	ppbv
D5213-03	VP-3(12-14-12)	AIR	Chloromethane	0.33		0.060	0.05	0.10	ppbv
D5213-03	VP-3(12-14-12)	AIR	Trichlorofluoromethane	0.22		0.040	0.05	0.10	ppbv
D5213-03	VP-3(12-14-12)	AIR	Heptane	0.10	J	0.060	0.05	0.10	ppbv

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: D5213

Client: J.R.Holzmacher P.E., LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D5213-03	VP-3(12-14-12)	AIR	Acetone	3.96		0.100	0.05	0.10	ppbv
D5213-03	VP-3(12-14-12)	AIR	Methylene Chloride	2.81		0.050	0.05	0.10	ppbv
D5213-03	VP-3(12-14-12)	AIR	2-Butanone	1.41		0.100	0.05	0.10	ppbv
D5213-03	VP-3(12-14-12)	AIR	Tetrahydrofuran	0.25		0.080	0.05	0.10	ppbv
D5213-03	VP-3(12-14-12)	AIR	2,2,4-Trimethylpentane	0.15		0.040	0.05	0.10	ppbv
D5213-03	VP-3(12-14-12)	AIR	Benzene	0.30		0.040	0.05	0.10	ppbv
D5213-03	VP-3(12-14-12)	AIR	Toluene	0.58		0.050	0.05	0.10	ppbv
D5213-03	VP-3(12-14-12)	AIR	Tetrachloroethene	0.80		0.030	0.015	0.03	ppbv
D5213-03	VP-3(12-14-12)	AIR	m/p-Xylene	0.26		0.110	0.1	0.20	ppbv
D5213-03	VP-3(12-14-12)	AIR	Hexane	0.70		0.040	0.05	0.10	ppbv
			Total Voc :	**12.18**					
			Total Concentration:	**12.18**					

Chemical	CAS Number	Molecular Weight	Insert Results in ppbv	Q	Generates Results in ug/m3	QAS Decision	Foot-Notes
Dichlorodifluoromethane	75-71-8	120.9	0.3		1.48		
tert-Butyl alcohol	75-65-0	74.12	0.1	U	0.3		
Chloromethane	74-87-3	50.49	0.33		0.68		
Methyl Methacrylate	80-62-6	100.117	0.1	U	0.41		
Vinyl Chloride	75-01-4	62.5	0.03	U	0.08		
Bromomethane	74-83-9	94.94	0.03	U	0.12		
Chloroethane	75-00-3	64.52	0.07	U	0.18		
Trichlorofluoromethane	75-69-4	137.4	0.2		1.12		
Dichlorotetrafluoroethane	76-14-2	170.9	0.04	U	0.28		
1,1,2-Trichlorotrifluoroethane	76-13-1	187.4	0.04	U	0.31		
Bromoethene	593-60-2	106.9	0.03	U	0.13		
Heptane	142-82-5	100.2	0.16		0.66		
1,1-Dichloroethene	75-35-4	96.94	0.05	U	0.2		
Acetone	67-64-1	58.08	4.65		11.05		
Carbon Disulfide	75-15-0	76.14	0.05	U	0.16		
Methyl tert-Butyl Ether	1634-04-4	88.15	0.05	U	0.18		
Methylene Chloride	75-09-2	84.94	1.39		4.83		
Allyl Chloride	107-05-1	76.53	0.05	U	0.16		
trans-1,2-Dichloroethene	156-60-5	96.94	0.06	U	0.24		
1,1-Dichloroethane	75-34-3	98.96	0.04	U	0.16		
Cyclohexane	110-82-7	84.16	0.08	U	0.28		
2-Butanone	78-93-3	72.11	0.44		1.3		
Carbon Tetrachloride	56-23-5	153.8	0.03	U	0.19		
cis-1,2-Dichloroethene	156-59-2	96.94	0.06	U	0.24		
Chloroform	67-66-3	119.4	0.02	U	0.1		
1,4-Dioxane	123-91-1	88.12	0.09	U	0.32		
1,1,1-Trichloroethane	71-55-6	133.4	0.03	U	0.16		
Tetrahydrofuran	109-99-9	72.11	0.08	U	0.24		
2,2,4-Trimethylpentane	540-84-1	114.2	0.22		1.03		
Benzene	71-43-2	78.11	0.38		1.21		
1,2-Dichloroethane	107-06-2	98.96	0.07	U	0.28		
Trichloroethene	79-01-6	131.4	0.03	U	0.16		
1,2-Dichloropropane	78-87-5	113	0.06	U	0.28		
Bromodichloromethane	75-27-4	163.8	0.05	U	0.33		
4-Methyl-2-Pentanone	108-10-1	100.2	0.06	U	0.25		
Toluene	108-88-3	92.14	1.03		3.88		
t-1,3-Dichloropropene	10061-02-6	111	0.07	U	0.32		
cis-1,3-Dichloropropene	10061-01-5	111	0.06	U	0.27		
1,1,2-Trichloroethane	79-00-5	133.4	0.08	U	0.44		
Dibromochloromethane	124-48-1	208.3	0.05	U	0.43		
1,2-Dibromoethane	106-93-4	187.9	0.07	U	0.54		
Tetrachloroethene	127-18-4	165.8	0.03	U	0.2		
Chlorobenzene	108-90-7	112.6	0.09	U	0.41		
Ethyl Benzene	100-41-4	106.2	0.11		0.48		
m/p-Xylene	179601-23-1	106.2	0.4		1.74		
o-Xylene	95-47-6	106.2	0.15		0.65		

Styrene	100-42-5	104.1	0.07	U	0.3		
Bromoform	75-25-2	252.8	0.05	U	0.52		
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.1	U	0.69		
2-Chlorotoluene	95-49-8	126.6	0.1	U	0.52		
1,3,5-Trimethylbenzene	108-67-8	120.2	0.09	U	0.44		
1,2,4-Trimethylbenzene	95-63-6	120.2	0.11		0.54		
4-Ethyltoluene	622-96-8	120.2	0.08	U	0.39		
1,3-Dichlorobenzene	541-73-1	147	0.08	U	0.48		
1,4-Dichlorobenzene	106-46-7	147	0.06	U	0.36		
1,2-Dichlorobenzene	95-50-1	147	0.07	U	0.42		
1,2,4-Trichlorobenzene	120-82-1	181.5	0.04	U	0.3		
Hexachloro-1,3-Butadiene	87-68-3	260.8	0.08	U	0.85		
1,3-Butadiene	106-99-0	54.09	0.09	U	0.2		
Hexane	110-54-3	86.17	1.25		4.41		

Chemical	CAS Number	Molecular Weight	Insert Results in ppbv	Q	Generates Results in ug/m3	QAS Decision	Foot-Notes
Dichlorodifluoromethane	75-71-8	120.9	0.3		1.48		
tert-Butyl alcohol	75-65-0	74.12	0.1	U	0.3		
Chloromethane	74-87-3	50.49	0.31		0.64		
Methyl Methacrylate	80-62-6	100.117	0.1	U	0.41		
Vinyl Chloride	75-01-4	62.5	0.03	U	0.08		
Bromomethane	74-83-9	94.94	0.03	U	0.12		
Chloroethane	75-00-3	64.52	0.07	U	0.18		
Trichlorofluoromethane	75-69-4	137.4	0.2		1.12		
Dichlorotetrafluoroethane	76-14-2	170.9	0.04	U	0.28		
1,1,2-Trichlorotrifluoroethane	76-13-1	187.4	0.04	U	0.31		
Bromoethene	593-60-2	106.9	0.03	U	0.13		
Heptane	142-82-5	100.2	0.06	U	0.25		
1,1-Dichloroethene	75-35-4	96.94	0.05	U	0.2		
Acetone	67-64-1	58.08	2.53		6.01		
Carbon Disulfide	75-15-0	76.14	0.05	U	0.16		
Methyl tert-Butyl Ether	1634-04-4	88.15	0.05	U	0.18		
Methylene Chloride	75-09-2	84.94	0.26		0.9		
Allyl Chloride	107-05-1	76.53	0.05	U	0.16		
trans-1,2-Dichloroethene	156-60-5	96.94	0.06	U	0.24		
1,1-Dichloroethane	75-34-3	98.96	0.04	U	0.16		
Cyclohexane	110-82-7	84.16	0.08	U	0.28		
2-Butanone	78-93-3	72.11	0.22		0.65		
Carbon Tetrachloride	56-23-5	153.8	0.03	U	0.19		
cis-1,2-Dichloroethene	156-59-2	96.94	0.06	U	0.24		
Chloroform	67-66-3	119.4	0.02	U	0.1		
1,4-Dioxane	123-91-1	88.12	0.09	U	0.32		
1,1,1-Trichloroethane	71-55-6	133.4	0.03	U	0.16		
Tetrahydrofuran	109-99-9	72.11	0.08	U	0.24		
2,2,4-Trimethylpentane	540-84-1	114.2	0.33		1.54		
Benzene	71-43-2	78.11	0.26		0.83		
1,2-Dichloroethane	107-06-2	98.96	0.07	U	0.28		
Trichloroethene	79-01-6	131.4	0.1		0.54		
1,2-Dichloropropane	78-87-5	113	0.06	U	0.28		
Bromodichloromethane	75-27-4	163.8	0.05	U	0.33		
4-Methyl-2-Pentanone	108-10-1	100.2	0.06	U	0.25		
Toluene	108-88-3	92.14	0.46		1.73		
t-1,3-Dichloropropene	10061-02-6	111	0.07	U	0.32		
cis-1,3-Dichloropropene	10061-01-5	111	0.06	U	0.27		
1,1,2-Trichloroethane	79-00-5	133.4	0.08	U	0.44		
Dibromochloromethane	124-48-1	208.3	0.05	U	0.43		
1,2-Dibromoethane	106-93-4	187.9	0.07	U	0.54		
Tetrachloroethene	127-18-4	165.8	0.17		1.15		
Chlorobenzene	108-90-7	112.6	0.09	U	0.41		
Ethyl Benzene	100-41-4	106.2	0.08	U	0.35		
m/p-Xylene	179601-23-1	106.2	0.11	U	0.48		
o-Xylene	95-47-6	106.2	0.07	U	0.3		

Styrene	100-42-5	104.1	0.07	U	0.3		
Bromoform	75-25-2	252.8	0.05	U	0.52		
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.1	U	0.69		
2-Chlorotoluene	95-49-8	126.6	0.1	U	0.52		
1,3,5-Trimethylbenzene	108-67-8	120.2	0.09	U	0.44		
1,2,4-Trimethylbenzene	95-63-6	120.2	0.1	U	0.49		
4-Ethyltoluene	622-96-8	120.2	0.08	U	0.39		
1,3-Dichlorobenzene	541-73-1	147	0.08	U	0.48		
1,4-Dichlorobenzene	106-46-7	147	0.06	U	0.36		
1,2-Dichlorobenzene	95-50-1	147	0.07	U	0.42		
1,2,4-Trichlorobenzene	120-82-1	181.5	0.04	U	0.3		
Hexachloro-1,3-Butadiene	87-68-3	260.8	0.08	U	0.85		
1,3-Butadiene	106-99-0	54.09	0.09	U	0.2		
Hexane	110-54-3	86.17	0.29		1.02		

Chemical	CAS Number	Molecular Weight	Insert Results in ppbv	Q	Generates Results in ug/m3	QAS Decision	Foot-Notes
Dichlorodifluoromethane	75-71-8	120.9	0.31		1.53		
tert-Butyl alcohol	75-65-0	74.12	0.1	U	0.3		
Chloromethane	74-87-3	50.49	0.33		0.68		
Methyl Methacrylate	80-62-6	100.117	0.1	U	0.41		
Vinyl Chloride	75-01-4	62.5	0.03	U	0.08		
Bromomethane	74-83-9	94.94	0.03	U	0.12		
Chloroethane	75-00-3	64.52	0.07	U	0.18		
Trichlorofluoromethane	75-69-4	137.4	0.22		1.24		
Dichlorotetrafluoroethane	76-14-2	170.9	0.04	U	0.28		
1,1,2-Trichlorotrifluoroethane	76-13-1	187.4	0.04	U	0.31		
Bromoethene	593-60-2	106.9	0.03	U	0.13		
Heptane	142-82-5	100.2	0.1	J	0.41		
1,1-Dichloroethene	75-35-4	96.94	0.05	U	0.2		
Acetone	67-64-1	58.08	3.96		9.41		
Carbon Disulfide	75-15-0	76.14	0.05	U	0.16		
Methyl tert-Butyl Ether	1634-04-4	88.15	0.05	U	0.18		
Methylene Chloride	75-09-2	84.94	2.81		9.76		
Allyl Chloride	107-05-1	76.53	0.05	U	0.16		
trans-1,2-Dichloroethene	156-60-5	96.94	0.06	U	0.24		
1,1-Dichloroethane	75-34-3	98.96	0.04	U	0.16		
Cyclohexane	110-82-7	84.16	0.08	U	0.28		
2-Butanone	78-93-3	72.11	1.41		4.16		
Carbon Tetrachloride	56-23-5	153.8	0.03	U	0.19		
cis-1,2-Dichloroethene	156-59-2	96.94	0.06	U	0.24		
Chloroform	67-66-3	119.4	0.02	U	0.1		
1,4-Dioxane	123-91-1	88.12	0.09	U	0.32		
1,1,1-Trichloroethane	71-55-6	133.4	0.03	U	0.16		
Tetrahydrofuran	109-99-9	72.11	0.25		0.74		
2,2,4-Trimethylpentane	540-84-1	114.2	0.15		0.7		
Benzene	71-43-2	78.11	0.3		0.96		
1,2-Dichloroethane	107-06-2	98.96	0.07	U	0.28		
Trichloroethene	79-01-6	131.4	0.03	U	0.16		
1,2-Dichloropropane	78-87-5	113	0.06	U	0.28		
Bromodichloromethane	75-27-4	163.8	0.05	U	0.33		
4-Methyl-2-Pentanone	108-10-1	100.2	0.06	U	0.25		
Toluene	108-88-3	92.14	0.58		2.19		
t-1,3-Dichloropropene	10061-02-6	111	0.07	U	0.32		
cis-1,3-Dichloropropene	10061-01-5	111	0.06	U	0.27		
1,1,2-Trichloroethane	79-00-5	133.4	0.08	U	0.44		
Dibromochloromethane	124-48-1	208.3	0.05	U	0.43		
1,2-Dibromoethane	106-93-4	187.9	0.07	U	0.54		
Tetrachloroethene	127-18-4	165.8	0.8		5.42		
Chlorobenzene	108-90-7	112.6	0.09	U	0.41		
Ethyl Benzene	100-41-4	106.2	0.08	U	0.35		
m/p-Xylene	179601-23-1	106.2	0.26		1.13		
o-Xylene	95-47-6	106.2	0.07	U	0.3		

Styrene	100-42-5	104.1	0.07	U	0.3		
Bromoform	75-25-2	252.8	0.05	U	0.52		
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.1	U	0.69		
2-Chlorotoluene	95-49-8	126.6	0.1	U	0.52		
1,3,5-Trimethylbenzene	108-67-8	120.2	0.09	U	0.44		
1,2,4-Trimethylbenzene	95-63-6	120.2	0.1	U	0.49		
4-Ethyltoluene	622-96-8	120.2	0.08	U	0.39		
1,3-Dichlorobenzene	541-73-1	147	0.08	U	0.48		
1,4-Dichlorobenzene	106-46-7	147	0.06	U	0.36		
1,2-Dichlorobenzene	95-50-1	147	0.07	U	0.42		
1,2,4-Trichlorobenzene	120-82-1	181.5	0.04	U	0.3		
Hexachloro-1,3-Butadiene	87-68-3	260.8	0.08	U	0.85		
1,3-Butadiene	106-99-0	54.09	0.09	U	0.2		
Hexane	110-54-3	86.17	0.7		2.47		

SAMPLE DATA

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/15/12
Project:	KoptD 12-01	Date Received:	12/18/12
Client Sample ID:	VP-1(12-14-12)	SDG No.:	D5213
Lab Sample ID:	D5213-01	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL018448.D	1		12/19/12	VL121912

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	0.3	1.48		0.04	0.05	0.1	ppbv
75-65-0	tert-Butyl alcohol	0.1	0.3	U	0.1	0.1	0.1	ppbv
74-87-3	Chloromethane	0.33	0.68		0.06	0.05	0.1	ppbv
80-62-6	Methyl Methacrylate	0.1	0.41	U	0.1	0.1	0.1	ppbv
75-01-4	Vinyl Chloride	0.03	0.08	U	0.03	0.03	0.03	ppbv
74-83-9	Bromomethane	0.03	0.12	U	0.03	0.05	0.1	ppbv
75-00-3	Chloroethane	0.07	0.18	U	0.07	0.05	0.1	ppbv
75-69-4	Trichlorofluoromethane	0.2	1.12		0.04	0.05	0.1	ppbv
76-14-2	Dichlorotetrafluoroethane	0.04	0.28	U	0.04	0.05	0.1	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.04	0.31	U	0.04	0.05	0.1	ppbv
593-60-2	Bromoethene	0.03	0.13	U	0.03	0.05	0.1	ppbv
142-82-5	Heptane	0.16	0.66		0.06	0.05	0.1	ppbv
75-35-4	1,1-Dichloroethene	0.05	0.2	U	0.05	0.05	0.1	ppbv
67-64-1	Acetone	4.65	11.0		0.1	0.1	0.1	ppbv
75-15-0	Carbon Disulfide	0.05	0.16	U	0.05	0.05	0.1	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.05	0.18	U	0.05	0.05	0.1	ppbv
75-09-2	Methylene Chloride	1.39	4.83		0.05	0.05	0.1	ppbv
107-05-1	Allyl Chloride	0.05	0.16	U	0.05	0.05	0.1	ppbv
156-60-5	trans-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
75-34-3	1,1-Dichloroethane	0.04	0.16	U	0.04	0.05	0.1	ppbv
110-82-7	Cyclohexane	0.08	0.28	U	0.08	0.05	0.1	ppbv
78-93-3	2-Butanone	0.44	1.3		0.1	0.1	0.1	ppbv
56-23-5	Carbon Tetrachloride	0.03	0.19	U	0.03	0.03	0.03	ppbv
156-59-2	cis-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
67-66-3	Chloroform	0.02	0.1	U	0.02	0.05	0.1	ppbv
123-91-1	1,4-Dioxane	0.09	0.32	U	0.09	0.05	0.1	ppbv
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.03	0.03	0.03	ppbv
109-99-9	Tetrahydrofuran	0.08	0.24	U	0.08	0.05	0.1	ppbv
540-84-1	2,2,4-Trimethylpentane	0.22	1.03		0.04	0.05	0.1	ppbv
71-43-2	Benzene	0.38	1.21		0.04	0.05	0.1	ppbv
107-06-2	1,2-Dichloroethane	0.07	0.28	U	0.07	0.05	0.1	ppbv
79-01-6	Trichloroethene	0.03	0.16	U	0.03	0.03	0.03	ppbv
78-87-5	1,2-Dichloropropane	0.06	0.28	U	0.06	0.05	0.1	ppbv
75-27-4	Bromodichloromethane	0.05	0.33	U	0.05	0.05	0.1	ppbv
108-10-1	4-Methyl-2-Pentanone	0.06	0.25	U	0.06	0.05	0.1	ppbv
108-88-3	Toluene	1.03	3.88		0.05	0.05	0.1	ppbv
10061-02-6	t-1,3-Dichloropropene	0.07	0.32	U	0.07	0.05	0.1	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.06	0.27	U	0.06	0.05	0.1	ppbv

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/15/12
Project:	KoptD 12-01	Date Received:	12/18/12
Client Sample ID:	VP-1(12-14-12)	SDG No.:	D5213
Lab Sample ID:	D5213-01	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL018448.D	1		12/19/12	VL121912

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.08	0.44	U	0.08	0.05	0.1	ppbv
124-48-1	Dibromochloromethane	0.05	0.43	U	0.05	0.05	0.1	ppbv
106-93-4	1,2-Dibromoethane	0.07	0.54	U	0.07	0.05	0.1	ppbv
127-18-4	Tetrachloroethene	0.03	0.2	U	0.03	0.03	0.03	ppbv
108-90-7	Chlorobenzene	0.09	0.41	U	0.09	0.05	0.1	ppbv
100-41-4	Ethyl Benzene	0.11	0.48		0.08	0.05	0.1	ppbv
179601-23-1	m/p-Xylene	0.4	1.74		0.11	0.1	0.2	ppbv
95-47-6	o-Xylene	0.15	0.65		0.07	0.05	0.1	ppbv
100-42-5	Styrene	0.07	0.3	U	0.07	0.05	0.1	ppbv
75-25-2	Bromoform	0.05	0.52	U	0.05	0.05	0.1	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.1	0.69	U	0.1	0.1	0.1	ppbv
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.1	0.1	0.1	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.09	0.44	U	0.09	0.05	0.1	ppbv
95-63-6	1,2,4-Trimethylbenzene	0.11	0.54		0.1	0.1	0.1	ppbv
622-96-8	4-Ethyltoluene	0.08	0.39	U	0.08	0.05	0.1	ppbv
541-73-1	1,3-Dichlorobenzene	0.08	0.48	U	0.08	0.05	0.1	ppbv
106-46-7	1,4-Dichlorobenzene	0.06	0.36	U	0.06	0.05	0.1	ppbv
95-50-1	1,2-Dichlorobenzene	0.07	0.42	U	0.07	0.05	0.1	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.04	0.3	U	0.04	0.05	0.1	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.08	0.85	U	0.08	0.05	0.1	ppbv
106-99-0	1,3-Butadiene	0.09	0.2	U	0.09	0.05	0.1	ppbv
110-54-3	Hexane	1.25	4.41		0.04	0.05	0.1	ppbv
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	11.1			65 - 135		111%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	758709		6.66				
540-36-3	1,4-Difluorobenzene	1811500		8.34				
3114-55-4	Chlorobenzene-d5	1559420		13.77				

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/15/12
Project:	KoptD 12-01	Date Received:	12/18/12
Client Sample ID:	VP-2(12-14-12)	SDG No.:	D5213
Lab Sample ID:	D5213-02	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL018450.D	1		12/19/12	VL121912

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	0.3	1.48		0.04	0.05	0.1	ppbv
75-65-0	tert-Butyl alcohol	0.1	0.3	U	0.1	0.1	0.1	ppbv
74-87-3	Chloromethane	0.31	0.64		0.06	0.05	0.1	ppbv
80-62-6	Methyl Methacrylate	0.1	0.41	U	0.1	0.1	0.1	ppbv
75-01-4	Vinyl Chloride	0.03	0.08	U	0.03	0.03	0.03	ppbv
74-83-9	Bromomethane	0.03	0.12	U	0.03	0.05	0.1	ppbv
75-00-3	Chloroethane	0.07	0.18	U	0.07	0.05	0.1	ppbv
75-69-4	Trichlorofluoromethane	0.2	1.12		0.04	0.05	0.1	ppbv
76-14-2	Dichlorotetrafluoroethane	0.04	0.28	U	0.04	0.05	0.1	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.04	0.31	U	0.04	0.05	0.1	ppbv
593-60-2	Bromoethene	0.03	0.13	U	0.03	0.05	0.1	ppbv
142-82-5	Heptane	0.06	0.25	U	0.06	0.05	0.1	ppbv
75-35-4	1,1-Dichloroethene	0.05	0.2	U	0.05	0.05	0.1	ppbv
67-64-1	Acetone	2.53	6.01		0.1	0.1	0.1	ppbv
75-15-0	Carbon Disulfide	0.05	0.16	U	0.05	0.05	0.1	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.05	0.18	U	0.05	0.05	0.1	ppbv
75-09-2	Methylene Chloride	0.26	0.9		0.05	0.05	0.1	ppbv
107-05-1	Allyl Chloride	0.05	0.16	U	0.05	0.05	0.1	ppbv
156-60-5	trans-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
75-34-3	1,1-Dichloroethane	0.04	0.16	U	0.04	0.05	0.1	ppbv
110-82-7	Cyclohexane	0.08	0.28	U	0.08	0.05	0.1	ppbv
78-93-3	2-Butanone	0.22	0.65		0.1	0.1	0.1	ppbv
56-23-5	Carbon Tetrachloride	0.03	0.19	U	0.03	0.03	0.03	ppbv
156-59-2	cis-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
67-66-3	Chloroform	0.02	0.1	U	0.02	0.05	0.1	ppbv
123-91-1	1,4-Dioxane	0.09	0.32	U	0.09	0.05	0.1	ppbv
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.03	0.03	0.03	ppbv
109-99-9	Tetrahydrofuran	0.08	0.24	U	0.08	0.05	0.1	ppbv
540-84-1	2,2,4-Trimethylpentane	0.33	1.54		0.04	0.05	0.1	ppbv
71-43-2	Benzene	0.26	0.83		0.04	0.05	0.1	ppbv
107-06-2	1,2-Dichloroethane	0.07	0.28	U	0.07	0.05	0.1	ppbv
79-01-6	Trichloroethene	0.1	0.54		0.03	0.03	0.03	ppbv
78-87-5	1,2-Dichloropropane	0.06	0.28	U	0.06	0.05	0.1	ppbv
75-27-4	Bromodichloromethane	0.05	0.33	U	0.05	0.05	0.1	ppbv
108-10-1	4-Methyl-2-Pentanone	0.06	0.25	U	0.06	0.05	0.1	ppbv
108-88-3	Toluene	0.46	1.73		0.05	0.05	0.1	ppbv
10061-02-6	t-1,3-Dichloropropene	0.07	0.32	U	0.07	0.05	0.1	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.06	0.27	U	0.06	0.05	0.1	ppbv

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Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/15/12
Project:	KoptD 12-01	Date Received:	12/18/12
Client Sample ID:	VP-2(12-14-12)	SDG No.:	D5213
Lab Sample ID:	D5213-02	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL018450.D	1		12/19/12	VL121912

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.08	0.44	U	0.08	0.05	0.1	ppbv
124-48-1	Dibromochloromethane	0.05	0.43	U	0.05	0.05	0.1	ppbv
106-93-4	1,2-Dibromoethane	0.07	0.54	U	0.07	0.05	0.1	ppbv
127-18-4	Tetrachloroethene	0.17	1.15		0.03	0.03	0.03	ppbv
108-90-7	Chlorobenzene	0.09	0.41	U	0.09	0.05	0.1	ppbv
100-41-4	Ethyl Benzene	0.08	0.35	U	0.08	0.05	0.1	ppbv
179601-23-1	m/p-Xylene	0.11	0.48	U	0.11	0.1	0.2	ppbv
95-47-6	o-Xylene	0.07	0.3	U	0.07	0.05	0.1	ppbv
100-42-5	Styrene	0.07	0.3	U	0.07	0.05	0.1	ppbv
75-25-2	Bromoform	0.05	0.52	U	0.05	0.05	0.1	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.1	0.69	U	0.1	0.1	0.1	ppbv
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.1	0.1	0.1	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.09	0.44	U	0.09	0.05	0.1	ppbv
95-63-6	1,2,4-Trimethylbenzene	0.1	0.49	U	0.1	0.1	0.1	ppbv
622-96-8	4-Ethyltoluene	0.08	0.39	U	0.08	0.05	0.1	ppbv
541-73-1	1,3-Dichlorobenzene	0.08	0.48	U	0.08	0.05	0.1	ppbv
106-46-7	1,4-Dichlorobenzene	0.06	0.36	U	0.06	0.05	0.1	ppbv
95-50-1	1,2-Dichlorobenzene	0.07	0.42	U	0.07	0.05	0.1	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.04	0.3	U	0.04	0.05	0.1	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.08	0.85	U	0.08	0.05	0.1	ppbv
106-99-0	1,3-Butadiene	0.09	0.2	U	0.09	0.05	0.1	ppbv
110-54-3	Hexane	0.29	1.02		0.04	0.05	0.1	ppbv
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	11.3			65 - 135		113%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	759889		6.65				
540-36-3	1,4-Difluorobenzene	1795710		8.33				
3114-55-4	Chlorobenzene-d5	1525590		13.76				

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Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/15/12
Project:	KoptD 12-01	Date Received:	12/18/12
Client Sample ID:	VP-3(12-14-12)	SDG No.:	D5213
Lab Sample ID:	D5213-03	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL018454.D	1		12/19/12	VL121912

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	0.31	1.53		0.04	0.05	0.1	ppbv
75-65-0	tert-Butyl alcohol	0.1	0.3	U	0.1	0.1	0.1	ppbv
74-87-3	Chloromethane	0.33	0.68		0.06	0.05	0.1	ppbv
80-62-6	Methyl Methacrylate	0.1	0.41	U	0.1	0.1	0.1	ppbv
75-01-4	Vinyl Chloride	0.03	0.08	U	0.03	0.03	0.03	ppbv
74-83-9	Bromomethane	0.03	0.12	U	0.03	0.05	0.1	ppbv
75-00-3	Chloroethane	0.07	0.18	U	0.07	0.05	0.1	ppbv
75-69-4	Trichlorofluoromethane	0.22	1.24		0.04	0.05	0.1	ppbv
76-14-2	Dichlorotetrafluoroethane	0.04	0.28	U	0.04	0.05	0.1	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.04	0.31	U	0.04	0.05	0.1	ppbv
593-60-2	Bromoethene	0.03	0.13	U	0.03	0.05	0.1	ppbv
142-82-5	Heptane	0.1	0.41	J	0.06	0.05	0.1	ppbv
75-35-4	1,1-Dichloroethene	0.05	0.2	U	0.05	0.05	0.1	ppbv
67-64-1	Acetone	3.96	9.41		0.1	0.1	0.1	ppbv
75-15-0	Carbon Disulfide	0.05	0.16	U	0.05	0.05	0.1	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.05	0.18	U	0.05	0.05	0.1	ppbv
75-09-2	Methylene Chloride	2.81	9.76		0.05	0.05	0.1	ppbv
107-05-1	Allyl Chloride	0.05	0.16	U	0.05	0.05	0.1	ppbv
156-60-5	trans-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
75-34-3	1,1-Dichloroethane	0.04	0.16	U	0.04	0.05	0.1	ppbv
110-82-7	Cyclohexane	0.08	0.28	U	0.08	0.05	0.1	ppbv
78-93-3	2-Butanone	1.41	4.16		0.1	0.1	0.1	ppbv
56-23-5	Carbon Tetrachloride	0.03	0.19	U	0.03	0.03	0.03	ppbv
156-59-2	cis-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
67-66-3	Chloroform	0.02	0.1	U	0.02	0.05	0.1	ppbv
123-91-1	1,4-Dioxane	0.09	0.32	U	0.09	0.05	0.1	ppbv
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.03	0.03	0.03	ppbv
109-99-9	Tetrahydrofuran	0.25	0.74		0.08	0.05	0.1	ppbv
540-84-1	2,2,4-Trimethylpentane	0.15	0.7		0.04	0.05	0.1	ppbv
71-43-2	Benzene	0.3	0.96		0.04	0.05	0.1	ppbv
107-06-2	1,2-Dichloroethane	0.07	0.28	U	0.07	0.05	0.1	ppbv
79-01-6	Trichloroethene	0.03	0.16	U	0.03	0.03	0.03	ppbv
78-87-5	1,2-Dichloropropane	0.06	0.28	U	0.06	0.05	0.1	ppbv
75-27-4	Bromodichloromethane	0.05	0.33	U	0.05	0.05	0.1	ppbv
108-10-1	4-Methyl-2-Pentanone	0.06	0.25	U	0.06	0.05	0.1	ppbv
108-88-3	Toluene	0.58	2.19		0.05	0.05	0.1	ppbv
10061-02-6	t-1,3-Dichloropropene	0.07	0.32	U	0.07	0.05	0.1	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.06	0.27	U	0.06	0.05	0.1	ppbv

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Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/15/12
Project:	KoptD 12-01	Date Received:	12/18/12
Client Sample ID:	VP-3(12-14-12)	SDG No.:	D5213
Lab Sample ID:	D5213-03	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL018454.D	1		12/19/12	VL121912

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.08	0.44	U	0.08	0.05	0.1	ppbv
124-48-1	Dibromochloromethane	0.05	0.43	U	0.05	0.05	0.1	ppbv
106-93-4	1,2-Dibromoethane	0.07	0.54	U	0.07	0.05	0.1	ppbv
127-18-4	Tetrachloroethene	0.8	5.42		0.03	0.03	0.03	ppbv
108-90-7	Chlorobenzene	0.09	0.41	U	0.09	0.05	0.1	ppbv
100-41-4	Ethyl Benzene	0.08	0.35	U	0.08	0.05	0.1	ppbv
179601-23-1	m/p-Xylene	0.26	1.13		0.11	0.1	0.2	ppbv
95-47-6	o-Xylene	0.07	0.3	U	0.07	0.05	0.1	ppbv
100-42-5	Styrene	0.07	0.3	U	0.07	0.05	0.1	ppbv
75-25-2	Bromoform	0.05	0.52	U	0.05	0.05	0.1	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.1	0.69	U	0.1	0.1	0.1	ppbv
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.1	0.1	0.1	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.09	0.44	U	0.09	0.05	0.1	ppbv
95-63-6	1,2,4-Trimethylbenzene	0.1	0.49	U	0.1	0.1	0.1	ppbv
622-96-8	4-Ethyltoluene	0.08	0.39	U	0.08	0.05	0.1	ppbv
541-73-1	1,3-Dichlorobenzene	0.08	0.48	U	0.08	0.05	0.1	ppbv
106-46-7	1,4-Dichlorobenzene	0.06	0.36	U	0.06	0.05	0.1	ppbv
95-50-1	1,2-Dichlorobenzene	0.07	0.42	U	0.07	0.05	0.1	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.04	0.3	U	0.04	0.05	0.1	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.08	0.85	U	0.08	0.05	0.1	ppbv
106-99-0	1,3-Butadiene	0.09	0.2	U	0.09	0.05	0.1	ppbv
110-54-3	Hexane	0.7	2.47		0.04	0.05	0.1	ppbv
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	11.1			65 - 135		111%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	830353		6.65				
540-36-3	1,4-Difluorobenzene	2075710		8.32				
3114-55-4	Chlorobenzene-d5	1770760		13.75				

QC SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Surrogate Summary

SDG No.: D5213

Client: J.R.Holzmacher P.E., LLC

Analytical Method: EPA SW846 TO-15

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
D5213-01	VP-1(12-14-12)	1-Bromo-4-Fluorobenzene	10	11.08	111		65	135
D5213-02	VP-2(12-14-12)	1-Bromo-4-Fluorobenzene	10	11.28	113		65	135
D5213-03	VP-3(12-14-12)	1-Bromo-4-Fluorobenzene	10	11.09	111		65	135
VL1219ABL	VL1219ABL	1-Bromo-4-Fluorobenzene	10	11.01	110		65	135
VL1219ABS	VL1219ABS	1-Bromo-4-Fluorobenzene	10	9.56	96		65	135

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AIR VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: J.R.Holzmacher P.E., LLC

Lab Code: CHEM Cas No: D5213 SAS No : D5213 SDG No: D5213

Matrix Spike - EPA Sample No : VL1219ABS Analytical Method: EPA SW846 TO-15 Datafile : VL018444.D

COMPOUND	SPIKE ADDED (ppbv)	CONCENTRATION (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC#	QC LIMITS REC
Dichlorodifluoromethane	10.0		8.04	80	(70-130)
tert-Butyl alcohol	10.0		10.6	106	(70-130)
Chloromethane	10.0		9.37	94	(70-130)
Methyl Methacrylate	10.0		10.3	103	(70-130)
Vinyl Chloride	10.0		9.34	93	(70-130)
Bromomethane	10.0		9.24	92	(70-130)
Chloroethane	10.0		9.60	96	(70-130)
Trichlorofluoromethane	10.0		9.72	97	(70-130)
Dichlorotetrafluoroethane	10.0		9.09	91	(70-130)
1,1,2-Trichlorotrifluoroethane	10.0		9.61	96	(70-130)
Bromoethene	10.0		9.26	93	(70-130)
Heptane	10.0		8.83	88	(70-130)
1,1-Dichloroethene	10.0		9.51	95	(70-130)
Acetone	10.0		8.99	90	(70-130)
Carbon Disulfide	10.0		9.44	94	(70-130)
Methyl tert-Butyl Ether	10.0		8.82	88	(70-130)
Methylene Chloride	10.0		8.77	88	(70-130)
Allyl Chloride	10.0		9.69	97	(70-130)
trans-1,2-Dichloroethene	10.0		8.63	86	(70-130)
1,1-Dichloroethane	10.0		8.97	90	(70-130)
Cyclohexane	10.0		8.36	84	(70-130)
2-Butanone	10.0		9.84	98	(70-130)
Carbon Tetrachloride	10.0		9.29	93	(70-130)
cis-1,2-Dichloroethene	10.0		8.90	89	(70-130)
Chloroform	10.0		9.00	90	(70-130)
1,4-Dioxane	10.0		9.11	91	(70-130)
1,1,1-Trichloroethane	10.0		8.90	89	(70-130)
Tetrahydrofuran	10.0		9.78	98	(70-130)
2,2,4-Trimethylpentane	10.0		9.23	92	(70-130)
Benzene	10.0		9.24	92	(70-130)
1,2-Dichloroethane	10.0		10.0	100	(70-130)
Trichloroethene	10.0		9.27	93	(70-130)
1,2-Dichloropropane	10.0		9.42	94	(70-130)
Bromodichloromethane	10.0		9.81	98	(70-130)

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

Comments:

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

AIR VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: J.R.Holzmacher P.E., LLC

Lab Code: CHEM Cas No: D5213 SAS No : D5213 SDG No: D5213

Matrix Spike - EPA Sample No : VL1219ABS Analytical Method: EPA SW846 TO-15 Datafile : VL018444.D

COMPOUND	SPIKE ADDED (ppbv)	CONCENTRATION (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC#	QC LIMITS REC
4-Methyl-2-Pentanone	10.0		9.72	97	(70-130)
Toluene	10.0		9.13	91	(70-130)
t-1,3-Dichloropropene	10.0		9.57	96	(70-130)
cis-1,3-Dichloropropene	10.0		9.41	94	(70-130)
1,1,2-Trichloroethane	10.0		9.29	93	(70-130)
Dibromochloromethane	10.0		9.53	95	(70-130)
1,2-Dibromoethane	10.0		9.42	94	(70-130)
Tetrachloroethene	10.0		9.18	92	(70-130)
Chlorobenzene	10.0		8.62	86	(70-130)
Ethyl Benzene	10.0		8.64	86	(70-130)
m/p-Xylene	20.0		17.6	88	(70-130)
o-Xylene	10.0		8.96	90	(70-130)
Styrene	10.0		8.83	88	(70-130)
Bromoform	10.0		9.64	96	(70-130)
1,1,2,2-Tetrachloroethane	10.0		8.91	89	(70-130)
2-Chlorotoluene	10.0		9.80	98	(70-130)
1,3,5-Trimethylbenzene	10.0		9.25	93	(70-130)
1,2,4-Trimethylbenzene	10.0		9.54	95	(70-130)
4-Ethyltoluene	10.0		9.06	91	(70-130)
1,3-Dichlorobenzene	10.0		9.21	92	(70-130)
1,4-Dichlorobenzene	10.0		9.22	92	(70-130)
1,2-Dichlorobenzene	10.0		9.27	93	(70-130)
1,2,4-Trichlorobenzene	10.0		12.7	127	(70-130)
Hexachloro-1,3-Butadiene	10.0		10.2	102	(70-130)
1,3-Butadiene	10.0		9.25	93	(70-130)
Hexane	10.0		8.65	87	(70-130)

RPD : 0 Out of 60 outside limits

Spike Recovery : 0 Out of 60 outside limits

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

Comments:

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VL1219ABL

Lab Name: CHEMTECH

Contract: JRH001

Lab Code: CHEM

Case No.: D5213

SAS No.: D5213

SDG NO.: D5213

Lab File ID: VL018443.D

Lab Sample ID: VL1219ABL

Date Analyzed: 12/19/2012

Time Analyzed: 13:47

GC Column: RTX-1

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Instrument ID: MSVOA_L

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VL1219ABS	VL1219ABS	VL018444.D	12/19/2012
VP-1(12-14-12)	D5213-01	VL018448.D	12/19/2012
VP-2(12-14-12)	D5213-02	VL018450.D	12/19/2012
VP-3(12-14-12)	D5213-03	VL018454.D	12/19/2012

COMMENTS:

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH
Contract: JRHO01
Lab Code: CHEM
Case No.: D5213
SAS No.: D5213
SDG NO.: D5213
Lab File ID: VL018413.D
BFB Injection Date: 12/18/2012
Instrument ID: MSVOA_L
BFB Injection Time: 00:13
GC Column: RTX-1 ID: 0.32 (mm)
Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	20.6
75	30.0 - 66.0% of mass 95	49.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 120.0% of mass 95	75.4
175	4.0 - 9.0% of mass 174	5.8 (7.7) 1
176	93.0 - 101.0% of mass 174	72.5 (96.1) 1
177	5.0 - 9.0% of mass 176	4.8 (6.6) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICCC010	VSTDICCC010	VL018414.D	12/18/2012	00:52
VSTDICC002	VSTDICC002	VL018415.D	12/18/2012	01:34
VSTDICC001	VSTDICC001	VL018416.D	12/18/2012	02:12
VSTDICC0.5	VSTDICC0.5	VL018417.D	12/18/2012	02:50
VSTDICC015	VSTDICC015	VL018418.D	12/18/2012	03:31
0.1 PPBV RPT	0.1 PPBV RPT	VL018422.D	12/18/2012	12:08
0.03 PPBV RPT	0.03 PPBV RPT	VL018423.D	12/18/2012	12:45

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: JRHO01

Lab Code: CHEM Case No.: D5213 SAS No.: D5213 SDG NO.: D5213

Lab File ID: VL018441.D BFB Injection Date: 12/19/2012

Instrument ID: MSVOA_L BFB Injection Time: 12:05

GC Column: RTX-1 ID: 0.32 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	22.3
75	30.0 - 66.0% of mass 95	52.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 120.0% of mass 95	74.3
175	4.0 - 9.0% of mass 174	5.5 (7.5) 1
176	93.0 - 101.0% of mass 174	72 (96.8) 1
177	5.0 - 9.0% of mass 176	4.7 (6.5) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC010	VSTDCCC010	VL018442.D	12/19/2012	12:45
VL1219ABL	VL1219ABL	VL018443.D	12/19/2012	13:47
VL1219ABS	VL1219ABS	VL018444.D	12/19/2012	14:43
VP-1(12-14-12)	D5213-01	VL018448.D	12/19/2012	17:57
VP-2(12-14-12)	D5213-02	VL018450.D	12/19/2012	19:19
VP-3(12-14-12)	D5213-03	VL018454.D	12/19/2012	22:03

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: JRHO01

Lab Code: CHEM Case No.: D5213 SAS No.: D5213 SDG NO.: D5213

Lab File ID: VL018442.D Date Analyzed: 12/19/2012

Instrument ID: MSVOA_L Time Analyzed: 12:45

GC Column: RTX-1 ID: 0.32 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	844154	6.68	2186392	8.37	2334802	13.80
UPPER LIMIT	1181816	7.01	3060949	8.70	3268723	14.13
LOWER LIMIT	506492.4	6.35	1311835	8.04	1400881	13.47
EPA SAMPLE NO.						
VP-1(12-14-12)	758709	6.66	1811499	8.34	1559418	13.77
VP-2(12-14-12)	759889	6.65	1795712	8.33	1525594	13.76
VP-3(12-14-12)	830353	6.65	2075710	8.32	1770755	13.75
VL1219ABL	890473	6.67	2196843	8.35	1882445	13.79
VL1219ABS	828718	6.67	2104192	8.35	2161114	13.79

IS1 = Bromochloromethane
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +40% of internal standard area
AREA LOWER LIMIT = -40% of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: JRHO01

Lab Code: CHEM Case No.: D5213 SAS No.: D5213 SDG NO.: D5213

Lab File ID: VL018442.D Date Analyzed: 12/19/2012

Instrument ID: MSVOA_L Time Analyzed: 12:45

GC Column: RTX-1 ID: 0.32 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	0	0				
UPPER LIMIT	0	0				
LOWER LIMIT	0	0				
EPA SAMPLE NO.						
VP-1(12-14-12)	0	0.00				
VP-2(12-14-12)	0	0.00				
VP-3(12-14-12)	0	0.00				
VL1219ABL	0	0.00				
VL1219ABS	0	0.00				

IS4 =

AREA UPPER LIMIT = +40% of internal standard area
AREA LOWER LIMIT = -40% of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	
Project:	KoptD 12-01	Date Received:	
Client Sample ID:	VL1219ABL	SDG No.:	D5213
Lab Sample ID:	VL1219ABL	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL018443.D	1		12/19/12	vl121912

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	0.04	0.2	U	0.04	0.05	0.1	ppbv
75-65-0	tert-Butyl alcohol	0.1	0.3	U	0.1	0.1	0.1	ppbv
74-87-3	Chloromethane	0.06	0.12	U	0.06	0.05	0.1	ppbv
80-62-6	Methyl Methacrylate	0.1	0.41	U	0.1	0.1	0.1	ppbv
75-01-4	Vinyl Chloride	0.03	0.08	U	0.03	0.03	0.03	ppbv
74-83-9	Bromomethane	0.03	0.12	U	0.03	0.05	0.1	ppbv
75-00-3	Chloroethane	0.07	0.18	U	0.07	0.05	0.1	ppbv
75-69-4	Trichlorofluoromethane	0.04	0.22	U	0.04	0.05	0.1	ppbv
76-14-2	Dichlorotetrafluoroethane	0.04	0.28	U	0.04	0.05	0.1	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.04	0.31	U	0.04	0.05	0.1	ppbv
593-60-2	Bromoethene	0.03	0.13	U	0.03	0.05	0.1	ppbv
142-82-5	Heptane	0.06	0.25	U	0.06	0.05	0.1	ppbv
75-35-4	1,1-Dichloroethene	0.05	0.2	U	0.05	0.05	0.1	ppbv
67-64-1	Acetone	0.1	0.24	U	0.1	0.1	0.1	ppbv
75-15-0	Carbon Disulfide	0.05	0.16	U	0.05	0.05	0.1	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.05	0.18	U	0.05	0.05	0.1	ppbv
75-09-2	Methylene Chloride	0.05	0.17	U	0.05	0.05	0.1	ppbv
107-05-1	Allyl Chloride	0.05	0.16	U	0.05	0.05	0.1	ppbv
156-60-5	trans-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
75-34-3	1,1-Dichloroethane	0.04	0.16	U	0.04	0.05	0.1	ppbv
110-82-7	Cyclohexane	0.08	0.28	U	0.08	0.05	0.1	ppbv
78-93-3	2-Butanone	0.1	0.29	U	0.1	0.1	0.1	ppbv
56-23-5	Carbon Tetrachloride	0.03	0.19	U	0.03	0.03	0.03	ppbv
156-59-2	cis-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
67-66-3	Chloroform	0.02	0.1	U	0.02	0.05	0.1	ppbv
123-91-1	1,4-Dioxane	0.09	0.32	U	0.09	0.05	0.1	ppbv
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.03	0.03	0.03	ppbv
109-99-9	Tetrahydrofuran	0.08	0.24	U	0.08	0.05	0.1	ppbv
540-84-1	2,2,4-Trimethylpentane	0.04	0.19	U	0.04	0.05	0.1	ppbv
71-43-2	Benzene	0.04	0.13	U	0.04	0.05	0.1	ppbv
107-06-2	1,2-Dichloroethane	0.07	0.28	U	0.07	0.05	0.1	ppbv
79-01-6	Trichloroethene	0.03	0.16	U	0.03	0.03	0.03	ppbv
78-87-5	1,2-Dichloropropane	0.06	0.28	U	0.06	0.05	0.1	ppbv
75-27-4	Bromodichloromethane	0.05	0.33	U	0.05	0.05	0.1	ppbv
108-10-1	4-Methyl-2-Pentanone	0.06	0.25	U	0.06	0.05	0.1	ppbv
108-88-3	Toluene	0.05	0.19	U	0.05	0.05	0.1	ppbv
10061-02-6	t-1,3-Dichloropropene	0.07	0.32	U	0.07	0.05	0.1	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.06	0.27	U	0.06	0.05	0.1	ppbv

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Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	
Project:	KoptD 12-01	Date Received:	
Client Sample ID:	VL1219ABL	SDG No.:	D5213
Lab Sample ID:	VL1219ABL	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL018443.D	1		12/19/12	vl121912

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.08	0.44	U	0.08	0.05	0.1	ppbv
124-48-1	Dibromochloromethane	0.05	0.43	U	0.05	0.05	0.1	ppbv
106-93-4	1,2-Dibromoethane	0.07	0.54	U	0.07	0.05	0.1	ppbv
127-18-4	Tetrachloroethene	0.03	0.2	U	0.03	0.03	0.03	ppbv
108-90-7	Chlorobenzene	0.09	0.41	U	0.09	0.05	0.1	ppbv
100-41-4	Ethyl Benzene	0.08	0.35	U	0.08	0.05	0.1	ppbv
179601-23-1	m/p-Xylene	0.11	0.48	U	0.11	0.1	0.2	ppbv
95-47-6	o-Xylene	0.07	0.3	U	0.07	0.05	0.1	ppbv
100-42-5	Styrene	0.07	0.3	U	0.07	0.05	0.1	ppbv
75-25-2	Bromoform	0.05	0.52	U	0.05	0.05	0.1	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.1	0.69	U	0.1	0.1	0.1	ppbv
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.1	0.1	0.1	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.09	0.44	U	0.09	0.05	0.1	ppbv
95-63-6	1,2,4-Trimethylbenzene	0.1	0.49	U	0.1	0.1	0.1	ppbv
622-96-8	4-Ethyltoluene	0.08	0.39	U	0.08	0.05	0.1	ppbv
541-73-1	1,3-Dichlorobenzene	0.08	0.48	U	0.08	0.05	0.1	ppbv
106-46-7	1,4-Dichlorobenzene	0.06	0.36	U	0.06	0.05	0.1	ppbv
95-50-1	1,2-Dichlorobenzene	0.07	0.42	U	0.07	0.05	0.1	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.04	0.3	U	0.04	0.05	0.1	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.08	0.85	U	0.08	0.05	0.1	ppbv
106-99-0	1,3-Butadiene	0.09	0.2	U	0.09	0.05	0.1	ppbv
110-54-3	Hexane	0.04	0.14	U	0.04	0.05	0.1	ppbv
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	11			65 - 135		110%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	890473		6.67				
540-36-3	1,4-Difluorobenzene	2196840		8.35				
3114-55-4	Chlorobenzene-d5	1882450		13.79				

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Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	
Project:	KoptD 12-01	Date Received:	
Client Sample ID:	VL1219ABS	SDG No.:	D5213
Lab Sample ID:	VL1219ABS	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL018444.D	1		12/19/12	vl121912

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	8.04	39.8		0.04	0.05	0.1	ppbv
75-65-0	tert-Butyl alcohol	10.6	32.1		0.1	0.1	0.1	ppbv
74-87-3	Chloromethane	9.37	19.4		0.06	0.05	0.1	ppbv
80-62-6	Methyl Methacrylate	10.3	42.2		0.1	0.1	0.1	ppbv
75-01-4	Vinyl Chloride	9.34	23.9		0.03	0.03	0.03	ppbv
74-83-9	Bromomethane	9.24	35.9		0.03	0.05	0.1	ppbv
75-00-3	Chloroethane	9.6	25.3		0.07	0.05	0.1	ppbv
75-69-4	Trichlorofluoromethane	9.72	54.6		0.04	0.05	0.1	ppbv
76-14-2	Dichlorotetrafluoroethane	9.09	63.5		0.04	0.05	0.1	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	9.61	73.7		0.04	0.05	0.1	ppbv
593-60-2	Bromoethene	9.26	40.5		0.03	0.05	0.1	ppbv
142-82-5	Heptane	8.83	36.2		0.06	0.05	0.1	ppbv
75-35-4	1,1-Dichloroethene	9.51	37.7		0.05	0.05	0.1	ppbv
67-64-1	Acetone	8.99	21.4		0.1	0.1	0.1	ppbv
75-15-0	Carbon Disulfide	9.44	29.4		0.05	0.05	0.1	ppbv
1634-04-4	Methyl tert-Butyl Ether	8.82	31.8		0.05	0.05	0.1	ppbv
75-09-2	Methylene Chloride	8.77	30.5		0.05	0.05	0.1	ppbv
107-05-1	Allyl Chloride	9.69	30.3		0.05	0.05	0.1	ppbv
156-60-5	trans-1,2-Dichloroethene	8.63	34.2		0.06	0.05	0.1	ppbv
75-34-3	1,1-Dichloroethane	8.97	36.3		0.04	0.05	0.1	ppbv
110-82-7	Cyclohexane	8.36	28.8		0.08	0.05	0.1	ppbv
78-93-3	2-Butanone	9.84	29.0		0.1	0.1	0.1	ppbv
56-23-5	Carbon Tetrachloride	9.29	58.4		0.03	0.03	0.03	ppbv
156-59-2	cis-1,2-Dichloroethene	8.9	35.3		0.06	0.05	0.1	ppbv
67-66-3	Chloroform	9	44.0		0.02	0.05	0.1	ppbv
123-91-1	1,4-Dioxane	9.11	32.8		0.09	0.05	0.1	ppbv
71-55-6	1,1,1-Trichloroethane	8.9	48.6		0.03	0.03	0.03	ppbv
109-99-9	Tetrahydrofuran	9.78	28.8		0.08	0.05	0.1	ppbv
540-84-1	2,2,4-Trimethylpentane	9.23	43.1		0.04	0.05	0.1	ppbv
71-43-2	Benzene	9.24	29.5		0.04	0.05	0.1	ppbv
107-06-2	1,2-Dichloroethane	10	40.5		0.07	0.05	0.1	ppbv
79-01-6	Trichloroethene	9.27	49.8		0.03	0.03	0.03	ppbv
78-87-5	1,2-Dichloropropane	9.42	43.5		0.06	0.05	0.1	ppbv
75-27-4	Bromodichloromethane	9.81	65.7		0.05	0.05	0.1	ppbv
108-10-1	4-Methyl-2-Pentanone	9.72	39.8		0.06	0.05	0.1	ppbv
108-88-3	Toluene	9.13	34.4		0.05	0.05	0.1	ppbv
10061-02-6	t-1,3-Dichloropropene	9.57	43.4		0.07	0.05	0.1	ppbv
10061-01-5	cis-1,3-Dichloropropene	9.41	42.7		0.06	0.05	0.1	ppbv

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Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	
Project:	KoptD 12-01	Date Received:	
Client Sample ID:	VL1219ABS	SDG No.:	D5213
Lab Sample ID:	VL1219ABS	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL018444.D	1		12/19/12	vl121912

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	9.29	50.7		0.08	0.05	0.1	ppbv
124-48-1	Dibromochloromethane	9.53	81.2		0.05	0.05	0.1	ppbv
106-93-4	1,2-Dibromoethane	9.42	72.4		0.07	0.05	0.1	ppbv
127-18-4	Tetrachloroethene	9.18	62.2		0.03	0.03	0.03	ppbv
108-90-7	Chlorobenzene	8.62	39.7		0.09	0.05	0.1	ppbv
100-41-4	Ethyl Benzene	8.64	37.5		0.08	0.05	0.1	ppbv
179601-23-1	m/p-Xylene	17.6	76.4		0.11	0.1	0.2	ppbv
95-47-6	o-Xylene	8.96	38.9		0.07	0.05	0.1	ppbv
100-42-5	Styrene	8.83	37.6		0.07	0.05	0.1	ppbv
75-25-2	Bromoform	9.64	99.7		0.05	0.05	0.1	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	8.91	61.2		0.1	0.1	0.1	ppbv
95-49-8	2-Chlorotoluene	9.8	50.7		0.1	0.1	0.1	ppbv
108-67-8	1,3,5-Trimethylbenzene	9.25	45.5		0.09	0.05	0.1	ppbv
95-63-6	1,2,4-Trimethylbenzene	9.54	46.9		0.1	0.1	0.1	ppbv
622-96-8	4-Ethyltoluene	9.06	44.5		0.08	0.05	0.1	ppbv
541-73-1	1,3-Dichlorobenzene	9.21	55.4		0.08	0.05	0.1	ppbv
106-46-7	1,4-Dichlorobenzene	9.22	55.4		0.06	0.05	0.1	ppbv
95-50-1	1,2-Dichlorobenzene	9.27	55.7		0.07	0.05	0.1	ppbv
120-82-1	1,2,4-Trichlorobenzene	12.7	94.3		0.04	0.05	0.1	ppbv
87-68-3	Hexachloro-1,3-Butadiene	10.2	108		0.08	0.05	0.1	ppbv
106-99-0	1,3-Butadiene	9.25	20.5		0.09	0.05	0.1	ppbv
110-54-3	Hexane	8.65	30.5		0.04	0.05	0.1	ppbv
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	9.56			65 - 135		96%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	828718		6.67				
540-36-3	1,4-Difluorobenzene	2104190		8.35				
3114-55-4	Chlorobenzene-d5	2161110		13.79				

CALIBRATION SUMMURY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: JRHO01

Lab Code: CHEM Case No.: D5213 SAS No.: D5213 SDG No.: D5213

Instrument ID: MSVOA_L Calibration Date(s): 12/18/2012 12/18/2012

Heated Purge: (Y/N) N Calibration Time(s): 00:52 03:31

GC Column: RTX-1 ID: 0.32 (mm)

LAB FILE ID: RRF0.50 = VL018417.D RRF001 = VL018416.D RRF002 = VL018415.D
RRF010 = VL018414.D RRF015 = VL018418.D RRF =

COMPOUND	RRF0.50	RRF001	RRF002	RRF010	RRF015	RRF	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	2.247	2.086	1.899	1.715	1.548		1.899	14.7
tert-Butyl alcohol	1.947	1.970	1.872	1.847	1.656		1.858	6.7
Chloromethane	1.219	1.224	1.276	1.164	1.135		1.204	4.6
Methyl Methacrylate	0.426	0.419	0.419	0.388	0.395		0.409	4.1
Vinyl Chloride	0.976	1.006	1.044	0.968	0.946		0.988	3.8
Bromomethane	0.637	0.641	0.676	0.624	0.597		0.635	4.5
Chloroethane	0.397	0.421	0.429	0.394	0.386		0.406	4.6
Trichlorofluoromethane	2.217	2.302	2.380	2.194	2.074		2.233	5.2
Dichlorotetrafluoroethane	2.264	2.316	2.399	2.165	2.077		2.244	5.6
1,1,2-Trichlorotrifluoroethane	1.711	1.828	1.928	1.749	1.630		1.769	6.4
Bromoethene	0.776	0.789	0.833	0.772	0.741		0.782	4.3
Heptane	2.224	2.240	2.226	2.039	2.035		2.153	4.9
1,1-Dichloroethene	0.849	0.863	0.909	0.837	0.791		0.850	5
Acetone	1.891	1.900	1.873	1.511	1.451		1.725	13
Carbon Disulfide	2.431	2.563	2.650	2.388	2.228		2.452	6.6
Methyl tert-Butyl Ether	2.983	3.061	3.136	2.861	2.840		2.976	4.3
Methylene Chloride	0.977	0.922	0.898	0.773	0.720		0.858	12.5
Allyl Chloride	1.208	1.301	1.315	1.235	1.172		1.246	4.9
trans-1,2-Dichloroethene	0.934	0.932	0.932	0.863	0.867		0.905	4.1
1,1-Dichloroethane	1.944	2.002	2.014	1.815	1.833		1.922	4.8
Cyclohexane	1.287	1.326	1.320	1.228	1.229		1.278	3.7
2-Butanone	0.873	0.860	0.845	0.743	0.755		0.815	7.5
Carbon Tetrachloride	0.635	0.632	0.637	0.588	0.592		0.617	4
cis-1,2-Dichloroethene	1.351	1.415	1.423	1.311	1.325		1.365	3.8
Chloroform	1.973	1.997	2.016	1.863	1.852		1.940	4
1,4-Dioxane	0.127	0.102	0.076	0.088	0.078		0.094	22.4
1,1,1-Trichloroethane	1.828	1.874	1.875	1.761	1.767		1.821	3
Tetrahydrofuran	0.507	0.504	0.500	0.448	0.454		0.483	6
2,2,4-Trimethylpentane	2.095	2.019	1.943	1.700	1.664		1.884	10.2
Benzene	1.217	1.179	1.174	1.047	1.048		1.133	7.1
1,2-Dichloroethane	0.561	0.561	0.561	0.507	0.509		0.540	5.4
Trichloroethene	0.449	0.448	0.453	0.419	0.426		0.439	3.5
1,2-Dichloropropane	0.441	0.424	0.426	0.383	0.389		0.413	6.1

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: JRHO01

Lab Code: CHEM Case No.: D5213 SAS No.: D5213 SDG No.: D5213

Instrument ID: MSVOA_L Calibration Date(s): 12/18/2012 12/18/2012

Heated Purge: (Y/N) N Calibration Time(s): 00:52 03:31

GC Column: RTX-1 ID: 0.32 (mm)

LAB FILE ID: RRF0.50 = VL018417.D RRF001 = VL018416.D RRF002 = VL018415.D
RRF010 = VL018414.D RRF015 = VL018418.D RRF =

COMPOUND	RRF0.50	RRF001	RRF002	RRF010	RRF015	RRF	$\overline{RRF}$	% RSD
Bromodichloromethane	0.745	0.749	0.748	0.693	0.696		0.726	4
4-Methyl-2-Pentanone	1.076	1.038	1.029	0.908	0.916		0.993	7.7
Toluene	1.373	1.369	1.378	1.238	1.228		1.317	5.8
t-1,3-Dichloropropene	0.557	0.580	0.595	0.550	0.557		0.568	3.3
cis-1,3-Dichloropropene	0.697	0.707	0.699	0.650	0.654		0.681	4
1,1,2-Trichloroethane	0.427	0.435	0.437	0.405	0.405		0.422	3.8
Dibromochloromethane	0.617	0.641	0.649	0.625	0.628		0.632	2.1
1,2-Dibromoethane	0.626	0.636	0.644	0.599	0.605		0.622	3.1
Tetrachloroethene	0.418	0.417	0.427	0.405	0.410		0.416	2
Chlorobenzene	1.173	1.125	1.093	0.955	0.824		1.034	13.8
Ethyl Benzene	2.010	1.948	1.851	1.597	1.365		1.754	15.3
m/p-Xylene	1.554	1.521	1.469	1.263	1.084		1.378	14.5
o-Xylene	1.626	1.569	1.510	1.314	1.124		1.429	14.5
Styrene	1.065	1.047	1.043	0.928	0.796		0.976	11.7
Bromoform	0.495	0.509	0.537	0.529	0.536		0.521	3.6
1,1,2,2-Tetrachloroethane	1.072	1.066	1.019	0.877	0.751		0.957	14.6
2-Chlorotoluene	1.422	1.390	1.379	1.220	1.022		1.286	13
1,3,5-Trimethylbenzene	1.586	1.596	1.600	1.453	1.233		1.494	10.6
1,2,4-Trimethylbenzene	1.545	1.577	1.553	1.464	1.256		1.479	8.9
4-Ethyltoluene	1.685	1.684	1.664	1.492	1.272		1.559	11.6
1,3-Dichlorobenzene	0.996	0.993	0.970	0.902	0.776		0.927	10
1,4-Dichlorobenzene	1.022	1.012	1.003	0.930	0.795		0.953	10
1,2-Dichlorobenzene	0.987	0.988	0.965	0.891	0.760		0.918	10.5
1,2,4-Trichlorobenzene	0.383	0.409	0.434	0.650	0.564		0.488	23.4
Hexachloro-1,3-Butadiene	0.543	0.509	0.514	0.478	0.423		0.493	9.2
1,3-Butadiene	0.929	0.912	0.927	0.830	0.811		0.882	6.4
Hexane	1.723	1.730	1.743	1.534	1.526		1.651	6.7
1-Bromo-4-Fluorobenzene	0.753	0.740	0.717	0.683	0.589		0.696	9.4

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: JRHO01

Lab Code: CHEM Case No.: D5213 SAS No.: D5213 SDG No.: D5213

Instrument ID: MSVOA_L Calibration Date/Time: 12/19/2012 12:45

Lab File ID: VL018442.D Init. Calib. Date(s): 12/18/2012 12/18/2012

Heated Purge: (Y/N) N Init. Calib. Time(s): 00:52 03:31

GC Column: RTX-1 ID: 0.32 (mm)

COMPOUND	RRF	RRF010	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	1.899	1.508		-20.59	30
tert-Butyl alcohol	1.858	2.004		7.86	30
Chloromethane	1.204	1.211		0.58	30
Methyl Methacrylate	0.409	0.417		1.96	30
Vinyl Chloride	0.988	0.990		0.2	30
Bromomethane	0.635	0.637		0.31	30
Chloroethane	0.406	0.409		0.74	30
Trichlorofluoromethane	2.233	2.301		3.05	30
Dichlorotetrafluoroethane	2.244	2.185		-2.63	30
1,1,2-Trichlorotrifluoroethane	1.769	1.819		2.83	30
Bromoethene	0.782	0.782		0	30
Heptane	2.153	2.030		-5.71	30
1,1-Dichloroethene	0.850	0.862		1.41	30
Acetone	1.725	1.631		-5.45	30
Carbon Disulfide	2.452	2.472		0.82	30
Methyl tert-Butyl Ether	2.976	2.803		-5.81	30
Methylene Chloride	0.858	0.797		-7.11	30
Allyl Chloride	1.246	1.287		3.29	30
trans-1,2-Dichloroethene	0.905	0.843		-6.85	30
1,1-Dichloroethane	1.922	1.854		-3.54	30
Cyclohexane	1.278	1.169		-8.53	30
2-Butanone	0.815	0.838		2.82	30
Carbon Tetrachloride	0.617	0.638		3.4	30
cis-1,2-Dichloroethene	1.365	1.308		-4.18	30
Chloroform	1.940	1.851		-4.59	30
1,4-Dioxane	0.094	0.107		13.83	30
1,1,1-Trichloroethane	1.821	1.743		-4.28	30
Tetrahydrofuran	0.483	0.493		2.07	30
2,2,4-Trimethylpentane	1.884	1.836		-2.55	30
Benzene	1.133	1.110		-2.03	30
1,2-Dichloroethane	0.540	0.566		4.81	30
Trichloroethene	0.439	0.436		-0.68	30
1,2-Dichloropropane	0.413	0.410		-0.73	30
Bromodichloromethane	0.726	0.748		3.03	30
4-Methyl-2-Pentanone	0.993	1.026		3.32	30
Toluene	1.317	1.279		-2.89	30
t-1,3-Dichloropropene	0.568	0.581		2.29	30
cis-1,3-Dichloropropene	0.681	0.682		0.15	30
1,1,2-Trichloroethane	0.422	0.418		-0.95	30
Dibromochloromethane	0.632	0.642		1.58	30
1,2-Dibromoethane	0.622	0.624		0.32	30
Tetrachloroethene	0.416	0.408		-1.92	30

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: JRHO01

Lab Code: CHEM Case No.: D5213 SAS No.: D5213 SDG No.: D5213

Instrument ID: MSVOA_L Calibration Date/Time: 12/19/2012 12:45

Lab File ID: VL018442.D Init. Calib. Date(s): 12/18/2012 12/18/2012

Heated Purge: (Y/N) N Init. Calib. Time(s): 00:52 03:31

GC Column: RTX-1 ID: 0.32 (mm)

COMPOUND	RRF	RRF010	MIN RRF	%D	MAX%D
Chlorobenzene	1.034	0.917		-11.32	30
Ethyl Benzene	1.754	1.557		-11.23	30
m/p-Xylene	1.378	1.240		-10.01	30
o-Xylene	1.429	1.297		-9.24	30
Styrene	0.976	0.888		-9.02	30
Bromoform	0.521	0.538		3.26	30
1,1,2,2-Tetrachloroethane	0.957	0.872		-8.88	30
2-Chlorotoluene	1.286	1.185		-7.85	30
1,3,5-Trimethylbenzene	1.494	1.395		-6.63	30
1,2,4-Trimethylbenzene	1.479	1.422		-3.85	30
4-Ethyltoluene	1.559	1.429		-8.34	30
1,3-Dichlorobenzene	0.927	0.871		-6.04	30
1,4-Dichlorobenzene	0.953	0.893		-6.3	30
1,2-Dichlorobenzene	0.918	0.860		-6.32	30
1,2,4-Trichlorobenzene	0.488	0.620		27.05	30
Hexachloro-1,3-Butadiene	0.493	0.467		-5.27	30
1,3-Butadiene	0.882	0.870		-1.36	30
Hexane	1.651	1.536		-6.97	30
1-Bromo-4-Fluorobenzene	0.696	0.644		-7.47	30

All other compounds must meet a minimum RRF of 0.010.

SHIPPING DOCUMENTS

outside sample.

CHEMTECH

284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 89

CHEMTECH Project No. : DS213

6

6.1

Client Contact Information	Bottle Order ID : **B1212042**	Courier : fedex	1 of 1 COCs
Client ID : **JRHO01** Project ID : **KoptD 12-01**		Sampler Name(s) : Heather Sonnenberg	Analysis / Matrix
Customer Name : **J.R.Holzmacher P.E., LLC**	Project Manager **Heather sonnenberg**	AIR ANALYSIS CHAIN-OF-CUSTODY	
	Phone Number : **631-234-2220**		
Address : **300 Wheeler Avenue**	Fax Number : **6312342221**		
Suite 402	Site Details: Residential home. multi-family		
City : **Hauppauge**			
State : **NY**	Analysis Turnaround Time Std		
Zip Code : **11788**	Standard : **15 business days**	Data Package Type :	
Country : US	Rush (Specify): N/A **Days**	EDD Type :	

	Sample Identification	Sample Date(s)	Time Start (24 hr Clock)	Time Stop (24 hr Clock)	Can Vacuum in Field ("Hg) (Start)	Can Vacuum in Field ("Hg) (Stop)**	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Out going Can Pressure ("Hg)(Lab)	In coming Can Pressure ("Hg)(Lab)	Flow Reg. ID	Can ID	Can Size (L)	Flow Controller Readout	Can Cert ID	TO-15			~~Indoor~~ Outdoor/Ambinet Air	Soil Gas		
1	VP-1 (12-14-12)	12-14-12 through 12-15-12	10:01 AM 12-14	10:01 AM 12-15	26	0	45°	49°	-30		10772	10273	6 L	4.16	VL018057.D	✓			✓			

Temperature (Fahrenheit)	Ambient	Maximum	Minimum	
Start				
Stop				

Pressure (Inches of Hg)	Ambient	Maximum	Minimum	
Start				
Stop				

GC/MS Analyst Signature (TO-15)

** Submittal of this COC indicates approval of the analysis based on existing conditio

Please follow the instructions on the back of this CO

Special Instructions/QC Requirements & Comments :

Suspected Contamination: High Medium Low

PID Readings: N/A

Sampling site (State):

Quick Connector required : NO

Canisters Shiped by:	Date/Time: 12/7/12	Canisters Received by:	Date/Time:
Samples Relinquished by:	Date/Time: 12/17/12 12:06 pm	Received by:	Date/Time:
Relinquished by: UPS	Date/Time: 12/18/12 920	Received by:	Date/Time: 12/18/12 920

B1212042 - 1

CHEMTECH

284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 89

CHEMTECH Project No. : D5213

Client Contact Information	Bottle Order ID : **B1212042**	Courier : fedex	1 of 1 COCs
Client ID : **JRHO01** Project ID : **KoptD 12-01**		Sampler Name(s) : Heather Sonnenberg	Analysis / Matrix
Customer Name : **J.R.Holzmacher P.E., LLC**	Project Manager **Heather sonnenberg**	AIR ANALYSIS CHAIN-OF-CUSTODY	
Address : **300 Wheeler Avenue**	Phone Number : **631-234-2220**		
Suite 402	Fax Number : **6312342221**		
	Site Details: Residential multi-family house		
City : **Hauppauge**	Analysis Turnaround Time Std		
State : **NY**	Standard : **15 business days**	Data Package Type :	
Zip Code : **11788**	Rush (Specify): N/A **Days**	EDD Type :	
Country : US			

	Sample Identification	Sample Date(s)	Time Start (24 hr Clock)	Time Stop (24 hr Clock)	Can Vacuum in Field ("Hg) (Start)	Can Vacuum in Field ("Hg) (Stop)**	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Out going Can Pressure ("Hg)(Lab)	In coming Can Pressure ("Hg)(Lab)	Flow Reg. ID	Can ID	Can Size (L)	Flow Controller Readout	Can Cert ID	TO-15				Indoor/Ambinet Air	Soil Gas		
2	VP-2 (12-14-12)	12-14-12 through 12-15-12	10:07 AM 12-14-12	10:08 AM 12-15-12	30	Ø	~65°	~65°	-30		10696	10409	6 L	4.16	VL018057.D	✓				✓			

Temperature (Fahrenheit)	Ambient	Maximum	Minimum	
Start				
Stop				

Pressure (Inches of Hg)	Ambient	Maximum	Minimum	
Start				
Stop				

GC/MS Analyst Signature (TO-15)

** Submittal of this COC indicates approval of the analysis based on existing conditio

Please follow the instructions on the back of this CO

Special Instructions/QC Requirements & Comments :

Suspected Contamination: High Medium Low PID Readings: N/A

Sampling site (State):

Quick Connector required : NO			
Canisters Shiped by:	Date/Time: 12/7/12	Canisters Received by:	Date/Time:
Samples Relinquished by:	Date/Time: 12/17/12 12:15pm	Received by:	Date/Time:
Relinquished by:	Date/Time: 12/18/12 920	Received by:	Date/Time: 12/18/12 920

B1212042 - 2

CHEMTECH

284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 89

CHEMTECH Project No. : D5213

Client Contact Information	Bottle Order ID : **B1212042**	Courier : fedex	1 of 1 COCs
Client ID : **JRHO01** Project ID : **KoptD 12-01**		Sampler Name(s) : Heather Sonnenberg	
Customer Name : **J.R.Holzmacher P.E., LLC**	Project Manager **Heather sonnenberg**	AIR ANALYSIS CHAIN-OF-CUSTODY	
	Phone Number : **631-234-2220**		
Address : **300 Wheeler Avenue**	Fax Number : **6312342221**		
Suite 402	Site Details: developed Residential multi-family house		
City : **Hauppauge**			
State : **NY**	Analysis Turnaround Time Std		
Zip Code : **11788**	Standard : **15 business days**	Data Package Type :	
Country : US	Rush (Specify): N/A **Days**	EDD Type :	

Sample Identification	Sample Date(s)	Time Start (24 hr Clock)	Time Stop (24 hr Clock)	Can Vacuum in Field ("Hg) (Start)	Can Vacuum in Field ("Hg) (Stop)**	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Out going Can Pressure ("Hg)(Lab)	In coming Can Pressure ("Hg)(Lab)	Flow Reg. ID	Can ID	Can Size (L)	Flow Controller Readout	Can Cert ID	TO-15				Indoor/Ambinet Air	Soil Gas		
3 VP-3 (12-14-12)	12-14-12 through 12-15-12	10:06 AM 12-14	10:07 AM 12-15	27	Ø	~70°	~70°	-30		10520	10596	6 L	4.16	VL018051.D	✓					✓		

Temperature (Fahrenheit)	Ambient	Maximum	Minimum	
Start				
Stop				

Pressure (Inches of Hg)	Ambient	Maximum	Minimum	
Start				
Stop				

GC/MS Analyst Signature (TO-15)

** Submittal of this COC indicates approval of the analysis based on existing conditio

Please follow the instructions on the back of this CO

Special Instructions/QC Requirements & Comments :

Suspected Contamination: High Medium (Low) PID Readings: N/A

Sampling site (State):

Quick Connector required : NO

Canisters Shiped by:	Date/Time: 12/17/12	Canisters Received by:	Date/Time:
Samples Relinquished by:	Date/Time: 12/17/12 12:15 pm	Received by:	Date/Time:
Relinquished by: UPS	Date/Time: 12/18/12 920	Received by:	Date/Time: 12/18/12 920

B1212042 - 3

From: (631) 234-2220
Pat Zalak
J.R. HOLZMACHER P.E., LLC
300 WHEELER ROAD SUITE 402

HAUPPAUGE, NY 11788

Origin ID: WLMA

FedEx Express

J12201209200325

Ship Date: 17DEC12
ActWgt: 28.0 LB
CAD: 3033057/INET3300

Delivery Address Bar Code

Ref # QUEST 04-01
Invoice #
PO #
Dept #

SHIP TO: (908) 789-8900
Joe Dockery
Chemtech, Inc.
284 Sheffield Street

Mountainside, NJ 07092

BILL SENDER

JDT
12/18/12
920

TRK# 7943 2208 7648
0201

TUE - 18 DEC A1
STANDARD OVERNIGHT

EB CDWA

07092
NJ-US
EWR

515G1/B2B3/AA44

CHEMTECH
284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

State	License No.
New Jersey	20012
New York	11376
Connecticut	PH-0649
Florida	E87935
Maryland	296
Massachusetts	M-NJ503
Oklahoma	9705
Pennsylvania	68-548
Rhode Island	LAO00259
Virginia	460220
Texas	T10470448-10-1

Other:

DOD ELAP	L2219
Soil Permit	P330-11-00012
CLP Inorganic Contract	EPW09038
CLP Organic Contract	EPW11030

QA Control Code: A2070148

DEP-077
Rev. 3/04

New Jersey Department of Environmental Protection

Internal Chain of Custody

Instructions: Use 1 form for each 20 samples of aliquot

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample

Laboratory: Chemtech
Location: 284 Sheffield Street, Mountainside,NJ 7092
Name: ~~[illegible]~~
Title: Sample Custodian
Field Sample Seal No.: D5213
Date Broken: 12/18/2012
Military Time Seal Broken: 09:20:00
Case No.: KoptD 12-01
Analytical Parameter/Fraction: TO-15

Sample No.	Aliquot/Extract No.	Sample No.	Aliquot/Extract No.
D5213-01	VP-1(12-14-12)		
D5213-02	VP-2(12-14-12)		
D5213-03	VP-3(12-14-12)		

Date	Time	Relinquished By	Received By	Purpose of Change of Custody
12/18/12	1255	Signature [illegible]	Signature [illegible]	TO VOC AIR
		Printed Name [illegible] TEUGCO	Printed Name [illegible]	
		Signature	Signature	
		Printed Name	Printed Name	
		Signature	Signature	
		Printed Name	Printed Name	
		Signature	Signature	
		Printed Name	Printed Name	
		Signature	Signature	
		Printed Name	Printed Name	
		Signature	Signature	
		Printed Name	Printed Name	
		Signature	Signature	
		Printed Name	Printed Name	
		Signature	Signature	
		Printed Name	Printed Name	

Distribution: White - Original (Sent With Report) Yellow - Contractor Archive Pink - Sample Custodian - Interim Copy

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

ANALYTICAL RESULTS SUMMARY

VOLATILE ORGANICS

PROJECT NAME : KOPTD 12-01

J.R.HOLZMACHER P.E., LLC

300 Wheeler Avenue

Suite 402

Hauppauge, NY - 11788

Phone No: 631-234-2220

ORDER ID : D5213

ATTENTION : Heather Sonnenberg

ACCREDITED IN ACCORDANCE WITH nelac

DoD ELAP

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: D5213

Client: J.R.Holzmacher P.E., LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID:	**VP-1(12-14-12)**								
D5213-01	VP-1(12-14-12)	AIR	Dichlorodifluoromethane	0.30		0.040	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	Chloromethane	0.33		0.060	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	Trichlorofluoromethane	0.20		0.040	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	Heptane	0.16		0.060	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	Acetone	4.65		0.100	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	Methylene Chloride	1.39		0.050	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	2-Butanone	0.44		0.100	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	2,2,4-Trimethylpentane	0.22		0.040	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	Benzene	0.38		0.040	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	Toluene	1.03		0.050	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	Ethyl Benzene	0.11		0.080	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	m/p-Xylene	0.40		0.110	0.1	0.20	ppbv
D5213-01	VP-1(12-14-12)	AIR	o-Xylene	0.15		0.070	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	1,2,4-Trimethylbenzene	0.11		0.100	0.05	0.10	ppbv
D5213-01	VP-1(12-14-12)	AIR	Hexane	1.25		0.040	0.05	0.10	ppbv
			Total Voc :	**11.12**					
			Total Concentration:	**11.12**					
Client ID:	**VP-2(12-14-12)**								
D5213-02	VP-2(12-14-12)	AIR	Dichlorodifluoromethane	0.30		0.040	0.05	0.10	ppbv
D5213-02	VP-2(12-14-12)	AIR	Chloromethane	0.31		0.060	0.05	0.10	ppbv
D5213-02	VP-2(12-14-12)	AIR	Trichlorofluoromethane	0.20		0.040	0.05	0.10	ppbv
D5213-02	VP-2(12-14-12)	AIR	Acetone	2.53		0.100	0.05	0.10	ppbv
D5213-02	VP-2(12-14-12)	AIR	Methylene Chloride	0.26		0.050	0.05	0.10	ppbv
D5213-02	VP-2(12-14-12)	AIR	2-Butanone	0.22		0.100	0.05	0.10	ppbv
D5213-02	VP-2(12-14-12)	AIR	2,2,4-Trimethylpentane	0.33		0.040	0.05	0.10	ppbv
D5213-02	VP-2(12-14-12)	AIR	Benzene	0.26		0.040	0.05	0.10	ppbv
D5213-02	VP-2(12-14-12)	AIR	Trichloroethene	0.10		0.030	0.015	0.03	ppbv
D5213-02	VP-2(12-14-12)	AIR	Toluene	0.46		0.050	0.05	0.10	ppbv
D5213-02	VP-2(12-14-12)	AIR	Tetrachloroethene	0.17		0.030	0.015	0.03	ppbv
D5213-02	VP-2(12-14-12)	AIR	Hexane	0.29		0.040	0.05	0.10	ppbv
			Total Voc :	**5.43**					
			Total Concentration:	**5.43**					
Client ID:	**VP-3(12-14-12)**								
D5213-03	VP-3(12-14-12)	AIR	Dichlorodifluoromethane	0.31		0.040	0.05	0.10	ppbv
D5213-03	VP-3(12-14-12)	AIR	Chloromethane	0.33		0.060	0.05	0.10	ppbv
D5213-03	VP-3(12-14-12)	AIR	Trichlorofluoromethane	0.22		0.040	0.05	0.10	ppbv
D5213-03	VP-3(12-14-12)	AIR	Heptane	0.10	J	0.060	0.05	0.10	ppbv

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Hit Summary Sheet
SW-846

SDG No.: D5213

Client: J.R.Holzmacher P.E., LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
D5213-03	VP-3(12-14-12)	AIR	Acetone	3.96		0.100	0.05	0.10	ppbv
D5213-03	VP-3(12-14-12)	AIR	Methylene Chloride	2.81		0.050	0.05	0.10	ppbv
D5213-03	VP-3(12-14-12)	AIR	2-Butanone	1.41		0.100	0.05	0.10	ppbv
D5213-03	VP-3(12-14-12)	AIR	Tetrahydrofuran	0.25		0.080	0.05	0.10	ppbv
D5213-03	VP-3(12-14-12)	AIR	2,2,4-Trimethylpentane	0.15		0.040	0.05	0.10	ppbv
D5213-03	VP-3(12-14-12)	AIR	Benzene	0.30		0.040	0.05	0.10	ppbv
D5213-03	VP-3(12-14-12)	AIR	Toluene	0.58		0.050	0.05	0.10	ppbv
D5213-03	VP-3(12-14-12)	AIR	Tetrachloroethene	0.80		0.030	0.015	0.03	ppbv
D5213-03	VP-3(12-14-12)	AIR	m/p-Xylene	0.26		0.110	0.1	0.20	ppbv
D5213-03	VP-3(12-14-12)	AIR	Hexane	0.70		0.040	0.05	0.10	ppbv
			Total Voc :	**12.18**					
			Total Concentration:	**12.18**					

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DATA PACKAGE

VOLATILE ORGANICS

PROJECT NAME : KOPTD 12-01

J.R.HOLZMACHER P.E., LLC

3555 Veterans Memorial Highway

Suite A

Ronkonkoma, NY - 11779

Phone No: 631-234-2220

ORDER ID : E4781

ATTENTION : Jim DeMartinis

DoD ELAP

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Cover Page

Order ID : E4781

Project ID : KoptD 12-01

Client : J.R.Holzmacher P.E., LLC

Lab Sample Number	Client Sample Number
E4781-01	VP-3
E4781-02	VP-2
E4781-03	VP-1

I certify that the data package is in compliance with the terms and conditions of the contract,both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 12/20/2013

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CHEMTECH
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CASE NARRATIVE

J.R.Holzmacher P.E., LLC
Project Name: KoptD 12-01
Project # N/A
Chemtech Project # E4781
Test Name: TO-15

A. Number of Samples and Date of Receipt:
3 Air samples were received on 12/12/2013.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: SUMMA Canister Rental and TO-15. This data package contains results for TO-15.

C. Analytical Techniques:
The analysis performed on instrument MSVOA_L were done using GC column RTX-1, which is 60 meters, 0.32 mm id, 1.0 um df, Restek Cat. #10157. The Trap was supplied by Entech, glass bead and Tenax , Entech 7100A Preconcentrator.The analysis of TO-15 was based on method TO-15.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The Blank Spike for {VL1217ABS} with File ID: VL021588.D met requirements for all samples except for 1,2,4-Trichlorobenzene[136%], 1,4-Dioxane[131%], Naphthalene[132%], Styrene[135%], t-1,3-Dichloropropene[132%] and tert-Butyl Alcohol[137%] .
The Blank analysis indicated presence of Methylene Chloride[0.33 ppbv] FileID:VL021585.D{VL1217ABL} due to possible lab contamination.
The Initial Calibration met the requirements.
The Tuning criteria met requirements.
Sample VP-3 was diluted due to high concentration.

E. Additional Comments:

F. Manual Integration Comments:

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I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 Tel. 908-789-8900 Fax: 908-789-8922

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

QA Control # A3040960

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: E4781

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	✓
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

1st Level QA Review Signature: HIRAL PATEL **Date:** 12/20/2013

2nd Level QA Review Signature: _____ **Date:** _____

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LAB CHRONICLE

OrderID:	E4781	**OrderDate:**	12/12/2013 12:20:45 PM
Client:	J.R.Holzmacher P.E., LLC	**Project:**	KoptD 12-01
Contact:	Jim DeMartinis	**Location:**	Air Lab

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
E4781-01	**VP-3**	**Air**			**12/10/13**			**12/12/13**
			TO-15	TO-15			12/18/13	
E4781-01DL	**VP-3DL**	**Air**			**12/10/13**			**12/12/13**
			TO-15	TO-15			12/18/13	
E4781-02	**VP-2**	**Air**			**12/10/13**			**12/12/13**
			TO-15	TO-15			12/18/13	
E4781-03	**VP-1**	**Air**			**12/10/13**			**12/12/13**
			TO-15	TO-15			12/18/13	

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Hit Summary Sheet
SW-846

SDG No.: E4781

Client: J.R.Holzmacher P.E., LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID:	**VP-1**								
E4781-03	VP-1	Air	Dichlorodifluoromethane	2.87		0.2	0.49	2.47	ug/m3
E4781-03	VP-1	Air	Chloromethane	1.05		0.21	0.21	1.03	ug/m3
E4781-03	VP-1	Air	Trichlorofluoromethane	1.63	J	0.22	0.56	2.81	ug/m3
E4781-03	VP-1	Air	1,1,2-Trichlorotrifluoroethane	0.69	J	0.31	0.77	3.83	ug/m3
E4781-03	VP-1	Air	Heptane	0.66	J	0.41	0.41	2.05	ug/m3
E4781-03	VP-1	Air	Acetone	10.40		0.24	0.24	1.19	ug/m3
E4781-03	VP-1	Air	Methylene Chloride	3.47	B	0.17	0.35	1.74	ug/m3
E4781-03	VP-1	Air	2-Butanone	0.53	J	0.29	0.29	1.47	ug/m3
E4781-03	VP-1	Air	Carbon Tetrachloride	0.44	J	0.19	0.19	3.15	ug/m3
E4781-03	VP-1	Air	2,2,4-Trimethylpentane	0.61	J	0.19	0.47	2.34	ug/m3
E4781-03	VP-1	Air	Benzene	1.09	J	0.13	0.32	1.6	ug/m3
E4781-03	VP-1	Air	Toluene	6.78		0.19	0.38	1.88	ug/m3
E4781-03	VP-1	Air	Tetrachloroethene	0.54	J	0.2	0.2	3.39	ug/m3
E4781-03	VP-1	Air	Ethyl Benzene	0.48	J	0.43	0.43	2.17	ug/m3
E4781-03	VP-1	Air	m/p-Xylene	1.74	J	0.43	0.87	4.34	ug/m3
E4781-03	VP-1	Air	o-Xylene	0.52	J	0.43	0.43	2.17	ug/m3
E4781-03	VP-1	Air	Hexane	1.02	J	0.14	0.35	1.76	ug/m3
			Total Voc :	34.52					
			Total Concentration:	34.52					
Client ID:	**VP-2**								
E4781-02	VP-2	Air	Dichlorodifluoromethane	2.67		0.2	0.49	2.47	ug/m3
E4781-02	VP-2	Air	Chloromethane	1.09		0.21	0.21	1.03	ug/m3
E4781-02	VP-2	Air	Trichlorofluoromethane	1.52	J	0.22	0.56	2.81	ug/m3
E4781-02	VP-2	Air	1,1,2-Trichlorotrifluoroethane	0.61	J	0.31	0.77	3.83	ug/m3
E4781-02	VP-2	Air	Heptane	0.45	J	0.41	0.41	2.05	ug/m3
E4781-02	VP-2	Air	Acetone	11.60		0.24	0.24	1.19	ug/m3
E4781-02	VP-2	Air	Methylene Chloride	4.17	B	0.17	0.35	1.74	ug/m3
E4781-02	VP-2	Air	2-Butanone	0.62	J	0.29	0.29	1.47	ug/m3
E4781-02	VP-2	Air	Carbon Tetrachloride	0.38	J	0.19	0.19	3.15	ug/m3
E4781-02	VP-2	Air	2,2,4-Trimethylpentane	0.51	J	0.19	0.47	2.34	ug/m3
E4781-02	VP-2	Air	Benzene	0.96	J	0.13	0.32	1.6	ug/m3
E4781-02	VP-2	Air	Toluene	5.28		0.19	0.38	1.88	ug/m3
E4781-02	VP-2	Air	Tetrachloroethene	0.81	J	0.2	0.2	3.39	ug/m3
E4781-02	VP-2	Air	Ethyl Benzene	0.96	J	0.43	0.43	2.17	ug/m3
E4781-02	VP-2	Air	m/p-Xylene	9.56		0.43	0.87	4.34	ug/m3
E4781-02	VP-2	Air	o-Xylene	2.17		0.43	0.43	2.17	ug/m3
E4781-02	VP-2	Air	Hexane	1.16	J	0.14	0.35	1.76	ug/m3

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Hit Summary Sheet
SW-846

SDG No.: E4781

Client: J.R.Holzmacher P.E., LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
			Total Voc :	44.52					
			Total Concentration:	44.52					
Client ID:	**VP-3**								
E4781-01	VP-3	Air	Dichlorodifluoromethane	2.57		0.2	0.49	2.47	ug/m3
E4781-01	VP-3	Air	Chloromethane	0.93	J	0.21	0.21	1.03	ug/m3
E4781-01	VP-3	Air	Trichlorofluoromethane	1.69	J	0.22	0.56	2.81	ug/m3
E4781-01	VP-3	Air	1,1,2-Trichlorotrifluoroethane	0.61	J	0.31	0.77	3.83	ug/m3
E4781-01	VP-3	Air	Heptane	0.49	J	0.41	0.41	2.05	ug/m3
E4781-01	VP-3	Air	Acetone	11.20		0.24	0.24	1.19	ug/m3
E4781-01	VP-3	Air	Carbon Disulfide	0.69	J	0.16	0.31	1.56	ug/m3
E4781-01	VP-3	Air	Methylene Chloride	5.56	B	0.17	0.35	1.74	ug/m3
E4781-01	VP-3	Air	Cyclohexane	0.48	J	0.34	0.34	1.72	ug/m3
E4781-01	VP-3	Air	2-Butanone	0.74	J	0.29	0.29	1.47	ug/m3
E4781-01	VP-3	Air	Carbon Tetrachloride	0.38	J	0.19	0.19	3.15	ug/m3
E4781-01	VP-3	Air	Chloroform	0.24	J	0.1	0.49	2.44	ug/m3
E4781-01	VP-3	Air	2,2,4-Trimethylpentane	0.47	J	0.19	0.47	2.34	ug/m3
E4781-01	VP-3	Air	Benzene	0.93	J	0.13	0.32	1.6	ug/m3
E4781-01	VP-3	Air	Trichloroethene	0.21	J	0.11	0.16	2.69	ug/m3
E4781-01	VP-3	Air	Toluene	7.54		0.19	0.38	1.88	ug/m3
E4781-01	VP-3	Air	Tetrachloroethene	134.00	E	0.2	0.2	3.39	ug/m3
E4781-01	VP-3	Air	Ethyl Benzene	0.65	J	0.43	0.43	2.17	ug/m3
E4781-01	VP-3	Air	m/p-Xylene	10.40		0.43	0.87	4.34	ug/m3
E4781-01	VP-3	Air	o-Xylene	2.65		0.43	0.43	2.17	ug/m3
E4781-01	VP-3	Air	Naphthalene	0.37	JQ	0.21	0.52	2.62	ug/m3
E4781-01	VP-3	Air	Hexane	1.02	J	0.14	0.35	1.76	ug/m3
			Total Voc :	183.82					
			Total Concentration:	183.82					
Client ID:	**VP-3DL**								
E4781-01DL	VP-3DL	Air	Acetone	12.10	D	2.38	2.38	11.9	ug/m3
E4781-01DL	VP-3DL	Air	Toluene	4.15	JD	1.88	3.77	18.8	ug/m3
E4781-01DL	VP-3DL	Air	Tetrachloroethene	99.00	D	2.03	2.03	33.9	ug/m3
E4781-01DL	VP-3DL	Air	m/p-Xylene	4.34	JD	4.34	8.69	43.4	ug/m3
			Total Voc :	119.59					
			Total Concentration:	119.59					

Chemical	CAS Number	Molecular Weight	Insert Results in ppbv	Q	Generates Results in ug/m3	QAS Decision	Foot-Notes
Dichlorodifluoromethane	75-71-8	120.9	0.52		2.57		
Chloromethane	74-87-3	50.49	0.45	J	0.93		
Vinyl Chloride	75-01-4	62.5	0.03	U	0.08		
Bromomethane	74-83-9	94.94	0.1	U	0.39		
Chloroethane	75-00-3	64.52	0.1	U	0.26		
Tetrahydrofuran	109-99-9	72.11	0.1	U	0.29		
Trichlorofluoromethane	75-69-4	137.4	0.3	J	1.69		
Dichlorotetrafluoroethane	76-14-2	170.9	0.1	U	0.7		
1,1,2-Trichlorotrifluoroethane	76-13-1	187.4	0.08	J	0.61		
Bromoethene	593-60-2	106.9	0.1	U	0.44		
tert-Butyl alcohol	75-65-0	74.12	0.1	U	0.3		
Heptane	142-82-5	100.2	0.12	J	0.49		
1,1-Dichloroethene	75-35-4	96.94	0.1	U	0.4		
Acetone	67-64-1	58.08	4.7		11.2		
Carbon Disulfide	75-15-0	76.14	0.22	J	0.69		
Methyl tert-Butyl Ether	1634-04-4	88.15	0.1	U	0.36		
Methylene Chloride	75-09-2	84.94	1.6		5.56		
trans-1,2-Dichloroethene	156-60-5	96.94	0.1	U	0.4		
1,1-Dichloroethane	75-34-3	98.96	0.1	U	0.4		
Cyclohexane	110-82-7	84.16	0.14	J	0.48		
2-Butanone	78-93-3	72.11	0.25	J	0.74		
Carbon Tetrachloride	56-23-5	153.8	0.06	J	0.38		
cis-1,2-Dichloroethene	156-59-2	96.94	0.1	U	0.4		
Chloroform	67-66-3	119.4	0.05	J	0.24		
1,1,1-Trichloroethane	71-55-6	133.4	0.03	U	0.16		
2,2,4-Trimethylpentane	540-84-1	114.2	0.1	J	0.47		
Benzene	71-43-2	78.11	0.29	J	0.93		
1,2-Dichloroethane	107-06-2	98.96	0.1	U	0.4		
Trichloroethene	79-01-6	131.4	0.04	J	0.21		
1,2-Dichloropropane	78-87-5	113	0.1	U	0.46		
Bromodichloromethane	75-27-4	163.8	0.1	U	0.67		
4-Methyl-2-Pentanone	108-10-1	100.2	0.1	U	0.41		
Toluene	108-88-3	92.14	2		7.54		
t-1,3-Dichloropropene	10061-02-6	111	0.1	U	0.45		
cis-1,3-Dichloropropene	10061-01-5	111	0.1	U	0.45		
1,1,2-Trichloroethane	79-00-5	133.4	0.1	U	0.55		
Dibromochloromethane	124-48-1	208.3	0.1	U	0.85		
1,2-Dibromoethane	106-93-4	187.9	0.1	U	0.77		
Tetrachloroethene	127-18-4	165.8	19.9	E	134		
Chlorobenzene	108-90-7	112.6	0.1	U	0.46		
Ethyl Benzene	100-41-4	106.2	0.15	J	0.65		
m/p-Xylene	179601-23-1	106.2	2.4		10.4		
o-Xylene	95-47-6	106.2	0.61		2.65		
Styrene	100-42-5	104.1	0.1	U	0.43		

Bromoform	75-25-2	252.8	0.1	U	1.03		
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.1	U	0.69		
2-Chlorotoluene	95-49-8	126.6	0.1	U	0.52		
1,3,5-Trimethylbenzene	108-67-8	120.2	0.1	U	0.49		
1,2,4-Trimethylbenzene	95-63-6	120.2	0.1	U	0.49		
1,3-Dichlorobenzene	541-73-1	147	0.1	U	0.6		
1,4-Dichlorobenzene	106-46-7	147	0.1	U	0.6		
1,2-Dichlorobenzene	95-50-1	147	0.1	U	0.6		
1,2,4-Trichlorobenzene	120-82-1	181.5	0.1	U	0.74		
Hexachloro-1,3-Butadiene	87-68-3	260.8	0.1	U	1.07		
Naphthalene	91-20-3	128.17	0.07	J	0.37		
1,3-Butadiene	106-99-0	54.09	0.1	U	0.22		
4-Ethyltoluene	622-96-8	120.2	0.1	U	0.49		
Hexane	110-54-3	86.17	0.29	J	1.02		
Allyl Chloride	107-05-1	76.53	0.1	U	0.31		
1,4-Dioxane	123-91-1	88.12	0.1	U	0.36		
Methyl Methacrylate	80-62-6	100.117	0.1	U	0.41		

Chemical	CAS Number	Molecular Weight	Insert Results in ppbv	Q	Generates Results in ug/m3	QAS Decision	Foot-Notes
Dichlorodifluoromethane	75-71-8	120.9	1	UD	4.94		
Chloromethane	74-87-3	50.49	1	UD	2.07		
Vinyl Chloride	75-01-4	62.5	0.3	UD	0.77		
Bromomethane	74-83-9	94.94	1	UD	3.88		
Chloroethane	75-00-3	64.52	1	UD	2.64		
Tetrahydrofuran	109-99-9	72.11	1	UD	2.95		
Trichlorofluoromethane	75-69-4	137.4	1	UD	5.62		
Dichlorotetrafluoroethane	76-14-2	170.9	1	UD	6.99		
1,1,2-Trichlorotrifluoroethane	76-13-1	187.4	1	UD	7.66		
Bromoethene	593-60-2	106.9	1	UD	4.37		
tert-Butyl alcohol	75-65-0	74.12	1	UD	3.03		
Heptane	142-82-5	100.2	1	UD	4.1		
1,1-Dichloroethene	75-35-4	96.94	1	UD	3.96		
Acetone	67-64-1	58.08	5.1	D	12.1		
Carbon Disulfide	75-15-0	76.14	1	UD	3.11		
Methyl tert-Butyl Ether	1634-04-4	88.15	1	UD	3.61		
Methylene Chloride	75-09-2	84.94	1	UD	3.47		
trans-1,2-Dichloroethene	156-60-5	96.94	1	UD	3.96		
1,1-Dichloroethane	75-34-3	98.96	1	UD	4.05		
Cyclohexane	110-82-7	84.16	1	UD	3.44		
2-Butanone	78-93-3	72.11	1	UD	2.95		
Carbon Tetrachloride	56-23-5	153.8	0.3	UD	1.89		
cis-1,2-Dichloroethene	156-59-2	96.94	1	UD	3.96		
Chloroform	67-66-3	119.4	1	UD	4.88		
1,1,1-Trichloroethane	71-55-6	133.4	0.3	UD	1.64		
2,2,4-Trimethylpentane	540-84-1	114.2	1	UD	4.67		
Benzene	71-43-2	78.11	1	UD	3.19		
1,2-Dichloroethane	107-06-2	98.96	1	UD	4.05		
Trichloroethene	79-01-6	131.4	0.3	UD	1.61		
1,2-Dichloropropane	78-87-5	113	1	UD	4.62		
Bromodichloromethane	75-27-4	163.8	1	UD	6.7		
4-Methyl-2-Pentanone	108-10-1	100.2	1	UD	4.1		
Toluene	108-88-3	92.14	1.1	JD	4.15		
t-1,3-Dichloropropene	10061-02-6	111	1	UD	4.54		
cis-1,3-Dichloropropene	10061-01-5	111	1	UD	4.54		
1,1,2-Trichloroethane	79-00-5	133.4	1	UD	5.46		
Dibromochloromethane	124-48-1	208.3	1	UD	8.52		
1,2-Dibromoethane	106-93-4	187.9	1	UD	7.69		
Tetrachloroethene	127-18-4	165.8	14.6	D	99		
Chlorobenzene	108-90-7	112.6	1	UD	4.61		
Ethyl Benzene	100-41-4	106.2	1	UD	4.34		
m/p-Xylene	179601-23-1	106.2	1	JD	4.34		
o-Xylene	95-47-6	106.2	1	UD	4.34		
Styrene	100-42-5	104.1	1	UD	4.26		

Bromoform	75-25-2	252.8	1	UD	10.3		
1,1,2,2-Tetrachloroethane	79-34-5	167.9	1	UD	6.87		
2-Chlorotoluene	95-49-8	126.6	1	UD	5.18		
1,3,5-Trimethylbenzene	108-67-8	120.2	1	UD	4.92		
1,2,4-Trimethylbenzene	95-63-6	120.2	1	UD	4.92		
1,3-Dichlorobenzene	541-73-1	147	1	UD	6.01		
1,4-Dichlorobenzene	106-46-7	147	1	UD	6.01		
1,2-Dichlorobenzene	95-50-1	147	1	UD	6.01		
1,2,4-Trichlorobenzene	120-82-1	181.5	1	UD	7.42		
Hexachloro-1,3-Butadiene	87-68-3	260.8	1	UD	10.7		
1,3-Butadiene	106-99-0	54.09	1	UD	2.21		
Naphthalene	91-20-3	128.17	1	UD	5.24		
4-Ethyltoluene	622-96-8	120.2	1	UD	4.92		
Hexane	110-54-3	86.17	1	UD	3.52		
Allyl Chloride	107-05-1	76.53	1	UD	3.13		
1,4-Dioxane	123-91-1	88.12	1	UD	3.6		
Methyl Methacrylate	80-62-6	100.117	1	UD	4.09		

Chemical	CAS Number	Molecular Weight	Insert Results in ppbv	Q	Generates Results in ug/m3	QAS Decision	Foot-Notes
Dichlorodifluoromethane	75-71-8	120.9	0.54		2.67		
Chloromethane	74-87-3	50.49	0.53		1.09		
Vinyl Chloride	75-01-4	62.5	0.03	U	0.08		
Bromomethane	74-83-9	94.94	0.1	U	0.39		
Chloroethane	75-00-3	64.52	0.1	U	0.26		
Tetrahydrofuran	109-99-9	72.11	0.1	U	0.29		
Trichlorofluoromethane	75-69-4	137.4	0.27	J	1.52		
Dichlorotetrafluoroethane	76-14-2	170.9	0.1	U	0.7		
1,1,2-Trichlorotrifluoroethane	76-13-1	187.4	0.08	J	0.61		
Bromoethene	593-60-2	106.9	0.1	U	0.44		
tert-Butyl alcohol	75-65-0	74.12	0.1	U	0.3		
Heptane	142-82-5	100.2	0.11	J	0.45		
1,1-Dichloroethene	75-35-4	96.94	0.1	U	0.4		
Acetone	67-64-1	58.08	4.9		11.6		
Carbon Disulfide	75-15-0	76.14	0.1	U	0.31		
Methyl tert-Butyl Ether	1634-04-4	88.15	0.1	U	0.36		
Methylene Chloride	75-09-2	84.94	1.2		4.17		
trans-1,2-Dichloroethene	156-60-5	96.94	0.1	U	0.4		
1,1-Dichloroethane	75-34-3	98.96	0.1	U	0.4		
Cyclohexane	110-82-7	84.16	0.1	U	0.34		
2-Butanone	78-93-3	72.11	0.21	J	0.62		
Carbon Tetrachloride	56-23-5	153.8	0.06	J	0.38		
cis-1,2-Dichloroethene	156-59-2	96.94	0.1	U	0.4		
Chloroform	67-66-3	119.4	0.1	U	0.49		
1,1,1-Trichloroethane	71-55-6	133.4	0.03	U	0.16		
2,2,4-Trimethylpentane	540-84-1	114.2	0.11	J	0.51		
Benzene	71-43-2	78.11	0.3	J	0.96		
1,2-Dichloroethane	107-06-2	98.96	0.1	U	0.4		
Trichloroethene	79-01-6	131.4	0.03	U	0.16		
1,2-Dichloropropane	78-87-5	113	0.1	U	0.46		
Bromodichloromethane	75-27-4	163.8	0.1	U	0.67		
4-Methyl-2-Pentanone	108-10-1	100.2	0.1	U	0.41		
Toluene	108-88-3	92.14	1.4		5.28		
t-1,3-Dichloropropene	10061-02-6	111	0.1	U	0.45		
cis-1,3-Dichloropropene	10061-01-5	111	0.1	U	0.45		
1,1,2-Trichloroethane	79-00-5	133.4	0.1	U	0.55		
Dibromochloromethane	124-48-1	208.3	0.1	U	0.85		
1,2-Dibromoethane	106-93-4	187.9	0.1	U	0.77		
Tetrachloroethene	127-18-4	165.8	0.12	J	0.81		
Chlorobenzene	108-90-7	112.6	0.1	U	0.46		
Ethyl Benzene	100-41-4	106.2	0.22	J	0.96		
m/p-Xylene	179601-23-1	106.2	2.2		9.56		
o-Xylene	95-47-6	106.2	0.5		2.17		
Styrene	100-42-5	104.1	0.1	U	0.43		

Bromoform	75-25-2	252.8	0.1	U	1.03		
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.1	U	0.69		
2-Chlorotoluene	95-49-8	126.6	0.1	U	0.52		
1,3,5-Trimethylbenzene	108-67-8	120.2	0.1	U	0.49		
1,2,4-Trimethylbenzene	95-63-6	120.2	0.1	U	0.49		
1,3-Dichlorobenzene	541-73-1	147	0.1	U	0.6		
1,4-Dichlorobenzene	106-46-7	147	0.1	U	0.6		
1,2-Dichlorobenzene	95-50-1	147	0.1	U	0.6		
1,2,4-Trichlorobenzene	120-82-1	181.5	0.1	U	0.74		
Hexachloro-1,3-Butadiene	87-68-3	260.8	0.1	U	1.07		
Naphthalene	91-20-3	128.17	0.1	U	0.52		
1,3-Butadiene	106-99-0	54.09	0.1	U	0.22		
4-Ethyltoluene	622-96-8	120.2	0.1	U	0.49		
Hexane	110-54-3	86.17	0.33	J	1.16		
Allyl Chloride	107-05-1	76.53	0.1	U	0.31		
1,4-Dioxane	123-91-1	88.12	0.1	U	0.36		
Methyl Methacrylate	80-62-6	100.117	0.1	U	0.41		

Chemical	CAS Number	Molecular Weight	Insert Results in ppbv	Q	Generates Results in ug/m3	QAS Decision	Foot-Notes
Dichlorodifluoromethane	75-71-8	120.9	0.58		2.87		
Chloromethane	74-87-3	50.49	0.51		1.05		
Vinyl Chloride	75-01-4	62.5	0.03	U	0.08		
Bromomethane	74-83-9	94.94	0.1	U	0.39		
Chloroethane	75-00-3	64.52	0.1	U	0.26		
Tetrahydrofuran	109-99-9	72.11	0.1	U	0.29		
Trichlorofluoromethane	75-69-4	137.4	0.29	J	1.63		
Dichlorotetrafluoroethane	76-14-2	170.9	0.1	U	0.7		
1,1,2-Trichlorotrifluoroethane	76-13-1	187.4	0.09	J	0.69		
Bromoethene	593-60-2	106.9	0.1	U	0.44		
tert-Butyl alcohol	75-65-0	74.12	0.1	U	0.3		
Heptane	142-82-5	100.2	0.16	J	0.66		
1,1-Dichloroethene	75-35-4	96.94	0.1	U	0.4		
Acetone	67-64-1	58.08	4.4		10.4		
Carbon Disulfide	75-15-0	76.14	0.1	U	0.31		
Methyl tert-Butyl Ether	1634-04-4	88.15	0.1	U	0.36		
Methylene Chloride	75-09-2	84.94	1		3.47		
trans-1,2-Dichloroethene	156-60-5	96.94	0.1	U	0.4		
1,1-Dichloroethane	75-34-3	98.96	0.1	U	0.4		
Cyclohexane	110-82-7	84.16	0.1	U	0.34		
2-Butanone	78-93-3	72.11	0.18	J	0.53		
Carbon Tetrachloride	56-23-5	153.8	0.07	J	0.44		
cis-1,2-Dichloroethene	156-59-2	96.94	0.1	U	0.4		
Chloroform	67-66-3	119.4	0.1	U	0.49		
1,1,1-Trichloroethane	71-55-6	133.4	0.03	U	0.16		
2,2,4-Trimethylpentane	540-84-1	114.2	0.13	J	0.61		
Benzene	71-43-2	78.11	0.34	J	1.09		
1,2-Dichloroethane	107-06-2	98.96	0.1	U	0.4		
Trichloroethene	79-01-6	131.4	0.03	U	0.16		
1,2-Dichloropropane	78-87-5	113	0.1	U	0.46		
Bromodichloromethane	75-27-4	163.8	0.1	U	0.67		
4-Methyl-2-Pentanone	108-10-1	100.2	0.1	U	0.41		
Toluene	108-88-3	92.14	1.8		6.78		
t-1,3-Dichloropropene	10061-02-6	111	0.1	U	0.45		
cis-1,3-Dichloropropene	10061-01-5	111	0.1	U	0.45		
1,1,2-Trichloroethane	79-00-5	133.4	0.1	U	0.55		
Dibromochloromethane	124-48-1	208.3	0.1	U	0.85		
1,2-Dibromoethane	106-93-4	187.9	0.1	U	0.77		
Tetrachloroethene	127-18-4	165.8	0.08	J	0.54		
Chlorobenzene	108-90-7	112.6	0.1	U	0.46		
Ethyl Benzene	100-41-4	106.2	0.11	J	0.48		
m/p-Xylene	179601-23-1	106.2	0.4	J	1.74		
o-Xylene	95-47-6	106.2	0.12	J	0.52		
Styrene	100-42-5	104.1	0.1	U	0.43		

Bromoform	75-25-2	252.8	0.1	U	1.03		
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.1	U	0.69		
2-Chlorotoluene	95-49-8	126.6	0.1	U	0.52		
1,3,5-Trimethylbenzene	108-67-8	120.2	0.1	U	0.49		
1,2,4-Trimethylbenzene	95-63-6	120.2	0.1	U	0.49		
1,3-Dichlorobenzene	541-73-1	147	0.1	U	0.6		
1,4-Dichlorobenzene	106-46-7	147	0.1	U	0.6		
1,2-Dichlorobenzene	95-50-1	147	0.1	U	0.6		
1,2,4-Trichlorobenzene	120-82-1	181.5	0.1	U	0.74		
Hexachloro-1,3-Butadiene	87-68-3	260.8	0.1	U	1.07		
Naphthalene	91-20-3	128.17	0.1	U	0.52		
1,3-Butadiene	106-99-0	54.09	0.1	U	0.22		
4-Ethyltoluene	622-96-8	120.2	0.1	U	0.49		
Hexane	110-54-3	86.17	0.29	J	1.02		
Allyl Chloride	107-05-1	76.53	0.1	U	0.31		
1,4-Dioxane	123-91-1	88.12	0.1	U	0.36		
Methyl Methacrylate	80-62-6	100.117	0.1	U	0.41		

SAMPLE DATA

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/10/13
Project:	KoptD 12-01	Date Received:	12/12/13
Client Sample ID:	VP-3	SDG No.:	E4781
Lab Sample ID:	E4781-01	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL021603.D	1		12/18/13	VL121713

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	0.52	2.57		0.2	0.49	2.47	ug/m3
74-87-3	Chloromethane	0.45	0.93	J	0.21	0.21	1.03	ug/m3
75-01-4	Vinyl Chloride	0.03	0.08	U	0.08	0.08	1.28	ug/m3
74-83-9	Bromomethane	0.1	0.39	U	0.12	0.39	1.94	ug/m3
75-00-3	Chloroethane	0.1	0.26	U	0.26	0.26	1.32	ug/m3
109-99-9	Tetrahydrofuran	0.1	0.29	U	0.29	0.29	1.47	ug/m3
75-69-4	Trichlorofluoromethane	0.3	1.69	J	0.22	0.56	2.81	ug/m3
76-13-1	1,1,2-Trichlorotrifluoroethane	0.08	0.61	J	0.31	0.77	3.83	ug/m3
76-14-2	Dichlorotetrafluoroethane	0.1	0.7	U	0.28	0.7	3.49	ug/m3
593-60-2	Bromoethene	0.1	0.44	U	0.13	0.44	2.19	ug/m3
75-65-0	tert-Butyl alcohol	0.1	0.3	UQ	0.3	0.3	1.52	ug/m3
142-82-5	Heptane	0.12	0.49	J	0.41	0.41	2.05	ug/m3
75-35-4	1,1-Dichloroethene	0.1	0.4	U	0.2	0.4	1.98	ug/m3
67-64-1	Acetone	4.7	11.2		0.24	0.24	1.19	ug/m3
75-15-0	Carbon Disulfide	0.22	0.69	J	0.16	0.31	1.56	ug/m3
1634-04-4	Methyl tert-Butyl Ether	0.1	0.36	U	0.18	0.36	1.8	ug/m3
75-09-2	Methylene Chloride	1.6	5.56	B	0.17	0.35	1.74	ug/m3
156-60-5	trans-1,2-Dichloroethene	0.1	0.4	U	0.2	0.4	1.98	ug/m3
75-34-3	1,1-Dichloroethane	0.1	0.4	U	0.16	0.4	2.02	ug/m3
110-82-7	Cyclohexane	0.14	0.48	J	0.34	0.34	1.72	ug/m3
78-93-3	2-Butanone	0.25	0.74	J	0.29	0.29	1.47	ug/m3
56-23-5	Carbon Tetrachloride	0.06	0.38	J	0.19	0.19	3.15	ug/m3
156-59-2	cis-1,2-Dichloroethene	0.1	0.4	U	0.2	0.4	1.98	ug/m3
67-66-3	Chloroform	0.05	0.24	J	0.1	0.49	2.44	ug/m3
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.16	0.16	2.73	ug/m3
540-84-1	2,2,4-Trimethylpentane	0.1	0.47	J	0.19	0.47	2.34	ug/m3
71-43-2	Benzene	0.29	0.93	J	0.13	0.32	1.6	ug/m3
107-06-2	1,2-Dichloroethane	0.1	0.4	U	0.4	0.4	2.02	ug/m3
79-01-6	Trichloroethene	0.04	0.21	J	0.11	0.16	2.69	ug/m3
78-87-5	1,2-Dichloropropane	0.1	0.46	U	0.46	0.46	2.31	ug/m3
75-27-4	Bromodichloromethane	0.1	0.67	U	0.33	0.67	3.35	ug/m3
108-10-1	4-Methyl-2-Pentanone	0.1	0.41	U	0.2	0.41	2.05	ug/m3
108-88-3	Toluene	2	7.54		0.19	0.38	1.88	ug/m3
10061-02-6	t-1,3-Dichloropropene	0.1	0.45	UQ	0.45	0.45	2.27	ug/m3
10061-01-5	cis-1,3-Dichloropropene	0.1	0.45	U	0.45	0.45	2.27	ug/m3
79-00-5	1,1,2-Trichloroethane	0.1	0.55	U	0.55	0.55	2.73	ug/m3
124-48-1	Dibromochloromethane	0.1	0.85	U	0.43	0.85	4.26	ug/m3
106-93-4	1,2-Dibromoethane	0.1	0.77	U	0.77	0.77	3.84	ug/m3

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/10/13
Project:	KoptD 12-01	Date Received:	12/12/13
Client Sample ID:	VP-3	SDG No.:	E4781
Lab Sample ID:	E4781-01	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL021603.D	1		12/18/13	VL121713

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
127-18-4	Tetrachloroethene	19.9	134	E	0.2	0.2	3.39	ug/m3
108-90-7	Chlorobenzene	0.1	0.46	U	0.46	0.46	2.3	ug/m3
100-41-4	Ethyl Benzene	0.15	0.65	J	0.43	0.43	2.17	ug/m3
179601-23-1	m/p-Xylene	2.4	10.4		0.43	0.87	4.34	ug/m3
95-47-6	o-Xylene	0.61	2.65		0.43	0.43	2.17	ug/m3
100-42-5	Styrene	0.1	0.43	UQ	0.43	0.43	2.13	ug/m3
75-25-2	Bromoform	0.1	1.03	U	0.52	1.03	5.17	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	0.1	0.69	U	0.69	0.69	3.43	ug/m3
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.52	0.52	2.59	ug/m3
108-67-8	1,3,5-Trimethylbenzene	0.1	0.49	U	0.49	0.49	2.46	ug/m3
95-63-6	1,2,4-Trimethylbenzene	0.1	0.49	U	0.49	0.49	2.46	ug/m3
541-73-1	1,3-Dichlorobenzene	0.1	0.6	U	0.6	0.6	3.01	ug/m3
106-46-7	1,4-Dichlorobenzene	0.1	0.6	U	0.6	0.6	3.01	ug/m3
95-50-1	1,2-Dichlorobenzene	0.1	0.6	U	0.6	0.6	3.01	ug/m3
120-82-1	1,2,4-Trichlorobenzene	0.1	0.74	UQ	0.3	0.74	3.71	ug/m3
87-68-3	Hexachloro-1,3-Butadiene	0.1	1.07	U	1.07	1.07	5.33	ug/m3
106-99-0	1,3-Butadiene	0.1	0.22	U	0.22	0.22	1.11	ug/m3
91-20-3	Naphthalene	0.07	0.37	JQ	0.21	0.52	2.62	ug/m3
622-96-8	4-Ethyltoluene	0.1	0.49	U	0.49	0.49	2.46	ug/m3
110-54-3	Hexane	0.29	1.02	J	0.14	0.35	1.76	ug/m3
107-05-1	Allyl Chloride	0.1	0.31	U	0.16	0.31	1.57	ug/m3
123-91-1	1,4-Dioxane	0.1	0.36	UQ	0.36	0.36	1.8	ug/m3
80-62-6	Methyl Methacrylate	0.1	0.41	U	0.41	0.41	2.05	ug/m3
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	9.5			65 - 135		95%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	1301730		6.66				
540-36-3	1,4-Difluorobenzene	4937720		8.33				
3114-55-4	Chlorobenzene-d5	4265430		13.75				

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
D = Dilution

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
Q = indicates LCS control criteria did not meet requirements

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Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/10/13
Project:	KoptD 12-01	Date Received:	12/12/13
Client Sample ID:	VP-3DL	SDG No.:	E4781
Lab Sample ID:	E4781-01DL	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL021604.D	10		12/18/13	VL121713

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	1	4.94	UD	1.98	4.94	24.7	ug/m3
74-87-3	Chloromethane	1	2.07	UD	2.07	2.07	10.3	ug/m3
75-01-4	Vinyl Chloride	0.3	0.77	UD	0.77	0.77	12.8	ug/m3
74-83-9	Bromomethane	1	3.88	UD	1.16	3.88	19.4	ug/m3
75-00-3	Chloroethane	1	2.64	UD	2.64	2.64	13.2	ug/m3
109-99-9	Tetrahydrofuran	1	2.95	UD	2.95	2.95	14.8	ug/m3
75-69-4	Trichlorofluoromethane	1	5.62	UD	2.25	5.62	28.1	ug/m3
76-13-1	1,1,2-Trichlorotrifluoroethane	1	7.66	UD	3.07	7.66	38.3	ug/m3
76-14-2	Dichlorotetrafluoroethane	1	6.99	UD	2.8	6.99	35.0	ug/m3
593-60-2	Bromoethene	1	4.37	UD	1.31	4.37	21.9	ug/m3
75-65-0	tert-Butyl alcohol	1	3.03	UDQ	3.03	3.03	15.2	ug/m3
142-82-5	Heptane	1	4.1	UD	4.1	4.1	20.5	ug/m3
75-35-4	1,1-Dichloroethene	1	3.96	UD	1.98	3.96	19.8	ug/m3
67-64-1	Acetone	5.1	12.1	D	2.38	2.38	11.9	ug/m3
75-15-0	Carbon Disulfide	1	3.11	UD	1.56	3.11	15.6	ug/m3
1634-04-4	Methyl tert-Butyl Ether	1	3.61	UD	1.8	3.61	18.0	ug/m3
75-09-2	Methylene Chloride	1	3.47	UD	1.74	3.47	17.4	ug/m3
156-60-5	trans-1,2-Dichloroethene	1	3.96	UD	1.98	3.96	19.8	ug/m3
75-34-3	1,1-Dichloroethane	1	4.05	UD	1.62	4.05	20.2	ug/m3
110-82-7	Cyclohexane	1	3.44	UD	3.44	3.44	17.2	ug/m3
78-93-3	2-Butanone	1	2.95	UD	2.95	2.95	14.8	ug/m3
56-23-5	Carbon Tetrachloride	0.3	1.89	UD	1.89	1.89	31.4	ug/m3
156-59-2	cis-1,2-Dichloroethene	1	3.96	UD	1.98	3.96	19.8	ug/m3
67-66-3	Chloroform	1	4.88	UD	0.98	4.88	24.4	ug/m3
71-55-6	1,1,1-Trichloroethane	0.3	1.64	UD	1.64	1.64	27.3	ug/m3
540-84-1	2,2,4-Trimethylpentane	1	4.67	UD	1.87	4.67	23.4	ug/m3
71-43-2	Benzene	1	3.19	UD	1.28	3.19	16.0	ug/m3
107-06-2	1,2-Dichloroethane	1	4.05	UD	4.05	4.05	20.2	ug/m3
79-01-6	Trichloroethene	0.3	1.61	UD	0.81	1.61	26.9	ug/m3
78-87-5	1,2-Dichloropropane	1	4.62	UD	4.62	4.62	23.1	ug/m3
75-27-4	Bromodichloromethane	1	6.7	UD	3.35	6.7	33.5	ug/m3
108-10-1	4-Methyl-2-Pentanone	1	4.1	UD	2.05	4.1	20.5	ug/m3
108-88-3	Toluene	1.1	4.15	JD	1.88	3.77	18.8	ug/m3
10061-02-6	t-1,3-Dichloropropene	1	4.54	UDQ	4.54	4.54	22.7	ug/m3
10061-01-5	cis-1,3-Dichloropropene	1	4.54	UD	4.54	4.54	22.7	ug/m3
79-00-5	1,1,2-Trichloroethane	1	5.46	UD	5.46	5.46	27.3	ug/m3
124-48-1	Dibromochloromethane	1	8.52	UD	4.26	8.52	42.6	ug/m3
106-93-4	1,2-Dibromoethane	1	7.69	UD	7.69	7.69	38.4	ug/m3

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Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/10/13
Project:	KoptD 12-01	Date Received:	12/12/13
Client Sample ID:	VP-3DL	SDG No.:	E4781
Lab Sample ID:	E4781-01DL	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL021604.D	10		12/18/13	VL121713

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
127-18-4	Tetrachloroethene	14.6	99.0	D	2.03	2.03	33.9	ug/m3
108-90-7	Chlorobenzene	1	4.61	UD	4.61	4.61	23.0	ug/m3
100-41-4	Ethyl Benzene	1	4.34	UD	4.34	4.34	21.7	ug/m3
179601-23-1	m/p-Xylene	1	4.34	JD	4.34	8.69	43.4	ug/m3
95-47-6	o-Xylene	1	4.34	UD	4.34	4.34	21.7	ug/m3
100-42-5	Styrene	1	4.26	UDQ	4.26	4.26	21.3	ug/m3
75-25-2	Bromoform	1	10.3	UD	5.17	10.3	51.7	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	1	6.87	UD	6.87	6.87	34.3	ug/m3
95-49-8	2-Chlorotoluene	1	5.18	UD	5.18	5.18	25.9	ug/m3
108-67-8	1,3,5-Trimethylbenzene	1	4.92	UD	4.92	4.92	24.6	ug/m3
95-63-6	1,2,4-Trimethylbenzene	1	4.92	UD	4.92	4.92	24.6	ug/m3
541-73-1	1,3-Dichlorobenzene	1	6.01	UD	6.01	6.01	30.1	ug/m3
106-46-7	1,4-Dichlorobenzene	1	6.01	UD	6.01	6.01	30.1	ug/m3
95-50-1	1,2-Dichlorobenzene	1	6.01	UD	6.01	6.01	30.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	1	7.42	UDQ	2.97	7.42	37.1	ug/m3
87-68-3	Hexachloro-1,3-Butadiene	1	10.7	UD	10.7	10.7	53.3	ug/m3
106-99-0	1,3-Butadiene	1	2.21	UD	2.21	2.21	11.1	ug/m3
91-20-3	Naphthalene	1	5.24	UDQ	2.1	5.24	26.2	ug/m3
622-96-8	4-Ethyltoluene	1	4.92	UD	4.92	4.92	24.6	ug/m3
110-54-3	Hexane	1	3.52	UD	1.41	3.52	17.6	ug/m3
107-05-1	Allyl Chloride	1	3.13	UD	1.57	3.13	15.6	ug/m3
123-91-1	1,4-Dioxane	1	3.6	UDQ	3.6	3.6	18.0	ug/m3
80-62-6	Methyl Methacrylate	1	4.09	UD	4.09	4.09	20.5	ug/m3
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	9.8			65 - 135		98%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	1338670		6.66				
540-36-3	1,4-Difluorobenzene	5029140		8.33				
3114-55-4	Chlorobenzene-d5	4547920		13.75				

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
D = Dilution

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
Q = indicates LCS control criteria did not meet requirements

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Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/10/13
Project:	KoptD 12-01	Date Received:	12/12/13
Client Sample ID:	VP-2	SDG No.:	E4781
Lab Sample ID:	E4781-02	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL021605.D	1		12/18/13	VL121713

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	0.54	2.67		0.2	0.49	2.47	ug/m3
74-87-3	Chloromethane	0.53	1.09		0.21	0.21	1.03	ug/m3
75-01-4	Vinyl Chloride	0.03	0.08	U	0.08	0.08	1.28	ug/m3
74-83-9	Bromomethane	0.1	0.39	U	0.12	0.39	1.94	ug/m3
75-00-3	Chloroethane	0.1	0.26	U	0.26	0.26	1.32	ug/m3
109-99-9	Tetrahydrofuran	0.1	0.29	U	0.29	0.29	1.47	ug/m3
75-69-4	Trichlorofluoromethane	0.27	1.52	J	0.22	0.56	2.81	ug/m3
76-13-1	1,1,2-Trichlorotrifluoroethane	0.08	0.61	J	0.31	0.77	3.83	ug/m3
76-14-2	Dichlorotetrafluoroethane	0.1	0.7	U	0.28	0.7	3.49	ug/m3
593-60-2	Bromoethene	0.1	0.44	U	0.13	0.44	2.19	ug/m3
75-65-0	tert-Butyl alcohol	0.1	0.3	UQ	0.3	0.3	1.52	ug/m3
142-82-5	Heptane	0.11	0.45	J	0.41	0.41	2.05	ug/m3
75-35-4	1,1-Dichloroethene	0.1	0.4	U	0.2	0.4	1.98	ug/m3
67-64-1	Acetone	4.9	11.6		0.24	0.24	1.19	ug/m3
75-15-0	Carbon Disulfide	0.1	0.31	U	0.16	0.31	1.56	ug/m3
1634-04-4	Methyl tert-Butyl Ether	0.1	0.36	U	0.18	0.36	1.8	ug/m3
75-09-2	Methylene Chloride	1.2	4.17	B	0.17	0.35	1.74	ug/m3
156-60-5	trans-1,2-Dichloroethene	0.1	0.4	U	0.2	0.4	1.98	ug/m3
75-34-3	1,1-Dichloroethane	0.1	0.4	U	0.16	0.4	2.02	ug/m3
110-82-7	Cyclohexane	0.1	0.34	U	0.34	0.34	1.72	ug/m3
78-93-3	2-Butanone	0.21	0.62	J	0.29	0.29	1.47	ug/m3
56-23-5	Carbon Tetrachloride	0.06	0.38	J	0.19	0.19	3.15	ug/m3
156-59-2	cis-1,2-Dichloroethene	0.1	0.4	U	0.2	0.4	1.98	ug/m3
67-66-3	Chloroform	0.1	0.49	U	0.1	0.49	2.44	ug/m3
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.16	0.16	2.73	ug/m3
540-84-1	2,2,4-Trimethylpentane	0.11	0.51	J	0.19	0.47	2.34	ug/m3
71-43-2	Benzene	0.3	0.96	J	0.13	0.32	1.6	ug/m3
107-06-2	1,2-Dichloroethane	0.1	0.4	U	0.4	0.4	2.02	ug/m3
79-01-6	Trichloroethene	0.03	0.16	U	0.11	0.16	2.69	ug/m3
78-87-5	1,2-Dichloropropane	0.1	0.46	U	0.46	0.46	2.31	ug/m3
75-27-4	Bromodichloromethane	0.1	0.67	U	0.33	0.67	3.35	ug/m3
108-10-1	4-Methyl-2-Pentanone	0.1	0.41	U	0.2	0.41	2.05	ug/m3
108-88-3	Toluene	1.4	5.28		0.19	0.38	1.88	ug/m3
10061-02-6	t-1,3-Dichloropropene	0.1	0.45	UQ	0.45	0.45	2.27	ug/m3
10061-01-5	cis-1,3-Dichloropropene	0.1	0.45	U	0.45	0.45	2.27	ug/m3
79-00-5	1,1,2-Trichloroethane	0.1	0.55	U	0.55	0.55	2.73	ug/m3
124-48-1	Dibromochloromethane	0.1	0.85	U	0.43	0.85	4.26	ug/m3
106-93-4	1,2-Dibromoethane	0.1	0.77	U	0.77	0.77	3.84	ug/m3

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Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/10/13
Project:	KoptD 12-01	Date Received:	12/12/13
Client Sample ID:	VP-2	SDG No.:	E4781
Lab Sample ID:	E4781-02	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL021605.D	1		12/18/13	VL121713

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
127-18-4	Tetrachloroethene	0.12	0.81	J	0.2	0.2	3.39	ug/m3
108-90-7	Chlorobenzene	0.1	0.46	U	0.46	0.46	2.3	ug/m3
100-41-4	Ethyl Benzene	0.22	0.96	J	0.43	0.43	2.17	ug/m3
179601-23-1	m/p-Xylene	2.2	9.56		0.43	0.87	4.34	ug/m3
95-47-6	o-Xylene	0.5	2.17		0.43	0.43	2.17	ug/m3
100-42-5	Styrene	0.1	0.43	UQ	0.43	0.43	2.13	ug/m3
75-25-2	Bromoform	0.1	1.03	U	0.52	1.03	5.17	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	0.1	0.69	U	0.69	0.69	3.43	ug/m3
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.52	0.52	2.59	ug/m3
108-67-8	1,3,5-Trimethylbenzene	0.1	0.49	U	0.49	0.49	2.46	ug/m3
95-63-6	1,2,4-Trimethylbenzene	0.1	0.49	U	0.49	0.49	2.46	ug/m3
541-73-1	1,3-Dichlorobenzene	0.1	0.6	U	0.6	0.6	3.01	ug/m3
106-46-7	1,4-Dichlorobenzene	0.1	0.6	U	0.6	0.6	3.01	ug/m3
95-50-1	1,2-Dichlorobenzene	0.1	0.6	U	0.6	0.6	3.01	ug/m3
120-82-1	1,2,4-Trichlorobenzene	0.1	0.74	UQ	0.3	0.74	3.71	ug/m3
87-68-3	Hexachloro-1,3-Butadiene	0.1	1.07	U	1.07	1.07	5.33	ug/m3
106-99-0	1,3-Butadiene	0.1	0.22	U	0.22	0.22	1.11	ug/m3
91-20-3	Naphthalene	0.1	0.52	UQ	0.21	0.52	2.62	ug/m3
622-96-8	4-Ethyltoluene	0.1	0.49	U	0.49	0.49	2.46	ug/m3
110-54-3	Hexane	0.33	1.16	J	0.14	0.35	1.76	ug/m3
107-05-1	Allyl Chloride	0.1	0.31	U	0.16	0.31	1.57	ug/m3
123-91-1	1,4-Dioxane	0.1	0.36	UQ	0.36	0.36	1.8	ug/m3
80-62-6	Methyl Methacrylate	0.1	0.41	U	0.41	0.41	2.05	ug/m3
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	9.9			65 - 135		99%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	1283610		6.65				
540-36-3	1,4-Difluorobenzene	4858450		8.32				
3114-55-4	Chlorobenzene-d5	4003580		13.75				

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
D = Dilution

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
Q = indicates LCS control criteria did not meet requirements

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/10/13
Project:	KoptD 12-01	Date Received:	12/12/13
Client Sample ID:	VP-1	SDG No.:	E4781
Lab Sample ID:	E4781-03	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL021601.D	1		12/18/13	VL121713

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	0.58	2.87		0.2	0.49	2.47	ug/m3
74-87-3	Chloromethane	0.51	1.05		0.21	0.21	1.03	ug/m3
75-01-4	Vinyl Chloride	0.03	0.08	U	0.08	0.08	1.28	ug/m3
74-83-9	Bromomethane	0.1	0.39	U	0.12	0.39	1.94	ug/m3
75-00-3	Chloroethane	0.1	0.26	U	0.26	0.26	1.32	ug/m3
109-99-9	Tetrahydrofuran	0.1	0.29	U	0.29	0.29	1.47	ug/m3
75-69-4	Trichlorofluoromethane	0.29	1.63	J	0.22	0.56	2.81	ug/m3
76-13-1	1,1,2-Trichlorotrifluoroethane	0.09	0.69	J	0.31	0.77	3.83	ug/m3
76-14-2	Dichlorotetrafluoroethane	0.1	0.7	U	0.28	0.7	3.49	ug/m3
593-60-2	Bromoethene	0.1	0.44	U	0.13	0.44	2.19	ug/m3
75-65-0	tert-Butyl alcohol	0.1	0.3	UQ	0.3	0.3	1.52	ug/m3
142-82-5	Heptane	0.16	0.66	J	0.41	0.41	2.05	ug/m3
75-35-4	1,1-Dichloroethene	0.1	0.4	U	0.2	0.4	1.98	ug/m3
67-64-1	Acetone	4.4	10.4		0.24	0.24	1.19	ug/m3
75-15-0	Carbon Disulfide	0.1	0.31	U	0.16	0.31	1.56	ug/m3
1634-04-4	Methyl tert-Butyl Ether	0.1	0.36	U	0.18	0.36	1.8	ug/m3
75-09-2	Methylene Chloride	1	3.47	B	0.17	0.35	1.74	ug/m3
156-60-5	trans-1,2-Dichloroethene	0.1	0.4	U	0.2	0.4	1.98	ug/m3
75-34-3	1,1-Dichloroethane	0.1	0.4	U	0.16	0.4	2.02	ug/m3
110-82-7	Cyclohexane	0.1	0.34	U	0.34	0.34	1.72	ug/m3
78-93-3	2-Butanone	0.18	0.53	J	0.29	0.29	1.47	ug/m3
56-23-5	Carbon Tetrachloride	0.07	0.44	J	0.19	0.19	3.15	ug/m3
156-59-2	cis-1,2-Dichloroethene	0.1	0.4	U	0.2	0.4	1.98	ug/m3
67-66-3	Chloroform	0.1	0.49	U	0.1	0.49	2.44	ug/m3
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.16	0.16	2.73	ug/m3
540-84-1	2,2,4-Trimethylpentane	0.13	0.61	J	0.19	0.47	2.34	ug/m3
71-43-2	Benzene	0.34	1.09	J	0.13	0.32	1.6	ug/m3
107-06-2	1,2-Dichloroethane	0.1	0.4	U	0.4	0.4	2.02	ug/m3
79-01-6	Trichloroethene	0.03	0.16	U	0.11	0.16	2.69	ug/m3
78-87-5	1,2-Dichloropropane	0.1	0.46	U	0.46	0.46	2.31	ug/m3
75-27-4	Bromodichloromethane	0.1	0.67	U	0.33	0.67	3.35	ug/m3
108-10-1	4-Methyl-2-Pentanone	0.1	0.41	U	0.2	0.41	2.05	ug/m3
108-88-3	Toluene	1.8	6.78		0.19	0.38	1.88	ug/m3
10061-02-6	t-1,3-Dichloropropene	0.1	0.45	UQ	0.45	0.45	2.27	ug/m3
10061-01-5	cis-1,3-Dichloropropene	0.1	0.45	U	0.45	0.45	2.27	ug/m3
79-00-5	1,1,2-Trichloroethane	0.1	0.55	U	0.55	0.55	2.73	ug/m3
124-48-1	Dibromochloromethane	0.1	0.85	U	0.43	0.85	4.26	ug/m3
106-93-4	1,2-Dibromoethane	0.1	0.77	U	0.77	0.77	3.84	ug/m3

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/10/13
Project:	KoptD 12-01	Date Received:	12/12/13
Client Sample ID:	VP-1	SDG No.:	E4781
Lab Sample ID:	E4781-03	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL021601.D	1		12/18/13	VL121713

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
127-18-4	Tetrachloroethene	0.08	0.54	J	0.2	0.2	3.39	ug/m3
108-90-7	Chlorobenzene	0.1	0.46	U	0.46	0.46	2.3	ug/m3
100-41-4	Ethyl Benzene	0.11	0.48	J	0.43	0.43	2.17	ug/m3
179601-23-1	m/p-Xylene	0.4	1.74	J	0.43	0.87	4.34	ug/m3
95-47-6	o-Xylene	0.12	0.52	J	0.43	0.43	2.17	ug/m3
100-42-5	Styrene	0.1	0.43	UQ	0.43	0.43	2.13	ug/m3
75-25-2	Bromoform	0.1	1.03	U	0.52	1.03	5.17	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	0.1	0.69	U	0.69	0.69	3.43	ug/m3
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.52	0.52	2.59	ug/m3
108-67-8	1,3,5-Trimethylbenzene	0.1	0.49	U	0.49	0.49	2.46	ug/m3
95-63-6	1,2,4-Trimethylbenzene	0.1	0.49	U	0.49	0.49	2.46	ug/m3
541-73-1	1,3-Dichlorobenzene	0.1	0.6	U	0.6	0.6	3.01	ug/m3
106-46-7	1,4-Dichlorobenzene	0.1	0.6	U	0.6	0.6	3.01	ug/m3
95-50-1	1,2-Dichlorobenzene	0.1	0.6	U	0.6	0.6	3.01	ug/m3
120-82-1	1,2,4-Trichlorobenzene	0.1	0.74	UQ	0.3	0.74	3.71	ug/m3
87-68-3	Hexachloro-1,3-Butadiene	0.1	1.07	U	1.07	1.07	5.33	ug/m3
106-99-0	1,3-Butadiene	0.1	0.22	U	0.22	0.22	1.11	ug/m3
91-20-3	Naphthalene	0.1	0.52	UQ	0.21	0.52	2.62	ug/m3
622-96-8	4-Ethyltoluene	0.1	0.49	U	0.49	0.49	2.46	ug/m3
110-54-3	Hexane	0.29	1.02	J	0.14	0.35	1.76	ug/m3
107-05-1	Allyl Chloride	0.1	0.31	U	0.16	0.31	1.57	ug/m3
123-91-1	1,4-Dioxane	0.1	0.36	UQ	0.36	0.36	1.8	ug/m3
80-62-6	Methyl Methacrylate	0.1	0.41	U	0.41	0.41	2.05	ug/m3
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	8.9			65 - 135		89%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	1186280		6.66				
540-36-3	1,4-Difluorobenzene	4397830		8.34				
3114-55-4	Chlorobenzene-d5	3803660		13.76				

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
D = Dilution

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
Q = indicates LCS control criteria did not meet requirements

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

ANALYTICAL RESULTS SUMMARY

VOLATILE ORGANICS

PROJECT NAME : KOPTD 12-01

J.R.HOLZMACHER P.E., LLC

3555 Veterans Memorial Highway

Suite A

Ronkonkoma, NY - 11779

Phone No: 631-234-2220

ORDER ID : E4781

ATTENTION : Jim DeMartinis

ACCREDITED IN ACCORDANCE WITH nelac

DoD ELAP

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: E4781

Client: J.R.Holzmacher P.E., LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID:	**VP-1**								
E4781-03	VP-1	Air	Dichlorodifluoromethane	2.87		0.2	0.49	2.47	ug/m3
E4781-03	VP-1	Air	Chloromethane	1.05		0.21	0.21	1.03	ug/m3
E4781-03	VP-1	Air	Trichlorofluoromethane	1.63	J	0.22	0.56	2.81	ug/m3
E4781-03	VP-1	Air	1,1,2-Trichlorotrifluoroethane	0.69	J	0.31	0.77	3.83	ug/m3
E4781-03	VP-1	Air	Heptane	0.66	J	0.41	0.41	2.05	ug/m3
E4781-03	VP-1	Air	Acetone	10.40		0.24	0.24	1.19	ug/m3
E4781-03	VP-1	Air	Methylene Chloride	3.47	B	0.17	0.35	1.74	ug/m3
E4781-03	VP-1	Air	2-Butanone	0.53	J	0.29	0.29	1.47	ug/m3
E4781-03	VP-1	Air	Carbon Tetrachloride	0.44	J	0.19	0.19	3.15	ug/m3
E4781-03	VP-1	Air	2,2,4-Trimethylpentane	0.61	J	0.19	0.47	2.34	ug/m3
E4781-03	VP-1	Air	Benzene	1.09	J	0.13	0.32	1.6	ug/m3
E4781-03	VP-1	Air	Toluene	6.78		0.19	0.38	1.88	ug/m3
E4781-03	VP-1	Air	Tetrachloroethene	0.54	J	0.2	0.2	3.39	ug/m3
E4781-03	VP-1	Air	Ethyl Benzene	0.48	J	0.43	0.43	2.17	ug/m3
E4781-03	VP-1	Air	m/p-Xylene	1.74	J	0.43	0.87	4.34	ug/m3
E4781-03	VP-1	Air	o-Xylene	0.52	J	0.43	0.43	2.17	ug/m3
E4781-03	VP-1	Air	Hexane	1.02	J	0.14	0.35	1.76	ug/m3
			Total Voc :	34.52					
			Total Concentration:	34.52					
Client ID:	**VP-2**								
E4781-02	VP-2	Air	Dichlorodifluoromethane	2.67		0.2	0.49	2.47	ug/m3
E4781-02	VP-2	Air	Chloromethane	1.09		0.21	0.21	1.03	ug/m3
E4781-02	VP-2	Air	Trichlorofluoromethane	1.52	J	0.22	0.56	2.81	ug/m3
E4781-02	VP-2	Air	1,1,2-Trichlorotrifluoroethane	0.61	J	0.31	0.77	3.83	ug/m3
E4781-02	VP-2	Air	Heptane	0.45	J	0.41	0.41	2.05	ug/m3
E4781-02	VP-2	Air	Acetone	11.60		0.24	0.24	1.19	ug/m3
E4781-02	VP-2	Air	Methylene Chloride	4.17	B	0.17	0.35	1.74	ug/m3
E4781-02	VP-2	Air	2-Butanone	0.62	J	0.29	0.29	1.47	ug/m3
E4781-02	VP-2	Air	Carbon Tetrachloride	0.38	J	0.19	0.19	3.15	ug/m3
E4781-02	VP-2	Air	2,2,4-Trimethylpentane	0.51	J	0.19	0.47	2.34	ug/m3
E4781-02	VP-2	Air	Benzene	0.96	J	0.13	0.32	1.6	ug/m3
E4781-02	VP-2	Air	Toluene	5.28		0.19	0.38	1.88	ug/m3
E4781-02	VP-2	Air	Tetrachloroethene	0.81	J	0.2	0.2	3.39	ug/m3
E4781-02	VP-2	Air	Ethyl Benzene	0.96	J	0.43	0.43	2.17	ug/m3
E4781-02	VP-2	Air	m/p-Xylene	9.56		0.43	0.87	4.34	ug/m3
E4781-02	VP-2	Air	o-Xylene	2.17		0.43	0.43	2.17	ug/m3
E4781-02	VP-2	Air	Hexane	1.16	J	0.14	0.35	1.76	ug/m3

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: E4781

Client: J.R.Holzmacher P.E., LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
			Total Voc :	44.52					
			Total Concentration:	44.52					
Client ID:	**VP-3**								
E4781-01	VP-3	Air	Dichlorodifluoromethane	2.57		0.2	0.49	2.47	ug/m3
E4781-01	VP-3	Air	Chloromethane	0.93	J	0.21	0.21	1.03	ug/m3
E4781-01	VP-3	Air	Trichlorofluoromethane	1.69	J	0.22	0.56	2.81	ug/m3
E4781-01	VP-3	Air	1,1,2-Trichlorotrifluoroethane	0.61	J	0.31	0.77	3.83	ug/m3
E4781-01	VP-3	Air	Heptane	0.49	J	0.41	0.41	2.05	ug/m3
E4781-01	VP-3	Air	Acetone	11.20		0.24	0.24	1.19	ug/m3
E4781-01	VP-3	Air	Carbon Disulfide	0.69	J	0.16	0.31	1.56	ug/m3
E4781-01	VP-3	Air	Methylene Chloride	5.56	B	0.17	0.35	1.74	ug/m3
E4781-01	VP-3	Air	Cyclohexane	0.48	J	0.34	0.34	1.72	ug/m3
E4781-01	VP-3	Air	2-Butanone	0.74	J	0.29	0.29	1.47	ug/m3
E4781-01	VP-3	Air	Carbon Tetrachloride	0.38	J	0.19	0.19	3.15	ug/m3
E4781-01	VP-3	Air	Chloroform	0.24	J	0.1	0.49	2.44	ug/m3
E4781-01	VP-3	Air	2,2,4-Trimethylpentane	0.47	J	0.19	0.47	2.34	ug/m3
E4781-01	VP-3	Air	Benzene	0.93	J	0.13	0.32	1.6	ug/m3
E4781-01	VP-3	Air	Trichloroethene	0.21	J	0.11	0.16	2.69	ug/m3
E4781-01	VP-3	Air	Toluene	7.54		0.19	0.38	1.88	ug/m3
E4781-01	VP-3	Air	Tetrachloroethene	134.00	E	0.2	0.2	3.39	ug/m3
E4781-01	VP-3	Air	Ethyl Benzene	0.65	J	0.43	0.43	2.17	ug/m3
E4781-01	VP-3	Air	m/p-Xylene	10.40		0.43	0.87	4.34	ug/m3
E4781-01	VP-3	Air	o-Xylene	2.65		0.43	0.43	2.17	ug/m3
E4781-01	VP-3	Air	Naphthalene	0.37	JQ	0.21	0.52	2.62	ug/m3
E4781-01	VP-3	Air	Hexane	1.02	J	0.14	0.35	1.76	ug/m3
			Total Voc :	183.82					
			Total Concentration:	183.82					
Client ID:	**VP-3DL**								
E4781-01DL	VP-3DL	Air	Acetone	12.10	D	2.38	2.38	11.9	ug/m3
E4781-01DL	VP-3DL	Air	Toluene	4.15	JD	1.88	3.77	18.8	ug/m3
E4781-01DL	VP-3DL	Air	Tetrachloroethene	99.00	D	2.03	2.03	33.9	ug/m3
E4781-01DL	VP-3DL	Air	m/p-Xylene	4.34	JD	4.34	8.69	43.4	ug/m3
			Total Voc :	119.59					
			Total Concentration:	119.59					

Appendix H

Post-Remediation Groundwater Analytical Data Report

American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

May 06, 2014

Jim DeMartinis
J.R. Holzmacher P.E. LLC
3555 Veterans Memorial Hwy., Suite A
Ronkonkoma, NY 11788
TEL: (631) 234-2220
FAX (631) 234-2221

RE: 127-13 Merrick Blvd., Queens, NY Order No.: 1405006

Dear Jim DeMartinis:

American Analytical Laboratories, LLC. received 4 sample(s) on 5/1/2014 for the analyses presented in the following report.

Samples were analyzed in accordance with the test procedures documented on the chain of custody and detailed throughout the text of this report. The results reported herein relate only to the items tested or to the samples as received by the laboratory. This report may not be reproduced, except in full, without the approval of American Analytical Laboratories, LLC and is not considered complete without a cover page and chain of custody documentation. The limits (LOQ) provided in the data package are analytical reporting limits and not Federal or Local mandated values to which the sample results should be compared.

There were no problems with the analyses and all data for associated QC met laboratory specifications. If there are any exceptions a Case Narrative is provided in the report or the data is qualified either on the sample results or in the QC section of the report. This package has been reviewed by American Analytical Laboratories' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal.

If you have any questions regarding these tests results, please do not hesitate to call (631) 454-6100 or email me directly at lbeyer@american-analytical.com.

Sincerely,

Lori Beyer

Lori Beyer
Lab Director
American Analytical Laboratories, LLC.

American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

Workorder Sample Summary

WO#: **1405006**

06-May-14

CLIENT: J.R. Holzmacher P.E. LLC
Project: 127-13 Merrick Blvd., Queens, NY

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1405006-001A	MW-1		5/1/2014 12:36:00 PM	5/1/2014 1:44:00 PM	Liquid
1405006-002A	MW-2		5/1/2014 11:52:00 AM	5/1/2014 1:44:00 PM	Liquid
1405006-003A	MW-3		5/1/2014 12:50:00 PM	5/1/2014 1:44:00 PM	Liquid
1405006-004A	MW-4		5/1/2014 12:58:00 PM	5/1/2014 1:44:00 PM	Liquid

CHAIN OF CUSTODY

AMERICAN ANALYTICAL LABORATORIES
56 Toledo Street, Farmingdale NY 11735
(T) 631-454-6100 (F) 631-454-8027
www.american-analytical.com

CERTIFICATIONS
NY ELAP - 11418 PA DEP - 68-00573
NJ DEP - NY050 CT DOH - PH-0205

Client Information

Company Name: JR Holzmacher
Address: 3555 Veterans Memorial Hwy
City: Ronkonkoma State: NY Zip: 11779
Project Contact: Jim D
Phone #: 631-234-2220
E-mail:

Project Information

Project Name: 127-13 Merrick Blvd
Street: 127-13 Merrick Blvd
City: Queens State: NY Zip: 11434
Project #: Kopt D 14-01
Sampler's Name / Company: Phil Hoffken Jr - JRH
Sampler's Signature:

Analytical Information

VOC (Full List)

LAB SAMPLE # (LAB USE ONLY)	Client Sample ID	Sample Type	Matrix Code	Date	Time	Glass / Plastic	Total # of bottles	NONE	HCl	NaOH	HNO_3	H_2SO_4	$NaHSO_4$	MeOH	OTHER	VOC (Full List)
1405006-001A	MW-1	G	L	5/1/14	1236	G	2		X							X
002A	MW-2	↓	↓	↓	1152	↓	↓		X							X
003A	MW-3				1250				X							X
004A	MW-4	↓	↓	↓	1258	↓	↓		X							X

Turnaround Time (Business Days)

- [x] Standard 7-10 Business Days
- [ ] 5 Day *RUSH*
- [ ] 4 Day *RUSH*
- [ ] 3 Day *RUSH*
- [ ] 2 Day *RUSH*
- [ ] 1 Day *RUSH*

SAMPLE TYPE

G = Grab
C = Composite
B = Blank

MATRIX CODES

L = Liquid
S = Soil
O = Oil
W = Wipe
PC = Paint Chip
SL = Sludge
SD = Solid
M = Miscellaneous

Comments / Remarks

Cooler Temp: 4.6

Sample custody must be documented below, each time samples change possession, with a signature, date, and time.

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME
	5/1/14 1344	Philip Hoffken Jr		5/1/14 1344	Carte Ferrara
RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME

American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

Sample Log-In Check List

Client Name: **HOLZMACHER** Work Order Number: **1405006** RcptNo: **1**

Logged by:	**Cate Ferrara**	**5/1/2014 1:44:00 PM**	C Ferrara
Completed By:	**Cate Ferrara**	**5/1/2014**	C Ferrara
Reviewed By:	**Lori Beyer**	**5/1/2014 3:34:50 PM**	Lori Beyer

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☑
   No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified:		Date	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By

American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

Case Narrative

WO#: **1405006**
Date: **5/6/2014**

CLIENT: J.R. Holzmacher P.E. LLC
Project: 127-13 Merrick Blvd., Queens, NY

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846 and additional methods as detailed throughout the text of the report. All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives with exceptions notated in this Narrative discussion and/or in the QC Summary Section of the lab report with appropriate qualifiers. Additional quality control information such as surrogate recovery values for organic testing is provided as part of the analytical results.

Volatile LCS are analyzed with preservatives - HCL/NaHSO4/Methanol depending on level of analysis (high/low) similar to sample analysis. Outliers can be attributed to the presence of chemical preservatives. 2-Chloroethyl vinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

The test results meet the requirements of the NYSDOH and NELAC standards, except where noted. The information contained in this analytical report is the sole property of American Analytical Laboratories, LLC. Or the client for which this report was issued. The results contained in this report are only representative of the samples received. The sample receipt checklist is included as part of this lab report. Conditions can vary at different times and at different sampling conditions. American Analytical is not responsible for the use or interpretation of the data included herein.

Definitions:

Sample Result and QC Summary Qualifiers - Level I and Level II Reports
ND - Not detected at the reporting limit/Limit of Quantitation

B - The analyte was detected in the associated method blank. For volatiles, methylene chloride and acetone are common lab contaminants. Data users should consier anything <10x the blank value as artifact.

E - The value is above the quantitation range

D - Analyte concentration was obtained from diluted analysis or from analysis using reduced sample volume.

J - The analyte was detected below the limit of quantitation but greater than the established Limit of Detection (LOD). There is greater uncertainty associated with these results and data should be considered as estimated.

U - The compound was analyzed for but not detected.

H - Holding time for preparation or analysis has been exceeded.

S - Spike recovery is outside accepted recovery limits.

R - RPD is outside accepted recovery range.

P - Secondary column exceeds 40% difference for GC test.

* - Calibration exceeds method requirement. Due to the large number of analytes for organic testing, the method allows 10% of analytes to have %RSD and/or %D to be >20%.

LOD - Limit of Detection; the lowest level the analyte can be determined to be statistically different from a blank.

LOQ - Limit of Quantitation; the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accurary.
M - Analyte was manually integrated for GC/MS.
+ - Concentration exceeds regulatory level for TCLP

American Analytical Laboratories, LLC.

Date: *06-May-14*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	MW-1
Lab Order:	1405006	**Collection Date:**	5/1/2014 12:36:00 PM
Project:	127-13 Merrick Blvd., Queens, NY	**Matrix:**	LIQUID
Lab ID:	1405006-001A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
1,1,1,2-Tetrachloroethane	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
1,1,1-Trichloroethane	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
1,1,2,2-Tetrachloroethane	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethan	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
1,1,2-Trichloroethane	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
1,1-Dichloroethane	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
1,1-Dichloroethene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
1,1-Dichloropropene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
1,2,3-Trichlorobenzene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
1,2,3-Trichloropropane	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
1,2,4,5-Tetramethylbenzene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
1,2,4-Trichlorobenzene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
1,2,4-Trimethylbenzene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
1,2-Dibromo-3-chloropropane	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
1,2-Dibromoethane	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
1,2-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
1,2-Dichloroethane	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
1,2-Dichloropropane	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
1,3,5-Trimethylbenzene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
1,3-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
1,3-dichloropropane	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
1,4-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
1,4-Dioxane	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
2,2-Dichloropropane	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
2-Butanone	ND	1.25	5.0	U	µg/L	1	5/5/2014 1:40:00 PM
2-Chloroethyl vinyl ether	ND	1	4.0	U	µg/L	1	5/5/2014 1:40:00 PM
2-Chlorotoluene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
2-Hexanone	ND	1.25	5.0	U	µg/L	1	5/5/2014 1:40:00 PM
2-Propanol	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
4-Chlorotoluene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
4-Isopropyltoluene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
4-Methyl-2-pentanone	ND	1.25	5.0	U	µg/L	1	5/5/2014 1:40:00 PM
Acetone	2.1	1.25	5.0	BJ*m	µg/L	1	5/5/2014 1:40:00 PM

American Analytical Laboratories, LLC.

Date: *06-May-14*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	MW-1
Lab Order:	1405006	**Collection Date:**	5/1/2014 12:36:00 PM
Project:	127-13 Merrick Blvd., Queens, NY	**Matrix:**	LIQUID
Lab ID:	1405006-001A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
Benzene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Bromobenzene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Bromochloromethane	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Bromodichloromethane	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Bromoform	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Bromomethane	ND	1	4.0	U	µg/L	1	5/5/2014 1:40:00 PM
Carbon disulfide	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Carbon tetrachloride	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Chlorobenzene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Chlorodifluoromethane	ND	0.5	2.0	U*	µg/L	1	5/5/2014 1:40:00 PM
Chloroethane	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Chloroform	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Chloromethane	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
cis-1,2-Dichloroethene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
cis-1,3-Dichloropropene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Cyclohexane	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Dibromochloromethane	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Dibromomethane	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Dichlorodifluoromethane	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Diisopropyl ether	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Ethanol	ND	2.5	10	U	µg/L	1	5/5/2014 1:40:00 PM
Ethylbenzene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Freon-114	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Hexachlorobutadiene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Isopropylbenzene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
m,p-Xylene	ND	1	4.0	U	µg/L	1	5/5/2014 1:40:00 PM
Methyl Acetate	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Methyl tert-butyl ether	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Methylene chloride	4.2	0.5	2.0	B*	µg/L	1	5/5/2014 1:40:00 PM
n-Butylbenzene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
n-Propylbenzene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Naphthalene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
o-Xylene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM

American Analytical Laboratories, LLC., 56 Toledo Street, Farmingdale, New York, Zip - 11735
Tel - (631) 454-6100 Fax - (631) 454-8027 www.american-analytical.com

American Analytical Laboratories, LLC.

Date: *06-May-14*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	MW-1
Lab Order:	1405006	**Collection Date:**	5/1/2014 12:36:00 PM
Project:	127-13 Merrick Blvd., Queens, NY	**Matrix:**	LIQUID
Lab ID:	1405006-001A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
p-Diethylbenzene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
p-Ethyltoluene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
sec-Butylbenzene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Styrene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
t-Butyl alcohol	ND	2.5	10	U*	µg/L	1	5/5/2014 1:40:00 PM
tert-Butylbenzene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Tetrachloroethene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Toluene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
trans-1,2-Dichloroethene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
trans-1,3-Dichloropropene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Trichloroethene	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Trichlorofluoromethane	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Vinyl acetate	ND	0.5	2.0	U*	µg/L	1	5/5/2014 1:40:00 PM
Vinyl chloride	ND	0.5	2.0	U	µg/L	1	5/5/2014 1:40:00 PM
Surr: 4-Bromofluorobenzene	93.3	0	70-128		%REC	1	5/5/2014 1:40:00 PM
Surr: Dibromofluoromethane	104	0	75-129		%REC	1	5/5/2014 1:40:00 PM
Surr: Toluene-d8	101	0	70-124		%REC	1	5/5/2014 1:40:00 PM

American Analytical Laboratories, LLC.

Date: *06-May-14*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	MW-2
Lab Order:	1405006	**Collection Date:**	5/1/2014 11:52:00 AM
Project:	127-13 Merrick Blvd., Queens, NY	**Matrix:**	LIQUID
Lab ID:	1405006-002A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
1,1,1,2-Tetrachloroethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
1,1,1-Trichloroethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
1,1,2,2-Tetrachloroethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethan	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
1,1,2-Trichloroethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
1,1-Dichloroethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
1,1-Dichloroethene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
1,1-Dichloropropene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
1,2,3-Trichlorobenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
1,2,3-Trichloropropane	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
1,2,4,5-Tetramethylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
1,2,4-Trichlorobenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
1,2,4-Trimethylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
1,2-Dibromo-3-chloropropane	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
1,2-Dibromoethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
1,2-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
1,2-Dichloroethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
1,2-Dichloropropane	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
1,3,5-Trimethylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
1,3-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
1,3-dichloropropane	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
1,4-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
1,4-Dioxane	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
2,2-Dichloropropane	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
2-Butanone	ND	1.25	5.0	U	µg/L	1	5/3/2014 5:48:00 AM
2-Chloroethyl vinyl ether	ND	1	4.0	U	µg/L	1	5/3/2014 5:48:00 AM
2-Chlorotoluene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
2-Hexanone	ND	1.25	5.0	U	µg/L	1	5/3/2014 5:48:00 AM
2-Propanol	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
4-Chlorotoluene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
4-Isopropyltoluene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
4-Methyl-2-pentanone	ND	1.25	5.0	U	µg/L	1	5/3/2014 5:48:00 AM
Acetone	2.2	1.25	5.0	BJ*	µg/L	1	5/3/2014 5:48:00 AM

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American Analytical Laboratories, LLC.

Date: *06-May-14*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	MW-2
Lab Order:	1405006	**Collection Date:**	5/1/2014 11:52:00 AM
Project:	127-13 Merrick Blvd., Queens, NY	**Matrix:**	LIQUID
Lab ID:	1405006-002A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
Benzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Bromobenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Bromochloromethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Bromodichloromethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Bromoform	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Bromomethane	ND	1	4.0	U	µg/L	1	5/3/2014 5:48:00 AM
Carbon disulfide	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Carbon tetrachloride	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Chlorobenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Chlorodifluoromethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Chloroethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Chloroform	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Chloromethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
cis-1,2-Dichloroethene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
cis-1,3-Dichloropropene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Cyclohexane	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Dibromochloromethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Dibromomethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Dichlorodifluoromethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Diisopropyl ether	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Ethanol	ND	2.5	10	U*	µg/L	1	5/3/2014 5:48:00 AM
Ethylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Freon-114	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Hexachlorobutadiene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Isopropylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
m,p-Xylene	ND	1	4.0	U	µg/L	1	5/3/2014 5:48:00 AM
Methyl Acetate	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Methyl tert-butyl ether	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Methylene chloride	6.2	0.5	2.0	B*	µg/L	1	5/3/2014 5:48:00 AM
n-Butylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
n-Propylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Naphthalene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
o-Xylene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM

American Analytical Laboratories, LLC., 56 Toledo Street, Farmingdale, New York, Zip - 11735
Tel - (631) 454-6100 Fax - (631) 454-8027 www.american-analytical.com

American Analytical Laboratories, LLC.

Date: *06-May-14*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	MW-2
Lab Order:	1405006	**Collection Date:**	5/1/2014 11:52:00 AM
Project:	127-13 Merrick Blvd., Queens, NY	**Matrix:**	LIQUID
Lab ID:	1405006-002A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
p-Diethylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
p-Ethyltoluene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
sec-Butylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Styrene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
t-Butyl alcohol	ND	2.5	10	U	µg/L	1	5/3/2014 5:48:00 AM
tert-Butylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Tetrachloroethene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Toluene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
trans-1,2-Dichloroethene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
trans-1,3-Dichloropropene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Trichloroethene	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Trichlorofluoromethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Vinyl acetate	ND	0.5	2.0	U*	µg/L	1	5/3/2014 5:48:00 AM
Vinyl chloride	ND	0.5	2.0	U	µg/L	1	5/3/2014 5:48:00 AM
Surr: 4-Bromofluorobenzene	95.3	0	70-128		%REC	1	5/3/2014 5:48:00 AM
Surr: Dibromofluoromethane	111	0	75-129		%REC	1	5/3/2014 5:48:00 AM
Surr: Toluene-d8	104	0	70-124		%REC	1	5/3/2014 5:48:00 AM

American Analytical Laboratories, LLC.

Date: *06-May-14*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	MW-3
Lab Order:	1405006	**Collection Date:**	5/1/2014 12:50:00 PM
Project:	127-13 Merrick Blvd., Queens, NY	**Matrix:**	LIQUID
Lab ID:	1405006-003A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
1,1,1,2-Tetrachloroethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
1,1,1-Trichloroethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
1,1,2,2-Tetrachloroethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethan	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
1,1,2-Trichloroethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
1,1-Dichloroethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
1,1-Dichloroethene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
1,1-Dichloropropene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
1,2,3-Trichlorobenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
1,2,3-Trichloropropane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
1,2,4,5-Tetramethylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
1,2,4-Trichlorobenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
1,2,4-Trimethylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
1,2-Dibromo-3-chloropropane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
1,2-Dibromoethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
1,2-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
1,2-Dichloroethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
1,2-Dichloropropane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
1,3,5-Trimethylbenzene	ND	0.5	2.0	Um	µg/L	1	5/3/2014 6:15:00 AM
1,3-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
1,3-dichloropropane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
1,4-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
1,4-Dioxane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
2,2-Dichloropropane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
2-Butanone	ND	1.25	5.0	U	µg/L	1	5/3/2014 6:15:00 AM
2-Chloroethyl vinyl ether	ND	1	4.0	U	µg/L	1	5/3/2014 6:15:00 AM
2-Chlorotoluene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
2-Hexanone	ND	1.25	5.0	U	µg/L	1	5/3/2014 6:15:00 AM
2-Propanol	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
4-Chlorotoluene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
4-Isopropyltoluene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
4-Methyl-2-pentanone	ND	1.25	5.0	U	µg/L	1	5/3/2014 6:15:00 AM
Acetone	2.2	1.25	5.0	BJ*	µg/L	1	5/3/2014 6:15:00 AM

American Analytical Laboratories, LLC.

Date: *06-May-14*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	MW-3
Lab Order:	1405006	**Collection Date:**	5/1/2014 12:50:00 PM
Project:	127-13 Merrick Blvd., Queens, NY	**Matrix:**	LIQUID
Lab ID:	1405006-003A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
Benzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Bromobenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Bromochloromethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Bromodichloromethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Bromoform	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Bromomethane	ND	1	4.0	U	µg/L	1	5/3/2014 6:15:00 AM
Carbon disulfide	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Carbon tetrachloride	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Chlorobenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Chlorodifluoromethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Chloroethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Chloroform	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Chloromethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
cis-1,2-Dichloroethene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
cis-1,3-Dichloropropene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Cyclohexane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Dibromochloromethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Dibromomethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Dichlorodifluoromethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Diisopropyl ether	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Ethanol	ND	2.5	10	U*	µg/L	1	5/3/2014 6:15:00 AM
Ethylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Freon-114	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Hexachlorobutadiene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Isopropylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
m,p-Xylene	ND	1	4.0	U	µg/L	1	5/3/2014 6:15:00 AM
Methyl Acetate	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Methyl tert-butyl ether	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Methylene chloride	5.7	0.5	2.0	B*	µg/L	1	5/3/2014 6:15:00 AM
n-Butylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
n-Propylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Naphthalene	ND	0.5	2.0	Um	µg/L	1	5/3/2014 6:15:00 AM
o-Xylene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM

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American Analytical Laboratories, LLC.

Date: *06-May-14*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	MW-3
Lab Order:	1405006	**Collection Date:**	5/1/2014 12:50:00 PM
Project:	127-13 Merrick Blvd., Queens, NY	**Matrix:**	LIQUID
Lab ID:	1405006-003A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
p-Diethylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
p-Ethyltoluene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
sec-Butylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Styrene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
t-Butyl alcohol	ND	2.5	10	U	µg/L	1	5/3/2014 6:15:00 AM
tert-Butylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Tetrachloroethene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Toluene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
trans-1,2-Dichloroethene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
trans-1,3-Dichloropropene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Trichloroethene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Trichlorofluoromethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Vinyl acetate	ND	0.5	2.0	U*	µg/L	1	5/3/2014 6:15:00 AM
Vinyl chloride	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:15:00 AM
Surr: 4-Bromofluorobenzene	94.1	0	70-128		%REC	1	5/3/2014 6:15:00 AM
Surr: Dibromofluoromethane	107	0	75-129		%REC	1	5/3/2014 6:15:00 AM
Surr: Toluene-d8	104	0	70-124		%REC	1	5/3/2014 6:15:00 AM

American Analytical Laboratories, LLC.

Date: *06-May-14*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	MW-4
Lab Order:	1405006	**Collection Date:**	5/1/2014 12:58:00 PM
Project:	127-13 Merrick Blvd., Queens, NY	**Matrix:**	LIQUID
Lab ID:	1405006-004A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
1,1,1,2-Tetrachloroethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
1,1,1-Trichloroethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
1,1,2,2-Tetrachloroethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethan	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
1,1,2-Trichloroethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
1,1-Dichloroethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
1,1-Dichloroethene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
1,1-Dichloropropene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
1,2,3-Trichlorobenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
1,2,3-Trichloropropane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
1,2,4,5-Tetramethylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
1,2,4-Trichlorobenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
1,2,4-Trimethylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
1,2-Dibromo-3-chloropropane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
1,2-Dibromoethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
1,2-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
1,2-Dichloroethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
1,2-Dichloropropane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
1,3,5-Trimethylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
1,3-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
1,3-dichloropropane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
1,4-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
1,4-Dioxane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
2,2-Dichloropropane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
2-Butanone	ND	1.25	5.0	U	µg/L	1	5/3/2014 6:43:00 AM
2-Chloroethyl vinyl ether	ND	1	4.0	U	µg/L	1	5/3/2014 6:43:00 AM
2-Chlorotoluene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
2-Hexanone	ND	1.25	5.0	U	µg/L	1	5/3/2014 6:43:00 AM
2-Propanol	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
4-Chlorotoluene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
4-Isopropyltoluene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
4-Methyl-2-pentanone	ND	1.25	5.0	U	µg/L	1	5/3/2014 6:43:00 AM
Acetone	2.3	1.25	5.0	BJ*	µg/L	1	5/3/2014 6:43:00 AM

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American Analytical Laboratories, LLC.

Date: *06-May-14*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	MW-4
Lab Order:	1405006	**Collection Date:**	5/1/2014 12:58:00 PM
Project:	127-13 Merrick Blvd., Queens, NY	**Matrix:**	LIQUID
Lab ID:	1405006-004A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
Benzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Bromobenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Bromochloromethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Bromodichloromethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Bromoform	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Bromomethane	ND	1	4.0	U	µg/L	1	5/3/2014 6:43:00 AM
Carbon disulfide	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Carbon tetrachloride	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Chlorobenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Chlorodifluoromethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Chloroethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Chloroform	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Chloromethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
cis-1,2-Dichloroethene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
cis-1,3-Dichloropropene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Cyclohexane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Dibromochloromethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Dibromomethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Dichlorodifluoromethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Diisopropyl ether	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Ethanol	ND	2.5	10	U*	µg/L	1	5/3/2014 6:43:00 AM
Ethylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Freon-114	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Hexachlorobutadiene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Isopropylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
m,p-Xylene	ND	1	4.0	U	µg/L	1	5/3/2014 6:43:00 AM
Methyl Acetate	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Methyl tert-butyl ether	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Methylene chloride	5.8	0.5	2.0	B*	µg/L	1	5/3/2014 6:43:00 AM
n-Butylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
n-Propylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Naphthalene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
o-Xylene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM

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American Analytical Laboratories, LLC.

Date: *06-May-14*

ELAP ID : 11418

CLIENT:	J.R. Holzmacher P.E. LLC	**Client Sample ID:**	MW-4
Lab Order:	1405006	**Collection Date:**	5/1/2014 12:58:00 PM
Project:	127-13 Merrick Blvd., Queens, NY	**Matrix:**	LIQUID
Lab ID:	1405006-004A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
p-Diethylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
p-Ethyltoluene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
sec-Butylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Styrene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
t-Butyl alcohol	ND	2.5	10	U	µg/L	1	5/3/2014 6:43:00 AM
tert-Butylbenzene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Tetrachloroethene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Toluene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
trans-1,2-Dichloroethene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
trans-1,3-Dichloropropene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Trichloroethene	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Trichlorofluoromethane	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Vinyl acetate	ND	0.5	2.0	U*	µg/L	1	5/3/2014 6:43:00 AM
Vinyl chloride	ND	0.5	2.0	U	µg/L	1	5/3/2014 6:43:00 AM
Surr: 4-Bromofluorobenzene	94.9	0	70-128		%REC	1	5/3/2014 6:43:00 AM
Surr: Dibromofluoromethane	110	0	75-129		%REC	1	5/3/2014 6:43:00 AM
Surr: Toluene-d8	103	0	70-124		%REC	1	5/3/2014 6:43:00 AM

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QC SUMMARY REPORT

WO#: **1405006**

06-May-14

Client: J.R. Holzmacher P.E. LLC

Project: 127-13 Merrick Blvd., Queens, NY

TestNo: **SW8260C**

Sample ID **LCS-1071** SampType: **LCS** TestCode: **8260_W** Units: **µg/L** Prep Date: **5/2/2014** RunNo: **1717**

Client ID: **LCSW** Batch ID: **1071** TestNo: **SW8260C** **SW5030C** Analysis Date: **5/2/2014** SeqNo: **29848**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	41	2.0	50.00	0	82.0	35	131				
1,1,2,2-Tetrachloroethane	36	2.0	50.00	0	72.9	33	152				
1,1,2-Trichloroethane	41	2.0	50.00	0	82.1	38	121				
1,1-Dichloroethane	43	2.0	50.00	0	85.2	31	132				
1,1-Dichloroethene	38	2.0	50.00	0	75.9	22	131				
1,2-Dichlorobenzene	38	2.0	50.00	0	76.2	44	123				
1,2-Dichloroethane	44	2.0	50.00	0	87.4	43	127				
1,2-Dichloropropane	43	2.0	50.00	0	85.6	42	126				
1,3-Dichlorobenzene	38	2.0	50.00	0	75.6	45	127				
1,4-Dichlorobenzene	37	2.0	50.00	0	74.4	43	126				
2-Chloroethyl vinyl ether	ND	4.0	50.00	0	0	20	133				SU
Benzene	43	2.0	50.00	0	86.3	30	137				
Bromodichloromethane	42	2.0	50.00	0	83.5	38	122				
Bromoform	36	2.0	50.00	0	72.3	46	128				
Bromomethane	39	4.0	50.00	0	77.2	27	146				
Carbon tetrachloride	41	2.0	50.00	0	82.8	35	134				
Chlorobenzene	39	2.0	50.00	0	77.0	47	120				
Chloroethane	52	2.0	50.00	0	104	38	130				
Chloroform	43	2.0	50.00	0	85.4	35	138				
Chloromethane	56	2.0	50.00	0	112	20	155				
cis-1,3-Dichloropropene	41	2.0	50.00	0	83.0	33	120				
Dibromochloromethane	40	2.0	50.00	0	80.9	42	128				
Ethanol	42	10	50.00	0	83.2	40	125				*
Ethylbenzene	39	2.0	50.00	0	77.4	46	134				
Methylene chloride	11	2.0	50.00	0	22.0	27	137				BS*
Tetrachloroethene	35	2.0	50.00	0	69.0	30	125				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

Original

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QC SUMMARY REPORT

WO#: **1405006**

06-May-14

Client: J.R. Holzmacher P.E. LLC

Project: 127-13 Merrick Blvd., Queens, NY

TestNo: **SW8260C**

Sample ID **LCS-1071** SampType: **LCS** TestCode: **8260_W** Units: **µg/L** Prep Date: **5/2/2014** RunNo: **1717**

Client ID: **LCSW** Batch ID: **1071** TestNo: **SW8260C** **SW5030C** Analysis Date: **5/2/2014** SeqNo: **29848**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	41	2.0	50.00	0	82.5	32	126				
trans-1,2-Dichloroethene	37	2.0	50.00	0	74.3	24	130				
trans-1,3-Dichloropropene	42	2.0	50.00	0	84.4	30	120				
Trichloroethene	38	2.0	50.00	0	75.8	41	125				
Trichlorofluoromethane	52	2.0	50.00	0	103	38	149				
Vinyl chloride	60	2.0	50.00	0	121	24	152				
Surr: 4-Bromofluorobenzene	47		50.00		94.6	70	128				
Surr: Dibromofluoromethane	53		50.00		107	75	129				
Surr: Toluene-d8	52		50.00		104	70	124				

Sample ID **MB-1071** SampType: **MBLK** TestCode: **8260_W** Units: **µg/L** Prep Date: **5/2/2014** RunNo: **1717**

Client ID: **PBW** Batch ID: **1071** TestNo: **SW8260C** **SW5030C** Analysis Date: **5/3/2014** SeqNo: **29849**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	2.0									U
1,1,1-Trichloroethane	ND	2.0									U
1,1,2,2-Tetrachloroethane	ND	2.0									U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0									U
1,1,2-Trichloroethane	ND	2.0									U
1,1-Dichloroethane	ND	2.0									U
1,1-Dichloroethene	ND	2.0									U
1,1-Dichloropropene	ND	2.0									U
1,2,3-Trichlorobenzene	ND	2.0									U
1,2,3-Trichloropropane	ND	2.0									U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1405006**

06-May-14

Client: J.R. Holzmacher P.E. LLC

Project: 127-13 Merrick Blvd., Queens, NY

TestNo: **SW8260C**

Sample ID **MB-1071** SampType: **MBLK** TestCode: **8260_W** Units: **µg/L** Prep Date: **5/2/2014** RunNo: **1717**

Client ID: **PBW** Batch ID: **1071** TestNo: **SW8260C** **SW5030C** Analysis Date: **5/3/2014** SeqNo: **29849**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4,5-Tetramethylbenzene	ND	2.0									U
1,2,4-Trichlorobenzene	ND	2.0									U
1,2,4-Trimethylbenzene	ND	2.0									U
1,2-Dibromo-3-chloropropane	ND	2.0									U
1,2-Dibromoethane	ND	2.0									U
1,2-Dichlorobenzene	ND	2.0									U
1,2-Dichloroethane	ND	2.0									U
1,2-Dichloropropane	ND	2.0									U
1,3,5-Trimethylbenzene	ND	2.0									U
1,3-Dichlorobenzene	ND	2.0									U
1,3-dichloropropane	ND	2.0									U
1,4-Dichlorobenzene	ND	2.0									U
1,4-Dioxane	ND	2.0									U
2,2-Dichloropropane	ND	2.0									U
2-Butanone	ND	5.0									U
2-Chloroethyl vinyl ether	ND	4.0									U
2-Chlorotoluene	ND	2.0									U
2-Hexanone	ND	5.0									U
2-Propanol	ND	2.0									U
4-Chlorotoluene	ND	2.0									U
4-Isopropyltoluene	ND	2.0									U
4-Methyl-2-pentanone	ND	5.0									U
Acetone	3.6	5.0									J*
Benzene	ND	2.0									U
Bromobenzene	ND	2.0									U
Bromochloromethane	ND	2.0									U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1405006**

06-May-14

Client: J.R. Holzmacher P.E. LLC

Project: 127-13 Merrick Blvd., Queens, NY

TestNo: **SW8260C**

Sample ID **MB-1071** SampType: **MBLK** TestCode: **8260_W** Units: **µg/L** Prep Date: **5/2/2014** RunNo: **1717**

Client ID: **PBW** Batch ID: **1071** TestNo: **SW8260C** **SW5030C** Analysis Date: **5/3/2014** SeqNo: **29849**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	2.0									U
Bromoform	ND	2.0									U
Bromomethane	ND	4.0									U
Carbon disulfide	ND	2.0									U
Carbon tetrachloride	ND	2.0									U
Chlorobenzene	ND	2.0									U
Chlorodifluoromethane	ND	2.0									U
Chloroethane	ND	2.0									U
Chloroform	ND	2.0									U
Chloromethane	ND	2.0									U
cis-1,2-Dichloroethene	ND	2.0									U
cis-1,3-Dichloropropene	ND	2.0									U
Cyclohexane	ND	2.0									U
Dibromochloromethane	ND	2.0									U
Dibromomethane	ND	2.0									U
Dichlorodifluoromethane	ND	2.0									U
Diisopropyl ether	ND	2.0									U
Ethanol	ND	10									U*
Ethylbenzene	ND	2.0									U
Freon-114	ND	2.0									U
Hexachlorobutadiene	ND	2.0									U
Isopropylbenzene	ND	2.0									U
m,p-Xylene	ND	4.0									U
Methyl Acetate	ND	2.0									U
Methyl tert-butyl ether	ND	2.0									U
Methylene chloride	5.6	2.0									*

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1405006**

06-May-14

Client: J.R. Holzmacher P.E. LLC

Project: 127-13 Merrick Blvd., Queens, NY

TestNo: **SW8260C**

Sample ID **MB-1071** SampType: **MBLK** TestCode: **8260_W** Units: **µg/L** Prep Date: **5/2/2014** RunNo: **1717**

Client ID: **PBW** Batch ID: **1071** TestNo: **SW8260C** **SW5030C** Analysis Date: **5/3/2014** SeqNo: **29849**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Butylbenzene	ND	2.0									U
n-Propylbenzene	ND	2.0									U
Naphthalene	ND	2.0									U
o-Xylene	ND	2.0									U
p-Diethylbenzene	ND	2.0									U
p-Ethyltoluene	ND	2.0									U
sec-Butylbenzene	ND	2.0									U
Styrene	ND	2.0									U
t-Butyl alcohol	ND	10									U
tert-Butylbenzene	ND	2.0									U
Tetrachloroethene	ND	2.0									U
Toluene	ND	2.0									U
trans-1,2-Dichloroethene	ND	2.0									U
trans-1,3-Dichloropropene	ND	2.0									U
Trichloroethene	ND	2.0									U
Trichlorofluoromethane	ND	2.0									U
Vinyl acetate	ND	2.0									U*
Vinyl chloride	ND	2.0									U
Surr: 4-Bromofluorobenzene	47		50.00		95.0	70	128				
Surr: Dibromofluoromethane	55		50.00		109	75	129				
Surr: Toluene-d8	51		50.00		102	70	124				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

Original

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QC SUMMARY REPORT

WO#: **1405006**

06-May-14

Client: J.R. Holzmacher P.E. LLC

Project: 127-13 Merrick Blvd., Queens, NY

TestNo: **SW8260C**

Sample ID **LCS-1080** SampType: **LCS** TestCode: **8260_W** Units: **µg/L** Prep Date: **5/5/2014** RunNo: **1717**

Client ID: **LCSW** Batch ID: **1080** TestNo: **SW8260C** **SW5030C** Analysis Date: **5/5/2014** SeqNo: **29873**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	53	2.0	50.00	0	106	35	131				
1,1,2,2-Tetrachloroethane	48	2.0	50.00	0	95.6	33	152				
1,1,2-Trichloroethane	50	2.0	50.00	0	99.5	38	121				
1,1-Dichloroethane	52	2.0	50.00	0	104	31	132				
1,1-Dichloroethene	49	2.0	50.00	0	99.0	22	131				
1,2-Dichlorobenzene	49	2.0	50.00	0	97.8	44	123				
1,2-Dichloroethane	51	2.0	50.00	0	103	43	127				
1,2-Dichloropropane	53	2.0	50.00	0	106	42	126				
1,3-Dichlorobenzene	51	2.0	50.00	0	101	45	127				
1,4-Dichlorobenzene	50	2.0	50.00	0	99.2	43	126				
2-Chloroethyl vinyl ether	ND	4.0	50.00	0	0	20	133				SU
Benzene	53	2.0	50.00	0	106	30	137				
Bromodichloromethane	51	2.0	50.00	0	103	38	122				
Bromoform	46	2.0	50.00	0	92.3	46	128				
Bromomethane	31	4.0	50.00	0	61.0	27	146				
Carbon tetrachloride	54	2.0	50.00	0	108	35	134				
Chlorobenzene	50	2.0	50.00	0	101	47	120				
Chloroethane	45	2.0	50.00	0	89.9	38	130				
Chloroform	52	2.0	50.00	0	103	35	138				
Chloromethane	49	2.0	50.00	0	98.9	20	155				
cis-1,3-Dichloropropene	52	2.0	50.00	0	103	33	120				
Dibromochloromethane	49	2.0	50.00	0	97.8	42	128				
Ethanol	ND	10	50.00	0	0	40	125				SU
Ethylbenzene	52	2.0	50.00	0	105	46	134				
Methylene chloride	11	2.0	50.00	0	21.1	27	137				BS*
Tetrachloroethene	47	2.0	50.00	0	94.1	30	125				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

Original

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QC SUMMARY REPORT

WO#: **1405006**

06-May-14

Client: J.R. Holzmacher P.E. LLC

Project: 127-13 Merrick Blvd., Queens, NY

TestNo: **SW8260C**

Sample ID **LCS-1080** SampType: **LCS** TestCode: **8260_W** Units: **µg/L** Prep Date: **5/5/2014** RunNo: **1717**

Client ID: **LCSW** Batch ID: **1080** TestNo: **SW8260C** **SW5030C** Analysis Date: **5/5/2014** SeqNo: **29873**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	53	2.0	50.00	0	106	32	126				
trans-1,2-Dichloroethene	47	2.0	50.00	0	93.4	24	130				
trans-1,3-Dichloropropene	53	2.0	50.00	0	106	30	120				
Trichloroethene	51	2.0	50.00	0	102	41	125				
Trichlorofluoromethane	48	2.0	50.00	0	95.7	38	149				
Vinyl chloride	55	2.0	50.00	0	110	24	152				
Surr: 4-Bromofluorobenzene	47		50.00		94.1	70	128				
Surr: Dibromofluoromethane	51		50.00		102	75	129				
Surr: Toluene-d8	52		50.00		103	70	124				

Sample ID **MB-1080** SampType: **MBLK** TestCode: **8260_W** Units: **µg/L** Prep Date: **5/5/2014** RunNo: **1717**

Client ID: **PBW** Batch ID: **1080** TestNo: **SW8260C** **SW5030C** Analysis Date: **5/5/2014** SeqNo: **29874**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	2.0									U
1,1,1-Trichloroethane	ND	2.0									U
1,1,2,2-Tetrachloroethane	ND	2.0									U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0									U
1,1,2-Trichloroethane	ND	2.0									U
1,1-Dichloroethane	ND	2.0									U
1,1-Dichloroethene	ND	2.0									U
1,1-Dichloropropene	ND	2.0									U
1,2,3-Trichlorobenzene	ND	2.0									U
1,2,3-Trichloropropane	ND	2.0									U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

Original

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QC SUMMARY REPORT

WO#: **1405006**

06-May-14

Client: J.R. Holzmacher P.E. LLC

Project: 127-13 Merrick Blvd., Queens, NY

TestNo: **SW8260C**

Sample ID **MB-1080** SampType: **MBLK** TestCode: **8260_W** Units: **µg/L** Prep Date: **5/5/2014** RunNo: **1717**

Client ID: **PBW** Batch ID: **1080** TestNo: **SW8260C** **SW5030C** Analysis Date: **5/5/2014** SeqNo: **29874**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4,5-Tetramethylbenzene	ND	2.0									U
1,2,4-Trichlorobenzene	ND	2.0									U
1,2,4-Trimethylbenzene	ND	2.0									U
1,2-Dibromo-3-chloropropane	ND	2.0									U
1,2-Dibromoethane	ND	2.0									U
1,2-Dichlorobenzene	ND	2.0									U
1,2-Dichloroethane	ND	2.0									U
1,2-Dichloropropane	ND	2.0									U
1,3,5-Trimethylbenzene	ND	2.0									U
1,3-Dichlorobenzene	ND	2.0									U
1,3-dichloropropane	ND	2.0									U
1,4-Dichlorobenzene	ND	2.0									U
1,4-Dioxane	ND	2.0									U
2,2-Dichloropropane	ND	2.0									U
2-Butanone	ND	5.0									U
2-Chloroethyl vinyl ether	ND	4.0									U
2-Chlorotoluene	ND	2.0									U
2-Hexanone	ND	5.0									U
2-Propanol	ND	2.0									U
4-Chlorotoluene	ND	2.0									U
4-Isopropyltoluene	ND	2.0									U
4-Methyl-2-pentanone	ND	5.0									U
Acetone	2.5	5.0									J*
Benzene	ND	2.0									U
Bromobenzene	ND	2.0									U
Bromochloromethane	ND	2.0									U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1405006**

06-May-14

Client: J.R. Holzmacher P.E. LLC

Project: 127-13 Merrick Blvd., Queens, NY

TestNo: **SW8260C**

Sample ID **MB-1080** SampType: **MBLK** TestCode: **8260_W** Units: **µg/L** Prep Date: **5/5/2014** RunNo: **1717**

Client ID: **PBW** Batch ID: **1080** TestNo: **SW8260C** **SW5030C** Analysis Date: **5/5/2014** SeqNo: **29874**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	2.0									U
Bromoform	ND	2.0									U
Bromomethane	ND	4.0									U
Carbon disulfide	ND	2.0									U
Carbon tetrachloride	ND	2.0									U
Chlorobenzene	ND	2.0									U
Chlorodifluoromethane	ND	2.0									U*
Chloroethane	ND	2.0									U
Chloroform	ND	2.0									U
Chloromethane	ND	2.0									U
cis-1,2-Dichloroethene	ND	2.0									U
cis-1,3-Dichloropropene	ND	2.0									U
Cyclohexane	ND	2.0									U
Dibromochloromethane	ND	2.0									U
Dibromomethane	ND	2.0									U
Dichlorodifluoromethane	ND	2.0									U
Diisopropyl ether	ND	2.0									U
Ethanol	ND	10									U
Ethylbenzene	ND	2.0									U
Freon-114	ND	2.0									U
Hexachlorobutadiene	ND	2.0									U
Isopropylbenzene	ND	2.0									U
m,p-Xylene	ND	4.0									U
Methyl Acetate	ND	2.0									U
Methyl tert-butyl ether	ND	2.0									U
Methylene chloride	4.0	2.0									*

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

Original

American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

QC SUMMARY REPORT

WO#: **1405006**

06-May-14

Client: J.R. Holzmacher P.E. LLC

Project: 127-13 Merrick Blvd., Queens, NY

TestNo: **SW8260C**

Sample ID **MB-1080** SampType: **MBLK** TestCode: **8260_W** Units: **µg/L** Prep Date: **5/5/2014** RunNo: **1717**

Client ID: **PBW** Batch ID: **1080** TestNo: **SW8260C** **SW5030C** Analysis Date: **5/5/2014** SeqNo: **29874**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Butylbenzene	ND	2.0									U
n-Propylbenzene	ND	2.0									U
Naphthalene	ND	2.0									U
o-Xylene	ND	2.0									U
p-Diethylbenzene	ND	2.0									U
p-Ethyltoluene	ND	2.0									U
sec-Butylbenzene	ND	2.0									U
Styrene	ND	2.0									U
t-Butyl alcohol	ND	10									U*
tert-Butylbenzene	ND	2.0									U
Tetrachloroethene	ND	2.0									U
Toluene	ND	2.0									U
trans-1,2-Dichloroethene	ND	2.0									U
trans-1,3-Dichloropropene	ND	2.0									U
Trichloroethene	ND	2.0									U
Trichlorofluoromethane	ND	2.0									U
Vinyl acetate	ND	2.0									U*
Vinyl chloride	ND	2.0									U
Surr: 4-Bromofluorobenzene	47		50.00		94.4	70	128				
Surr: Dibromofluoromethane	51		50.00		103	75	129				
Surr: Toluene-d8	51		50.00		102	70	124				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

Original

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Farmingdale, New York 11735
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Website: www.American-Analytical.com

July 28, 2015

Jim DeMartinis
Seacliff Environmental
PO Box 2085
Miller Place, NY 11764
TEL: (631) 828-5994
FAX

RE: 127-13 Merrick Blvd, Jamaica, NY Order No.: 1507184

Dear Jim DeMartinis:

American Analytical Laboratories, LLC. received 4 sample(s) on 7/24/2015 for the analyses presented in the following report.

Samples were analyzed in accordance with the test procedures documented on the chain of custody and detailed throughout the text of this report. The results reported herein relate only to the items tested or to the samples as received by the laboratory. This report may not be reproduced, except in full, without the approval of American Analytical Laboratories, LLC and is not considered complete without a cover page and chain of custody documentation. The limits (LOQ) provided in the data package are analytical reporting limits and not Federal or Local mandated values to which the sample results should be compared.

There were no problems with the analyses and all data for associated QC met laboratory specifications. If there are any exceptions a Case Narrative is provided in the report or the data is qualified either on the sample results or in the QC section of the report. This package has been reviewed by American Analytical Laboratories' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal.

If you have any questions regarding these tests results, please do not hesitate to call (631) 454-6100 or email me directly at lbeyer@american-analytical.com.

Sincerely,

Lori Beyer

Lori Beyer
Lab Director
American Analytical Laboratories, LLC.

American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

Workorder Sample Summary

WO#: **1507184**

28-Jul-15

CLIENT: Seacliff Environmental
Project: 127-13 Merrick Blvd, Jamaica, NY

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1507184-001A	MW-1		7/24/2015 11:58:00 AM	7/24/2015 1:15:00 PM	Liquid
1507184-002A	MW-2		7/24/2015 12:15:00 PM	7/24/2015 1:15:00 PM	Liquid
1507184-003A	MW-3		7/24/2015 11:35:00 AM	7/24/2015 1:15:00 PM	Liquid
1507184-004A	MW-4		7/24/2015 11:20:00 AM	7/24/2015 1:15:00 PM	Liquid

CHAIN OF CUSTODY

AMERICAN ANALYTICAL LABORATORIES
56 Toledo Street, Farmingdale NY 11735
(T) 631-454-6100 (F) 631-454-8027
www.american-analytical.com

CERTIFICATIONS
NY ELAP - 11418 PA DEP - 68-00573
NJ DEP - NY050 CT DOH - PH-0205

Client Information

Company Name: Seacliff Environmental, Inc
Address: P.O. Box 2085
City: Miller Place State: NY Zip: 11764
Project Contact: Jim Demartinis
Phone #: 631 742-6948
E-mail:

Project Information

Project Name: 127-13 Merrick Blvd
Street: 127-13 Merrick Blvd
City: Jamaica State: NY Zip:
Project #:
Sampler's Name / Company: AT Scheff / Bku Formation LTD
Sampler's Signature:

Analytical Information

LAB SAMPLE # (LAB USE ONLY)	Client Sample ID	Sample Type	Matrix Code	Date	Time	Glass / Plastic	Total # of bottles	NONE	HCl	NaOH	HNO_3	H_2SO_4	$NaHSO_4$	MeOH	OTHER	Full VOCs - Category B deliverables
1507184-001	MW-1	G	L	7/24/15	1158	Glass	2		2							X
002	MW-2				1215											X
003	MW-3				1135											X
004	MW-4				1120											X

Turnaround Time (Business Days)

Standard: [X] 7-10 Business Days
[ ] 5 Day *RUSH*
[ ] 4 Day *RUSH*
[ ] 3 Day *RUSH*
[ ] 2 Day *RUSH*
[ ] 1 Day *RUSH*

SAMPLE TYPE

G = Grab
C = Composite
B = Blank

MATRIX CODES

L = Liquid
S = Soil
O = Oil
W = Wipe
PC = Paint Chip
SL = Sludge
SD = Solid
M = Miscellaneous

Comments / Remarks

Full VOCs - Category B deliverables

Cooler Temp: 1.9°C

Sample custody must be documented below, each time samples change possession, with a signature, date, and time.

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME
	7/24/15 1315	AT Scheff	P Masi	7/24/15 1315	Phyllis Masi
RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME

American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

Sample Log-In Check List

Client Name: **SEACLIFF ENV** Work Order Number: **1507184** RcptNo: **1**

Logged by:	**Lori Beyer**	**7/24/2015 1:15:00 PM**	Lori Beyer
Completed By:	**Lori Beyer**	**7/24/2015 2:31:29 PM**	Lori Beyer
Reviewed By:	**Karen Kelly**	**7/24/2015**	Karen Kelly

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☑
   No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified:		Date	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By

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Website: www.American-Analytical.com

Case Narrative

WO#: **1507184**
Date: **7/28/2015**

CLIENT: Seacliff Environmental
Project: 127-13 Merrick Blvd, Jamaica, NY

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846 and additional methods as detailed throughout the text of the report. All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives with exceptions notated in this Narrative discussion and/or in the QC Summary Section of the lab report with appropriate qualifiers. Additional quality control information such as surrogate recovery values for organic testing is provided as part of the analytical results. Batch MS/MSD results are provided in the QC section of the lab report unless the MS/MSD summary forms indicate one of your sample identifications. MS/MSD results relate only to the parent sample that was spiked.

MW-1 was selected by the laboratory for MS/MSD analysis.

Volatile LCS are analyzed with preservatives - HCL/NaHSO4/Methanol depending on level of analysis (high/low) similar to sample analysis. Outliers can be attributed to the presence of chemical preservatives. 2-Chloroethyl vinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

The following parameters (if included in this report) are not offered by NY ELAP: VOA 8260 Liquid; 1,2,4,5-Tetramethylbenzene, Chlorodifluoromethane, Freon-114, p-Diethylbenzene, p-Ethyltoluene, Isopropyl Acetate, n-Amyl acetate, n-Butyl Acetate and n-Propyl Acetate.

The test results meet the requirements of the NYSDOH and NELAC standards, except where noted. The information contained in this analytical report is the sole property of American Analytical Laboratories, LLC. or the client for which this report was issued. The results contained in this report are only representative of the samples received. The sample receipt checklist is included as part of this lab report. Conditions can vary at different times and at different sampling conditions. American Analytical is not responsible for the use or interpretation of the data included herein.

Definitions:

Sample Result and QC Summary Qualifiers - Level I and Level II Reports
ND - Not detected at the reporting limit/Limit of Quantitation

B - The analyte was detected in the associated method blank. For volatiles, methylene chloride and acetone are common lab contaminants. Data users should consider anything <5x the blank value as artifact.

E - The value is above the quantitation range

D - Analyte concentration was obtained from diluted analysis or from analysis using reduced sample volume.

J - The analyte was detected below the limit of quantitation but greater than the established Limit of Detection (LOD). There is greater uncertainty associated with these results and data should be considered as estimated.

U - The compound was analyzed for but not detected.

H - Holding time for preparation or analysis has been exceeded.

S - Spike recovery is outside accepted recovery limits.

R - RPD is outside accepted recovery range.

P - Secondary column exceeds 40% difference for GC test.

* - Calibration exceeds method requirement. Due to the large number of analytes for organic testing, the method allows 10% of analytes to have %RSD and/or %D to be >20%.

LOD - Limit of Detection; the lowest level the analyte can be determined to be statistically different from a blank.

LOQ - Limit of Quantitation; the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accurary.
m - Analyte was manually integrated for GC/MS.
+ - Concentration exceeds regulatory level for TCLP

American Analytical Laboratories, LLC.

Date: *28-Jul-15*

ELAP ID : 11418

CLIENT:	Seacliff Environmental	**Client Sample ID:**	MW-1
Lab Order:	1507184	**Collection Date:**	7/24/2015 11:58:00 AM
Project:	127-13 Merrick Blvd, Jamaica, NY	**Matrix:**	LIQUID
Lab ID:	1507184-001A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
1,1,1,2-Tetrachloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
1,1,1-Trichloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
1,1,2,2-Tetrachloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethan	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
1,1,2-Trichloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
1,1-Dichloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
1,1-Dichloroethene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
1,1-Dichloropropene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
1,2,3-Trichlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
1,2,3-Trichloropropane	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
1,2,4,5-Tetramethylbenzene	ND	0.5	2.0	Um	µg/L	1	7/28/2015 2:59:00 AM
1,2,4-Trichlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
1,2,4-Trimethylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
1,2-Dibromo-3-chloropropane	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
1,2-Dibromoethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
1,2-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
1,2-Dichloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
1,2-Dichloropropane	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
1,3,5-Trimethylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
1,3-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
1,3-dichloropropane	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
1,4-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
1,4-Dioxane	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
2,2-Dichloropropane	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
2-Butanone	ND	1	4.0	U*	µg/L	1	7/28/2015 2:59:00 AM
2-Chloroethyl vinyl ether	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
2-Chlorotoluene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
2-Hexanone	ND	1	4.0	U	µg/L	1	7/28/2015 2:59:00 AM
2-Propanol	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
4-Chlorotoluene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
4-Isopropyltoluene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
4-Methyl-2-pentanone	ND	1	4.0	U	µg/L	1	7/28/2015 2:59:00 AM
Acetone	1.8	1	4.0	BJ*	µg/L	1	7/28/2015 2:59:00 AM

American Analytical Laboratories, LLC., 56 Toledo Street, Farmingdale, New York, Zip - 11735
Tel - (631) 454-6100 Fax - (631) 454-8027 www.american-analytical.com

American Analytical Laboratories, LLC.

Date: *28-Jul-15*

ELAP ID : 11418

CLIENT:	Seacliff Environmental	**Client Sample ID:**	MW-1
Lab Order:	1507184	**Collection Date:**	7/24/2015 11:58:00 AM
Project:	127-13 Merrick Blvd, Jamaica, NY	**Matrix:**	LIQUID
Lab ID:	1507184-001A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
Benzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Bromobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Bromochloromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Bromodichloromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Bromoform	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Bromomethane	ND	1	4.0	U*	µg/L	1	7/28/2015 2:59:00 AM
Carbon disulfide	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Carbon tetrachloride	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Chlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Chlorodifluoromethane	ND	0.3	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Chloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Chloroform	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Chloromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
cis-1,2-Dichloroethene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
cis-1,3-Dichloropropene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Cyclohexane	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Dibromochloromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Dibromomethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Dichlorodifluoromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Diisopropyl ether	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Ethanol	ND	2.5	10	U*	µg/L	1	7/28/2015 2:59:00 AM
Ethylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Freon-114	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Hexachlorobutadiene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Isopropylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
m,p-Xylene	ND	1	4.0	U	µg/L	1	7/28/2015 2:59:00 AM
Methyl Acetate	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Methyl tert-butyl ether	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Methylene chloride	6.1	0.5	2.0	B*	µg/L	1	7/28/2015 2:59:00 AM
n-Butylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
n-Propylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Naphthalene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
o-Xylene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM

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American Analytical Laboratories, LLC.

Date: *28-Jul-15*

ELAP ID : 11418

CLIENT:	Seacliff Environmental	**Client Sample ID:**	MW-1
Lab Order:	1507184	**Collection Date:**	7/24/2015 11:58:00 AM
Project:	127-13 Merrick Blvd, Jamaica, NY	**Matrix:**	LIQUID
Lab ID:	1507184-001A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
p-Diethylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
p-Ethyltoluene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
sec-Butylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Styrene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
t-Butyl alcohol	ND	2.5	10	U*	µg/L	1	7/28/2015 2:59:00 AM
tert-Butylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Tetrachloroethene	0.64	0.5	2.0	J	µg/L	1	7/28/2015 2:59:00 AM
Toluene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
trans-1,2-Dichloroethene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
trans-1,3-Dichloropropene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Trichloroethene	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Trichlorofluoromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Vinyl acetate	ND	0.5	2.0	U*	µg/L	1	7/28/2015 2:59:00 AM
Vinyl chloride	ND	0.5	2.0	U	µg/L	1	7/28/2015 2:59:00 AM
Surr: 4-Bromofluorobenzene	94.0	0	76-123		%REC	1	7/28/2015 2:59:00 AM
Surr: Dibromofluoromethane	109	0	71-132		%REC	1	7/28/2015 2:59:00 AM
Surr: Toluene-d8	106	0	80-120		%REC	1	7/28/2015 2:59:00 AM

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American Analytical Laboratories, LLC.

Date: *28-Jul-15*

ELAP ID : 11418

CLIENT:	Seacliff Environmental	**Client Sample ID:**	MW-2
Lab Order:	1507184	**Collection Date:**	7/24/2015 12:15:00 PM
Project:	127-13 Merrick Blvd, Jamaica, NY	**Matrix:**	LIQUID
Lab ID:	1507184-002A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
1,1,1,2-Tetrachloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
1,1,1-Trichloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
1,1,2,2-Tetrachloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethan	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
1,1,2-Trichloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
1,1-Dichloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
1,1-Dichloroethene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
1,1-Dichloropropene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
1,2,3-Trichlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
1,2,3-Trichloropropane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
1,2,4,5-Tetramethylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
1,2,4-Trichlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
1,2,4-Trimethylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
1,2-Dibromo-3-chloropropane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
1,2-Dibromoethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
1,2-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
1,2-Dichloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
1,2-Dichloropropane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
1,3,5-Trimethylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
1,3-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
1,3-dichloropropane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
1,4-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
1,4-Dioxane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
2,2-Dichloropropane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
2-Butanone	ND	1	4.0	U*	µg/L	1	7/28/2015 3:27:00 AM
2-Chloroethyl vinyl ether	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
2-Chlorotoluene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
2-Hexanone	ND	1	4.0	U	µg/L	1	7/28/2015 3:27:00 AM
2-Propanol	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
4-Chlorotoluene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
4-Isopropyltoluene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
4-Methyl-2-pentanone	ND	1	4.0	U	µg/L	1	7/28/2015 3:27:00 AM
Acetone	1.3	1	4.0	BJ*	µg/L	1	7/28/2015 3:27:00 AM

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American Analytical Laboratories, LLC.

Date: *28-Jul-15*

ELAP ID : 11418

CLIENT:	Seacliff Environmental	**Client Sample ID:**	MW-2
Lab Order:	1507184	**Collection Date:**	7/24/2015 12:15:00 PM
Project:	127-13 Merrick Blvd, Jamaica, NY	**Matrix:**	LIQUID
Lab ID:	1507184-002A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
Benzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Bromobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Bromochloromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Bromodichloromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Bromoform	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Bromomethane	ND	1	4.0	U*	µg/L	1	7/28/2015 3:27:00 AM
Carbon disulfide	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Carbon tetrachloride	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Chlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Chlorodifluoromethane	ND	0.3	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Chloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Chloroform	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Chloromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
cis-1,2-Dichloroethene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
cis-1,3-Dichloropropene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Cyclohexane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Dibromochloromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Dibromomethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Dichlorodifluoromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Diisopropyl ether	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Ethanol	ND	2.5	10	U*	µg/L	1	7/28/2015 3:27:00 AM
Ethylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Freon-114	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Hexachlorobutadiene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Isopropylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
m,p-Xylene	ND	1	4.0	U	µg/L	1	7/28/2015 3:27:00 AM
Methyl Acetate	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Methyl tert-butyl ether	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Methylene chloride	6.8	0.5	2.0	B*	µg/L	1	7/28/2015 3:27:00 AM
n-Butylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
n-Propylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Naphthalene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
o-Xylene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM

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American Analytical Laboratories, LLC.

Date: *28-Jul-15*

ELAP ID : 11418

CLIENT:	Seacliff Environmental	**Client Sample ID:**	MW-2
Lab Order:	1507184	**Collection Date:**	7/24/2015 12:15:00 PM
Project:	127-13 Merrick Blvd, Jamaica, NY	**Matrix:**	LIQUID
Lab ID:	1507184-002A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
p-Diethylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
p-Ethyltoluene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
sec-Butylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Styrene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
t-Butyl alcohol	ND	2.5	10	U*	µg/L	1	7/28/2015 3:27:00 AM
tert-Butylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Tetrachloroethene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Toluene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
trans-1,2-Dichloroethene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
trans-1,3-Dichloropropene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Trichloroethene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Trichlorofluoromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Vinyl acetate	ND	0.5	2.0	U*	µg/L	1	7/28/2015 3:27:00 AM
Vinyl chloride	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:27:00 AM
Surr: 4-Bromofluorobenzene	96.7	0	76-123		%REC	1	7/28/2015 3:27:00 AM
Surr: Dibromofluoromethane	113	0	71-132		%REC	1	7/28/2015 3:27:00 AM
Surr: Toluene-d8	105	0	80-120		%REC	1	7/28/2015 3:27:00 AM

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Date: *28-Jul-15*

ELAP ID : 11418

CLIENT:	Seacliff Environmental	**Client Sample ID:**	MW-3
Lab Order:	1507184	**Collection Date:**	7/24/2015 11:35:00 AM
Project:	127-13 Merrick Blvd, Jamaica, NY	**Matrix:**	LIQUID
Lab ID:	1507184-003A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
1,1,1,2-Tetrachloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
1,1,1-Trichloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
1,1,2,2-Tetrachloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethan	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
1,1,2-Trichloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
1,1-Dichloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
1,1-Dichloroethene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
1,1-Dichloropropene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
1,2,3-Trichlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
1,2,3-Trichloropropane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
1,2,4,5-Tetramethylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
1,2,4-Trichlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
1,2,4-Trimethylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
1,2-Dibromo-3-chloropropane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
1,2-Dibromoethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
1,2-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
1,2-Dichloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
1,2-Dichloropropane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
1,3,5-Trimethylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
1,3-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
1,3-dichloropropane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
1,4-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
1,4-Dioxane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
2,2-Dichloropropane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
2-Butanone	ND	1	4.0	U*	µg/L	1	7/28/2015 3:54:00 AM
2-Chloroethyl vinyl ether	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
2-Chlorotoluene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
2-Hexanone	ND	1	4.0	U	µg/L	1	7/28/2015 3:54:00 AM
2-Propanol	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
4-Chlorotoluene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
4-Isopropyltoluene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
4-Methyl-2-pentanone	ND	1	4.0	U	µg/L	1	7/28/2015 3:54:00 AM
Acetone	1.9	1	4.0	BJ*	µg/L	1	7/28/2015 3:54:00 AM

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Date: *28-Jul-15*

ELAP ID : 11418

CLIENT:	Seacliff Environmental	**Client Sample ID:**	MW-3
Lab Order:	1507184	**Collection Date:**	7/24/2015 11:35:00 AM
Project:	127-13 Merrick Blvd, Jamaica, NY	**Matrix:**	LIQUID
Lab ID:	1507184-003A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
Benzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Bromobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Bromochloromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Bromodichloromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Bromoform	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Bromomethane	ND	1	4.0	U*	µg/L	1	7/28/2015 3:54:00 AM
Carbon disulfide	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Carbon tetrachloride	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Chlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Chlorodifluoromethane	ND	0.3	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Chloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Chloroform	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Chloromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
cis-1,2-Dichloroethene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
cis-1,3-Dichloropropene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Cyclohexane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Dibromochloromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Dibromomethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Dichlorodifluoromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Diisopropyl ether	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Ethanol	ND	2.5	10	U*	µg/L	1	7/28/2015 3:54:00 AM
Ethylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Freon-114	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Hexachlorobutadiene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Isopropylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
m,p-Xylene	ND	1	4.0	U	µg/L	1	7/28/2015 3:54:00 AM
Methyl Acetate	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Methyl tert-butyl ether	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Methylene chloride	7.0	0.5	2.0	B*	µg/L	1	7/28/2015 3:54:00 AM
n-Butylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
n-Propylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Naphthalene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
o-Xylene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM

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Date: *28-Jul-15*

ELAP ID : 11418

CLIENT:	Seacliff Environmental	**Client Sample ID:**	MW-3
Lab Order:	1507184	**Collection Date:**	7/24/2015 11:35:00 AM
Project:	127-13 Merrick Blvd, Jamaica, NY	**Matrix:**	LIQUID
Lab ID:	1507184-003A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
p-Diethylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
p-Ethyltoluene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
sec-Butylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Styrene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
t-Butyl alcohol	ND	2.5	10	U*	µg/L	1	7/28/2015 3:54:00 AM
tert-Butylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Tetrachloroethene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Toluene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
trans-1,2-Dichloroethene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
trans-1,3-Dichloropropene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Trichloroethene	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Trichlorofluoromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Vinyl acetate	ND	0.5	2.0	U*	µg/L	1	7/28/2015 3:54:00 AM
Vinyl chloride	ND	0.5	2.0	U	µg/L	1	7/28/2015 3:54:00 AM
Surr: 4-Bromofluorobenzene	94.1	0	76-123		%REC	1	7/28/2015 3:54:00 AM
Surr: Dibromofluoromethane	115	0	71-132		%REC	1	7/28/2015 3:54:00 AM
Surr: Toluene-d8	106	0	80-120		%REC	1	7/28/2015 3:54:00 AM

American Analytical Laboratories, LLC.

Date: *28-Jul-15*

ELAP ID : 11418

CLIENT:	Seacliff Environmental	**Client Sample ID:**	MW-4
Lab Order:	1507184	**Collection Date:**	7/24/2015 11:20:00 AM
Project:	127-13 Merrick Blvd, Jamaica, NY	**Matrix:**	LIQUID
Lab ID:	1507184-004A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
1,1,1,2-Tetrachloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
1,1,1-Trichloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
1,1,2,2-Tetrachloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethan	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
1,1,2-Trichloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
1,1-Dichloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
1,1-Dichloroethene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
1,1-Dichloropropene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
1,2,3-Trichlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
1,2,3-Trichloropropane	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
1,2,4,5-Tetramethylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
1,2,4-Trichlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
1,2,4-Trimethylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
1,2-Dibromo-3-chloropropane	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
1,2-Dibromoethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
1,2-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
1,2-Dichloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
1,2-Dichloropropane	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
1,3,5-Trimethylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
1,3-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
1,3-dichloropropane	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
1,4-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
1,4-Dioxane	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
2,2-Dichloropropane	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
2-Butanone	ND	1	4.0	U*	µg/L	1	7/28/2015 4:22:00 AM
2-Chloroethyl vinyl ether	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
2-Chlorotoluene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
2-Hexanone	ND	1	4.0	U	µg/L	1	7/28/2015 4:22:00 AM
2-Propanol	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
4-Chlorotoluene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
4-Isopropyltoluene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
4-Methyl-2-pentanone	ND	1	4.0	U	µg/L	1	7/28/2015 4:22:00 AM
Acetone	1.5	1	4.0	BJ*	µg/L	1	7/28/2015 4:22:00 AM

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Tel - (631) 454-6100 Fax - (631) 454-8027 www.american-analytical.com

American Analytical Laboratories, LLC.

Date: *28-Jul-15*

ELAP ID : 11418

CLIENT:	Seacliff Environmental	**Client Sample ID:**	MW-4
Lab Order:	1507184	**Collection Date:**	7/24/2015 11:20:00 AM
Project:	127-13 Merrick Blvd, Jamaica, NY	**Matrix:**	LIQUID
Lab ID:	1507184-004A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
Benzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Bromobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Bromochloromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Bromodichloromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Bromoform	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Bromomethane	ND	1	4.0	U*	µg/L	1	7/28/2015 4:22:00 AM
Carbon disulfide	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Carbon tetrachloride	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Chlorobenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Chlorodifluoromethane	ND	0.3	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Chloroethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Chloroform	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Chloromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
cis-1,2-Dichloroethene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
cis-1,3-Dichloropropene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Cyclohexane	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Dibromochloromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Dibromomethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Dichlorodifluoromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Diisopropyl ether	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Ethanol	ND	2.5	10	U*	µg/L	1	7/28/2015 4:22:00 AM
Ethylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Freon-114	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Hexachlorobutadiene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Isopropylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
m,p-Xylene	ND	1	4.0	U	µg/L	1	7/28/2015 4:22:00 AM
Methyl Acetate	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Methyl tert-butyl ether	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Methylene chloride	6.7	0.5	2.0	B*	µg/L	1	7/28/2015 4:22:00 AM
n-Butylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
n-Propylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Naphthalene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
o-Xylene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM

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Date: *28-Jul-15*

ELAP ID : 11418

CLIENT:	Seacliff Environmental	**Client Sample ID:**	MW-4
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Project:	127-13 Merrick Blvd, Jamaica, NY	**Matrix:**	LIQUID
Lab ID:	1507184-004A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
p-Diethylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
p-Ethyltoluene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
sec-Butylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Styrene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
t-Butyl alcohol	ND	2.5	10	U*	µg/L	1	7/28/2015 4:22:00 AM
tert-Butylbenzene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Tetrachloroethene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Toluene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
trans-1,2-Dichloroethene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
trans-1,3-Dichloropropene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Trichloroethene	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Trichlorofluoromethane	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Vinyl acetate	ND	0.5	2.0	U*	µg/L	1	7/28/2015 4:22:00 AM
Vinyl chloride	ND	0.5	2.0	U	µg/L	1	7/28/2015 4:22:00 AM
Surr: 4-Bromofluorobenzene	97.5	0	76-123		%REC	1	7/28/2015 4:22:00 AM
Surr: Dibromofluoromethane	116	0	71-132		%REC	1	7/28/2015 4:22:00 AM
Surr: Toluene-d8	104	0	80-120		%REC	1	7/28/2015 4:22:00 AM

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Appendix I

SSDS Operation and Maintenance Plan

SSDS OPERATION AND MAINTENANCE PLAN

1.0 INTRODUCTION

The Operation and Maintenance Plan describes the measures necessary to operate and maintain the mechanical components of the Sub-Slab Depressurization System (SSDS). This Operation and Maintenance Plan:

- Includes the steps necessary to allow individuals unfamiliar with the Site to operate and maintain the SSDS;
- Includes an operation and maintenance contingency plan; and,
- Will be updated periodically to reflect changes in site conditions or the manner in which the SSDS is operated and maintained.

A copy of this Operation and Maintenance Plan will be kept at the Site. This Plan is subject to NYSDEC revision.

2.0 - ENGINEERING CONTROL SYSTEM OPERATION AND MAINTENANCE

2.1 Sub-slab Depressurization System

The sub-slab depressurization facilities will be inspected and tested annually (fans, piping, leaks, alarms, and batteries). A monthly check will be made to determine if the fans are operating and the batteries are functioning.

One sub-slab depressurization system is installed in this building. The system consists of 4-inch diameter HDPE horizontal perforated pipe in a 6-inch gravel bed under the existing basement concrete slab for the building. The piping spans the entire length of the shopping center with a secondary branch to provide additional coverage. A 20-Mil soil gas retarder membrane (polyethylene sheeting) was placed over the piping and gravel bed within the trench. The horizontal perforated pipe is connected to a 3-inch diameter DI/CI non-perforated vertical pipe rising to above the roof upon which is mounted two 200 cfm vent fans that operate continuously (24-hours, 7-days/week) to evacuate to the atmosphere any soil vapors that may be accumulating under the slab. There are monitoring points at both ends of the shopping center at the termination points of the horizontal pipe runs. Control panel is provided that gives a visual and audible alarm signal when the fan is inoperable or if pressure loss occurs (due to power loss, failure, or pipe blockage).

The requirements for the SSDS consist of an initial start-up testing, routine maintenance and monitoring activities, and non-routine maintenance activities. Each is described in the following subsections.

2.2 System Start-up and Testing

The goal for successful testing of the SSDS will be to achieve a negative sub-slab pressure. With this goal in mind, the following action will be performed during initial start-up of the SSDS:

1. Prior to operation of the SSDS, representative sub-slab vapor samples will initially be screened for Volatile Organic Compounds (VOCs) by a Photo Ionization Detector (PID) at the monitoring points located at the ends of the building where the pipe terminations are capped for accessibility. If PID readings indicate the presence of VOCs, samples will be taken utilizing SUMMA canisters and analyzing the samples for VOCs via a EPA TO-15 method.

2. Shortly before start-up of the SSDS, one 1/2-inch diameter monitoring hole will be made through the slab on grade at a point furthest away from the sub-slab pipe. 1/8 to 3/8-inch diameter tubing from a hand-held manometer can be connected to below the slab with temporary sealing around the tube to slab.

3. The vent fan is started up and the sub-slab pressure at the monitoring points will be measured utilizing an appropriate hand-held manometer to record a negative pressure under the slab. If negative pressure cannot be achieved during manometer testing, then smoke testing must occur to determine if there are any significant air leaks within the slab or end points of the sub-slab piping. Once smoke test results prove to be sufficient, manometer testing can be performed again. If a negative pressure cannot be established at the sample point location with the manometer, an additional sample point should be

chosen closer to the horizontal sub-slab pipe to confirm the effectiveness of the rooftop fan. If only a minimal negative pressure can be established, an alternate fan may need to be considered for achieving negative sub-slab pressure at extents of building foundation. After manometer testing is complete, sample point holes in concrete must be filled with epoxy mortar or equivalent concrete hole patch.

4. Smoke tests will then be performed to identify any leaks through cracks in the concrete floor and floor joints or pipe penetrations. Identified leaks will be re-sealed until smoke tests indicate that an appropriate seal of the floor slab has been achieved.

5. The operation of the visual and audible alarm device for the exhaust fan will be confirmed.

6. Test results will be recorded and filed.

If significant changes are made to the system in the course of the system lifetime, the system testing described above will be conducted again prior to placing in operation.

2.3 System Operation - Routine Operation Procedures

On a monthly basis, qualified building personnel will carry out the following:

- Conduct a visual inspection of the rooftop piping, control panel, inline exhaust fan, and electrical components such as visible conduits, boxes and panels.
- Confirm that the exhaust fan and alarm components are properly operating.
- Test the alarm system to determine if it is operable and repair/replace if required. (see Section 2.4 if routine monitoring indicates that one or both of these warning devices is not working properly).
- Check whether battery backup for control panel and alarm is functioning and if required, replace battery.

2.4 System Operation - Routine Equipment Maintenance

Routine maintenance and inspection will be conducted to ensure that the SSDS is operating properly. On a monthly basis, qualified building personnel will confirm that the exhaust fan and alarm are working properly and that battery is functioning (see Section 2.5 if routine montoring indicates that one or both of these warning devices is not working properly). Battery will be replaced, if required.

On an annual basis, the following will performed:

- Conduct a visual inspection of all visible system components.
- Inspect fan for bearing failures or signs of other abnormal operations, and repair or replace if required.
- Inspect the discharge location of the vent pipe to ensure that no air intake or operable window has been located nearby.

- Determine, through discussions with building management, if any Heating, Ventilation, and Air Conditioning ("HVAC") system modifications occurred that might effect the performance of the SSDS.
- Inspect the floor slab and foundation walls for evidence of cracks and/or holes, and repair of cracks and/or holes, if required.
- Test the integrity of the riser pipe(s), via smoke tests, and repair the riser pipe, if required.
- Test the alarm system to determine if it is operable and repair, if required.

Appendix J

Environmental Easement and Property Survey

ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this 10th day of April, 2015, between Owner(s) Myrtle/Irving Realty Associates, LLC, having an office at 102-10 Metropolitan Avenue, Suite 200, Forest Hills, New York 11375, County of Queens, State of New York (the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

WHEREAS, Grantor, is the owner of real property located at the address of 127-01 to 127-23 Merrick Boulevard in the City of New York, County of Queens and State of New York, known and designated on the tax map of the New York City Department of Finance as tax map parcel number: Block 12488 Lot 1, being the same as that property conveyed to Grantor by deed dated September 18, 2007 and recorded in the City Register of the City of New York in Instrument No. 2007000531641. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 0.3531 +/- acres, and is hereinafter more fully described in the Land Title Survey dated May 31, 2014, revised September 25, 2014 prepared by Roguski Land Surveying, P.C., which will be attached to the Site Management Plan. The Controlled Property description is set forth in and attached hereto as Schedule A; and

WHEREAS, the Department accepts this Environmental Easement in order to ensure the protection of public health and the environment and to achieve the requirements for remediation established for the Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36; and

NOW THEREFORE, in consideration of the mutual covenants contained herein and the terms and conditions of Order on Consent Index Number: R2-0661-03-11, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement")

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv)

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP;

(4) The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the New York City Department of Health and Mental Hygiene to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;

(5) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

(6) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;

(7) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(8) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;

(9) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP;

(10) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

B. The Controlled Property shall not be used for Residential or Restricted Residential purposes as defined in 6NYCRR 375-1.8(g)(2)(i) and (ii), and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, New York 12233
Phone: (518) 402-9553

D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

E. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the Environmental Conservation Law.

F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall, at such time as NYSDEC may require, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

(i) are in-place;

(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved b the NYSDEC and that all controls are in the Department-approved format; and

(iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5 the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and

(7) the information presented is accurate and complete.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an

interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to:

Site Number: 241128
Office of General Counsel
NYSDEC
625 Broadway
Albany New York 12233-5500

With a copy to:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, NY 12233

All notices and correspondence shall be delivered by hand, by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

Myrtle/Irving Realty Associates LLC:

By: _____

Print Name: David Koptiev

Title: Member Date: 10/1/14

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF Queens)

On the 1st day of October in the year 2014, before me, the undersigned, personally appeared David Koptiev, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Bella Levy
Notary Public - State of New York

BELLA LEVY
Notary Public - State of New York
NO. 01LE6215746
Qualified in Queens County
My Commission Expires 1/04/2018

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner,

By: _____
Robert W. Schick, Director
Division of Environmental Remediation

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF ALBANY)

On the 10 day of April, in the year 2015, before me, the undersigned, personally appeared Robert W. Schick, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public - State of New York

David J. Chiusano
Notary Public, State of New York
No. 01CH5032146
Qualified in Schenectady County
Commission Expires August 22, 2018

SCHEDULE "A" PROPERTY DESCRIPTION

All that certain plot, piece or parcel of land, situate, lying and being in the Borough and County of Queens, City and State of New York, known and designated on a certain map entitled, "Map of Netherlands, Subdivision in the Fourth Ward, Borough of Queens, New York City, Property of New Netherlands Home Co., and New No. 1524, as and by part of Lots 51 to 58, which said part of lots, when taken together as one parcel, are bounded and described as follows:

BEGINNING at the corner formed by the intersection of the easterly side of Merrick Boulevard, 100 feet wide, with the northerly side of Anderson Road;

RUNNING THENCE easterly along the northerly side of Anderson Road, 80.49 feet;

THENCE northerly at right angles to Anderson Road, 100.50 feet;

THENCE easterly at right angles to the last mentioned course, .66 feet;

THENCE northerly at right angles to the last mentioned course, 99.50 feet to the southerly side of Selover Road;

THENCE westerly along the southerly side of Selover Road, 73.33 feet to the corner formed by the intersection of the southerly side of Selover Road, with the easterly side of Merrick Boulevard;

THENCE southerly along the said easterly side of Merrick Boulevard, 200.15 feet to the corner at the point or place of beginning.

Said property being 15,381.6 square feet or 0.3531 acres.

LEGEND:

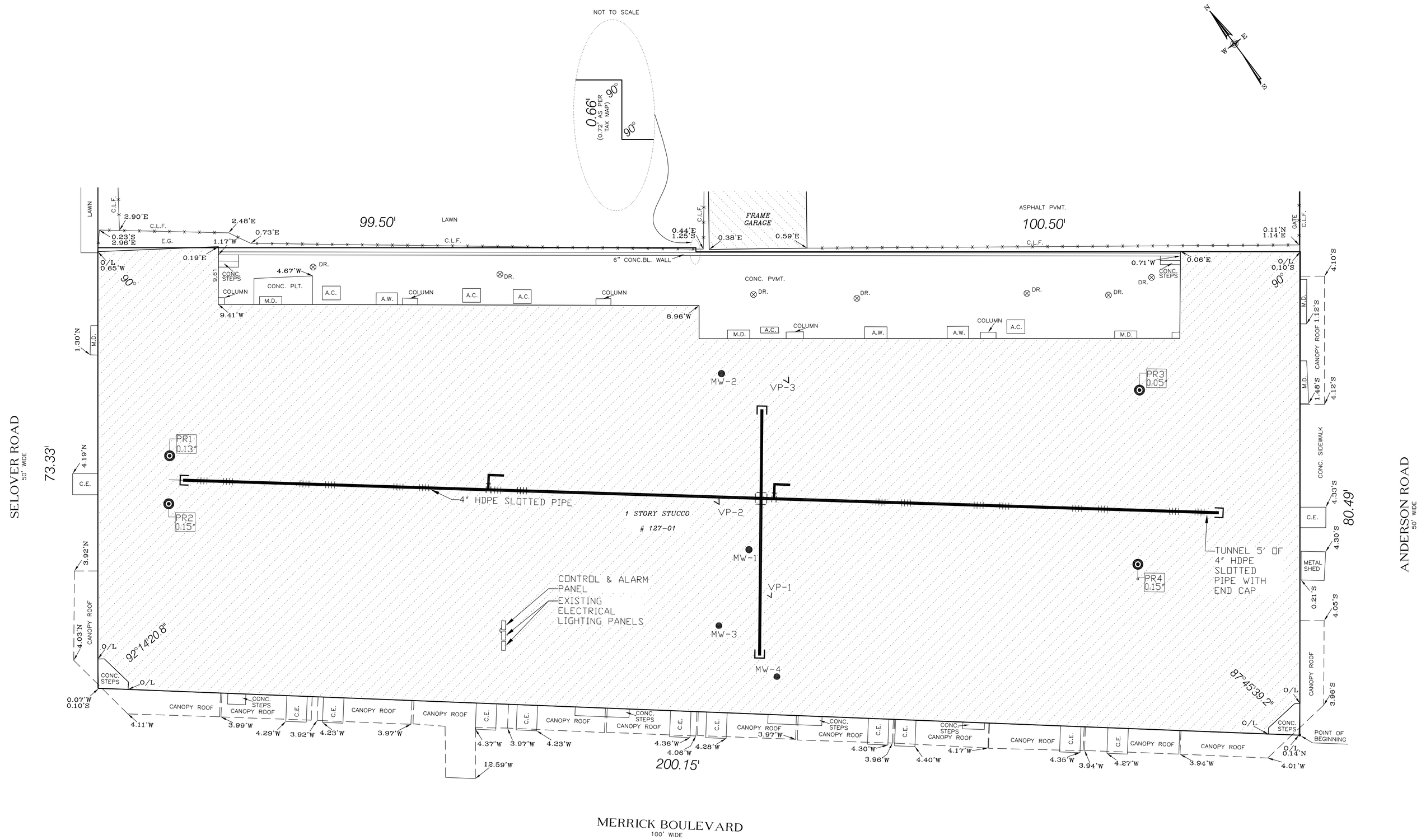
AIR CONDITIONER —— A.C.
CELLAR ENTRANCE —— C.E.
CHAIN LINK FENCE —— C.L.F.
PLATFORM —— PLT.
PAVEMENT —— PVMT.
EARTHEN GROUND —— E.G.
CONCRETE —— CONC.
OVER HEAD SERVICE WIRE —— O.H.S.W.
METAL DOOR —— M.D.
METAL COVER —— M.C.
FIRE ESCAPE —— F.E.
UTILITY POLE —— U.P.
WOOD FENCE —— W.F.
VINYL FENCE —— V.F.
METAL FENCE —— M.F.
BAY WINDOW —— B.W.
AREA WAY —— A.W.
ON LINE —— O/L
TREE —— T
PROPERTY LINE
BUILDING LINE

UTILITY POLE
VALVES: GAS G.V. WATER W.V. METAL VELVE M.V.
CURB AND CURB CUT
MANHOLES: SEWER (S) GAS (G) WATER (W) ELECTRIC (E)

THE OFFSETS OR DIMENSIONS SHOWN FROM THE STRUCTURES TO THE PROPERTY LINES ARE FOR A SPECIFIC PURPOSE AND USE AND THEREFORE ARE NOT INTENDED TO GUIDE THE ERECTION OF FENCES, RETAINING WALLS, POOLS, PLANTING AREAS, ADDITIONS TO STRUCTURES AND ANY OTHER CONSTRUCTION.

Job No. RLS145587

THE EXISTENCE OF RIGHT OF WAYS AND/OR EASEMENTS OF RECORD, IF ANY, NOT SHOWN ARE NOT CERTIFIED.



NOTE:
THIS PROPERTY IS SUBJECT TO AN ENVIRONMENTAL EASEMENT HELD BY THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PURSUANT TO TITLE 36 OF ARTICLE 71 OF THE NEW YORK ENVIRONMENTAL CONSERVATION LAW. THE ENGINEERING AND INSTITUTIONAL CONTROLS FOR THIS EASEMENT ARE SET FORTH IN MORE DETAILS IN THE SITE MANAGEMENT PLAN (SMP). A COPY OF THE SMP MUST BE OBTAINED BY ANY PARTY WITH AN INTEREST IN THE PROPERTY. THE SMP CAN BE OBTAINED FROM NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF ENVIRONMENTAL REMEDIATION, SITE CONTROL SECTION, 645 BROADWAY, ALBANY, NY 12233 OR AT DERWEB@DEC.NY.GOV

SCHEDULE "A"

ALL THAT CERTAIN PLOT, PIECE OR PARCEL OF LAND, SITUATE, LYING AND BEING IN THE BOROUGH AND COUNTY OF QUEENS, CITY AND STATE OF NEW YORK, KNOWN AND DESIGNATED ON A CERTAIN MAP ENTITLED " MAP OF NETHERLANDS, SUBDIVISION IN THE FOURTH WARD, BOROUGH OF QUEENS, NEW YORK CITY, PROPERTY OF NEW NETHERLANDS HOME CO." AND NEW NO. 1524 AS AND BY PART OF LOTS 51 TO 58, WHICH SAID PART OF LOTS, WHEN TAKEN TOGETHER AS ONE PARCEL, ARE BOUNDED AND DESCRIBED AS FALLOWS:

BEGINNING AT THE CORNER FORMED BY THE INTERSECTION OF THE EASTERLY SIDE OF MERRICK BOULEVARD, 100 FEET WIDE, WITH THE NORTHERLY SIDE OF ANDERSON ROAD;

RUNNING THENCE EASTERLY ALONG THE NORTHERLY SIDE OF ANDERSON ROAD 80.49 FEET;

THENCE NORTHERLY AT RIGHT ANGLES TO ANDERSON ROAD 100.50 FEET;

THENCE EASTERLY AT RIGHT ANGLES TO THE LAST MENTIONED COURSE 0.66 FEET;

THENCE NORTHERLY AT RIGHT ANGLES TO THE LAST MENTIONED COURSE, 99.50 FEET TO THE SOUTHERLY SIDE OF SELOVER ROAD;

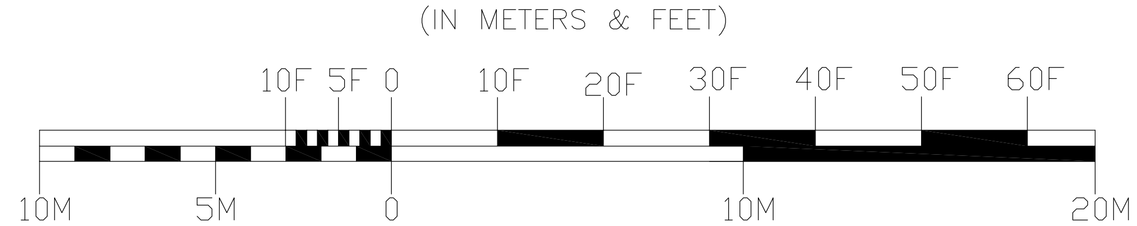
THENCE WESTERLY ALONG THE SOUTHERLY SIDE OF SELOVER ROAD, 73.33 FEET TO THE CORNER FORMED BY THE INTERSECTION OF THE SOUTHERLY SIDE OF SELOVER ROAD, WITH THE EASTERLY SIDE OF MERRICK BOULEVARD;

THENCE SOUTHERLY ALONG THE SAID EASTERLY SIDE OF MERRICK BOULEVARD, 200.15 FEET TO THE CORNER AT THE POINT OR PLACE OF BEGINNING

LOT AREA IS 15381.6 sq.ft. = 0.3531 acres

NOTE:
AREA OF PROPERTY – AREA OF ENVIRONMENTAL EASEMENT
15381.6' sq.ft. = 0.3531 ACRES

GRAPHIC SCALE: 1" = 10'
(IN METERS & FEET)



1 FOOT = 0.3048006 METERS
1 METER = 3.280833 FEET

LEGEND
PRESSURE LOCATIONS
VAPOR IMPLANTS

ENGINEERING CONTROLS PROVIDED BY J.R. HOLZMACHER P.E., LLC
PROJECT NO.: KoptD14–01 DATE: 01/15/14

REV1: SIDEWALK STRUCTURES REMOVING

SURVEY OF: *Described Property*
LOCATED AT:
127–01 Merrick Boulevard
County and Borough of Queens
City and State of New York
TAX DESIG:
Block 12488 Lot 1
CERTIFIED TO:
Myrtle/Irving Really Associates LLC
The People of the State of New York
acting through its commissioner of the
Dept. of Environmental Conservation

ROGUSKI LAND SURVEYING, P.C.
TITLE • ARCHITECTURAL • BOUNDARY • CONSTRUCTION
60–17 56th DRIVE, MASPETH, N.Y. 11378
Tel. • (718)480–3761 • Fax. • (718)480–3762 •
Email • rogusklls@aol.com •
SZCZEPAN H. ROGUSKI
PROFESSIONAL LAND SURVEYOR

DATE: *May 31, 2014*
REV1: *February 20, 2015*
SCALE: *1"=10'*
DRAWN BY MW

UNAUTHORIZED ALTERATION OR ADDITION TO THIS SURVEY IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW. COPIES OF THIS SURVEY MAP NOT BEARING THE LAND SURVEYOR'S INKED SEAL OR EMBOSSED SEAL SHALL NOT BE CONSIDERED TO BE A VALID TRUE COPY.

CERTIFICATION INDICATED HEREON SHALL RUN ONLY TO THE PERSON FOR WHOM THE SURVEY IS PREPARED, AND ON HIS BEHALF TO THE TITLE COMPANY, GOVERNMENTAL AGENCY AND LENDING INSTITUTION LISTED HEREON, AND TO THE ASSIGNEES OF THE LENDING INSTITUTION. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.

Appendix K

Data Usability Summary Reports

DATA USABILITY SUMMARY REPORT (DUSR)

ORGANIC ANALYSIS

EPA Compendium Method TO-15
VOLATILES BY GC/MS

For Air/Soil Gas Samples Collected
December 14, 2012 through December 15, 2012
From KoptD 12-01
J.R. Holzmacher P.E., LLC.

SAMPLE DELIVERY GROUP NUMBER: D5213
Chemtech (ELAP #11376)

SUBMITTED TO:

Mr. Jim DeMartinis
J.R. Holzmacher P.E., LLC.
300 Wheeler Avenue, Suite 402
Hauppauge, New York 11788

January 21, 2013

PREPARED BY:

Lori A. Beyer/President
L.A.B. Validation Corp.
14 West Point Drive
East Northport, NY 11731

Lori A. Beyer

KoptD 12-01; December 2012.
Data Validation Report: Volatile Organics

Table of Contents:

Introduction
Data Qualifier Definitions
Sample Receipt

1.0 Volatile Organics by GC/MS EPA Compendium Method TO-15
- 1.1 Holding Time
- 1.2 Surrogate Standards
- 1.3 Matrix Spikes (MS), Matrix Spike Duplicates (MSD)
- 1.4 Laboratory Control Sample
- 1.5 Blank Contamination
- 1.6 GC/MS Instrument Performance Check
- 1.7 Initial and Continuing Calibrations
- 1.8 Internal Standards
- 1.9 Target Compound List Identification
- 1.10 Tentatively Identified Compounds
- 1.11 Compound Quantification and Reported Detection Limits
- 1.12 Overall System Performance

APPENDICES:

A. Data Summary Form Is with Qualifications
B. Chain of Custody Documents
C. Case Narrative

Introduction:

A validation was performed on three (3) soil gas [air] samples for Volatile Organic analysis collected by J.R. Holzmacher P.E., LLC and submitted to Chemtech for subsequent analysis under chain of custody documentation. This report contains the laboratory and validation results for the three (3) field samples itemized below. The samples were collected on December 14, 2012 through December 15, 2012.

The samples were analyzed by Chemtech utilizing EPA Method TO-15 and in accordance with NYSDEC Analytical Services Protocol (2005) and submitted under NYSDEC ASP Category B equivalent deliverable requirements for the associated analytical methodology employed. The analytical testing consisted of the selected TO-15 Target Compound List (TCL) of analytes for Volatile Organics listed in Appendix A.

The data was evaluated in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (Publication 9240.1-05), EPA SOP #HW31 (Revision 4-Updated 2009) and in conjunction with the analytical methodology for which the samples were analyzed, where applicable and relevant.

The data validation report pertains to the following field soil gas/air samples:

Sample Identification	Laboratory Identification(s)	Sample Matrix (Air Type)	Collection Date
VP-1 (12-14-12)	D5213-01	Outdoor/Ambient Air	12/14/12-12/15/12
VP-2 (12-14-12)	D5213-02	Indoor/Ambient Air	12/14/12-12/15/12
VP-3 (12-14-12)	D5213-03	Soil Gas	12/14/12-12/15/12

Data Qualifier Definitions:

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate quantity.

K - The analyte is present. The reported value may be biased high. The actual value is expected to be lower than reported.

L - The analyte is present. The reported value may be biased low. The actual value is expected to be higher than reported.

UL - The analyte was not detected and the reported quantitation limit is most likely higher than reported.

Sample Receipt:

The Chain of Custody documents from 12/14/12 through 12/15/12 indicates that three (3) air samples were shipped via federal express to Chemtech and received on December 18, 2012 following completion of the sampling event. Sample login notes and the chain of custody indicate that at the Validated Time of Sample Receipt (VTSR) at the laboratory no discrepancies were notated and therefore the integrity of the summa canister samples is assumed to be good.

The data summary tables included in Appendix A includes all usable (qualified) and unusable (rejected) results for the samples identified above. These tables summarize the detailed narrative section of the report. All data validation qualifications have been reported on the Form I's for ease of review and verification.

NOTE:
L.A.B. Validation Corp. believes it is appropriate to note that the data validation criteria utilized for data evaluation is different than the method requirements utilized by the laboratory. Qualified data does not necessarily mean that the laboratory was non-compliant in the analysis that was performed.

Volatile Organics by EPA Compendium Method TO-15

The following method criteria were reviewed: holding times, surrogate standards, LCS, Blanks, Tunes, Calibrations, Internal Standards, Target Component Identification and Quantitation, Reported Quantitation Limits and Overall System Performance. The volatile results were considered to be valid and useable as noted on the data summary tables in Appendix A and within the following text:

1.1 Holding Time

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

Air samples pertaining to this SDG were performed within the method and technical required holding times of thirty (30) days from sample collection for analysis. No qualifications were required based upon holding time criteria.

Canister pressure gauge was within requirements of 30 psi prior to sampling.

1.2 Surrogate Standards

All samples are spiked with surrogate compounds prior to sample analysis to evaluate overall laboratory performance and efficiency of the analytical technique. If the measure of surrogate concentrations is outside contract specification, qualifications are required to be applied to associated samples and analytes.

Recoveries for 4-Bromofluorobenzene fell within in house established ranges of 65-135% for all analyses pertaining to this SDG.

1.3 Matrix Spikes (MS)/ Matrix Spike Duplicates (MSD)/Duplicate Analysis

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices.

Matrix Spike/Matrix Spike Duplicate analysis was not performed on samples pertaining to this SDG. The laboratory performed a blank spike and all recovery values were determined to be acceptable (>70% - <130%) for all compounds.

1.4 Laboratory Control Sample

The LCS data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and on the laboratory performance.

Additional QC samples were not analyzed which is acceptable per the method since a blank spike/LCS was analyzed (see Section 1.3 above).

1.5 Blank Contamination

Quality assurance (QA) blanks; i.e. method, trip and field blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field blanks measure cross-contamination of samples during field operations. Storage blanks measure cross-contamination during sample storage of the field samples. Canister blanks measure cross-contamination from the sampling media.

The following table was utilized to qualify target analyte results due to contamination. The largest value from all the associated blanks is required to be utilized:

For:	Flag Sample Result with a "U" when:	Report CRQL & Qualify "U" when:	No Qualification is Needed when:
Methylene Chloride, Acetone, Toluene & 2-Butanone	Sample Conc. Is >CRQL, but </=10x blank value	Sample Conc. is <CRQL and </=10x blank value	Sample Conc. is >CRQL and >10x blank value
Other Contaminants	Sample Conc. Is >CRQL, but </=5x blank value	Sample Conc. Is <CRQL and </=5x blank value	Sample Conc. is >CRQL and >5x blank value

Below is a summary of the compounds in the sample and the associated qualifications that have been applied:

A) **Method Blank Contamination:**

Method and Canister blanks were determined to be free of any contamination.

Canister cleaning documentation met QC requirements.

B) **Field Blank Contamination:**

Field Blank analysis was not conducted for this SDG.

C) **Trip Blank Contamination:**

Trip Blank analysis was not submitted with this SDG.

D) **Storage Blank Contamination:**

Storage blanks were not submitted for this SDG. It should be noted that storage blanks are not mandated by EPA Method TO-15.

1.6 GC/MS Instrument Performance Check

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The Tuning standard for volatile organics is Bromofluorobenzene (BFB).

Instrument performance was generated within acceptable limits and frequency (24 hours) for Bromofluorobenzene (BFB) for all analyses conducted for this SDG.

1.7 Initial and Continuing Calibrations

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

A) Response Factor GC/MS:
The response factor measures the instrument's response to specific chemical compounds. The response factor for all compounds must be >/= 0.05 in both initial and continuing calibrations. A value <0.05 indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J". All non-detects for that compound in the corresponding samples will be rejected, "R".

The following compounds are allowed to be >0.01 without qualification:
2-Butanone
Carbon Disulfide
Chloroethane
Chloromethane
1,2-Dibromoethane
1,2-Dichloropropane
1,4-Dioxane
1,2-Dibromo-3-chloroproane
Methylene Chloride

All the response factors for the target analytes reported were found to be within acceptable limits (>/=0.05) [or >/=0.01 for the 9 compounds above], for the initial and continuing calibrations.

B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):
Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentrations. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Percent RSD must be <30% and %D must be <30%. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects are flagged "UJ". If %RSD and %D grossly exceed QC criteria (>90%), non-detect data may be qualified, "R", unusable. Additionally, in cases where the %RSD is >30% and eliminating either the high or the low point of the curve does not restore the %RSD to less than or equal to 30% then positive results are

qualified, "J". In cases where removal of either the low or high point restores the linearity, then only low or high level results will be qualified, "J" in the portion of the curve where non linearity exists.

Initial Calibrations: The initial calibrations provided and the %RSD were within acceptable limits (30%) for all target compounds with the following exceptions:

None.

Continuing Calibrations: The continuing calibrations provided and the %D was within acceptable limits (30%) for all target compounds.

1.8 Internal Standards

Internal Standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than a factor of 2 (-40% to +40%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than +/- 20 seconds from the associated continuing calibration standard. If the area count is outside the (-40% to +40%) range of the associated standard, all of the positive results for compounds quantitated using that IS are qualified as estimated, "J", and all non-detects as "UJ", or "R" if there is a severe loss of sensitivity.

If an internal standard retention time varies by more than 20 seconds, professional judgment will be used to determine either partial or total rejection of the data for that sample fraction.

Internal Standard area responses met QC requirements for all analysis pertaining to this data set.

1.9 Target Compound List Identification

TCL compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within =/- 0.06RRT units of the standard compound and have an ion spectra which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound.

GC/MS spectra met the qualitative criteria for identification. All retention times were within required specifications.

1.10 Tentatively Identified Compounds (TICs)

TICs were reported in accordance with the project requirements. The identification must be considered tentative (both quantitative and qualitative) due to the lack of required compound specific response factors. Consequently all concentrations should be considered estimated, "J" and as a result of the qualitative uncertainty should be qualified, "N" where an identification has been made.

TICs were not submitted with this data set.

1.11 Compound Quantification and Reported Detection Limits

GC/MS quantitative analysis is considered to be acceptable. Correct internal standards and response factors and air volumes were used to calculate final concentrations.

Sample results have been presented in ug/m3 as well as ppbv by the laboratory on the Form I's.

All samples were analyzed undiluted.

1.12 Overall System Performance

GC/MS analytical methodology was acceptable for this analysis. The data reported agrees with the raw data provided in the final report. The laboratory provided a complete data package and reported all data using acceptable protocols and laboratory qualifiers as defined in the report package.

Reviewer's Signature Lori A. Beyl **Date** 01/21/13

Appendix A
Data Summary
Form I's
With Qualifications

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 (908) 789-8900 Fax: (908) 789-8922 www.chemtech.net

Project: KOPTD 12-01

Sample ID		VP-1(12-14-12)	VP-2(12-14-12)	VP-3(12-14-12)
Lab Sample Number		D5213-01	D5213-02	D5213-03
Sampling Date		12/15/2012	12/15/2012	12/15/2012
Matrix		AIR	AIR	AIR
Dilution Factor		1	1	1
Units		Ug/M3	Ug/M3	Ug/M3
COMPOUND	CAS #			
1,1,1-Trichloroethane	71-55-6	0.16 U	0.16 U	0.16 U
1,1,2,2-Tetrachloroethane	79-34-5	0.69 U	0.69 U	0.69 U
1,1,2-Trichloroethane	79-00-5	0.44 U	0.44 U	0.44 U
1,1,2-Trichlorotrifluoroethane	76-13-1	0.31 U	0.31 U	0.31 U
1,1-Dichloroethane	75-34-3	0.16 U	0.16 U	0.16 U
1,1-Dichloroethene	75-35-4	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	120-82-1	0.3 U	0.3 U	0.3 U
1,2,4-Trimethylbenzene	95-63-6	0.54	0.49 U	0.49 U
1,2-Dibromoethane	106-93-4	0.54 U	0.54 U	0.54 U
1,2-Dichlorobenzene	95-50-1	0.42 U	0.42 U	0.42 U
1,2-Dichloroethane	107-06-2	0.28 U	0.28 U	0.28 U
1,2-Dichloropropane	78-87-5	0.28 U	0.28 U	0.28 U
1,3,5-Trimethylbenzene	108-67-8	0.44 U	0.44 U	0.44 U
1,3-Butadiene	106-99-0	0.2 U	0.2 U	0.2 U
1,3-Dichlorobenzene	541-73-1	0.48 U	0.48 U	0.48 U
1,4-Dichlorobenzene	106-46-7	0.36 U	0.36 U	0.36 U
1,4-Dioxane	123-91-1	0.32 U	0.32 U	0.32 U
2,2,4-Trimethylpentane	540-84-1	1.03	1.54	0.7
2-Butanone	78-93-3	1.3	0.65	4.16
2-Chlorotoluene	95-49-8	0.52 U	0.52 U	0.52 U
4-Ethyltoluene	622-96-8	0.39 U	0.39 U	0.39 U
4-Methyl-2-Pentanone	108-10-1	0.25 U	0.25 U	0.25 U
Acetone	67-64-1	11	6.01	9.41
Allyl Chloride	107-05-1	0.16 U	0.16 U	0.16 U
Benzene	71-43-2	1.21	0.83	0.96
Bromodichloromethane	75-27-4	0.33 U	0.33 U	0.33 U
Bromoethene	593-60-2	0.13 U	0.13 U	0.13 U
Bromoform	75-25-2	0.52 U	0.52 U	0.52 U
Bromomethane	74-83-9	0.12 U	0.12 U	0.12 U
Carbon Disulfide	75-15-0	0.16 U	0.16 U	0.16 U
Carbon Tetrachloride	56-23-5	0.19 U	0.19 U	0.19 U
Chlorobenzene	108-90-7	0.41 U	0.41 U	0.41 U
Chloroethane	75-00-3	0.18 U	0.18 U	0.18 U
Chloroform	67-66-3	0.1 U	0.1 U	0.1 U
Chloromethane	74-87-3	0.68	0.64	0.68

cis-1,2-Dichloroethene	156-59-2	0.24 U	0.24 U	0.24 U
cis-1,3-Dichloropropene	10061-01-5	0.27 U	0.27 U	0.27 U
Cyclohexane	110-82-7	0.28 U	0.28 U	0.28 U
Dibromochloromethane	124-48-1	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	75-71-8	1.48	1.48	1.53
Dichlorotetrafluoroethane	76-14-2	0.28 U	0.28 U	0.28 U
Ethyl Benzene	100-41-4	0.48	0.35 U	0.35 U
Heptane	142-82-5	0.66	0.25 U	0.41 J
Hexachloro-1,3-Butadiene	87-68-3	0.85 U	0.85 U	0.85 U
Hexane	110-54-3	4.41	1.02	2.47
m/p-Xylene	179601-23-1	1.74	0.48 U	1.13
Methyl Methacrylate	80-62-6	0.41 U	0.41 U	0.41 U
Methyl tert-Butyl Ether	1634-04-4	0.18 U	0.18 U	0.18 U
Methylene Chloride	75-09-2	4.83	0.9	9.76
o-Xylene	95-47-6	0.65	0.3 U	0.3 U
Styrene	100-42-5	0.3 U	0.3 U	0.3 U
t-1,3-Dichloropropene	10061-02-6	0.32 U	0.32 U	0.32 U
tert-Butyl alcohol	75-65-0	0.3 U	0.3 U	0.3 U
Tetrachloroethene	127-18-4	0.2 U	1.15	5.42
Tetrahydrofuran	109-99-9	0.24 U	0.24 U	0.74
Toluene	108-88-3	3.88	1.73	2.19
trans-1,2-Dichloroethene	156-60-5	0.24 U	0.24 U	0.24 U
Trichloroethene	79-01-6	0.16 U	0.54	0.16 U
Trichlorofluoromethane	75-69-4	1.12	1.12	1.24
Vinyl Chloride	75-01-4	0.08 U	0.08 U	0.08 U
Total Concentration.		35.01	17.61	40.8

Qualifiers

U - The compound was not detected at the indicated concentration.

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/15/12
Project:	KoptD 12-01	Date Received:	12/18/12
Client Sample ID:	VP-1(12-14-12)	SDG No.:	D5213
Lab Sample ID:	D5213-01	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL018448.D	1		12/19/12	VL121912

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	0.3	1.48		0.04	0.05	0.1	ppbv
75-65-0	tert-Butyl alcohol	0.1	0.3	U	0.1	0.1	0.1	ppbv
74-87-3	Chloromethane	0.33	0.68		0.1	0.1	0.1	ppbv
80-62-6	Methyl Methacrylate	0.1	0.41	U	0.1	0.1	0.1	ppbv
75-01-4	Vinyl Chloride	0.03	0.08	U	0.03	0.03	0.03	ppbv
74-83-9	Bromomethane	0.03	0.12	U	0.03	0.05	0.1	ppbv
75-00-3	Chloroethane	0.1	0.26	U	0.1	0.1	0.1	ppbv
75-69-4	Trichlorofluoromethane	0.2	1.12		0.04	0.05	0.1	ppbv
76-14-2	Dichlorotetrafluoroethane	0.04	0.28	U	0.04	0.05	0.1	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.04	0.31	U	0.04	0.05	0.1	ppbv
593-60-2	Bromoethene	0.03	0.13	U	0.03	0.05	0.1	ppbv
142-82-5	Heptane	0.16	0.66		0.1	0.1	0.1	ppbv
75-35-4	1,1-Dichloroethene	0.05	0.2	U	0.05	0.05	0.1	ppbv
67-64-1	Acetone	4.7	11.2		0.1	0.1	0.1	ppbv
75-15-0	Carbon Disulfide	0.05	0.16	U	0.05	0.05	0.1	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.05	0.18	U	0.05	0.05	0.1	ppbv
75-09-2	Methylene Chloride	1.4	4.86		0.05	0.05	0.1	ppbv
107-05-1	Allyl Chloride	0.05	0.16	U	0.05	0.05	0.1	ppbv
156-60-5	trans-1,2-Dichloroethene	0.1	0.4	U	0.1	0.1	0.1	ppbv
75-34-3	1,1-Dichloroethane	0.04	0.16	U	0.04	0.05	0.1	ppbv
110-82-7	Cyclohexane	0.1	0.34	U	0.1	0.1	0.1	ppbv
78-93-3	2-Butanone	0.44	1.3		0.1	0.1	0.1	ppbv
56-23-5	Carbon Tetrachloride	0.03	0.19	U	0.03	0.03	0.03	ppbv
156-59-2	cis-1,2-Dichloroethene	0.1	0.4	U	0.1	0.1	0.1	ppbv
67-66-3	Chloroform	0.02	0.1	U	0.02	0.05	0.1	ppbv
123-91-1	1,4-Dioxane	0.1	0.36	U	0.1	0.1	0.1	ppbv
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.03	0.03	0.03	ppbv
109-99-9	Tetrahydrofuran	0.1	0.29	U	0.1	0.1	0.1	ppbv
540-84-1	2,2,4-Trimethylpentane	0.22	1.03		0.04	0.05	0.1	ppbv
71-43-2	Benzene	0.38	1.21		0.04	0.05	0.1	ppbv
107-06-2	1,2-Dichloroethane	0.1	0.4	U	0.1	0.1	0.1	ppbv
79-01-6	Trichloroethene	0.03	0.16	U	0.03	0.03	0.03	ppbv
78-87-5	1,2-Dichloropropane	0.1	0.46	U	0.1	0.1	0.1	ppbv
75-27-4	Bromodichloromethane	0.05	0.33	U	0.05	0.05	0.1	ppbv
108-10-1	4-Methyl-2-Pentanone	0.05	0.2	U	0.05	0.05	0.1	ppbv
108-88-3	Toluene	1	3.77		0.05	0.05	0.1	ppbv
10061-02-6	t-1,3-Dichloropropene	0.1	0.45	U	0.1	0.1	0.1	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.1	0.45	U	0.1	0.1	0.1	ppbv

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Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/15/12
Project:	KoptD 12-01	Date Received:	12/18/12
Client Sample ID:	VP-1(12-14-12)	SDG No.:	D5213
Lab Sample ID:	D5213-01	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL018448.D	1		12/19/12	VL121912

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.1	0.55	U	0.1	0.1	0.1	ppbv
124-48-1	Dibromochloromethane	0.05	0.43	U	0.05	0.05	0.1	ppbv
106-93-4	1,2-Dibromoethane	0.1	0.77	U	0.1	0.1	0.1	ppbv
127-18-4	Tetrachloroethene	0.03	0.2	U	0.03	0.03	0.03	ppbv
108-90-7	Chlorobenzene	0.1	0.46	U	0.1	0.1	0.1	ppbv
100-41-4	Ethyl Benzene	0.11	0.48		0.1	0.1	0.1	ppbv
179601-23-1	m/p-Xylene	0.4	1.74		0.2	0.2	0.2	ppbv
95-47-6	o-Xylene	0.15	0.65		0.1	0.1	0.1	ppbv
100-42-5	Styrene	0.1	0.43	U	0.1	0.1	0.1	ppbv
75-25-2	Bromoform	0.05	0.52	U	0.05	0.05	0.1	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.1	0.69	U	0.1	0.1	0.1	ppbv
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.1	0.1	0.1	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.1	0.49	U	0.1	0.1	0.1	ppbv
95-63-6	1,2,4-Trimethylbenzene	0.11	0.54		0.1	0.1	0.1	ppbv
622-96-8	4-Ethyltoluene	0.1	0.49	U	0.1	0.1	0.1	ppbv
541-73-1	1,3-Dichlorobenzene	0.1	0.6	U	0.1	0.1	0.1	ppbv
106-46-7	1,4-Dichlorobenzene	0.1	0.6	U	0.1	0.1	0.1	ppbv
95-50-1	1,2-Dichlorobenzene	0.1	0.6	U	0.1	0.1	0.1	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.04	0.3	U	0.04	0.05	0.1	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.1	1.07	U	0.1	0.1	0.1	ppbv
106-99-0	1,3-Butadiene	0.1	0.22	U	0.1	0.1	0.1	ppbv
110-54-3	Hexane	1.3	4.58		0.04	0.05	0.1	ppbv
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	11.1			65 - 135		111%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	758709		6.66				
540-36-3	1,4-Difluorobenzene	1811500		8.34				
3114-55-4	Chlorobenzene-d5	1559420		13.77				

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Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/15/12
Project:	KoptD 12-01	Date Received:	12/18/12
Client Sample ID:	VP-2(12-14-12)	SDG No.:	D5213
Lab Sample ID:	D5213-02	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL018450:D	1		12/19/12	VL121912

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	0.3	1.48		0.04	0.05	0.1	ppbv
75-65-0	tert-Butyl alcohol	0.1	0.3	U	0.1	0.1	0.1	ppbv
74-87-3	Chloromethane	0.31	0.64		0.1	0.1	0.1	ppbv
80-62-6	Methyl Methacrylate	0.1	0.41	U	0.1	0.1	0.1	ppbv
75-01-4	Vinyl Chloride	0.03	0.08	U	0.03	0.03	0.03	ppbv
74-83-9	Bromomethane	0.03	0.12	U	0.03	0.05	0.1	ppbv
75-00-3	Chloroethane	0.1	0.26	U	0.1	0.1	0.1	ppbv
75-69-4	Trichlorofluoromethane	0.2	1.12		0.04	0.05	0.1	ppbv
76-14-2	Dichlorotetrafluoroethane	0.04	0.28	U	0.04	0.05	0.1	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.04	0.31	U	0.04	0.05	0.1	ppbv
593-60-2	Bromoethene	0.03	0.13	U	0.03	0.05	0.1	ppbv
142-82-5	Heptane	0.1	0.41	U	0.1	0.1	0.1	ppbv
75-35-4	1,1-Dichloroethene	0.05	0.2	U	0.05	0.05	0.1	ppbv
67-64-1	Acetone	2.5	5.94		0.1	0.1	0.1	ppbv
75-15-0	Carbon Disulfide	0.05	0.16	U	0.05	0.05	0.1	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.05	0.18	U	0.05	0.05	0.1	ppbv
75-09-2	Methylene Chloride	0.26	0.9		0.05	0.05	0.1	ppbv
107-05-1	Allyl Chloride	0.05	0.16	U	0.05	0.05	0.1	ppbv
156-60-5	trans-1,2-Dichloroethene	0.1	0.4	U	0.1	0.1	0.1	ppbv
75-34-3	1,1-Dichloroethane	0.04	0.16	U	0.04	0.05	0.1	ppbv
110-82-7	Cyclohexane	0.1	0.34	U	0.1	0.1	0.1	ppbv
78-93-3	2-Butanone	0.22	0.65		0.1	0.1	0.1	ppbv
56-23-5	Carbon Tetrachloride	0.03	0.19	U	0.03	0.03	0.03	ppbv
156-59-2	cis-1,2-Dichloroethene	0.1	0.4	U	0.1	0.1	0.1	ppbv
67-66-3	Chloroform	0.02	0.1	U	0.02	0.05	0.1	ppbv
123-91-1	1,4-Dioxane	0.1	0.36	U	0.1	0.1	0.1	ppbv
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.03	0.03	0.03	ppbv
109-99-9	Tetrahydrofuran	0.1	0.29	U	0.1	0.1	0.1	ppbv
540-84-1	2,2,4-Trimethylpentane	0.33	1.54		0.04	0.05	0.1	ppbv
71-43-2	Benzene	0.26	0.83		0.04	0.05	0.1	ppbv
107-06-2	1,2-Dichloroethane	0.1	0.4	U	0.1	0.1	0.1	ppbv
79-01-6	Trichloroethene	0.1	0.54		0.03	0.03	0.03	ppbv
78-87-5	1,2-Dichloropropane	0.1	0.46	U	0.1	0.1	0.1	ppbv
75-27-4	Bromodichloromethane	0.05	0.33	U	0.05	0.05	0.1	ppbv
108-10-1	4-Methyl-2-Pentanone	0.05	0.2	U	0.05	0.05	0.1	ppbv
108-88-3	Toluene	0.46	1.73		0.05	0.05	0.1	ppbv
10061-02-6	t-1,3-Dichloropropene	0.1	0.45	U	0.1	0.1	0.1	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.1	0.45	U	0.1	0.1	0.1	ppbv

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Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/15/12
Project:	KoptD 12-01	Date Received:	12/18/12
Client Sample ID:	VP-2(12-14-12)	SDG No.:	D5213
Lab Sample ID:	D5213-02	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL018450.D	1		12/19/12	VL121912

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.1	0.55	U	0.1	0.1	0.1	ppbv
124-48-1	Dibromochloromethane	0.05	0.43	U	0.05	0.05	0.1	ppbv
106-93-4	1,2-Dibromoethane	0.1	0.77	U	0.1	0.1	0.1	ppbv
127-18-4	Tetrachloroethene	0.17	1.15		0.03	0.03	0.03	ppbv
108-90-7	Chlorobenzene	0.1	0.46	U	0.1	0.1	0.1	ppbv
100-41-4	Ethyl Benzene	0.1	0.43	U	0.1	0.1	0.1	ppbv
179601-23-1	m/p-Xylene	0.2	0.87	U	0.2	0.2	0.2	ppbv
95-47-6	o-Xylene	0.1	0.43	U	0.1	0.1	0.1	ppbv
100-42-5	Styrene	0.1	0.43	U	0.1	0.1	0.1	ppbv
75-25-2	Bromoform	0.05	0.52	U	0.05	0.05	0.1	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.1	0.69	U	0.1	0.1	0.1	ppbv
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.1	0.1	0.1	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.1	0.49	U	0.1	0.1	0.1	ppbv
95-63-6	1,2,4-Trimethylbenzene	0.1	0.49	U	0.1	0.1	0.1	ppbv
622-96-8	4-Ethyltoluene	0.1	0.49	U	0.1	0.1	0.1	ppbv
541-73-1	1,3-Dichlorobenzene	0.1	0.6	U	0.1	0.1	0.1	ppbv
106-46-7	1,4-Dichlorobenzene	0.1	0.6	U	0.1	0.1	0.1	ppbv
95-50-1	1,2-Dichlorobenzene	0.1	0.6	U	0.1	0.1	0.1	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.04	0.3	U	0.04	0.05	0.1	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.1	1.07	U	0.1	0.1	0.1	ppbv
106-99-0	1,3-Butadiene	0.1	0.22	U	0.1	0.1	0.1	ppbv
110-54-3	Hexane	0.29	1.02		0.04	0.05	0.1	ppbv
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	11.3			65 - 135		113%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	759889		6.65				
540-36-3	1,4-Difluorobenzene	1795710		8.33				
3114-55-4	Chlorobenzene-d5	1525590		13.76				

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Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/15/12
Project:	KoptD 12-01	Date Received:	12/18/12
Client Sample ID:	VP-3(12-14-12)	SDG No.:	D5213
Lab Sample ID:	D5213-03	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL018454.D	1		12/19/12	VL121912

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	0.31	1.53		0.04	0.05	0.1	ppbv
75-65-0	tert-Butyl alcohol	0.1	0.3	U	0.1	0.1	0.1	ppbv
74-87-3	Chloromethane	0.33	0.68		0.1	0.1	0.1	ppbv
80-62-6	Methyl Methacrylate	0.1	0.41	U	0.1	0.1	0.1	ppbv
75-01-4	Vinyl Chloride	0.03	0.08	U	0.03	0.03	0.03	ppbv
74-83-9	Bromomethane	0.03	0.12	U	0.03	0.05	0.1	ppbv
75-00-3	Chloroethane	0.1	0.26	U	0.1	0.1	0.1	ppbv
75-69-4	Trichlorofluoromethane	0.22	1.24		0.04	0.05	0.1	ppbv
76-14-2	Dichlorotetrafluoroethane	0.04	0.28	U	0.04	0.05	0.1	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.04	0.31	U	0.04	0.05	0.1	ppbv
593-60-2	Bromoethene	0.03	0.13	U	0.03	0.05	0.1	ppbv
142-82-5	Heptane	0.1	0.41		0.1	0.1	0.1	ppbv
75-35-4	1,1-Dichloroethene	0.05	0.2	U	0.05	0.05	0.1	ppbv
67-64-1	Acetone	4	9.5		0.1	0.1	0.1	ppbv
75-15-0	Carbon Disulfide	0.05	0.16	U	0.05	0.05	0.1	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.05	0.18	U	0.05	0.05	0.1	ppbv
75-09-2	Methylene Chloride	2.8	9.73		0.05	0.05	0.1	ppbv
107-05-1	Allyl Chloride	0.05	0.16	U	0.05	0.05	0.1	ppbv
156-60-5	trans-1,2-Dichloroethene	0.1	0.4	U	0.1	0.1	0.1	ppbv
75-34-3	1,1-Dichloroethane	0.04	0.16	U	0.04	0.05	0.1	ppbv
110-82-7	Cyclohexane	0.1	0.34	U	0.1	0.1	0.1	ppbv
78-93-3	2-Butanone	1.4	4.13		0.1	0.1	0.1	ppbv
56-23-5	Carbon Tetrachloride	0.03	0.19	U	0.03	0.03	0.03	ppbv
156-59-2	cis-1,2-Dichloroethene	0.1	0.4	U	0.1	0.1	0.1	ppbv
67-66-3	Chloroform	0.02	0.1	U	0.02	0.05	0.1	ppbv
123-91-1	1,4-Dioxane	0.1	0.36	U	0.1	0.1	0.1	ppbv
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.03	0.03	0.03	ppbv
109-99-9	Tetrahydrofuran	0.25	0.74		0.1	0.1	0.1	ppbv
540-84-1	2,2,4-Trimethylpentane	0.15	0.7		0.04	0.05	0.1	ppbv
71-43-2	Benzene	0.3	0.96		0.04	0.05	0.1	ppbv
107-06-2	1,2-Dichloroethane	0.1	0.4	U	0.1	0.1	0.1	ppbv
79-01-6	Trichloroethene	0.03	0.16	U	0.03	0.03	0.03	ppbv
78-87-5	1,2-Dichloropropane	0.1	0.46	U	0.1	0.1	0.1	ppbv
75-27-4	Bromodichloromethane	0.05	0.33	U	0.05	0.05	0.1	ppbv
108-10-1	4-Methyl-2-Pentanone	0.05	0.2	U	0.05	0.05	0.1	ppbv
108-88-3	Toluene	0.58	2.19		0.05	0.05	0.1	ppbv
10061-02-6	t-1,3-Dichloropropene	0.1	0.45	U	0.1	0.1	0.1	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.1	0.45	U	0.1	0.1	0.1	ppbv

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Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/15/12
Project:	KoptD 12-01	Date Received:	12/18/12
Client Sample ID:	VP-3(12-14-12)	SDG No.:	D5213
Lab Sample ID:	D5213-03	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL018454.D	1		12/19/12	VL121912

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.1	0.55	U	0.1	0.1	0.1	ppbv
124-48-1	Dibromochloromethane	0.05	0.43	U	0.05	0.05	0.1	ppbv
106-93-4	1,2-Dibromoethane	0.1	0.77	U	0.1	0.1	0.1	ppbv
127-18-4	Tetrachloroethene	0.8	5.42		0.03	0.03	0.03	ppbv
108-90-7	Chlorobenzene	0.1	0.46	U	0.1	0.1	0.1	ppbv
100-41-4	Ethyl Benzene	0.1	0.43	U	0.1	0.1	0.1	ppbv
179601-23-1	m/p-Xylene	0.26	1.13		0.2	0.2	0.2	ppbv
95-47-6	o-Xylene	0.1	0.43	U	0.1	0.1	0.1	ppbv
100-42-5	Styrene	0.1	0.43	U	0.1	0.1	0.1	ppbv
75-25-2	Bromoform	0.05	0.52	U	0.05	0.05	0.1	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.1	0.69	U	0.1	0.1	0.1	ppbv
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.1	0.1	0.1	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.1	0.49	U	0.1	0.1	0.1	ppbv
95-63-6	1,2,4-Trimethylbenzene	0.1	0.49	U	0.1	0.1	0.1	ppbv
622-96-8	4-Ethyltoluene	0.1	0.49	U	0.1	0.1	0.1	ppbv
541-73-1	1,3-Dichlorobenzene	0.1	0.6	U	0.1	0.1	0.1	ppbv
106-46-7	1,4-Dichlorobenzene	0.1	0.6	U	0.1	0.1	0.1	ppbv
95-50-1	1,2-Dichlorobenzene	0.1	0.6	U	0.1	0.1	0.1	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.04	0.3	U	0.04	0.05	0.1	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.1	1.07	U	0.1	0.1	0.1	ppbv
106-99-0	1,3-Butadiene	0.1	0.22	U	0.1	0.1	0.1	ppbv
110-54-3	Hexane	0.7	2.47		0.04	0.05	0.1	ppbv
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	11.1			65 - 135		111%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	830353		6.65				
540-36-3	1,4-Difluorobenzene	2075710		8.32				
3114-55-4	Chlorobenzene-d5	1770760		13.75				

Appendix B
Chain of Custody Documents

outside sample.

CHEMTECH

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CHEMTECH Project No. : D5213

Client Contact Information	Bottle Order ID : B1212042	Courier : fed ex	1 of 1 COCs
Client ID : JRH001 Project ID : KoptD 12-01		Sampler Name(s) : Heather Sonnenberg	Analysis / Matrix
Customer Name : J.R.Holzmacher P.E., LLC	Project Manager Heather sonnenberg	AIR ANALYSIS CHAIN-OF-CUSTODY	
Address : 300 Wheeler Avenue	Phone Number : 631-234-2220		
Suite 402	Fax Number : 6312342221		
	Site Details: Residential home. multi-family		
City : Hauppauge			
State : NY	Analysis Turnaround Time Std		
Zip Code : 11788	Standard : 15 business days	Data Package Type :	
Country : US	Rush (Specify): N/A Days	EDD Type :	

Sample Identification	Sample Date(s)	Time Start (24 hr Clock)	Time Stop (24 hr Clock)	Can Vacuum in Field ("Hg) (Start)	Can Vacuum in Field ("Hg) (Stop)**	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Out going Can Pressure ("Hg)(Lab)	In coming Can Pressure ("Hg)(Lab)	Flow Reg. ID	Can ID	Can Size (L)	Flow Controller Readout	Can Cert ID	TO-15			~~Indoor~~ outdoor/Ambinet Air	Soil Gas		
VP-1 (12-14-12)	12-14-12 through 12-15-12	10:01 AM 12-14	10:01 AM 12-15	26	0	45°	49°	-30	-1.0	10772	10273	6 L	4.16	VL018057.D	✓			✓			

Temperature (Fahrenheit)	Ambient	Maximum	Minimum	
Start				
Stop				

Pressure (Inches of Hg)	Ambient	Maximum	Minimum	
Start				
Stop				

GC/MS Analyst Signature (TO-15)

** Submittal of this COC indicates approval of the analysis based on existing conditio

Please follow the instructions on the back of this CO

Special Instructions/QC Requirements & Comments :

Suspected Contamination: High Medium Low

PID Readings: N/A

Sampling site (State):

Quick Connector required : NO

Canisters Shiped by:	Date/Time: 12/7/12	Canisters Received by:	Date/Time:
Samples Relinquished by:	Date/Time: 12/17/12 1:56 pm	Received by:	Date/Time:
Relinquished by: UPS	Date/Time: 12/18/12 920	Received by:	Date/Time: 12/18/12 920

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CHEMTECH

284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 89

CHEMTECH Project No. : D5213

Client Contact Information	Bottle Order ID : B1212042	Courier : fedex	1 of 1 COCs
Client ID : JRHO01 Project ID :	KoptD 12-01	Sampler Name(s) : Heather Sonnenberg	Analysis / Matrix
Customer Name : J.R.Holzmacher P.E., LLC	Project Manager Heather sonnenberg	AIR ANALYSIS CHAIN-OF-CUSTODY	
Address : 300 Wheeler Avenue	Phone Number : 631-234-2220		
Suite 402	Fax Number : 6312342221		
City : Hauppauge	Site Details: Residential multi-family house		
State : NY	Analysis Turnaround Time Std		
Zip Code : 11788	Standard : 15 business days	Data Package Type :	
Country : US	Rush (Specify): N/A Days	EDD Type :	

Sample Identification	Sample Date(s)	Time Start (24 hr Clock)	Time Stop (24 hr Clock)	Can Vacuum in Field ("Hg) (Start)	Can Vacuum in Field ("Hg) (Stop)**	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Out going Can Pressure ("Hg)(Lab)	In coming Can Pressure ("Hg)(Lab)	Flow Reg. ID	Can ID	Can Size (L)	Flow Controller Readout	Can Cert ID	TO-15				Indoor/Ambinet Air	Soil Gas		
VP-2 (12-14-12)	12-14-12 through 12-15-12	10:07 AM 12-14-12	10:08 AM 12-15-12	30	Ø	~65°	~65°	-30	-1.4	10696	10409	6 L	4.16	VL018057.D	✓				✓			

Temperature (Fahrenheit)	Ambient	Maximum	Minimum	
Start				
Stop				

Pressure (Inches of Hg)	Ambient	Maximum	Minimum	
Start				
Stop				

GC/MS Analyst Signature (TO-15)

** Submittal of this COC indicates approval of the analysis based on existing conditio

Please follow the instructions on the back of this CO

Special Instructions/QC Requirements & Comments :

Suspected Contamination: High Medium (Low)

PID Readings: N/A

Sampling site (State):

Quick Connector required : NO

Canisters Shiped by:	Date/Time: 12/7/12	Canisters Received by:	Date/Time:
Samples Relinquished by:	Date/Time: 12/7/12 12:15pm	Received by:	Date/Time:
Relinquished by:	Date/Time: 12/18/12 920	Received by:	Date/Time: 12/18/12 920

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CHEMTECH

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CHEMTECH Project No. : D5213

1 of 1 COCs

Client Contact Information	Bottle Order ID : B1212042	Courier : fed ex	
Client ID : JRHO01	Project ID : KoptD 12-01	Sampler Name(s) : Heather Sonnenberg	
Customer Name : J.R.Holzmacher P.E., LLC	Project Manager Heather sonnenberg	AIR ANALYSIS CHAIN-OF-CUSTODY	
Address : 300 Wheeler Avenue Suite 402	Phone Number : 631-234-2220		
	Fax Number : 6312342221		
	Site Details: developed Residential multi-family house		
City : Hauppauge	Analysis Turnaround Time Std		
State : NY	Standard : 15 business days	Data Package Type :	
Zip Code : 11788	Rush (Specify): N/A Days	EDD Type :	
Country : US			

Sample Identification	Sample Date(s)	Time Start (24 hr Clock)	Time Stop (24 hr Clock)	Can Vacuum in Field ("Hg) (Start)	Can Vacuum in Field ("Hg) (Stop)**	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Out going Can Pressure ("Hg)(Lab)	In coming Can Pressure ("Hg)(Lab)	Flow Reg. ID	Can ID	Can Size (L)	Flow Controller Readout	Can Cert ID	Analysis: TO-15	Matrix: Indoor/Ambinet Air	Matrix: Soil Gas
VP-3 (12-14-12)	12-14-12 through 12-15-12	10:06 AM 12-14	10:07 AM 12-15	27	Ø	~70°	~70°	-30	-27	10620	10596	6 L	4.16	VL018051.D	✓		✓

Temperature (Fahrenheit)

	Ambient	Maximum	Minimum	
Start				
Stop				

Pressure (Inches of Hg)

	Ambient	Maximum	Minimum	
Start				
Stop				

GC/MS Analyst Signature (TO-15) [signature]

** Submittal of this COC indicates approval of the analysis based on existing conditio

Please follow the instructions on the back of this CO

Special Instructions/QC Requirements & Comments :

Suspected Contamination: High Medium Low

PID Readings: N/A

Sampling site (State):

Quick Connector required : NO			
Canisters Shiped by: [signature]	Date/Time: 12/7/12	Canisters Received by:	Date/Time:
Samples Relinquished by: [signature]	Date/Time: 12/17/12 12:15 AM	Received by:	Date/Time:
Relinquished by: [signature]	Date/Time: 12/18/12 920	Received by: [signature]	Date/Time: 12/18/12 920

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Appendix C
Case Narrative

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CASE NARRATIVE

J.R.Holzmacher P.E., LLC
Project Name: KoptD 12-01
Project # N/A
Chemtech Project # D5213
Test Name: TO-15

A. Number of Samples and Date of Receipt:
3 Air samples were received on 12/18/2012.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: SUMMA Canister Rental and TO-15. This data package contains results for TO-15.

C. Analytical Techniques:
The analysis performed on instrument MSVOA_L were done using GC column RTX-1, which is 60 meters, 0.32 mm id, 1.0 um df, Restek Cat. #10157. The Trap was supplied by Entech, glass bead and Tenax , Entech 7100A Preconcentrator.The analysis of TO-15 was based on method TO-15.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The Blank Spike met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .
The Tuning criteria met requirements.

Manual Integration are performed for following:

Sequence	VL121712	Instrument				MSVOA_I		
Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On		Reason
VSTDICCC010	VL018414.D	Chlorobenzene-d5	manali	12/18/2012 7:11:12 AM	sam	12/18/2012 6:07:29 PM		Peak Integrated by Software incorrectly
VSTDICCC010	VL018414.D	Vinyl Acetate	manali	12/18/2012 7:11:12 AM	sam	12/18/2012 6:07:29 PM		Peak Integrated by Software incorrectly

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VSTDICC002	VL018415.D	Chlorobenzene-d5	manali	12/18/2012 7:11:17 AM	sam	12/18/2012 6:07:34 PM	Peak Integrated by Software incorrectly
VSTDICC002	VL018415.D	Vinyl Acetate	manali	12/18/2012 7:11:17 AM	sam	12/18/2012 6:07:34 PM	Peak Integrated by Software incorrectly
VSTDICC001	VL018416.D	Vinyl Acetate	manali	12/18/2012 7:11:19 AM	sam	12/18/2012 6:07:40 PM	Peak Integrated by Software incorrectly
VSTDICC0.5	VL018417.D	Chlorobenzene-d5	manali	12/18/2012 7:11:21 AM	sam	12/18/2012 6:07:49 PM	Peak Integrated by Software incorrectly
VSTDICC0.5	VL018417.D	Vinyl Acetate	manali	12/18/2012 7:11:21 AM	sam	12/18/2012 6:07:49 PM	Peak Integrated by Software incorrectly
VSTDICC015	VL018418.D	Chlorobenzene-d5	manali	12/18/2012 7:12:21 AM	sam	12/18/2012 6:08:16 PM	Peak Integrated by Software incorrectly

VSTDICC015	VL018418.D	Vinyl Acetate	manali	12/18/2012 7:12:21 AM	sam	12/18/2012 6:08:16 PM	Peak Integrated by Software incorrectly
VSTDICV010	VL018419.D	Chlorobenzene-d5	manali	12/18/2012 7:11:26 AM	sam	12/18/2012 6:07:55 PM	Peak Integrated by Software incorrectly
VSTDICV010	VL018419.D	Vinyl Acetate	manali	12/18/2012 7:11:26 AM	sam	12/18/2012 6:07:55 PM	Peak Integrated by Software incorrectly

0.1 PPB V RPT	VL018422.D	1,2,4-Trimethylbenzene	shreena	12/19/2012 3:52:32 AM	sam	12/19/2012 10:24:12 AM	Peak Integrated by Software incorrectly
0.1 PPB V RPT	VL018422.D	Chlorobenzene-d5	shreena	12/19/2012 3:52:32 AM	sam	12/19/2012 10:24:12 AM	Peak Integrated by Software incorrectly
0.1 PPB V RPT	VL018422.D	tert-Butylbenzene	shreena	12/19/2012 3:52:32 AM	sam	12/19/2012 10:24:12 AM	Peak Integrated by Software incorrectly

Manual Integration Report

Sequence	VL121912	Instrument	MSVOA_I

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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC010	VL018442.D	Chlorobenzene-d5	sam	12/19/2012 5:47:07 PM	prashant	12/19/2012 6:40:02 PM	Peak Integrated by Software incorrectly
VSTDCCC010	VL018442.D	Vinyl Acetate	sam	12/19/2012 5:47:07 PM	prashant	12/19/2012 6:40:02 PM	Peak Integrated by Software incorrectly
VL1219ABL	VL018443.D	Naphthalene	sam	12/19/2012 5:47:13 PM	prashant	12/19/2012 6:40:07 PM	Peak Integrated by Software incorrectly
VL1219ABS	VL018444.D	Chlorobenzene-d5	sam	12/19/2012 5:47:18 PM	prashant	12/19/2012 6:40:12 PM	Peak Integrated by Software incorrectly
VL1219ABS	VL018444.D	Vinyl Acetate	sam	12/19/2012 5:47:18 PM	prashant	12/19/2012 6:40:12 PM	Peak Integrated by Software incorrectly
D5213-02	VL018450.D	Chlorobenzene-d5	shreena	12/20/2012 1:22:20 AM	sam	12/20/2012 3:58:32 PM	Peak Integrated by Software incorrectly
D5213-02	VL018450.D	Propene	shreena	12/20/2012 1:22:20 AM	sam	12/20/2012 3:58:32 PM	Peak Integrated by Software incorrectly
D5213-03	VL018454.D	Chlorobenzene-d5	shreena	12/20/2012 1:22:26 AM	sam	12/20/2012 3:59:08 PM	Peak Integrated by Software incorrectly
D5213-03	VL018454.D	Propene	shreena	12/20/2012 1:22:26 AM	sam	12/20/2012 3:59:08 PM	Peak Integrated by Software incorrectly

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

DATA USABILITY SUMMARY REPORT (DUSR)

ORGANIC ANALYSIS

EPA Compendium Method TO-15
VOLATILES BY GC/MS

For Indoor Air/Soil Gas Samples Collected
December 09, 2013 through December 10, 2013
For KOPTD 12-01
By J.R. Holzmacher P.E., LLC.

SAMPLE DELIVERY GROUP NUMBER: E4781
Chemtech (ELAP #11376)

SUBMITTED TO:

Mr. Jim DeMartinis
J.R. Holzmacher P.E., LLC.
3555 Veterans Memorial Highway, Suite A
Ronkonkoma, NY 11779

January 13, 2014
Updated January 20, 2014

PREPARED BY:

Lori A. Beyer/President
L.A.B. Validation Corp.
14 West Point Drive
East Northport, NY 11731

Lori A. Beyer

KOPTD 12-01; December 2013.
Data Validation Report: Volatile Organics

Table of Contents:

Introduction
Data Qualifier Definitions
Sample Receipt

1.0 Volatile Organics by GC/MS EPA Compendium Method TO-15
- 1.1 Holding Time
- 1.2 Surrogate Standards
- 1.3 Matrix Spikes (MS), Matrix Spike Duplicates (MSD), Duplicate Analysis
- 1.4 Laboratory Control Sample
- 1.5 Blank Contamination
- 1.6 GC/MS Instrument Performance Check
- 1.7 Initial and Continuing Calibrations
- 1.8 Internal Standards
- 1.9 Target Compound List Identification
- 1.10 Tentatively Identified Compounds
- 1.11 Compound Quantification and Reported Detection Limits
- 1.12 Overall System Performance

APPENDICES:

A. Data Summary Form Is with Qualifications
B. Chain of Custody Document
C. SDG Narrative

Introduction:

A validation was performed on three (3) air samples for Volatile Organic analysis collected by J.R. Holzmacher P.E. and submitted to Chemtech for subsequent analysis under chain of custody documentation. This report contains the laboratory and validation results for the three (3) field samples itemized below. The samples were collected on December 09, 2013 through December 10, 2013.

The samples were analyzed by Chemtech utilizing EPA Method TO-15 and in accordance with NYSDEC Analytical Services Protocol (2005) and submitted under NYSDEC ASP Category B equivalent deliverable requirements for the associated analytical methodology employed. An updated laboratory report was provided by the laboratory to include raw data. The analytical testing consisted of the selected TO-15 Target Compound List (TCL) of analytes for Volatile Organics listed in Appendix A.

The data was evaluated in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (Publication 9240.1-05), EPA SOP #HW31 (Revision 4-Updated 2009) and in conjunction with the analytical methodology for which the samples were analyzed, where applicable and relevant.

The data validation report pertains to the following field soil gas/air samples:

Sample Identification	Laboratory Identification(s)	Sample Matrix (Air Type)	Collection Date
VP-1	E4781-3	Indoor Ambient Air	12/09/13-12/10/13
VP-2	E4781-2	Indoor Ambient Air	12/09/13-12/10/13
VP-3	E4781-1	Soil Gas	12/09/13-12/10/13

Data Qualifier Definitions:

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate quantity.

K - The analyte is present. The reported value may be biased high. The actual value is expected to be lower than reported.

L - The analyte is present. The reported value may be biased low. The actual value is expected to be higher than reported.

UL - The analyte was not detected and the reported quantitation limit is most likely higher than reported.

D - The analyte concentration was obtained from diluted analysis.

Sample Receipt:

The Chain of Custody document from 12/09/13-12/10/13 indicates that three (3) air samples were delivered to Chemtech via Federal Express and received on 12/12/13 following completion of the sampling event. Sample login notes and the chain of custody indicate that at the Validated Time of Sample Receipt (VTSR) at the laboratory no discrepancies were notated and therefore the integrity of the summa canister samples is assumed to be good. Canister pressure was acceptable.

The data summary tables included in Appendix A includes all usable (qualified) and unusable (rejected) results for the samples identified above. These tables summarize the detailed narrative section of the report. All data validation qualifications have been reported on the Form I's for ease of review and verification.

NOTE:
L.A.B. Validation Corp. believes it is appropriate to note that the data validation criteria utilized for data evaluation is different than the method requirements utilized by the laboratory. Qualified data does not necessarily mean that the laboratory was non-compliant in the analysis that was performed.

Volatile Organics by EPA Compendium Method TO-15

The following method criteria were reviewed: holding times, surrogate standards, LCS, Blanks, Tunes, Calibrations, Internal Standards, Target Component Identification and Quantitation, Reported Quantitation Limits and Overall System Performance. The volatile results were considered to be valid and useable as noted on the data summary tables in Appendix A and within the following text:

1.1 Holding Time

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

Air samples pertaining to this SDG were performed within the method and technical required holding times of thirty (30) days from sample collection for analysis. No qualifications were required based upon holding time criteria.

Canister pressure gauge was within requirements of 30 psi prior to sampling.

1.2 Surrogate Standards

All samples are spiked with surrogate compounds prior to sample analysis to evaluate overall laboratory performance and efficiency of the analytical technique. If the measure of surrogate concentrations is outside contract specification, qualifications are required to be applied to associated samples and analytes.

Recoveries for 4-Bromofluorobenzene fell within in house established ranges of 65-135% for all analyses pertaining to this SDG.

1.3 Matrix Spikes (MS)/ Matrix Spike Duplicates (MSD)/Duplicate Analysis

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices.

Matrix Spike/Matrix Spike Duplicate analysis was not performed on samples pertaining to this SDG. The laboratory performed a blank spike/LCS and all recovery values were determined to be acceptable for all compounds with the exception of tert-butyl Alcohol, trans-1,3-Dichloropropene, Styrene, 1,2,4-Trichlorobenzene, Naphthalene and 1,4-Dioxane which all recovered high (>130%). No qualifications are required for non-detects. The reported concentration of Naphthalene in VP-3 must be considered estimated, biased high, "K."

Field Duplicate analysis was not collected for this SDG. The following criteria are utilized for Field Duplicate analysis when applicable:

Criteria	Detected Compounds	Non-Detected Compounds
The RPD is within the limits of 0 and 25%	No qualification	No qualification
The RPD >25%	J in the parent and duplicate samples	Not applicable
The RPD could not be calculated since the compound was only detected in either the parent of duplicate sample. However, the detected concentration was </=2x the reporting limit	No qualification	No qualification
The RPD could not be calculated since the compound was only detected in either the parent or duplicate sample However, the detected concentration was >2x the reporting limit.	J in the parent or duplicate sample	UJ in the parent of duplicate sample

1.4 Laboratory Control Sample

The LCS data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and on the laboratory performance.

Additional QC samples were not analyzed which is acceptable per the method since a blank spike/LCS was analyzed. Qualified data is discussed in Section 1.3 above.

1.5 Blank Contamination

Quality assurance (QA) blanks; i.e. method, trip and field blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field blanks measure cross-contamination of samples during field operations. Storage blanks measure cross-contamination during sample storage of the field samples. Canister blanks measure cross-contamination from the sampling media.

The following table was utilized to qualify target analyte results due to contamination. The largest value from all the associated blanks is required to be utilized:

For:	Flag Sample Result with a "U" when:	Report CRQL & Qualify "U" when:	No Qualification is Needed when:
Methylene Chloride, Acetone, Toluene & 2-Butanone	Sample Conc. Is >CRQL, but </=10x blank value	Sample Conc. is <CRQL and </=10x blank value	Sample Conc. is >CRQL and >10x blank value
Other Contaminants	Sample Conc. Is >CRQL, but </=5x blank value	Sample Conc. Is <CRQL and </=5x blank value	Sample Conc. is >CRQL and >5x blank value

Below is a summary of the compounds in the sample and the associated qualifications that have been applied:

A) **Method Blank Contamination:**

The Method blank was determined to contain acceptable levels of methylene chloride. Sample results were evaluated based on the above criteria and negated.

Canister cleaning documentation was not submitted in the data package.

B) **Field Blank Contamination:**

Field Blank analysis was not conducted for this SDG.

C) **Trip Blank Contamination:**

Trip Blank analysis was not submitted with this SDG.

D) **Storage Blank Contamination:**

Storage blanks were not submitted for this SDG. It should be noted that storage blanks are not mandated by EPA Method TO-15.

1.6 GC/MS Instrument Performance Check

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The Tuning standard for volatile organics is Bromofluorobenzene (BFB).

Instrument performance was generated within acceptable limits and frequency (24 hours) for Bromofluorobenzene (BFB) for all analyses conducted for this SDG.

1.7 Initial and Continuing Calibrations

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

A) Response Factor GC/MS:
The response factor measures the instrument's response to specific chemical compounds. The response factor for all compounds must be >/= 0.05 in both initial and continuing calibrations. A value <0.05 indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J". All non-detects for that compound in the corresponding samples will be rejected, "R".

The following compounds are allowed to be >0.01 without qualification:
2-Butanone
Carbon Disulfide
Chloroethane
Chloromethane
1,2-Dibromoethane
1,2-Dichloropropane
1,4-Dioxane
1,2-Dibromo-3-chloroproane
Methylene Chloride

All the response factors for the target analytes reported were found to be within acceptable limits (>/=0.05) [or >/=0.01 for the 9 compounds above], for the initial and continuing calibrations.

B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):
Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentrations. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Percent RSD must be <30% and %D must be <30%. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects are flagged "UJ". If %RSD and %D grossly exceed QC criteria (>90%), non-detect data may be qualified, "R", unusable. Additionally, in cases where the %RSD is >30% and eliminating either the high or the low point of the curve does not restore the %RSD to less than or equal to 30% then positive results are qualified, "J". In cases where removal of either the low or high point restores the linearity, then only low or high level results will be qualified, "J" in the portion of the curve where non linearity exists.

Initial Calibrations: The initial calibrations provided and the %RSD were within acceptable limits (30%) for all target compounds with the following exceptions:

Tert-Butyl alcohol – 45.1%

Methylene Chloride – 30.7%
m/p-xylene – 40.6%
o-xylene – 30.4%
Naphthalene – 41.2%
1,4-Dioxane – 47.7%

Sample results have been qualified, "J/UJ" for these compounds.

Continuing Calibrations: The continuing calibrations provided and the %D was within acceptable limits (30%) for all target compounds.

1.8 Internal Standards

Internal Standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than a factor of 2 (-40% to +40%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than +/- 20 seconds from the associated continuing calibration standard. If the area count is outside the (-40% to +40%) range of the associated standard, all of the positive results for compounds quantitated using that IS are qualified as estimated, "J", and all non-detects as "UJ", or "R" if there is a severe loss of sensitivity.

If an internal standard retention time varies by more than 20 seconds, professional judgment will be used to determine either partial or total rejection of the data for that sample fraction.

Internal Standard area responses met QC requirements for all analysis pertaining to this data set.

1.9 Target Compound List Identification

TCL compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within =/- 0.06RRT units of the standard compound and have an ion spectra which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound.

GC/MS spectra met the qualitative criteria for identification. All retention times were within required specifications.

1.10 Tentatively Identified Compounds (TICs)

TICs were reported in accordance with the project requirements. The identification must be considered tentative (both quantitative and qualitative) due to the lack of required compound specific response factors. Consequently all concentrations should be considered estimated, "J" and as a result of the qualitative uncertainty should be qualified, "N" where an identification has been made.

TICs were not submitted with this data set.

1.11 Compound Quantification and Reported Detection Limits

GC/MS quantitative analysis is considered to be acceptable. Correct internal standards and response factors and air volumes were used to calculate final concentrations.

Sample results have been presented in ug/m3 by the laboratory on the Form I's.

VP-3 was reanalyzed at a 1:10 dilution in order to bring Tetrachloroethene concentration within the instruments linear calibration range. The reported concentration of this compound has been qualified, "D" by the laboratory to notate the concentration was obtained from diluted analysis.

1.12 Overall System Performance

GC/MS analytical methodology was acceptable for this analysis except where explained in the laboratory SDG Narrative and the detailed validation report. The data reported agrees with the raw data provided in the final report. The laboratory provided a complete data package and reported all data using acceptable protocols and laboratory qualifiers as defined in the report package.

Reviewer's Signature Lori A. Bg **Date** 01/20/14

Appendix A
Data Summary
Form I's
With Qualifications

CHEMTECH

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The comparison of the regulatory limits in this report reflect the current Chemtech Consulting Group Inc. knowledge of the standards and are intended as general guidance for the user. Please consult appropriate regulations and cleanup standards for your specific application.

Sample ID		VP-3		VP-2		VP-1	
Lab Sample Number		E4781-01		E4781-02		E4781-03	
Sampling Date		12/10/2013		12/10/2013		12/10/2013	
Matrix		Air		Air		Air	
Units		Ug/M3		Ug/M3		Ug/M3	
COMPOUND	CAS #						
Dichlorodifluoromethane	75-71-8	2.57		2.67		2.87	
Chloromethane	74-87-3	0.930	J	1.09		1.05	
Vinyl Chloride	75-01-4	0.0800	U	0.0800	U	0.0800	U
Bromomethane	74-83-9	0.390	U	0.390	U	0.390	U
Chloroethane	75-00-3	0.260	U	0.260	U	0.260	U
Tetrahydrofuran	109-99-9	0.290	U	0.290	U	0.290	U
Trichlorofluoromethane	75-69-4	1.69	J	1.52	J	1.63	J
1,1,2-Trichlorotrifluoroethane	76-13-1	0.610	J	0.610	J	0.690	J
Dichlorotetrafluoroethane	76-14-2	0.700	U	0.700	U	0.700	U
Bromoethene	593-60-2	0.440	U	0.440	U	0.440	U
tert-Butyl alcohol	75-65-0	**0.300**	**UJ**	**0.300**	**UJ**	**0.300**	**UJ**
Heptane	142-82-5	0.490	J	0.450	J	0.660	J
1,1-Dichloroethene	75-35-4	0.400	U	0.400	U	0.400	U
Acetone	67-64-1	11.2		11.6		10.4	
Carbon Disulfide	75-15-0	0.690	J	0.310	U	0.310	U
Methyl tert-Butyl Ether	1634-04-4	0.360	U	0.360	U	0.360	U
Methylene Chloride	75-09-2	**5.56**	**UJ**	**4.17**	**UJ**	**3.47**	**UJ**
trans-1,2-Dichloroethene	156-60-5	0.400	U	0.400	U	0.400	U
1,1-Dichloroethane	75-34-3	0.400	U	0.400	U	0.400	U
Cyclohexane	110-82-7	0.460	J	0.340	U	0.340	U
2-Butanone	78-93-3	0.740	J	0.620	J	0.530	J
Carbon Tetrachloride	56-23-5	0.380	J	0.380	J	0.440	J
cis-1,2-Dichloroethene	156-59-2	0.400	U	0.400	U	0.400	U
Chloroform	67-66-3	0.240	J	0.490	U	0.490	U
1,1,1-Trichloroethane	71-55-6	0.160	U	0.160	U	0.160	U
2,2,4-Trimethylpentane	540-84-1	0.470	J	0.510	J	0.610	J
Benzene	71-43-2	0.930	J	0.960	J	1.09	J
1,2-Dichloroethane	107-06-2	0.400	U	0.400	U	0.400	U
Trichloroethene	79-01-6	0.210	J	0.160	U	0.160	U

1,2-Dichloropropane	78-87-5	0.460	U	0.460	U	0.460	U
Bromodichloromethane	75-27-4	0.670	U	0.670	U	0.670	U
4-Methyl-2-Pentanone	108-10-1	0.410	U	0.410	U	0.410	U
Toluene	108-88-3	7.54		5.28		6.78	
t-1,3-Dichloropropene	10061-02-6	**0.450**	**UJ**	0.450	U	0.450	U
cis-1,3-Dichloropropene	10061-01-5	0.450	U	0.450	U	0.450	U
1,1,2-Trichloroethane	79-00-5	0.550	U	0.550	U	0.550	U
Dibromochloromethane	124-48-1	0.850	U	0.850	U	0.850	U
1,2-Dibromoethane	106-93-4	0.770	U	0.770	U	0.770	U
Tetrachloroethene	127-18-4	**99.0**	**D**	0.810	J	0.540	J
Chlorobenzene	108-90-7	0.460	U	0.460	U	0.460	U
Ethyl Benzene	100-41-4	0.650	J	0.960	J	0.480	J
m/p-Xylene	179601-23-1	**10.4**	**J**	**9.56**	**J**	1.74	J
o-Xylene	95-47-6	**2.65**	**J**	**2.17**	**J**	0.520	J
Styrene	100-42-5	**0.430**	**UJ**	**0.430**	**UJ**	**0.430**	**UJ**
Bromoform	75-25-2	1.03	U	1.03	U	1.03	U
1,1,2,2-Tetrachloroethane	79-34-5	0.690	U	0.690	U	0.690	U
2-Chlorotoluene	95-49-8	0.520	U	0.520	U	0.520	U
1,3,5-Trimethylbenzene	108-67-8	0.490	U	0.490	U	0.490	U
1,2,4-Trimethylbenzene	95-63-6	0.490	U	0.490	U	0.490	U
1,3-Dichlorobenzene	541-73-1	0.600	U	0.600	U	0.600	U
1,4-Dichlorobenzene	106-46-7	0.600	U	0.600	U	0.600	U
1,2-Dichlorobenzene	95-50-1	0.600	U	0.600	U	0.600	U
1,2,4-Trichlorobenzene	120-82-1	0.740	U	0.740	U	0.740	U
Hexachloro-1,3-Butadiene	87-68-3	1.07	U	1.07	U	1.07	U
1,3-Butadiene	106-99-0	0.220	U	0.220	U	0.220	U
Naphthalene	91-20-3	**0.370**	**K**	**0.520**	**UJ**	**0.520**	**UJ**
4-Ethyltoluene	622-96-8	0.490	U	0.490	U	0.490	U
Hexane	110-54-3	1.02	J	1.16	J	1.02	J
Allyl Chloride	107-05-1	0.310	U	0.310	U	0.310	U
1,4-Dioxane	123-91-1	**0.360**	**UJ**	**0.360**	**UJ**	**0.360**	**UJ**
Methyl Methacrylate	80-62-6	0.410	U	0.410	U	0.410	U

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Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/10/13
Project:	KoptD 12-01	Date Received:	12/12/13
Client Sample ID:	VP-3	SDG No.:	E4781
Lab Sample ID:	E4781-01	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL021603.D	1 a 10		12/18/13	VL121713

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	0.52	2.57		0.2	0.49	2.47	ug/m3
74-87-3	Chloromethane	0.45	0.93	J	0.21	0.21	1.03	ug/m3
75-01-4	Vinyl Chloride	0.03	0.08	U	0.08	0.08	1.28	ug/m3
74-83-9	Bromomethane	0.1	0.39	U	0.12	0.39	1.94	ug/m3
75-00-3	Chloroethane	0.1	0.26	U	0.26	0.26	1.32	ug/m3
109-99-9	Tetrahydrofuran	0.1	0.29	U	0.29	0.29	1.47	ug/m3
75-69-4	Trichlorofluoromethane	0.3	1.69	J	0.22	0.56	2.81	ug/m3
76-13-1	1,1,2-Trichlorotrifluoroethane	0.08	0.61	J	0.31	0.77	3.83	ug/m3
76-14-2	Dichlorotetrafluoroethane	0.1	0.7	U	0.28	0.7	3.49	ug/m3
593-60-2	Bromoethene	0.1	0.44	U	0.13	0.44	2.19	ug/m3
75-65-0	tert-Butyl alcohol	0.1	0.3	~~UQ~~ J	0.3	0.3	1.52	ug/m3
142-82-5	Heptane	0.12	0.49	J	0.41	0.41	2.05	ug/m3
75-35-4	1,1-Dichloroethene	0.1	0.4	U	0.2	0.4	1.98	ug/m3
67-64-1	Acetone	4.7	11.2		0.24	0.24	1.19	ug/m3
75-15-0	Carbon Disulfide	0.22	0.69	J	0.16	0.31	1.56	ug/m3
1634-04-4	Methyl tert-Butyl Ether	0.1	0.36	U	0.18	0.36	1.8	ug/m3
75-09-2	Methylene Chloride	1.6	5.56	~~B~~ UJ	0.17	0.35	1.74	ug/m3
156-60-5	trans-1,2-Dichloroethene	0.1	0.4	U	0.2	0.4	1.98	ug/m3
75-34-3	1,1-Dichloroethane	0.1	0.4	U	0.16	0.4	2.02	ug/m3
110-82-7	Cyclohexane	0.14	0.48	J	0.34	0.34	1.72	ug/m3
78-93-3	2-Butanone	0.25	0.74	J	0.29	0.29	1.47	ug/m3
56-23-5	Carbon Tetrachloride	0.06	0.38	J	0.19	0.19	3.15	ug/m3
156-59-2	cis-1,2-Dichloroethene	0.1	0.4	U	0.2	0.4	1.98	ug/m3
67-66-3	Chloroform	0.05	0.24	J	0.1	0.49	2.44	ug/m3
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.16	0.16	2.73	ug/m3
540-84-1	2,2,4-Trimethylpentane	0.1	0.47	J	0.19	0.47	2.34	ug/m3
71-43-2	Benzene	0.29	0.93	J	0.13	0.32	1.6	ug/m3
107-06-2	1,2-Dichloroethane	0.1	0.4	U	0.4	0.4	2.02	ug/m3
79-01-6	Trichloroethene	0.04	0.21	J	0.11	0.16	2.69	ug/m3
78-87-5	1,2-Dichloropropane	0.1	0.46	U	0.46	0.46	2.31	ug/m3
75-27-4	Bromodichloromethane	0.1	0.67	U	0.33	0.67	3.35	ug/m3
108-10-1	4-Methyl-2-Pentanone	0.1	0.41	U	0.2	0.41	2.05	ug/m3
108-88-3	Toluene	2	7.54		0.19	0.38	1.88	ug/m3
10061-02-6	t-1,3-Dichloropropene	0.1	0.45	~~UQ~~	0.45	0.45	2.27	ug/m3
10061-01-5	cis-1,3-Dichloropropene	0.1	0.45	U	0.45	0.45	2.27	ug/m3
79-00-5	1,1,2-Trichloroethane	0.1	0.55	U	0.55	0.55	2.73	ug/m3
124-48-1	Dibromochloromethane	0.1	0.85	U	0.43	0.85	4.26	ug/m3
106-93-4	1,2-Dibromoethane	0.1	0.77	U	0.77	0.77	3.84	ug/m3

fa 11/3/14

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Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/10/13
Project:	KoptD 12-01	Date Received:	12/12/13
Client Sample ID:	VP-3	SDG No.:	E4781
Lab Sample ID:	E4781-01	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

D

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL021603.D	1		12/18/13	VL121713

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
127-18-4	Tetrachloroethene	14.6 ~~19.9~~	99 ~~134~~	D ~~E~~	0.2	0.2	3.39	ug/m3
108-90-7	Chlorobenzene	0.1	0.46	U	0.46	0.46	2.3	ug/m3
100-41-4	Ethyl Benzene	0.15	0.65	J	0.43	0.43	2.17	ug/m3
179601-23-1	m/p-Xylene	2.4	10.4	J	0.43	0.87	4.34	ug/m3
95-47-6	o-Xylene	0.61	2.65	J	0.43	0.43	2.17	ug/m3
100-42-5	Styrene	0.1	0.43	U~~Q~~ J	0.43	0.43	2.13	ug/m3
75-25-2	Bromoform	0.1	1.03	U	0.52	1.03	5.17	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	0.1	0.69	U	0.69	0.69	3.43	ug/m3
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.52	0.52	2.59	ug/m3
108-67-8	1,3,5-Trimethylbenzene	0.1	0.49	U	0.49	0.49	2.46	ug/m3
95-63-6	1,2,4-Trimethylbenzene	0.1	0.49	U	0.49	0.49	2.46	ug/m3
541-73-1	1,3-Dichlorobenzene	0.1	0.6	U	0.6	0.6	3.01	ug/m3
106-46-7	1,4-Dichlorobenzene	0.1	0.6	U	0.6	0.6	3.01	ug/m3
95-50-1	1,2-Dichlorobenzene	0.1	0.6	U	0.6	0.6	3.01	ug/m3
120-82-1	1,2,4-Trichlorobenzene	0.1	0.74	U~~Q~~	0.3	0.74	3.71	ug/m3
87-68-3	Hexachloro-1,3-Butadiene	0.1	1.07	U	1.07	1.07	5.33	ug/m3
106-99-0	1,3-Butadiene	0.1	0.22	U	0.22	0.22	1.11	ug/m3
91-20-3	Naphthalene	0.07	0.37	~~J~~ K	0.21	0.52	2.62	ug/m3
622-96-8	4-Ethyltoluene	0.1	0.49	U	0.49	0.49	2.46	ug/m3
110-54-3	Hexane	0.29	1.02	J	0.14	0.35	1.76	ug/m3
107-05-1	Allyl Chloride	0.1	0.31	U	0.16	0.31	1.57	ug/m3
123-91-1	1,4-Dioxane	0.1	0.36	U~~Q~~ J	0.36	0.36	1.8	ug/m3
80-62-6	Methyl Methacrylate	0.1	0.41	U	0.41	0.41	2.05	ug/m3
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	9.5			65 - 135		95%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	1301730		6.66				
540-36-3	1,4-Difluorobenzene	4937720		8.33				
3114-55-4	Chlorobenzene-d5	4265430		13.75				

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
D = Dilution

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
Q = indicates LCS control criteria did not meet requirements

1/13/13

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Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/10/13
Project:	KoptD 12-01	Date Received:	12/12/13
Client Sample ID:	VP-2	SDG No.:	E4781
Lab Sample ID:	E4781-02	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL021605.D	1		12/18/13	VL121713

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	0.54	2.67		0.2	0.49	2.47	ug/m3
74-87-3	Chloromethane	0.53	1.09		0.21	0.21	1.03	ug/m3
75-01-4	Vinyl Chloride	0.03	0.08	U	0.08	0.08	1.28	ug/m3
74-83-9	Bromomethane	0.1	0.39	U	0.12	0.39	1.94	ug/m3
75-00-3	Chloroethane	0.1	0.26	U	0.26	0.26	1.32	ug/m3
109-99-9	Tetrahydrofuran	0.1	0.29	U	0.29	0.29	1.47	ug/m3
75-69-4	Trichlorofluoromethane	0.27	1.52	J	0.22	0.56	2.81	ug/m3
76-13-1	1,1,2-Trichlorotrifluoroethane	0.08	0.61	J	0.31	0.77	3.83	ug/m3
76-14-2	Dichlorotetrafluoroethane	0.1	0.7	U	0.28	0.7	3.49	ug/m3
593-60-2	Bromoethene	0.1	0.44	U	0.13	0.44	2.19	ug/m3
75-65-0	tert-Butyl alcohol	0.1	0.3	~~UQ~~ J	0.3	0.3	1.52	ug/m3
142-82-5	Heptane	0.11	0.45	J	0.41	0.41	2.05	ug/m3
75-35-4	1,1-Dichloroethene	0.1	0.4	U	0.2	0.4	1.98	ug/m3
67-64-1	Acetone	4.9	11.6		0.24	0.24	1.19	ug/m3
75-15-0	Carbon Disulfide	0.1	0.31	U	0.16	0.31	1.56	ug/m3
1634-04-4	Methyl tert-Butyl Ether	0.1	0.36	U	0.18	0.36	1.8	ug/m3
75-09-2	Methylene Chloride	1.2	4.17	~~B~~ UJ	0.17	0.35	1.74	ug/m3
156-60-5	trans-1,2-Dichloroethene	0.1	0.4	U	0.2	0.4	1.98	ug/m3
75-34-3	1,1-Dichloroethane	0.1	0.4	U	0.16	0.4	2.02	ug/m3
110-82-7	Cyclohexane	0.1	0.34	U	0.34	0.34	1.72	ug/m3
78-93-3	2-Butanone	0.21	0.62	J	0.29	0.29	1.47	ug/m3
56-23-5	Carbon Tetrachloride	0.06	0.38	J	0.19	0.19	3.15	ug/m3
156-59-2	cis-1,2-Dichloroethene	0.1	0.4	U	0.2	0.4	1.98	ug/m3
67-66-3	Chloroform	0.1	0.49	U	0.1	0.49	2.44	ug/m3
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.16	0.16	2.73	ug/m3
540-84-1	2,2,4-Trimethylpentane	0.11	0.51	J	0.19	0.47	2.34	ug/m3
71-43-2	Benzene	0.3	0.96	J	0.13	0.32	1.6	ug/m3
107-06-2	1,2-Dichloroethane	0.1	0.4	U	0.4	0.4	2.02	ug/m3
79-01-6	Trichloroethene	0.03	0.16	U	0.11	0.16	2.69	ug/m3
78-87-5	1,2-Dichloropropane	0.1	0.46	U	0.46	0.46	2.31	ug/m3
75-27-4	Bromodichloromethane	0.1	0.67	U	0.33	0.67	3.35	ug/m3
108-10-1	4-Methyl-2-Pentanone	0.1	0.41	U	0.2	0.41	2.05	ug/m3
108-88-3	Toluene	1.4	5.28		0.19	0.38	1.88	ug/m3
10061-02-6	t-1,3-Dichloropropene	0.1	0.45	U~~Q~~	0.45	0.45	2.27	ug/m3
10061-01-5	cis-1,3-Dichloropropene	0.1	0.45	U	0.45	0.45	2.27	ug/m3
79-00-5	1,1,2-Trichloroethane	0.1	0.55	U	0.55	0.55	2.73	ug/m3
124-48-1	Dibromochloromethane	0.1	0.85	U	0.43	0.85	4.26	ug/m3
106-93-4	1,2-Dibromoethane	0.1	0.77	U	0.77	0.77	3.84	ug/m3

for 1/13/14

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Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/10/13
Project:	KoptD 12-01	Date Received:	12/12/13
Client Sample ID:	VP-2	SDG No.:	E4781
Lab Sample ID:	E4781-02	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL021605.D	1		12/18/13	VL121713

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
127-18-4	Tetrachloroethene	0.12	0.81	J	0.2	0.2	3.39	ug/m3
108-90-7	Chlorobenzene	0.1	0.46	U	0.46	0.46	2.3	ug/m3
100-41-4	Ethyl Benzene	0.22	0.96	J	0.43	0.43	2.17	ug/m3
179601-23-1	m/p-Xylene	2.2	9.56	J	0.43	0.87	4.34	ug/m3
95-47-6	o-Xylene	0.5	2.17	J	0.43	0.43	2.17	ug/m3
100-42-5	Styrene	0.1	0.43	UQ J	0.43	0.43	2.13	ug/m3
75-25-2	Bromoform	0.1	1.03	U	0.52	1.03	5.17	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	0.1	0.69	U	0.69	0.69	3.43	ug/m3
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.52	0.52	2.59	ug/m3
108-67-8	1,3,5-Trimethylbenzene	0.1	0.49	U	0.49	0.49	2.46	ug/m3
95-63-6	1,2,4-Trimethylbenzene	0.1	0.49	U	0.49	0.49	2.46	ug/m3
541-73-1	1,3-Dichlorobenzene	0.1	0.6	U	0.6	0.6	3.01	ug/m3
106-46-7	1,4-Dichlorobenzene	0.1	0.6	U	0.6	0.6	3.01	ug/m3
95-50-1	1,2-Dichlorobenzene	0.1	0.6	U	0.6	0.6	3.01	ug/m3
120-82-1	1,2,4-Trichlorobenzene	0.1	0.74	UQ	0.3	0.74	3.71	ug/m3
87-68-3	Hexachloro-1,3-Butadiene	0.1	1.07	U	1.07	1.07	5.33	ug/m3
106-99-0	1,3-Butadiene	0.1	0.22	U	0.22	0.22	1.11	ug/m3
91-20-3	Naphthalene	0.1	0.52	UQ J	0.21	0.52	2.62	ug/m3
622-96-8	4-Ethyltoluene	0.1	0.49	U	0.49	0.49	2.46	ug/m3
110-54-3	Hexane	0.33	1.16	J	0.14	0.35	1.76	ug/m3
107-05-1	Allyl Chloride	0.1	0.31	U	0.16	0.31	1.57	ug/m3
123-91-1	1,4-Dioxane	0.1	0.36	UQ J	0.36	0.36	1.8	ug/m3
80-62-6	Methyl Methacrylate	0.1	0.41	U	0.41	0.41	2.05	ug/m3
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	9.9			65 - 135		99%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	1283610		6.65				
540-36-3	1,4-Difluorobenzene	4858450		8.32				
3114-55-4	Chlorobenzene-d5	4003580		13.75				

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
D = Dilution

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
Q = indicates LCS control criteria did not meet requirements

JOP 1/13/14

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Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/10/13
Project:	KoptD 12-01	Date Received:	12/12/13
Client Sample ID:	VP-1	SDG No.:	E4781
Lab Sample ID:	E4781-03	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL021601.D	1		12/18/13	VL121713

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	0.58	2.87		0.2	0.49	2.47	ug/m3
74-87-3	Chloromethane	0.51	1.05		0.21	0.21	1.03	ug/m3
75-01-4	Vinyl Chloride	0.03	0.08	U	0.08	0.08	1.28	ug/m3
74-83-9	Bromomethane	0.1	0.39	U	0.12	0.39	1.94	ug/m3
75-00-3	Chloroethane	0.1	0.26	U	0.26	0.26	1.32	ug/m3
109-99-9	Tetrahydrofuran	0.1	0.29	U	0.29	0.29	1.47	ug/m3
75-69-4	Trichlorofluoromethane	0.29	1.63	J	0.22	0.56	2.81	ug/m3
76-13-1	1,1,2-Trichlorotrifluoroethane	0.09	0.69	J	0.31	0.77	3.83	ug/m3
76-14-2	Dichlorotetrafluoroethane	0.1	0.7	U	0.28	0.7	3.49	ug/m3
593-60-2	Bromoethene	0.1	0.44	U	0.13	0.44	2.19	ug/m3
75-65-0	tert-Butyl alcohol	0.1	0.3	~~UQ~~ J	0.3	0.3	1.52	ug/m3
142-82-5	Heptane	0.16	0.66	J	0.41	0.41	2.05	ug/m3
75-35-4	1,1-Dichloroethene	0.1	0.4	U	0.2	0.4	1.98	ug/m3
67-64-1	Acetone	4.4	10.4		0.24	0.24	1.19	ug/m3
75-15-0	Carbon Disulfide	0.1	0.31	U	0.16	0.31	1.56	ug/m3
1634-04-4	Methyl tert-Butyl Ether	0.1	0.36	U	0.18	0.36	1.8	ug/m3
75-09-2	Methylene Chloride	1	3.47	~~B~~ UJ	0.17	0.35	1.74	ug/m3
156-60-5	trans-1,2-Dichloroethene	0.1	0.4	U	0.2	0.4	1.98	ug/m3
75-34-3	1,1-Dichloroethane	0.1	0.4	U	0.16	0.4	2.02	ug/m3
110-82-7	Cyclohexane	0.1	0.34	U	0.34	0.34	1.72	ug/m3
78-93-3	2-Butanone	0.18	0.53	J	0.29	0.29	1.47	ug/m3
56-23-5	Carbon Tetrachloride	0.07	0.44	J	0.19	0.19	3.15	ug/m3
156-59-2	cis-1,2-Dichloroethene	0.1	0.4	U	0.2	0.4	1.98	ug/m3
67-66-3	Chloroform	0.1	0.49	U	0.1	0.49	2.44	ug/m3
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.16	0.16	2.73	ug/m3
540-84-1	2,2,4-Trimethylpentane	0.13	0.61	J	0.19	0.47	2.34	ug/m3
71-43-2	Benzene	0.34	1.09	J	0.13	0.32	1.6	ug/m3
107-06-2	1,2-Dichloroethane	0.1	0.4	U	0.4	0.4	2.02	ug/m3
79-01-6	Trichloroethene	0.03	0.16	U	0.11	0.16	2.69	ug/m3
78-87-5	1,2-Dichloropropane	0.1	0.46	U	0.46	0.46	2.31	ug/m3
75-27-4	Bromodichloromethane	0.1	0.67	U	0.33	0.67	3.35	ug/m3
108-10-1	4-Methyl-2-Pentanone	0.1	0.41	U	0.2	0.41	2.05	ug/m3
108-88-3	Toluene	1.8	6.78		0.19	0.38	1.88	ug/m3
10061-02-6	t-1,3-Dichloropropene	0.1	0.45	~~UQ~~	0.45	0.45	2.27	ug/m3
10061-01-5	cis-1,3-Dichloropropene	0.1	0.45	U	0.45	0.45	2.27	ug/m3
79-00-5	1,1,2-Trichloroethane	0.1	0.55	U	0.55	0.55	2.73	ug/m3
124-48-1	Dibromochloromethane	0.1	0.85	U	0.43	0.85	4.26	ug/m3
106-93-4	1,2-Dibromoethane	0.1	0.77	U	0.77	0.77	3.84	ug/m3

Sa 1/13/14

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Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	12/10/13
Project:	KoptD 12-01	Date Received:	12/12/13
Client Sample ID:	VP-1	SDG No.:	E4781
Lab Sample ID:	E4781-03	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL021601.D	1		12/18/13	VL121713

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
127-18-4	Tetrachloroethene	0.08	0.54	J	0.2	0.2	3.39	ug/m3
108-90-7	Chlorobenzene	0.1	0.46	U	0.46	0.46	2.3	ug/m3
100-41-4	Ethyl Benzene	0.11	0.48	J	0.43	0.43	2.17	ug/m3
179601-23-1	m/p-Xylene	0.4	1.74	J	0.43	0.87	4.34	ug/m3
95-47-6	o-Xylene	0.12	0.52	J	0.43	0.43	2.17	ug/m3
100-42-5	Styrene	0.1	0.43	U~~Q~~ J	0.43	0.43	2.13	ug/m3
75-25-2	Bromoform	0.1	1.03	U	0.52	1.03	5.17	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	0.1	0.69	U	0.69	0.69	3.43	ug/m3
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.52	0.52	2.59	ug/m3
108-67-8	1,3,5-Trimethylbenzene	0.1	0.49	U	0.49	0.49	2.46	ug/m3
95-63-6	1,2,4-Trimethylbenzene	0.1	0.49	U	0.49	0.49	2.46	ug/m3
541-73-1	1,3-Dichlorobenzene	0.1	0.6	U	0.6	0.6	3.01	ug/m3
106-46-7	1,4-Dichlorobenzene	0.1	0.6	U	0.6	0.6	3.01	ug/m3
95-50-1	1,2-Dichlorobenzene	0.1	0.6	U	0.6	0.6	3.01	ug/m3
120-82-1	1,2,4-Trichlorobenzene	0.1	0.74	U~~Q~~	0.3	0.74	3.71	ug/m3
87-68-3	Hexachloro-1,3-Butadiene	0.1	1.07	U	1.07	1.07	5.33	ug/m3
106-99-0	1,3-Butadiene	0.1	0.22	U	0.22	0.22	1.11	ug/m3
91-20-3	Naphthalene	0.1	0.52	U~~Q~~ J	0.21	0.52	2.62	ug/m3
622-96-8	4-Ethyltoluene	0.1	0.49	U	0.49	0.49	2.46	ug/m3
110-54-3	Hexane	0.29	1.02	J	0.14	0.35	1.76	ug/m3
107-05-1	Allyl Chloride	0.1	0.31	U	0.16	0.31	1.57	ug/m3
123-91-1	1,4-Dioxane	0.1	0.36	U~~Q~~ J	0.36	0.36	1.8	ug/m3
80-62-6	Methyl Methacrylate	0.1	0.41	U	0.41	0.41	2.05	ug/m3
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	8.9			65 - 135		89%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	1186280		6.66				
540-36-3	1,4-Difluorobenzene	4397830		8.34				
3114-55-4	Chlorobenzene-d5	3803660		13.76				

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
D = Dilution

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
Q = indicates LCS control criteria did not meet requirements

JA 1/13/14

Appendix B
Chain of Custody

E4781

CHEMTECH

284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 89

CHEMTECH Project No. : E4781

1 of 1 COCs

Client Contact Information	Bottle Order ID : B1312001	Courier :
Client ID : JRHO01 Project ID : KoptD 12-01		Sampler Name(s) :
Customer Name : J.R.Holzmacher P.E., LLC	Project Manager Jim demartinis	AIR ANALYSIS CHAIN-OF-CUSTODY
Address : ~~300 Wheeler Road~~ 3555 VETERANS MEMORIAL HIGHWAY, SUITE A	Phone Number : 631-234-2220	
	Fax Number : 6312342221	Batch Certified
~~Suite 402~~	Site Details: DEVELOPED MULTI-FAMILY RESIDENTIAL HOUSE	
City : ~~Hauppauge~~ RONKONKOMA	Analysis Turnaround Time STANDARD	
State : NY	Standard : 15 business days OR	Data Package Type :
Zip Code : ~~11788~~ 11779-7636	Rush (Specify): _____ Days	EDD Type :
Country :		

Sample Identification	Sample Date(s)	Time Start (24 hr Clock)	Time Stop (24 hr Clock)	Can Vacuum in Field ("Hg) (Start)	Can Vacuum in Field ("Hg) (Stop)**	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Out going Can Pressure ("Hg)(Lab)	In coming Can Pressure ("Hg)(Lab)	Flow Reg. ID	Can ID	Can Size (L)	Flow Controller Readout	Can Cert ID	TO-15				Indoor/Ambinet Air	Soil Gas		
VP-1	12/9-12/10/13	1544	1437	-30	-16	42°F	42°F	-30		10172	10325	6 L	4.16	VL021129.D	✓				✓			

Temperature (Fahrenheit)	Ambient	Maximum	Minimum	
Start				
Stop				

Pressure (Inches of Hg)	Ambient	Maximum	Minimum	
Start				
Stop				

GC/MS Analyst Signature (TO-15) Sycl

** Submittal of this COC indicates approval of the analysis based on existing conditio

Please follow the instructions on the back of this CO

Special Instructions/QC Requirements & Comments :

Suspected Contamination: High Medium (Low)

PID Readings: N/A

Sampling site (State):

Quick Connector required : NO			
Canisters Shiped by:	Date/Time: 12/2/13	Canisters Received by:	Date/Time: 12/9/13 1300
Samples Relinquished by:	Date/Time: 12/11/13 0900	Received by:	Date/Time:
Relinquished by: FEDEX	Date/Time: 12/12/13 920	Received by:	Date/Time: 12/12/13 920

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CHEMTECH

284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 89

CHEMTECH Project No. : E4781

Client Contact Information	Bottle Order ID : **B1312001**	Courier :	1 of 1 COCs
Client ID : **JRHO01** Project ID : **KoptD 12-01**		Sampler Name(s) :	Analysis / Matrix
Customer Name : **J.R.Holzmacher P.E., LLC**	Project Manager **Jim demartinis**	AIR ANALYSIS CHAIN-OF-CUSTODY	
Address : ~~**300 Wheeler Road**~~ 1555 Veterans Memorial Hwy Suite A	Phone Number : **631-234-2220**		
~~**Suite 402**~~	Fax Number : **6312342221**		
City : ~~**Hauppauge**~~ Ronkonkoma	Site Details: Developed Multi-Family Residential House	Batch Certified	
State : **NY**	Analysis Turnaround Time Standard		
Zip Code : ~~**11788**~~ 11779-7636	Standard : **15 business days** **OR**	Data Package Type :	
Country :	Rush (Specify): _____ **Days**	EDD Type :	

Sample Identification	Sample Date(s)	Time Start (24 hr Clock)	Time Stop (24 hr Clock)	Can Vacuum in Field ("Hg) (Start)	Can Vacuum in Field ("Hg) (Stop)**	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Out going Can Pressure ("Hg)(Lab)	In coming Can Pressure ("Hg)(Lab)	Flow Reg. ID	Can ID	Can Size (L)	Flow Controller Readout	Can Cert ID	TO-15				Indoor/Ambinet Air	Soil Gas		
VP-2	12/9-12/10/13	1540	2433	-30	-5	65°F	58°F	-30		10778	10156	6 L	4.16	VL021129.D	X				X			

Temperature (Fahrenheit)	Ambient	Maximum	Minimum	
Start				
Stop				

Pressure (Inches of Hg)	Ambient	Maximum	Minimum	
Start				
Stop				

GC/MS Analyst Signature (TO-15)

** Submittal of this COC indicates approval of the analysis based on existing conditio

Please follow the instructions on the back of this CO

Special Instructions/QC Requirements & Comments :

Suspected Contamination: High Medium Low

PID Readings:

Sampling site (State):

Quick Connector required : NO

Canisters Shiped by:	Date/Time: 12/2/13	Canisters Received by:	Date/Time: 12/9/13 0900
Samples Relinquished by:	Date/Time: 12/11/13 0900	Received by:	Date/Time:
Relinquished by: FEDEX	Date/Time: 12/12/13 920	Received by:	Date/Time: 12/12/13 920

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E4781

CHEMTECH

284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 89

CHEMTECH Project No. : E4781

Client Contact Information	Bottle Order ID : **B1312001**	Courier :	1 of 1 COCs
Client ID : **JRHO01** Project ID : **KoptD 12-01**		Sampler Name(s) :	Analysis / Matrix
Customer Name : **J.R.Holzmacher P.E., LLC**	Project Manager **Jim demartinis**	AIR ANALYSIS CHAIN-OF-CUSTODY	
Address : 3555 Veterans Memorial Hwy Suite A ~~300 Wheeler Road~~ ~~Suite 402~~	Phone Number : **631-234-2220**		
	Fax Number : **6312342221**		
	Site Details: Developed Multi-use Residential House	Batch Certified	
City : ~~Hauppauge~~ Ronkonkoma			
State : **NY**	Analysis Turnaround Time Standard		
Zip Code : ~~11788~~ 11779-7636	Standard : **15 business days** **OR**	Data Package Type :	
Country :	Rush (Specify): _____ **Days**	EDD Type :	

Sample Identification	Sample Date(s)	Time Start (24 hr Clock)	Time Stop (24 hr Clock)	Can Vacuum in Field ("Hg) (Start)	Can Vacuum in Field ("Hg) (Stop)**	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Out going Can Pressure ("Hg)(Lab)	In coming Can Pressure ("Hg)(Lab)	Flow Reg. ID	Can ID	Can Size (L)	Flow Controller Readout	Can Cert ID	TO-15				Indoor/Ambinet Air	Soil Gas		
VP-3	12/9-12/10/13	1539	1431	-30	-0.1	75°F	76°F	-30		10236	10262	6 L	4.16	VL021129.7	✓					✓		

Temperature (Fahrenheit)	Ambient	Maximum	Minimum	
Start				
Stop				

Pressure (Inches of Hg)	Ambient	Maximum	Minimum	
Start				
Stop				

GC/MS Analyst Signature (TO-15)

** Submittal of this COC indicates approval o

Please follow the instructions on the back of this CO

Special Instructions/QC Requirements & Comments :

Suspected Contamination: High Medium (Low) PID Readings:

Sampling site (State):

Quick Connector required : NO

Canisters Shiped by:	Date/Time: 12/2/13	Canisters Received by:	Date/Time: 12/9/13 1000
Samples Relinquished by:	Date/Time: 12/11/13 0900	Received by:	Date/Time:
Relinquished by: FED EX	Date/Time: 12/12/13 920	Received by:	Date/Time: 12/12/13 920

B1312001 - 2

New Jersey Department of Environmental Protection

Internal Chain of Custody

Instructions: Use 1 form for each 20 samples of aliquot

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample

Laboratory: Chemtech
Location: 284 Sheffield Street, Mountainside,NJ 7092
Title: Sample Custodian
Field Sample Seal No.: E4781
Date Broken: 12/12/2013
Military Time Seal Broken: 09:20:00
Case No.: KoptD 12-01
Analytical Parameter/Fraction: TO-15

Sample No.	Aliquot/Extract No.	Sample No.	Aliquot/Extract No.
E4781-01	VP-3		
E4781-02	VP-2		
E4781-03	VP-1		

Date	Time	Relinquished By	Received By	Purpose of Change of Custody
12-13-13	10:00	Signature Palak Shah Printed Name Palak Shah	Signature [illegible] Printed Name [illegible]	Air Lab.
		Signature Printed Name	Signature Printed Name	
		Signature Printed Name	Signature Printed Name	
		Signature Printed Name	Signature Printed Name	
		Signature Printed Name	Signature Printed Name	
		Signature Printed Name	Signature Printed Name	
		Signature Printed Name	Signature Printed Name	
		Signature Printed Name	Signature Printed Name	

Distribution: White - Original (Sent With Report) Yellow - Contractor Archive Pink - Sample Custodian - Interim Copy

Appendix C
SDG Narrative

CHEMTECH
284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CASE NARRATIVE

J.R.Holzmacher P.E., LLC
Project Name: KoptD 12-01
Project # N/A
Chemtech Project # E4781
Test Name: TO-15

A. Number of Samples and Date of Receipt:
3 Air samples were received on 12/12/2013.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: SUMMA Canister Rental and TO-15. This data package contains results for TO-15.

C. Analytical Techniques:
The analysis performed on instrument MSVOA_L were done using GC column RTX-1, which is 60 meters, 0.32 mm id, 1.0 um df, Restek Cat. #10157. The Trap was supplied by Entech, glass bead and Tenax , Entech 7100A Preconcentrator.The analysis of TO-15 was based on method TO-15.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The Blank Spike for {VL1217ABS} with File ID: VL021588.D met requirements for all samples except for 1,2,4-Trichlorobenzene[136%], 1,4-Dioxane[131%], Naphthalene[132%], Styrene[135%], t-1,3-Dichloropropene[132%] and tert-Butyl Alcohol[137%] .
The Blank analysis indicated presence of Methylene Chloride[0.33 ppbv] FileID:VL021585.D{VL1217ABL} due to possible lab contamination.
The Initial Calibration met the requirements.
The Tuning criteria met requirements.
Sample VP-3 was diluted due to high concentration.

E. Additional Comments:

F. Manual Integration Comments:

CHEMTECH
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I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature Mildred V Reyes Mildred V. Reyes, QA/QC Supervisor
2013.12.26 11:56:47 -05'00'

DATA USABILITY SUMMARY REPORT (DUSR)
DATA VALIDATION SUMMARY

ORGANIC ANALYSIS

EPA Compendium Method TO-15
VOLATILES BY GC/MS

For Air/Soil Gas Samples Collected
September 18-19, 2012
From KOPTD 12-01
J.R. Holzmacher P.E., LLC.

SAMPLE DELIVERY GROUP NUMBER: D4283
BY CHEMTECH (ELAP #11376)

SUBMITTED TO:

Mr. Jim DeMartinis
J.R. Holzmacher P.E., LLC.
300 Wheeler Avenue, Suite 402
Hauppauge, NY 11788

November 19, 2012

PREPARED BY:

Lori A. Beyer/President
L.A.B. Validation Corp.
14 West Point Drive
East Northport, NY 11731

Lori A. Beyer

KOPTD 12-01; September 2012.
DUSR/Data Validation Report: Volatile Organics

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Introduction
Data Qualifier Definitions
Sample Receipt

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- 1.2 Surrogate Standards
- 1.3 Matrix Spikes (MS), Matrix Spike Duplicates (MSD)
- 1.4 Laboratory Control Sample
- 1.5 Blank Contamination
- 1.6 GC/MS Instrument Performance Check
- 1.7 Initial and Continuing Calibrations
- 1.8 Internal Standards
- 1.9 Target Compound List Identification
- 1.10 Tentatively Identified Compounds
- 1.11 Compound Quantification and Reported Detection Limits
- 1.12 Overall System Performance

APPENDICES:

A. Data Summary Form Is with Qualifications
B. Chain of Custody Documents
C. SDG Narrative

Introduction:

A validation was performed on three (3) air samples for Volatile Organic analysis collected by J.R. Holzmacher and submitted to Chemtech for subsequent analysis under chain of custody documentation. This report contains the laboratory and validation results for the three (3) field samples itemized below. The samples were collected on September 18, 2012 through September 19, 2012.

The samples were analyzed by Chemtech utilizing EPA Method TO-15 and in accordance with NYSDEC Analytical Services Protocol (2005) and submitted under NYSDEC ASP Category B equivalent deliverable requirements for the associated analytical methodology employed. The analytical testing consisted of the selected TO-15 Target Compound List (TCL) of analytes for Volatile Organics listed in Appendix A.

The data was evaluated in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (Publication 9240.1-05), EPA SOP #HW31 (Revision 4-Updated 2009) and in conjunction with the analytical methodology for which the samples were analyzed, where applicable and relevant.

The data validation report pertains to the following field soil gas/air samples:

Sample Identification	Laboratory Identification(s)	Sample Matrix (Air Type)	Collection Date
VP-2	D4283-1	Indoor/Ambient Air	09/18/12-09/19/12
VP-1	D4283-2	Outdoor/Ambient Air	09/18/12-09/19/12
VP-3	D4283-3	Soil Gas	09/18/12-09/19/12

Data Qualifier Definitions:

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate quantity.

K - The analyte is present. The reported value may be biased high. The actual value is expected to be lower than reported.

L - The analyte is present. The reported value may be biased low. The actual value is expected to be higher than reported.

UL - The analyte was not detected and the reported quantitation limit is most likely higher than reported.

Sample Receipt:

The Chain of Custody documents from 09/18/12 through 09/19/12 indicates that three (3) air samples were shipped via federal express to Chemtech and received on 09/20/12 following completion of the sampling event. Sample login notes and the chain of custody indicate that at the Validated Time of Sample Receipt (VTSR) at the laboratory no discrepancies were notated and therefore the integrity of the summa canister samples is assumed to be good.

The data summary tables included in Appendix A includes all usable (qualified) and unusable (rejected) results for the samples identified above. These tables summarize the detailed narrative section of the report. All data validation qualifications have been reported on the Form I's for ease of review and verification.

NOTE:
L.A.B. Validation Corp. believes it is appropriate to note that the data validation criteria utilized for data evaluation is different than the method requirements utilized by the laboratory. Qualified data does not necessarily mean that the laboratory was non-compliant in the analysis that was performed.

Volatile Organics by EPA Compendium Method TO-15

The following method criteria were reviewed: holding times, surrogate standards, LCS, Blanks, Tunes, Calibrations, Internal Standards, Target Component Identification and Quantitation, Reported Quantitation Limits and Overall System Performance. The volatile results were considered to be valid and useable as noted on the data summary tables in Appendix A and within the following text:

1.1 Holding Time

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

Air samples pertaining to this SDG were performed within the method and technical required holding times of thirty (30) days from sample collection for analysis. No qualifications were required based upon holding time criteria.

Canister pressure gauge was within requirements of 30 psi prior to sampling.

1.2 Surrogate Standards

All samples are spiked with surrogate compounds prior to sample analysis to evaluate overall laboratory performance and efficiency of the analytical technique. If the measure of surrogate concentrations is outside contract specification, qualifications are required to be applied to associated samples and analytes.

Recoveries for 1-Bromo-4-Fluorobenzene fell within in house established ranges of 65-135% for all analyses pertaining to this SDG.

1.3 Matrix Spikes (MS)/ Matrix Spike Duplicates (MSD)/Duplicate Analysis

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices.

Matrix Spike/Matrix Spike Duplicate analysis was not performed on samples pertaining to this SDG. The laboratory performed a laboratory control spike and all recovery values were determined to be acceptable (>70% - <130%) for all compounds.

1.4 Laboratory Control Sample

The LCS data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and on the laboratory performance.

Additional QC samples were not analyzed which is acceptable per the method since a blank spike/LCS was analyzed. Acceptable LCS was performed as required by the method (see Section 1.3 above).

1.5 Blank Contamination

Quality assurance (QA) blanks; i.e. method, trip and field blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field blanks measure cross-contamination of samples during field operations. Storage blanks measure cross-contamination during sample storage of the field samples. Canister blanks measure cross-contamination from the sampling media.

The following table was utilized to qualify target analyte results due to contamination. The largest value from all the associated blanks is required to be utilized:

For:	Flag Sample Result with a "U" when:	Report CRQL & Qualify "U" when:	No Qualification is Needed when:
Methylene Chloride, Acetone, Toluene & 2-Butanone	Sample Conc. Is >CRQL, but </=10x blank value	Sample Conc. is <CRQL and </=10x blank value	Sample Conc. is >CRQL and >10x blank value
Other Contaminants	Sample Conc. Is >CRQL, but </=5x blank value	Sample Conc. Is <CRQL and </=5x blank value	Sample Conc. is >CRQL and >5x blank value

Below is a summary of the compounds in the sample and the associated qualifications that have been applied:

A) **Method Blank Contamination:**

Method and Canister blanks were determined to be free of any contamination.

Canister cleaning documentation met QC requirements.

B) **Field Blank Contamination:**

Field Blank analysis was not conducted for this SDG.

C) **Trip Blank Contamination:**

Trip Blank analysis was not submitted with this SDG.

D) **Storage Blank Contamination:**

Storage blanks were not submitted for this SDG. It should be noted that storage blanks are not mandated by EPA Method TO-15.

1.6 **GC/MS Instrument Performance Check**

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The Tuning standard for volatile organics is Bromofluorobenzene (BFB).

Instrument performance was generated within acceptable limits and frequency (24 hours) for Bromofluorobenzene (BFB) for all analyses conducted for this SDG.

1.7 Initial and Continuing Calibrations

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

A) Response Factor GC/MS:
The response factor measures the instrument's response to specific chemical compounds. The response factor for all compounds must be >/= 0.05 in both initial and continuing calibrations. A value <0.05 indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J". All non-detects for that compound in the corresponding samples will be rejected, "R".

The following compounds are allowed to be >0.01 without qualification:
2-Butanone
Carbon Disulfide
Chloroethane
Chloromethane
1,2-Dibromoethane
1,2-Dichloropropane
1,4-Dioxane
1,2-Dibromo-3-chloroproane
Methylene Chloride

All the response factors for the target analytes reported were found to be within acceptable limits (>/=0.05) [or >/=0.01 for the 9 compounds above], for the initial and continuing calibrations.

B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):
Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentrations. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the

instrument's daily performance. Percent RSD must be <30% and %D must be <30%. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects are flagged "UJ". If %RSD and %D grossly exceed QC criteria (>90%), non-detect data may be qualified, "R", unusable. Additionally, in cases where the %RSD is >30% and eliminating either the high or the low point of the curve does not restore the %RSD to less than or equal to 30% then positive results are qualified, "J". In cases where removal of either the low or high point restores the linearity, then only low or high level results will be qualified, "J" in the portion of the curve where non linearity exists.

Initial Calibrations: The initial calibration provided and the %RSD were within acceptable limits (30%) for all target compounds.

Continuing Calibrations: The continuing calibration provided and the %D was within acceptable limits (30%) for all target compounds.

1.8 Internal Standards

Internal Standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than a factor of 2 (-40% to +40%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than +/-20 seconds from the associated continuing calibration standard. If the area count is outside the (-40% to +40%) range of the associated standard, all of the positive results for compounds quantitated using that IS are qualified as estimated, "J", and all non-detects as "UJ", or "R" if there is a severe loss of sensitivity.

If an internal standard retention time varies by more than 20 seconds, professional judgment will be used to determine either partial or total rejection of the data for that sample fraction.

Internal Standard area responses for Bromochloromethane, 1,4-Difluorobenzene and Chlorobenzene-d5 met QC requirements for all analyses pertaining to this data set.

1.9 Target Compound List Identification

TCL compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within =/- 0.06RRT units of the standard compound and have an ion spectra which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound.

GC/MS spectra met the qualitative criteria for identification. All retention times were within required specifications.

1.10 Tentatively Identified Compounds (TICs)

TICs were reported in accordance with the project requirements. The identification must be considered tentative (both quantitative and qualitative) due to the lack of required compound specific response factors. Consequently all concentrations should be considered estimated, "J" and as a result of the qualitative uncertainty should be qualified, "N" where an identification has been made.

TICs were not submitted with this data set.

1.11 Compound Quantification and Reported Detection Limits

GC/MS quantitative analysis is considered to be acceptable. Correct internal standards and response factors and air volumes were used to calculate final concentrations.

Sample results have been presented in ug/m3 as well as ppbv by the laboratory on the Form I's.

All samples were initially analyzed undiluted. Analyte concentrations Toluene and Tetrachloroethene were determined to be over the instruments linear calibration range VP-3. Diluted reanalyses were performed concentrations within range. The diluted concentrations must be utilized by the end user and is presented in the Form I's provided in Appendix A.

1.12 Overall System Performance

GC/MS analytical methodology was acceptable for this analysis. The data reported agrees with the raw data provided in the final report. The laboratory provided a complete data package and reported all data using acceptable protocols and laboratory qualifiers as defined in the report package.

Reviewer's Signature Lori A. Beyer Date 11/19/12

Appendix A
Data Summary
Form I's
With Qualifications

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	09/19/12
Project:	KoptD 12-01	Date Received:	09/20/12
Client Sample ID:	VP-2	SDG No.:	D4283
Lab Sample ID:	D4283-01	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017969.D	1		09/20/12	VL092012

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	0.37	1.83		0.04	0.05	0.1	ppbv
75-65-0	tert-Butyl alcohol	0.1	0.3	U	0.1	0.1	0.1	ppbv
74-87-3	Chloromethane	0.26	0.54		0.06	0.05	0.1	ppbv
80-62-6	Methyl Methacrylate	0.1	0.41	U	0.1	0.1	0.1	ppbv
75-01-4	Vinyl Chloride	0.03	0.08	U	0.03	0.03	0.03	ppbv
74-83-9	Bromomethane	0.03	0.12	U	0.03	0.05	0.1	ppbv
75-00-3	Chloroethane	0.07	0.18	U	0.07	0.05	0.1	ppbv
75-69-4	Trichlorofluoromethane	0.2	1.12		0.04	0.05	0.1	ppbv
76-14-2	Dichlorotetrafluoroethane	0.04	0.28	U	0.04	0.05	0.1	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.06	0.46	J	0.04	0.05	0.1	ppbv
593-60-2	Bromoethene	0.03	0.13	U	0.03	0.05	0.1	ppbv
142-82-5	Heptane	0.4	1.64		0.06	0.05	0.1	ppbv
75-35-4	1,1-Dichloroethene	0.05	0.2	U	0.05	0.05	0.1	ppbv
67-64-1	Acetone	3.23	7.67		0.1	0.1	0.1	ppbv
75-15-0	Carbon Disulfide	0.05	0.16	U	0.05	0.05	0.1	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.05	0.18	U	0.05	0.05	0.1	ppbv
75-09-2	Methylene Chloride	0.34	1.18		0.05	0.05	0.1	ppbv
107-05-1	Allyl Chloride	0.05	0.16	U	0.05	0.05	0.1	ppbv
156-60-5	trans-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
75-34-3	1,1-Dichloroethane	0.04	0.16	U	0.04	0.05	0.1	ppbv
110-82-7	Cyclohexane	0.15	0.52		0.08	0.05	0.1	ppbv
78-93-3	2-Butanone	0.12	0.35		0.1	0.1	0.1	ppbv
56-23-5	Carbon Tetrachloride	0.06	0.38		0.03	0.03	0.03	ppbv
156-59-2	cis-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
67-66-3	Chloroform	0.02	0.1	U	0.02	0.05	0.1	ppbv
123-91-1	1,4-Dioxane	0.09	0.32	U	0.09	0.05	0.1	ppbv
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.03	0.03	0.03	ppbv
109-99-9	Tetrahydrofuran	0.08	0.24	U	0.08	0.05	0.1	ppbv
540-84-1	2,2,4-Trimethylpentane	0.04	0.19	U	0.04	0.05	0.1	ppbv
71-43-2	Benzene	0.04	0.13	U	0.04	0.05	0.1	ppbv
107-06-2	1,2-Dichloroethane	0.07	0.28	U	0.07	0.05	0.1	ppbv
79-01-6	Trichloroethene	0.03	0.16	U	0.03	0.03	0.03	ppbv
78-87-5	1,2-Dichloropropane	0.06	0.28	U	0.06	0.05	0.1	ppbv
75-27-4	Bromodichloromethane	0.05	0.33	U	0.05	0.05	0.1	ppbv
108-10-1	4-Methyl-2-Pentanone	0.06	0.25	U	0.06	0.05	0.1	ppbv
108-88-3	Toluene	7.09	26.7		0.05	0.05	0.1	ppbv
10061-02-6	t-1,3-Dichloropropene	0.07	0.32	U	0.07	0.05	0.1	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.06	0.27	U	0.06	0.05	0.1	ppbv

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	09/19/12
Project:	KoptD 12-01	Date Received:	09/20/12
Client Sample ID:	VP-2	SDG No.:	D4283
Lab Sample ID:	D4283-01	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017969.D	1		09/20/12	VL092012

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.08	0.44	U	0.08	0.05	0.1	ppbv
124-48-1	Dibromochloromethane	0.05	0.43	U	0.05	0.05	0.1	ppbv
106-93-4	1,2-Dibromoethane	0.07	0.54	U	0.07	0.05	0.1	ppbv
127-18-4	Tetrachloroethene	0.05	0.34		0.03	0.03	0.03	ppbv
108-90-7	Chlorobenzene	0.09	0.41	U	0.09	0.05	0.1	ppbv
100-41-4	Ethyl Benzene	0.41	1.78		0.08	0.05	0.1	ppbv
179601-23-1	m/p-Xylene	1.49	6.47		0.11	0.1	0.2	ppbv
95-47-6	o-Xylene	0.43	1.87		0.07	0.05	0.1	ppbv
100-42-5	Styrene	0.13	0.55		0.07	0.05	0.1	ppbv
75-25-2	Bromoform	0.05	0.52	U	0.05	0.05	0.1	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.1	0.69	U	0.1	0.1	0.1	ppbv
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.1	0.1	0.1	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.09	0.44	U	0.09	0.05	0.1	ppbv
95-63-6	1,2,4-Trimethylbenzene	0.1	0.49	U	0.1	0.1	0.1	ppbv
622-96-8	4-Ethyltoluene	0.08	0.39	U	0.08	0.05	0.1	ppbv
541-73-1	1,3-Dichlorobenzene	0.08	0.48	U	0.08	0.05	0.1	ppbv
106-46-7	1,4-Dichlorobenzene	0.06	0.36	U	0.06	0.05	0.1	ppbv
95-50-1	1,2-Dichlorobenzene	0.07	0.42	U	0.07	0.05	0.1	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.04	0.3	U	0.04	0.05	0.1	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.08	0.85	U	0.08	0.05	0.1	ppbv
106-99-0	1,3-Butadiene	0.09	0.2	U	0.09	0.05	0.1	ppbv
110-54-3	Hexane	0.2	0.7		0.04	0.05	0.1	ppbv
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	10.4			65 - 135		105%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	776131		6.35				
540-36-3	1,4-Difluorobenzene	2125650		7.91				
3114-55-4	Chlorobenzene-d5	1872400		12.89				

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
D = Dilution

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
Q = indicates LCS control criteria did not meet requirements

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	09/19/12
Project:	KoptD 12-01	Date Received:	09/20/12
Client Sample ID:	VP-2	SDG No.:	D4283
Lab Sample ID:	D4283-01	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017969.D	1		09/20/12	VL092012

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	09/19/12
Project:	KoptD 12-01	Date Received:	09/20/12
Client Sample ID:	VP-1	SDG No.:	D4283
Lab Sample ID:	D4283-02	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017971.D	1		09/20/12	VL092012

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	0.38	1.88		0.04	0.05	0.1	ppbv
75-65-0	tert-Butyl alcohol	0.1	0.3	U	0.1	0.1	0.1	ppbv
74-87-3	Chloromethane	0.34	0.7		0.06	0.05	0.1	ppbv
80-62-6	Methyl Methacrylate	0.1	0.41	U	0.1	0.1	0.1	ppbv
75-01-4	Vinyl Chloride	0.03	0.08	U	0.03	0.03	0.03	ppbv
74-83-9	Bromomethane	0.03	0.12	U	0.03	0.05	0.1	ppbv
75-00-3	Chloroethane	0.07	0.18	U	0.07	0.05	0.1	ppbv
75-69-4	Trichlorofluoromethane	0.2	1.12		0.04	0.05	0.1	ppbv
76-14-2	Dichlorotetrafluoroethane	0.04	0.28	U	0.04	0.05	0.1	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.06	0.46	J	0.04	0.05	0.1	ppbv
593-60-2	Bromoethene	0.03	0.13	U	0.03	0.05	0.1	ppbv
142-82-5	Heptane	0.54	2.21		0.06	0.05	0.1	ppbv
75-35-4	1,1-Dichloroethene	0.05	0.2	U	0.05	0.05	0.1	ppbv
67-64-1	Acetone	4.27	10.1		0.1	0.1	0.1	ppbv
75-15-0	Carbon Disulfide	0.05	0.16	U	0.05	0.05	0.1	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.05	0.18	U	0.05	0.05	0.1	ppbv
75-09-2	Methylene Chloride	0.86	2.99		0.05	0.05	0.1	ppbv
107-05-1	Allyl Chloride	0.05	0.16	U	0.05	0.05	0.1	ppbv
156-60-5	trans-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
75-34-3	1,1-Dichloroethane	0.04	0.16	U	0.04	0.05	0.1	ppbv
110-82-7	Cyclohexane	0.12	0.41		0.08	0.05	0.1	ppbv
78-93-3	2-Butanone	1.09	3.21		0.1	0.1	0.1	ppbv
56-23-5	Carbon Tetrachloride	0.06	0.38		0.03	0.03	0.03	ppbv
156-59-2	cis-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
67-66-3	Chloroform	0.02	0.1	U	0.02	0.05	0.1	ppbv
123-91-1	1,4-Dioxane	0.09	0.32	U	0.09	0.05	0.1	ppbv
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.03	0.03	0.03	ppbv
109-99-9	Tetrahydrofuran	0.22	0.65		0.08	0.05	0.1	ppbv
540-84-1	2,2,4-Trimethylpentane	0.04	0.19	U	0.04	0.05	0.1	ppbv
71-43-2	Benzene	0.15	0.48		0.04	0.05	0.1	ppbv
107-06-2	1,2-Dichloroethane	0.07	0.28	U	0.07	0.05	0.1	ppbv
79-01-6	Trichloroethene	0.03	0.16	U	0.03	0.03	0.03	ppbv
78-87-5	1,2-Dichloropropane	0.06	0.28	U	0.06	0.05	0.1	ppbv
75-27-4	Bromodichloromethane	0.05	0.33	U	0.05	0.05	0.1	ppbv
108-10-1	4-Methyl-2-Pentanone	0.06	0.25	U	0.06	0.05	0.1	ppbv
108-88-3	Toluene	8.91	33.6		0.05	0.05	0.1	ppbv
10061-02-6	t-1,3-Dichloropropene	0.07	0.32	U	0.07	0.05	0.1	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.06	0.27	U	0.06	0.05	0.1	ppbv

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	09/19/12
Project:	KoptD 12-01	Date Received:	09/20/12
Client Sample ID:	VP-1	SDG No.:	D4283
Lab Sample ID:	D4283-02	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017971.D	1		09/20/12	VL092012

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.08	0.44	U	0.08	0.05	0.1	ppbv
124-48-1	Dibromochloromethane	0.05	0.43	U	0.05	0.05	0.1	ppbv
106-93-4	1,2-Dibromoethane	0.07	0.54	U	0.07	0.05	0.1	ppbv
127-18-4	Tetrachloroethene	0.31	2.1		0.03	0.03	0.03	ppbv
108-90-7	Chlorobenzene	0.09	0.41	U	0.09	0.05	0.1	ppbv
100-41-4	Ethyl Benzene	0.57	2.48		0.08	0.05	0.1	ppbv
179601-23-1	m/p-Xylene	1.95	8.47		0.11	0.1	0.2	ppbv
95-47-6	o-Xylene	0.54	2.35		0.07	0.05	0.1	ppbv
100-42-5	Styrene	0.16	0.68		0.07	0.05	0.1	ppbv
75-25-2	Bromoform	0.05	0.52	U	0.05	0.05	0.1	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.1	0.69	U	0.1	0.1	0.1	ppbv
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.1	0.1	0.1	ppbv
108-67-8	1,3,5-Trimethylbenzene	0.09	0.44	U	0.09	0.05	0.1	ppbv
95-63-6	1,2,4-Trimethylbenzene	0.11	0.54		0.1	0.1	0.1	ppbv
622-96-8	4-Ethyltoluene	0.08	0.39	U	0.08	0.05	0.1	ppbv
541-73-1	1,3-Dichlorobenzene	0.08	0.48	U	0.08	0.05	0.1	ppbv
106-46-7	1,4-Dichlorobenzene	0.1	0.6	J	0.06	0.05	0.1	ppbv
95-50-1	1,2-Dichlorobenzene	0.07	0.42	U	0.07	0.05	0.1	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.04	0.3	U	0.04	0.05	0.1	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.08	0.85	U	0.08	0.05	0.1	ppbv
106-99-0	1,3-Butadiene	0.09	0.2	U	0.09	0.05	0.1	ppbv
110-54-3	Hexane	0.18	0.63		0.04	0.05	0.1	ppbv
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	10.5			65 - 135		105%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	769455		6.35				
540-36-3	1,4-Difluorobenzene	2121010		7.91				
3114-55-4	Chlorobenzene-d5	1874260		12.89				

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
D = Dilution

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
Q = indicates LCS control criteria did not meet requirements

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	09/19/12
Project:	KoptD 12-01	Date Received:	09/20/12
Client Sample ID:	VP-1	SDG No.:	D4283
Lab Sample ID:	D4283-02	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017971.D	1		09/20/12	VL092012

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units

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Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	09/19/12
Project:	KoptD 12-01	Date Received:	09/20/12
Client Sample ID:	VP-3	SDG No.:	D4283
Lab Sample ID:	D4283-03	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017973.D	1 & 1:10		09/21/12	VL092012

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	0.29	1.43		0.04	0.05	0.1	ppbv
75-65-0	tert-Butyl alcohol	1.18	3.58		0.1	0.1	0.1	ppbv
74-87-3	Chloromethane	0.06	0.12	U	0.06	0.05	0.1	ppbv
80-62-6	Methyl Methacrylate	0.1	0.41	U	0.1	0.1	0.1	ppbv
75-01-4	Vinyl Chloride	0.03	0.08	U	0.03	0.03	0.03	ppbv
74-83-9	Bromomethane	0.03	0.12	U	0.03	0.05	0.1	ppbv
75-00-3	Chloroethane	0.07	0.18	U	0.07	0.05	0.1	ppbv
75-69-4	Trichlorofluoromethane	0.27	1.52		0.04	0.05	0.1	ppbv
76-14-2	Dichlorotetrafluoroethane	0.04	0.28	U	0.04	0.05	0.1	ppbv
76-13-1	1,1,2-Trichlorotrifluoroethane	0.06	0.46	J	0.04	0.05	0.1	ppbv
593-60-2	Bromoethene	0.03	0.13	U	0.03	0.05	0.1	ppbv
142-82-5	Heptane	3.94	16.2		0.06	0.05	0.1	ppbv
75-35-4	1,1-Dichloroethene	0.05	0.2	U	0.05	0.05	0.1	ppbv
67-64-1	Acetone	8.97	21.3		0.1	0.1	0.1	ppbv
75-15-0	Carbon Disulfide	0.18	0.56		0.05	0.05	0.1	ppbv
1634-04-4	Methyl tert-Butyl Ether	0.05	0.18	U	0.05	0.05	0.1	ppbv
75-09-2	Methylene Chloride	1.4	4.86		0.05	0.05	0.1	ppbv
107-05-1	Allyl Chloride	0.05	0.16	U	0.05	0.05	0.1	ppbv
156-60-5	trans-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
75-34-3	1,1-Dichloroethane	0.04	0.16	U	0.04	0.05	0.1	ppbv
110-82-7	Cyclohexane	0.49	1.69		0.08	0.05	0.1	ppbv
78-93-3	2-Butanone	2.26	6.67		0.1	0.1	0.1	ppbv
56-23-5	Carbon Tetrachloride	0.04	0.25		0.03	0.03	0.03	ppbv
156-59-2	cis-1,2-Dichloroethene	0.06	0.24	U	0.06	0.05	0.1	ppbv
67-66-3	Chloroform	0.02	0.1	U	0.02	0.05	0.1	ppbv
123-91-1	1,4-Dioxane	0.09	0.32	U	0.09	0.05	0.1	ppbv
71-55-6	1,1,1-Trichloroethane	0.03	0.16	U	0.03	0.03	0.03	ppbv
109-99-9	Tetrahydrofuran	2.33	6.87		0.08	0.05	0.1	ppbv
540-84-1	2,2,4-Trimethylpentane	0.71	3.32		0.04	0.05	0.1	ppbv
71-43-2	Benzene	1.59	5.08		0.04	0.05	0.1	ppbv
107-06-2	1,2-Dichloroethane	0.07	0.28	U	0.07	0.05	0.1	ppbv
79-01-6	Trichloroethene	0.35	1.88		0.03	0.03	0.03	ppbv
78-87-5	1,2-Dichloropropane	0.06	0.28	U	0.06	0.05	0.1	ppbv
75-27-4	Bromodichloromethane	0.05	0.33	U	0.05	0.05	0.1	ppbv
108-10-1	4-Methyl-2-Pentanone	0.58	2.38		0.06	0.05	0.1	ppbv
108-88-3	Toluene 27.3	~~32.4~~	~~122~~ 102	~~E~~	0.05	0.05	0.1	ppbv
10061-02-6	t-1,3-Dichloropropene	0.07	0.32	U	0.07	0.05	0.1	ppbv
10061-01-5	cis-1,3-Dichloropropene	0.06	0.27	U	0.06	0.05	0.1	ppbv

10/16/12

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	09/19/12
Project:	KoptD 12-01	Date Received:	09/20/12
Client Sample ID:	VP-3	SDG No.:	D4283
Lab Sample ID:	D4283-03	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017973.D	1 @ 1:10		09/21/12	VL092012

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	0.08	0.44	U	0.08	0.05	0.1	ppbv
124-48-1	Dibromochloromethane	0.05	0.43	U	0.05	0.05	0.1	ppbv
106-93-4	1,2-Dibromoethane	0.07	0.54	U	0.07	0.05	0.1	ppbv
127-18-4	Tetrachloroethene	43.7 ~~59.9~~	~~406~~ 296	~~E~~	0.03	0.03	0.03	ppbv
108-90-7	Chlorobenzene	0.09	0.41	U	0.09	0.05	0.1	ppbv
100-41-4	Ethyl Benzene	4.48	19.5		0.08	0.05	0.1	ppbv
179601-23-1	m/p-Xylene	15	65.2		0.11	0.1	0.2	ppbv
95-47-6	o-Xylene	5.29	23.0		0.07	0.05	0.1	ppbv
100-42-5	Styrene	0.25	1.06		0.07	0.05	0.1	ppbv
75-25-2	Bromoform	0.05	0.52	U	0.05	0.05	0.1	ppbv
79-34-5	1,1,2,2-Tetrachloroethane	0.1	0.69	U	0.1	0.1	0.1	ppbv
95-49-8	2-Chlorotoluene	0.1	0.52	U	0.1	0.1	0.1	ppbv
108-67-8	1,3,5-Trimethylbenzene	3.02	14.8		0.09	0.05	0.1	ppbv
95-63-6	1,2,4-Trimethylbenzene	8.18	40.2		0.1	0.1	0.1	ppbv
622-96-8	4-Ethyltoluene	3.76	18.5		0.08	0.05	0.1	ppbv
541-73-1	1,3-Dichlorobenzene	0.08	0.48	U	0.08	0.05	0.1	ppbv
106-46-7	1,4-Dichlorobenzene	0.06	0.36	U	0.06	0.05	0.1	ppbv
95-50-1	1,2-Dichlorobenzene	0.07	0.42	U	0.07	0.05	0.1	ppbv
120-82-1	1,2,4-Trichlorobenzene	0.04	0.3	U	0.04	0.05	0.1	ppbv
87-68-3	Hexachloro-1,3-Butadiene	0.08	0.85	U	0.08	0.05	0.1	ppbv
106-99-0	1,3-Butadiene	0.09	0.2	U	0.09	0.05	0.1	ppbv
110-54-3	Hexane	1.57	5.53		0.04	0.05	0.1	ppbv
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	10.6			65 - 135		106%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	823706		6.35				
540-36-3	1,4-Difluorobenzene	2369770		7.92				
3114-55-4	Chlorobenzene-d5	2193030		12.9				

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
D = Dilution

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
Q = indicates LCS control criteria did not meet requirements

11/16/12

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	09/19/12
Project:	KoptD 12-01	Date Received:	09/20/12
Client Sample ID:	VP-3	SDG No.:	D4283
Lab Sample ID:	D4283-03	Matrix:	AIR
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL017973.D	1 4 1:10		09/21/12	VL092012

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units

Project Name: KOPTD 12-01

Sample ID		VP-2	VP-1	VP-3
Lab Sample Number		D4283-01	D4283-02	D4283-03
Sampling Date		9/19/2012	9/19/2012	9/19/2012
Matrix		AIR	AIR	AIR
Dilution Factor		1	1	1 and 10
Units		Ug/M3	Ug/M3	Ug/M3
COMPOUND	CAS #			
1,1,1-Trichloroethane	71-55-6	0.16 U	0.16 U	0.16 U
1,1,2,2-Tetrachloroethane	79-34-5	0.69 U	0.69 U	0.69 U
1,1,2-Trichloroethane	79-00-5	0.44 U	0.44 U	0.44 U
1,1,2-Trichlorotrifluoroethane	76-13-1	0.46 J	0.46 J	0.46 J
1,1-Dichloroethane	75-34-3	0.16 U	0.16 U	0.16 U
1,1-Dichloroethene	75-35-4	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	120-82-1	0.3 U	0.3 U	0.3 U
1,2,4-Trimethylbenzene	95-63-6	0.49 U	0.54	40.2
1,2-Dibromoethane	106-93-4	0.54 U	0.54 U	0.54 U
1,2-Dichlorobenzene	95-50-1	0.42 U	0.42 U	0.42 U
1,2-Dichloroethane	107-06-2	0.28 U	0.28 U	0.28 U
1,2-Dichloropropane	78-87-5	0.28 U	0.28 U	0.28 U
1,3,5-Trimethylbenzene	108-67-8	0.44 U	0.44 U	14.8
1,3-Butadiene	106-99-0	0.2 U	0.2 U	0.2 U
1,3-Dichlorobenzene	541-73-1	0.48 U	0.48 U	0.48 U
1,4-Dichlorobenzene	106-46-7	0.36 U	0.6 J	0.36 U
1,4-Dioxane	123-91-1	0.32 U	0.32 U	0.32 U
2,2,4-Trimethylpentane	540-84-1	0.19 U	0.19 U	3.32
2-Butanone	78-93-3	0.35	3.21	6.67
2-Chlorotoluene	95-49-8	0.52 U	0.52 U	0.52 U
4-Ethyltoluene	622-96-8	0.39 U	0.39 U	18.5
4-Methyl-2-Pentanone	108-10-1	0.25 U	0.25 U	2.38
Acetone	67-64-1	7.67	10.1	21.3
Allyl Chloride	107-05-1	0.16 U	0.16 U	0.16 U
Benzene	71-43-2	0.13 U	0.48	5.08
Bromodichloromethane	75-27-4	0.33 U	0.33 U	0.33 U
Bromoethene	593-60-2	0.13 U	0.13 U	0.13 U
Bromoform	75-25-2	0.52 U	0.52 U	0.52 U
Bromomethane	74-83-9	0.12 U	0.12 U	0.12 U
Carbon Disulfide	75-15-0	0.16 U	0.16 U	0.56
Carbon Tetrachloride	56-23-5	0.38	0.38	0.25
Chlorobenzene	108-90-7	0.41 U	0.41 U	0.41 U
Chloroethane	75-00-3	0.18 U	0.18 U	0.18 U
Chloroform	67-66-3	0.1 U	0.1 U	0.1 U

Chloromethane	74-87-3	0.54	0.7	0.12 U
cis-1,2-Dichloroethene	156-59-2	0.24 U	0.24 U	0.24 U
cis-1,3-Dichloropropene	10061-01-5	0.27 U	0.27 U	0.27 U
Cyclohexane	110-82-7	0.52	0.41	1.69
Dibromochloromethane	124-48-1	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	75-71-8	1.83	1.88	1.43
Dichlorotetrafluoroethane	76-14-2	0.28 U	0.28 U	0.28 U
Ethyl Benzene	100-41-4	1.78	2.48	19.5
Heptane	142-82-5	1.64	2.21	16.2
Hexachloro-1,3-Butadiene	87-68-3	0.85 U	0.85 U	0.85 U
Hexane	110-54-3	0.7	0.63	5.53
m/p-Xylene	179601-23-1	6.47	8.47	65.2
Methyl Methacrylate	80-62-6	0.41 U	0.41 U	0.41 U
Methyl tert-Butyl Ether	1634-04-4	0.18 U	0.18 U	0.18 U
Methylene Chloride	75-09-2	1.18	2.99	4.86
o-Xylene	95-47-6	1.87	2.35	23
Styrene	100-42-5	0.55	0.68	1.06
t-1,3-Dichloropropene	10061-02-6	0.32 U	0.32 U	0.32 U
tert-Butyl alcohol	75-65-0	0.3 U	0.3 U	3.58
Tetrachloroethene	127-18-4	0.34	2.1	296
Tetrahydrofuran	109-99-9	0.24 U	0.65	6.87
Toluene	108-88-3	26.7	33.6	102
trans-1,2-Dichloroethene	156-60-5	0.24 U	0.24 U	0.24 U
Trichloroethene	79-01-6	0.16 U	0.16 U	1.88
Trichlorofluoromethane	75-69-4	1.12	1.12	1.52
Vinyl Chloride	75-01-4	0.08 U	0.08 U	0.08 U

Appendix B
Chain of Custody

D4283

CHEMTECH

284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 8922

CHEMTECH Project No. :

6.1

Client Contact Information	Bottle Order ID : B1209037	Courier : fed ex	1 of 1 COCs
Client ID : JRHO01 Project ID : KoptD 12-01		Sampler Name(s): Kelly Sorrenty	Analysis / Matrix
Customer Name : J.R.Holzmacher P.E., LLC	Project Manager : Heather sonnenberg	AIR ANALYSIS CHAIN-OF-CUSTODY	
	Phone Number : 6312342220		
Address : 300 Wheeler Avenue	Fax Number : 6312342221		
Suite 402	Site Details: developed multi-family residential house		
City : Hauppauge			
State : NY	Analysis Turnaround Time Std		
Zip Code : 11788	Standard : 15 business days	Data Package Type :	
Country : US	Rush (Specify): N/A Days	EDD Type :	

Sample Identification	Sample Date(s)	Time Start (24 hr Clock)	Time Stop (24 hr Clock)	Can Vacuum in Field ("Hg) (Start)	Can Vacuum in Field ("Hg) (Stop)**	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Out going Can Pressure ("Hg)(Lab)	In coming Can Pressure ("Hg)(Lab)	Flow Reg. ID	Can ID	Can Size (L)	Flow Controller Readout (ml/min)	Can Cert ID	TO-15				Indoor/Ambinet Air	Soil Gas		
VP-2	9-18-12	10:05 AM	9/19/12 10:05 AM	30	1	75°	70°	-30		10685	10297	6 L	12.5	VL017715.D	✓				✓			

Temperature (Fahrenheit)	Ambient	Maximum	Minimum	
Start				
Stop				

Pressure (Inches of Hg)	Ambient	Maximum	Minimum	
Start				
Stop				

GC/MS Analyst Signature (TO-15)

** Submittal of this COC indicates approval of the analysis based on existing conditions.

Please follow the instructions on the back of this COC

Special Instructions/QC Requirements & Comments :

Suspected Contamination: High Medium (Low)

PID Readings: N/A

Sampling site (State):

Quick Connector required : N/O

Canisters Shiped by:	Date/Time: 9/12/12	Canisters Received by:	Date/Time:
Samples Relinquished by:	Date/Time: 9/19/12 2pm	Received by:	Date/Time:
Relinquished by: FEDEX	Date/Time: 9/20/12 925	Received by:	Date/Time:

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CHEMTECH

284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 8922

CHEMTECH Project No. : D4283

Client Contact Information	Bottle Order ID : B1209037	Courier : Fed ex	____ of ____ COCs
Client ID : JRHO01 Project ID : KoptD 12-01		Sampler Name(s) Heather Sonnenberg	Analysis / Matrix
Customer Name : J.R.Holzmacher P.E., LLC	Project Manager : Heather sonnenberg	AIR ANALYSIS CHAIN-OF-CUSTODY	
	Phone Number : 6312342220		
Address : 300 Wheeler Avenue	Fax Number : 6312342221		
Suite 402	Site Details: developed multi-family residential house		
City : Hauppauge			
State : NY	Analysis Turnaround Time Std		
Zip Code : 11788	Standard : 15 business days	Data Package Type :	
Country : US	Rush (Specify): N/A Days	EDD Type :	

Sample Identification	Sample Date(s)	Time Start (24 hr Clock)	Time Stop (24 hr Clock)	Can Vacuum in Field ("Hg) (Start)	Can Vacuum in Field ("Hg) (Stop)**	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Out going Can Pressure ("Hg)(Lab)	In coming Can Pressure ("Hg)(Lab)	Flow Reg. ID	Can ID	Can Size (L)	Flow Controller Readout (ml/min)	Can Cert ID	TO-15			Indoor/Ambinet Air	Soil Gas		
VP-1	9-18-12	10:35 AM	10:00 AM	30	0	75°	70°	-30		10559	10313	6 L	12.5	VL017715.D	✓			✓			

p/u 9-19-12

Temperature (Fahrenheit)	Ambient	Maximum	Minimum	
Start				
Stop				

Pressure (Inches of Hg)	Ambient	Maximum	Minimum	
Start				
Stop				

GC/MS Analyst Signature (TO-15)

** Submittal of this COC indicates approval of the analysis based on existing conditions.

Please follow the instructions on the back of this COC.

Special Instructions/QC Requirements & Comments :

Suspected Contamination: High Medium Low PID Readings: N/A

Sampling site (State):

Quick Connector required : NO

Canisters Shiped by:	Date/Time: 9/12/12	Canisters Received by:	Date/Time:
Samples Relinquished by:	Date/Time: 9/19/12 2pm	Received by:	Date/Time:
Relinquished by: FEDEX	Date/Time: 9/20/12 925	Received by: John Tonico	Date/Time:

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D4283

6

6.1

CHEMTECH

284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 8922

CHEMTECH Project No. :

Client Contact Information	Bottle Order ID : B1209037	Courier : fed ex	1 of 1 COCs
Client ID : JRHO01 Project ID : KoptD 12-01		Sampler Name(s) : Heather Sonnenberg	Analysis / Matrix
Customer Name : J.R.Holzmacher P.E., LLC	Project Manager : Heather sonnenberg	AIR ANALYSIS CHAIN-OF-CUSTODY	
	Phone Number : 6312342220		
Address : 300 Wheeler Avenue	Fax Number : 6312342221		
Suite 402	Site Details: developed multi family Residential House		
City : Hauppauge			
State : NY	Analysis Turnaround Time Std.		
Zip Code : 11788	Standard : 15 business days	Data Package Type :	
Country : US	Rush (Specify): _____ Days	EDD Type :	

Sample Identification	Sample Date(s)	Time Start (24 hr Clock)	Time Stop (24 hr Clock)	Can Vacuum in Field ("Hg) (Start)	Can Vacuum in Field ("Hg) (Stop)**	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Out going Can Pressure ("Hg)(Lab)	In coming Can Pressure ("Hg)(Lab)	Flow Reg. ID	Can ID	Can Size (L)	Flow Controller Readout (ml/min)	Can Cert ID	TO-15				Indoor/Ambinet Air	Soil Gas		
VP-3	9-18-12	10:35 AM	9/19/12 10 AM	30	1	75°	70°	-30		10775	10325	6 L	12.5	VL017713.D	✓					✓		

Temperature (Fahrenheit)

	Ambient	Maximum	Minimum	
Start				
Stop				

Pressure (Inches of Hg)

	Ambient	Maximum	Minimum	
Start				
Stop				

GC/MS Analyst Signature (TO-15) [signature]

** Submittal of this COC indicates approval of the analysis based on existing conditions.

Please follow the instructions on the back of this COC.

Special Instructions/QC Requirements & Comments :

Suspected Contamination: High Medium Low

PID Readings: N/A

Sampling site (State):

Quick Connector required : NP

Canisters Shiped by: [signature]	Date/Time: 9/12/12	Canisters Received by:	Date/Time:
Samples Relinquished by: [signature]	Date/Time: 9/19/12 2AM	Received by:	Date/Time:
Relinquished by: FEDEX	Date/Time: 9/20/12 9:25	Received by: John Tealgoes	Date/Time:

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DEP-077
Rev. 3/04

New Jersey Department of Environmental Protection

Internal Chain of Custody

Instructions: Use 1 form for each 20 samples of aliquot

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample

Laboratory: Chemtech
Location: 284 Sheffield Street, Mountainside,NJ 7092
Title: Sample Custodian
Field Sample Seal No.: D4283
Date Broken 9/20/2012
Military Time Seal Broken: 09:25:00
Case No.: KoptD 12-01
Analytical Parameter/Fraction: SUMMA Canister Rental

Sample No.	Aliquot/Extract No.	Sample No.	Aliquot/Extract No.
D4283-01	VP-2		
D4283-02	VP-1		
D4283-03	VP-3		

Date	Time	Relinquished By	Received By	Purpose of Change of Custody
9/20/12	12:20	Signature / Printed Name SUSHAL MEHTA	Signature / Printed Name	To UCC AIR Lab
		Signature / Printed Name	Signature / Printed Name	
		Signature / Printed Name	Signature / Printed Name	
		Signature / Printed Name	Signature / Printed Name	
		Signature / Printed Name	Signature / Printed Name	
		Signature / Printed Name	Signature / Printed Name	
		Signature / Printed Name	Signature / Printed Name	
		Signature / Printed Name	Signature / Printed Name	

Distribution: White - Original (Sent with Report) Yellow - Contractor Archive Pink - Sample Custodian - Interim Copy

Appendix C
SDG Narrative

CHEMTECH

CASE NARRATIVE

J.R.Holzmacher P.E., LLC
Project Name: KoptD 12-01
Project # N/A
Chemtech Project # D4283
Test Name: TO-15

A. Number of Samples and Date of Receipt:
3 Air samples were received on 09/20/2012.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: SUMMA Canister Rental and TO-15. This data package contains results for TO-15.

C. Analytical Techniques:
The analysis performed on instrument MSVOA_L were done using GC column RTX-1, which is 60 meters, 0.32 mm id, 1.0 um df, Restek Cat. #10157. The Trap was supplied by Entech, glass bead and Tenax , Entech 7100A Preconcentrator.The analysis of TO-15 was based on method TO-15.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The Blank Spike met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .
The Tuning criteria met requirements.
Sample VP-3 was diluted due to high concentration.

F. Manual Integration Comments:

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC010	VL017705.D	Chlorobenzene-d5	sam	8/27/2012 4:42:24 PM	apatel	8/28/2012 2:44:39 PM	Peak Integrated by Software incorrectly
VSTDICC010	VL017705.D	m/p-Xylene	sam	8/27/2012 4:42:24 PM	apatel	8/28/2012 2:44:39 PM	Peak Integrated by Software

							incorrectly
VSTDICC010	VL017705.D	Vinyl Acetate	sam	8/27/2012 4:42:24 PM	apatel	8/28/2012 2:44:39 PM	Peak Integrated by Software incorrectly
VSTDICC002	VL017706.D	Vinyl Acetate	sam	8/27/2012 4:42:32 PM	apatel	8/28/2012 2:44:44 PM	Peak Integrated by Software incorrectly
VSTDICC001	VL017707.D	Vinyl Acetate	sam	8/27/2012 4:42:36 PM	apatel	8/28/2012 2:44:49 PM	Peak Integrated by Software incorrectly
VSTDICC0.5	VL017708.D	Vinyl Acetate	sam	8/27/2012 4:42:53 PM	apatel	8/28/2012 2:44:54 PM	Peak Integrated by Software incorrectly
VSTDICC015	VL017709.D	Chlorobenzene-d5	sam	8/27/2012 4:42:43 PM	apatel	8/28/2012 2:45:05 PM	Peak Integrated by Software incorrectly
VSTDICC015	VL017709.D	Vinyl Acetate	sam	8/27/2012 4:42:43 PM	apatel	8/28/2012 2:45:05 PM	Peak Integrated by Software incorrectly
VSTDICV010	VL017710.D	Chlorobenzene-d5	dhruta	8/28/2012 7:52:46 AM	apatel	8/28/2012 2:47:52 PM	Peak Integrated by Software incorrectly
VSTDICV010	VL017710.D	Vinyl Acetate	dhruta	8/28/2012 7:52:46 AM	apatel	8/28/2012 2:47:52 PM	Peak Integrated by Software incorrectly
VL0827ABS	VL017712.D	Chlorobenzene-d5	dhruta	8/28/2012 7:52:48 AM	apatel	8/28/2012 2:48:03 PM	Peak Integrated by Software incorrectly
VL0827ABS	VL017712.D	m/p-Xylene	dhruta	8/28/2012 7:52:48 AM	apatel	8/28/2012 2:48:03 PM	Peak Integrated by Software incorrectly
VL0827ABS	VL017712.D	Naphthalene	dhruta	8/28/2012 7:52:48 AM	apatel	8/28/2012 2:48:03 PM	Peak Integrated by Software incorrectly
VL0827ABS	VL017712.D	Vinyl Acetate	dhruta	8/28/2012 7:52:48	apatel	8/28/2012 2:48:03 PM	Peak Integrated

				AM			by Software incorrectly
Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC010	VL017958.D	Chlorobenzene-d5	sam	9/20/2012 6:47:43 PM	prashant	9/20/2012 7:52:14 PM	Peak Integrated by Software incorrectly
VSTDCCC010	VL017958.D	Vinyl Acetate	sam	9/20/2012 6:47:43 PM	prashant	9/20/2012 7:52:14 PM	Peak Integrated by Software incorrectly
VL0920ABS	VL017960.D	Chlorobenzene-d5	sam	9/20/2012 6:47:32 PM	prashant	9/20/2012 7:52:19 PM	Peak Integrated by Software incorrectly
VL0920ABS	VL017960.D	Vinyl Acetate	sam	9/20/2012 6:47:32 PM	prashant	9/20/2012 7:52:19 PM	Peak Integrated by Software incorrectly
QC091812 CAN 10304	VL017961.D	1-Bromo-4-Fluorobenzene	manali	9/21/2012 1:55:31 AM	AHPatel	9/22/2012 12:06:12 AM	Peak Integrated by Software incorrectly
QC091812 CAN 10304	VL017961.D	Chlorobenzene-d5	manali	9/21/2012 1:55:31 AM	AHPatel	9/22/2012 12:06:12 AM	Peak Integrated by Software incorrectly
D4256-01	VL017962.D	2-Butanone	manali	9/21/2012 1:55:33 AM	AHPatel	9/22/2012 12:06:13 AM	Peak Integrated by Software incorrectly
D4256-01DL 5.6X	VL017963.D	2-Butanone	manali	9/21/2012 1:55:34 AM	AHPatel	9/22/2012 12:06:15 AM	Peak Integrated by Software incorrectly
D4283-01	VL017969.D	Chlorobenzene-d5	manali	9/21/2012 1:55:36 AM	AHPatel	9/22/2012 12:06:17 AM	Peak Integrated by Software incorrectly
D4283-02	VL017971.D	Propene	manali	9/21/2012 1:55:37 AM	AHPatel	9/22/2012 12:06:19 AM	Peak Integrated by Software incorrectly
D4283-02DL	VL017972.D	Propene	manali	9/21/2012 1:55:39	AHPatel	9/22/2012 12:06:21	Peak Integrated

CHEMTECH

				AM		AM	by Software incorrectly

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_ Kalpana Raythattha 2012.10.24 15:23:24 -05'00'

DATA USABILITY SUMMARY REPORT (DUSR)

ORGANIC ANALYSIS

EPA Compendium Method TO-15
VOLATILES BY GC/MS

For Air Samples Collected
September 26, 2013
For KOPTD 12-01
127-13 Merrick Boulevard, NY
By J.R. Holzmacher P.E., LLC.

SAMPLE DELIVERY GROUP NUMBER: E3917
Chemtech (ELAP #11376)

SUBMITTED TO:

Mr. Jim DeMartinis
J.R. Holzmacher P.E., LLC.
3555 Veterans Memorial Highway, Suite A
Ronkonkoma, NY 11779

May 05, 2014

PREPARED BY:

Lori A. Beyer/President
L.A.B. Validation Corp.
14 West Point Drive
East Northport, NY 11731

Lori A. Beyer

KOPTD 12-01; 127-13 Merrick Boulevard; September 2013.
Data Validation Report: Volatile Organics

Table of Contents:

Introduction
Data Qualifier Definitions
Sample Receipt

1.0 Volatile Organics by GC/MS EPA Compendium Method TO-15
- 1.1 Holding Time
- 1.2 Surrogate Standards
- 1.3 Matrix Spikes (MS), Matrix Spike Duplicates (MSD), Duplicate Analysis
- 1.4 Laboratory Control Sample
- 1.5 Blank Contamination
- 1.6 GC/MS Instrument Performance Check
- 1.7 Initial and Continuing Calibrations
- 1.8 Internal Standards
- 1.9 Target Compound List Identification
- 1.10 Tentatively Identified Compounds
- 1.11 Compound Quantification and Reported Detection Limits
- 1.12 Overall System Performance

APPENDICES:

A. Data Summary Form Is with Qualifications
B. Chain of Custody Document
C. SDG Narrative

Introduction:

A validation was performed on two (2) air samples for Volatile Organic analysis collected by J.R. Holzmacher P.E. and submitted to Chemtech for subsequent analysis under chain of custody documentation. This report contains the laboratory and validation results for the two (2) field samples itemized below. The samples were collected on September 26, 2013.

The samples were analyzed by Chemtech utilizing EPA Method TO-15 and in accordance with NYSDEC Analytical Services Protocol (2005) and submitted under NYSDEC ASP Category B equivalent deliverable requirements for the associated analytical methodology employed. The analytical testing consisted of the selected TO-15 Target Compound List (TCL) of analytes for Volatile Organics listed in Appendix A.

The data was evaluated in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (Publication 9240.1-05), EPA SOP #HW31 (Revision 4-Updated 2009) and in conjunction with the analytical methodology for which the samples were analyzed, where applicable and relevant.

The data validation report pertains to the following air samples:

Sample Identification	Laboratory Identification(s)	Sample Matrix	Collection Date
EF-1	E3917-01	Air	09/26/13
EF-2	E3917-02	Air	09/26/13

Data Qualifier Definitions:

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are rejected due to deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate quantity.

K - The analyte is present. The reported value may be biased high. The actual value is expected to be lower than reported.

L - The analyte is present. The reported value may be biased low. The actual value is expected to be higher than reported.

UL - The analyte was not detected and the reported quantitation limit is most likely higher than reported.

D - The analyte concentration was obtained from diluted analysis.

Sample Receipt:

The Chain of Custody documents from 09/26/13 indicates that two (2) air samples were delivered to Chemtech via Federal Express and received on 09/30/13 following completion of the sampling event. Sample login notes and the chain of custody indicate that at the Validated Time of Sample Receipt (VTSR) at the laboratory no discrepancies were notated and therefore the integrity of the summa canister samples is assumed to be good. Canister pressure was acceptable.

The data summary Form I's included in Appendix A includes all usable (qualified) and unusable (rejected) results for the samples identified above. All data validation qualifications have been reported on the Form I's for ease of review and verification.

NOTE:
L.A.B. Validation Corp. believes it is appropriate to note that the data validation criteria utilized for data evaluation is different than the method requirements utilized by the laboratory. Qualified data does not necessarily mean that the laboratory was non-compliant in the analysis that was performed.

Volatile Organics by EPA Compendium Method TO-15

The following method criteria were reviewed: holding times, surrogate standards, LCS, Blanks, Duplicates, MS/MSD, Tunes, Calibrations, Internal Standards, Target Component Identification and Quantitation, Reported Quantitation Limits and Overall System Performance. The volatile results were considered to be valid and useable as noted on the Form I's in Appendix A and within the following text:

1.1 Holding Time

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

Air samples pertaining to this SDG were performed within the method and technical required holding times of thirty (30) days from sample collection for analysis. No qualifications were required based upon holding time criteria.

Canister pressure gauge was within requirements of 30 psi prior to sampling.

1.2 Surrogate Standards

All samples are spiked with surrogate compounds prior to sample analysis to evaluate overall laboratory performance and efficiency of the analytical technique. If the measure of surrogate concentrations is outside contract specification, qualifications are required to be applied to associated samples and analytes.

Recoveries for 4-Bromofluorobenzene fell within in house established ranges of 65-135% for all analyses pertaining to this SDG.

1.3 Matrix Spikes (MS)/ Matrix Spike Duplicates (MSD)/Duplicate Analysis

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices.

Matrix Spike/Matrix Spike Duplicate analysis was not performed on samples pertaining to this SDG. The laboratory performed a blank spike/LCS and all recovery values were determined to be acceptable for all compounds with the exception of tert-Butyl Alcohol and 1,4-Dioxane which all recovered high (>130%). Also, Dichlorodifluoromethane recovered low (54%). Results have been qualified, "J/UJ."

Field Duplicate analysis was not collected for this SDG. The following criteria are utilized for Field Duplicate analysis when applicable:

Criteria	Detected Compounds	Non-Detected Compounds
The RPD is within the limits of 0 and 25%	No qualification	No qualification
The RPD >25%	J in the parent and duplicate samples	Not applicable
The RPD could not be calculated since the compound was only detected in either the parent of duplicate sample. However, the detected concentration was </=2x the reporting limit	No qualification	No qualification
The RPD could not be calculated since the compound was only detected in either the parent or duplicate sample However, the detected concentration was >2x the reporting limit.	J in the parent or duplicate sample	UJ in the parent of duplicate sample

1.4 Laboratory Control Sample

The LCS data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and on the laboratory performance.

Additional QC samples were not analyzed which is acceptable per the method since a blank spike/LCS was analyzed. Qualified data is discussed in Section 1.3 above.

1.5 Blank Contamination

Quality assurance (QA) blanks; i.e. method, trip and field blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field blanks measure cross-contamination of samples during field operations. Storage blanks measure cross-contamination during sample storage of the field samples. Canister blanks measure cross-contamination from the sampling media.

The following table was utilized to qualify target analyte results due to contamination. The largest value from all the associated blanks is required to be utilized:

For:	Flag Sample Result with a "U" when:	Report CRQL & Qualify "U" when:	No Qualification is Needed when:
Methylene Chloride, Acetone, Toluene & 2-Butanone	Sample Conc. Is >CRQL, but </=10x blank value	Sample Conc. is <CRQL and </=10x blank value	Sample Conc. is >CRQL and >10x blank value
Other Contaminants	Sample Conc. Is >CRQL, but </=5x blank value	Sample Conc. Is <CRQL and </=5x blank value	Sample Conc. is >CRQL and >5x blank value

Below is a summary of the compounds in the sample and the associated qualifications that have been applied:

A) **Method Blank Contamination:**

The Method blank was determined to contain acceptable levels of methylene chloride. Sample results were evaluated based on the above criteria and negated.

Canister cleaning documentation was acceptable.

B) **Field Blank Contamination:**

Field Blank analysis was not conducted for this SDG.

C) **Trip Blank Contamination:**

Trip Blank analysis was not submitted with this SDG.

D) **Storage Blank Contamination:**

Storage blanks were not submitted for this SDG. It should be noted that storage blanks are not mandated by EPA Method TO-15.

1.6 GC/MS Instrument Performance Check

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The Tuning standard for volatile organics is Bromofluorobenzene (BFB).

Instrument performance was generated within acceptable limits and frequency (24 hours) for Bromofluorobenzene (BFB) for all analyses conducted for this SDG.

1.7 Initial and Continuing Calibrations

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

A) Response Factor GC/MS:
The response factor measures the instrument's response to specific chemical compounds. The response factor for all compounds must be >/= 0.05 in both initial and continuing calibrations. A value <0.05 indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J". All non-detects for that compound in the corresponding samples will be rejected, "R".

The following compounds are allowed to be >0.01 without qualification:
2-Butanone
Carbon Disulfide
Chloroethane
Chloromethane
1,2-Dibromoethane
1,2-Dichloropropane
1,4-Dioxane
1,2-Dibromo-3-chloroproane
Methylene Chloride

All the response factors for the target analytes reported were found to be within acceptable limits (>/=0.05) [or >/=0.01 for the 9 compounds above], for the initial and continuing calibrations.

B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):
Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentrations. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Percent RSD must be <30% and %D must be <30%. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects are flagged "UJ". If %RSD and %D grossly exceed QC criteria (>90%), non-detect data may be qualified, "R", unusable. Additionally, in cases where the %RSD is >30% and eliminating either the high or the low point of the curve does not restore the %RSD to less than or equal to 30% then positive results are qualified, "J". In cases where removal of either the low or high point restores the linearity, then only low or high level results will be qualified, "J" in the portion of the curve where non linearity exists.

Initial Calibrations: The initial calibrations provided and the %RSD were within acceptable limits (30%) for all target compounds.

Continuing Calibrations: The continuing calibrations provided and the %D was within acceptable limits (30%) for all target compounds.

1.8 Internal Standards

Internal Standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than a factor of 2 (-40% to +40%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than +/- 20 seconds from the associated continuing calibration standard. If the area count is outside the (-40% to +40%) range of the associated standard, all of the positive results for compounds quantitated using that IS are qualified as estimated, "J", and all non-detects as "UJ", or "R" if there is a severe loss of sensitivity.

If an internal standard retention time varies by more than 20 seconds, professional judgment will be used to determine either partial or total rejection of the data for that sample fraction.

Internal Standard area responses met QC requirements for all analysis pertaining to this data set.

1.9 Target Compound List Identification

TCL compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within =/- 0.06RRT units of the standard compound and have an ion spectra which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound.

GC/MS spectra met the qualitative criteria for identification. All retention times were within required specifications.

1.10 Tentatively Identified Compounds (TICs)

TICs were reported in accordance with the project requirements. The identification must be considered tentative (both quantitative and qualitative) due to the lack of required compound specific response factors. Consequently all concentrations should be considered estimated, "J" and as a result of the qualitative uncertainty should be qualified, "N" where an identification has been made.

TICs were not submitted with this data set.

1.11 Compound Quantification and Reported Detection Limits

GC/MS quantitative analysis is considered to be acceptable. Correct internal standards and response factors and air volumes were used to calculate final concentrations.

Sample results have been presented in ug/m3 and ppbv by the laboratory on the Form I's.

EF-1 was reanalyzed at a 1:10 (Acetone) and 1:100 (Tetrachloroethene) dilutions in order to bring concentrations within the instruments linear calibration range. The reported concentration for these compounds have been qualified, "D" by the laboratory to notate the concentration was obtained from diluted analysis.

EF-1 was reanalyzed at 1:40 in order to bring Acetone and Tetrachloroethene within the calibration range. Results have been qualified, "D" as required by NYSDEC.

1.12 Overall System Performance

GC/MS analytical methodology was acceptable for this analysis except where explained in the laboratory SDG Narrative and the detailed validation report. The data reported agrees with the raw data provided in the final report. The laboratory provided a complete data package and reported all data using acceptable protocols and laboratory qualifiers as defined in the report package.

Reviewer's Signature Lori A. Beyer **Date** 05/05/14

Appendix A
Data Summary
Form I's
With Qualifications

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	09/26/13
Project:	KoptD 12-01	Date Received:	09/30/13
Client Sample ID:	EF-1	SDG No.:	E3917
Lab Sample ID:	E3917-01	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL021080.D	1, 10, 100		09/30/13	VL093013

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	0.28	1.38	~~JQ~~ J	0.2	0.49	2.47	ug/m3
74-87-3	Chloromethane	0.58	1.2		0.21	0.21	1.03	ug/m3
75-01-4	Vinyl Chloride	0.5	1.28	U	0.08	0.08	1.28	ug/m3
74-83-9	Bromomethane	0.5	1.94	U	0.12	0.39	1.94	ug/m3
75-00-3	Chloroethane	0.5	1.32	U	0.26	0.26	1.32	ug/m3
109-99-9	Tetrahydrofuran	0.18	0.53	J	0.29	0.29	1.47	ug/m3
75-69-4	Trichlorofluoromethane	0.56	3.15		0.22	0.56	2.81	ug/m3
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	3.83	U	0.31	0.77	3.83	ug/m3
76-14-2	Dichlorotetrafluoroethane	0.5	3.49	U	0.28	0.7	3.49	ug/m3
593-60-2	Bromoethene	0.5	2.19	U	0.13	0.44	2.19	ug/m3
75-65-0	tert-Butyl alcohol	1.9	5.76	~~Q~~ J	0.3	0.3	1.52	ug/m3
142-82-5	Heptane	1.6	6.56		0.41	0.41	2.05	ug/m3
75-35-4	1,1-Dichloroethene	0.5	1.98	U	0.2	0.4	1.98	ug/m3
67-64-1	Acetone	67.7 ~~65.8~~	160 ~~156~~	~~E~~ D	0.24	0.24	1.19	ug/m3
75-15-0	Carbon Disulfide	0.88	2.74		0.16	0.31	1.56	ug/m3
1634-04-4	Methyl tert-Butyl Ether	0.5	1.8	U	0.18	0.36	1.8	ug/m3
75-09-2	Methylene Chloride	5.1	17.7	~~B~~ U	0.17	0.35	1.74	ug/m3
156-60-5	trans-1,2-Dichloroethene	0.5	1.98	U	0.2	0.4	1.98	ug/m3
75-34-3	1,1-Dichloroethane	0.5	2.02	U	0.16	0.4	2.02	ug/m3
110-82-7	Cyclohexane	0.9	3.1		0.34	0.34	1.72	ug/m3
78-93-3	2-Butanone	3	8.85		0.29	0.29	1.47	ug/m3
56-23-5	Carbon Tetrachloride	0.07	0.44	J	0.19	0.19	3.15	ug/m3
156-59-2	cis-1,2-Dichloroethene	0.37	1.47	J	0.2	0.4	1.98	ug/m3
67-66-3	Chloroform	2.5	12.2		0.1	0.49	2.44	ug/m3
71-55-6	1,1,1-Trichloroethane	0.5	2.73	U	0.16	0.16	2.73	ug/m3
540-84-1	2,2,4-Trimethylpentane	0.45	2.1	J	0.19	0.47	2.34	ug/m3
71-43-2	Benzene	0.35	1.12	J	0.13	0.32	1.6	ug/m3
107-06-2	1,2-Dichloroethane	0.5	2.02	U	0.4	0.4	2.02	ug/m3
79-01-6	Trichloroethene	0.6	3.22		0.11	0.16	2.69	ug/m3
78-87-5	1,2-Dichloropropane	0.5	2.31	U	0.46	0.46	2.31	ug/m3
75-27-4	Bromodichloromethane	0.12	0.8	J	0.33	0.67	3.35	ug/m3
108-10-1	4-Methyl-2-Pentanone	0.39	1.6	J	0.2	0.41	2.05	ug/m3
108-88-3	Toluene	14.7	55.4		0.19	0.38	1.88	ug/m3
10061-02-6	t-1,3-Dichloropropene	0.5	2.27	U	0.45	0.45	2.27	ug/m3
10061-01-5	cis-1,3-Dichloropropene	0.5	2.27	U	0.45	0.45	2.27	ug/m3
79-00-5	1,1,2-Trichloroethane	0.5	2.73	U	0.55	0.55	2.73	ug/m3
124-48-1	Dibromochloromethane	0.5	4.26	U	0.43	0.85	4.26	ug/m3
106-93-4	1,2-Dibromoethane	0.5	3.84	U	0.77	0.77	3.84	ug/m3

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	09/26/13
Project:	KoptD 12-01	Date Received:	09/30/13
Client Sample ID:	EF-1	SDG No.:	E3917
Lab Sample ID:	E3917-01	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL021080.D	1 , 10, 100		09/30/13	VL093013

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
127-18-4	Tetrachloroethene	730 ~~350~~	4950 ~~2373~~	~~E~~ D	0.2	0.2	3.39	ug/m3
108-90-7	Chlorobenzene	0.5	2.3	U	0.46	0.46	2.3	ug/m3
100-41-4	Ethyl Benzene	0.46	2	J	0.43	0.43	2.17	ug/m3
179601-23-1	m/p-Xylene	1.2	5.21		0.43	0.87	4.34	ug/m3
95-47-6	o-Xylene	0.48	2.08	J	0.43	0.43	2.17	ug/m3
100-42-5	Styrene	0.56	2.38		0.43	0.43	2.13	ug/m3
75-25-2	Bromoform	0.5	5.17	U	0.52	1.03	5.17	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	0.5	3.43	U	0.69	0.69	3.43	ug/m3
95-49-8	2-Chlorotoluene	0.5	2.59	U	0.52	0.52	2.59	ug/m3
108-67-8	1,3,5-Trimethylbenzene	0.21	1.03	J	0.49	0.49	2.46	ug/m3
95-63-6	1,2,4-Trimethylbenzene	0.72	3.54		0.49	0.49	2.46	ug/m3
541-73-1	1,3-Dichlorobenzene	0.5	3.01	U	0.6	0.6	3.01	ug/m3
106-46-7	1,4-Dichlorobenzene	0.32	1.92	J	0.6	0.6	3.01	ug/m3
95-50-1	1,2-Dichlorobenzene	0.5	3.01	U	0.6	0.6	3.01	ug/m3
120-82-1	1,2,4-Trichlorobenzene	0.5	3.71	U	0.3	0.74	3.71	ug/m3
87-68-3	Hexachloro-1,3-Butadiene	0.5	5.33	U	1.07	1.07	5.33	ug/m3
106-99-0	1,3-Butadiene	0.5	1.11	U	0.22	0.22	1.11	ug/m3
91-20-3	Naphthalene	0.27	1.42	J	0.21	0.52	2.62	ug/m3
622-96-8	4-Ethyltoluene	0.5	2.46	U	0.49	0.49	2.46	ug/m3
110-54-3	Hexane	6.6	23.3		0.14	0.35	1.76	ug/m3
107-05-1	Allyl Chloride	0.5	1.57	U	0.16	0.31	1.57	ug/m3
123-91-1	1,4-Dioxane	0.5	1.8	~~UQ~~ UJ	0.36	0.36	1.8	ug/m3
80-62-6	Methyl Methacrylate	0.64	2.62		0.41	0.41	2.05	ug/m3
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	9.9			65 - 135		99%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	1057020		6.66				
540-36-3	1,4-Difluorobenzene	2903840		8.34				
3114-55-4	Chlorobenzene-d5	3027050		13.78				

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit

E = Value Exceeds Calibration Range

D = Dilution

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound

* = Values outside of QC limits

Q = indicates LCS control criteria did not meet requirements

JaR 5/14/14

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	09/26/13
Project:	KoptD 12-01	Date Received:	09/30/13
Client Sample ID:	EF-2	SDG No.:	E3917
Lab Sample ID:	E3917-02	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL021082.D	1 , 40		09/30/13	VL093013

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS								
75-71-8	Dichlorodifluoromethane	0.52	2.57	~~Q~~ J	0.2	0.49	2.47	ug/m3
74-87-3	Chloromethane	0.24	0.5	J	0.21	0.21	1.03	ug/m3
75-01-4	Vinyl Chloride	0.5	1.28	U	0.08	0.08	1.28	ug/m3
74-83-9	Bromomethane	0.5	1.94	U	0.12	0.39	1.94	ug/m3
75-00-3	Chloroethane	0.5	1.32	U	0.26	0.26	1.32	ug/m3
109-99-9	Tetrahydrofuran	0.15	0.44	J	0.29	0.29	1.47	ug/m3
75-69-4	Trichlorofluoromethane	0.27	1.52	J	0.22	0.56	2.81	ug/m3
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	3.83	U	0.31	0.77	3.83	ug/m3
76-14-2	Dichlorotetrafluoroethane	0.5	3.49	U	0.28	0.7	3.49	ug/m3
593-60-2	Bromoethene	0.5	2.19	U	0.13	0.44	2.19	ug/m3
75-65-0	tert-Butyl alcohol	0.32	0.97	~~JQ~~ J	0.3	0.3	1.52	ug/m3
142-82-5	Heptane	0.19	0.78	J	0.41	0.41	2.05	ug/m3
75-35-4	1,1-Dichloroethene	0.5	1.98	U	0.2	0.4	1.98	ug/m3
67-64-1	Acetone	29.4 ~~24.6~~	69.8 ~~58.4~~	~~E~~ D	0.24	0.24	1.19	ug/m3
75-15-0	Carbon Disulfide	0.5	1.56	U	0.16	0.31	1.56	ug/m3
1634-04-4	Methyl tert-Butyl Ether	0.5	1.8	U	0.18	0.36	1.8	ug/m3
75-09-2	Methylene Chloride	0.86	2.99	~~B~~ U	0.17	0.35	1.74	ug/m3
156-60-5	trans-1,2-Dichloroethene	0.5	1.98	U	0.2	0.4	1.98	ug/m3
75-34-3	1,1-Dichloroethane	0.5	2.02	U	0.16	0.4	2.02	ug/m3
110-82-7	Cyclohexane	0.12	0.41	J	0.34	0.34	1.72	ug/m3
78-93-3	2-Butanone	0.38	1.12	J	0.29	0.29	1.47	ug/m3
56-23-5	Carbon Tetrachloride	0.07	0.44	J	0.19	0.19	3.15	ug/m3
156-59-2	cis-1,2-Dichloroethene	0.9	3.57		0.2	0.4	1.98	ug/m3
67-66-3	Chloroform	1.5	7.33		0.1	0.49	2.44	ug/m3
71-55-6	1,1,1-Trichloroethane	0.5	2.73	U	0.16	0.16	2.73	ug/m3
540-84-1	2,2,4-Trimethylpentane	0.14	0.65	J	0.19	0.47	2.34	ug/m3
71-43-2	Benzene	0.15	0.48	J	0.13	0.32	1.6	ug/m3
107-06-2	1,2-Dichloroethane	0.5	2.02	U	0.4	0.4	2.02	ug/m3
79-01-6	Trichloroethene	2	10.8		0.11	0.16	2.69	ug/m3
78-87-5	1,2-Dichloropropane	0.5	2.31	U	0.46	0.46	2.31	ug/m3
75-27-4	Bromodichloromethane	0.5	3.35	U	0.33	0.67	3.35	ug/m3
108-10-1	4-Methyl-2-Pentanone	0.5	2.05	U	0.2	0.41	2.05	ug/m3
108-88-3	Toluene	2.1	7.91		0.19	0.38	1.88	ug/m3
10061-02-6	t-1,3-Dichloropropene	0.5	2.27	U	0.45	0.45	2.27	ug/m3
10061-01-5	cis-1,3-Dichloropropene	0.5	2.27	U	0.45	0.45	2.27	ug/m3
79-00-5	1,1,2-Trichloroethane	0.5	2.73	U	0.55	0.55	2.73	ug/m3
124-48-1	Dibromochloromethane	0.5	4.26	U	0.43	0.85	4.26	ug/m3
106-93-4	1,2-Dibromoethane	0.5	3.84	U	0.77	0.77	3.84	ug/m3

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	J.R.Holzmacher P.E., LLC	Date Collected:	09/26/13
Project:	KoptD 12-01	Date Received:	09/30/13
Client Sample ID:	EF-2	SDG No.:	E3917
Lab Sample ID:	E3917-02	Matrix:	Air
Analytical Method:	TO-15	Test:	TO-15
Sample Wt/Vol:	400 Units: mL		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL021082.D	1, 40		09/30/13	VL093013

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOD	LOQ / CRQL	Units
127-18-4	Tetrachloroethene	410 ~~230~~	2780 ~~1559~~	~~E~~ D	0.2	0.2	3.39	ug/m3
108-90-7	Chlorobenzene	0.5	2.3	U	0.46	0.46	2.3	ug/m3
100-41-4	Ethyl Benzene	0.5	2.17	U	0.43	0.43	2.17	ug/m3
179601-23-1	m/p-Xylene	0.24	1.04	J	0.43	0.87	4.34	ug/m3
95-47-6	o-Xylene	0.11	0.48	J	0.43	0.43	2.17	ug/m3
100-42-5	Styrene	0.14	0.6	J	0.43	0.43	2.13	ug/m3
75-25-2	Bromoform	0.5	5.17	U	0.52	1.03	5.17	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	0.5	3.43	U	0.69	0.69	3.43	ug/m3
95-49-8	2-Chlorotoluene	0.5	2.59	U	0.52	0.52	2.59	ug/m3
108-67-8	1,3,5-Trimethylbenzene	0.5	2.46	U	0.49	0.49	2.46	ug/m3
95-63-6	1,2,4-Trimethylbenzene	0.26	1.28	J	0.49	0.49	2.46	ug/m3
541-73-1	1,3-Dichlorobenzene	0.5	3.01	U	0.6	0.6	3.01	ug/m3
106-46-7	1,4-Dichlorobenzene	0.28	1.68	J	0.6	0.6	3.01	ug/m3
95-50-1	1,2-Dichlorobenzene	0.5	3.01	U	0.6	0.6	3.01	ug/m3
120-82-1	1,2,4-Trichlorobenzene	0.5	3.71	U	0.3	0.74	3.71	ug/m3
87-68-3	Hexachloro-1,3-Butadiene	0.5	5.33	U	1.07	1.07	5.33	ug/m3
106-99-0	1,3-Butadiene	0.5	1.11	U	0.22	0.22	1.11	ug/m3
91-20-3	Naphthalene	0.2	1.05	J	0.21	0.52	2.62	ug/m3
622-96-8	4-Ethyltoluene	0.5	2.46	U	0.49	0.49	2.46	ug/m3
110-54-3	Hexane	0.71	2.5		0.14	0.35	1.76	ug/m3
107-05-1	Allyl Chloride	0.5	1.57	U	0.16	0.31	1.57	ug/m3
123-91-1	1,4-Dioxane	0.5	1.8	~~UQ~~ UJ	0.36	0.36	1.8	ug/m3
80-62-6	Methyl Methacrylate	0.5	2.05	U	0.41	0.41	2.05	ug/m3
SURROGATES								
460-00-4	1-Bromo-4-Fluorobenzene	10.2			65 - 135		102%	SPK: 10
INTERNAL STANDARDS								
74-97-5	Bromochloromethane	1145620		6.66				
540-36-3	1,4-Difluorobenzene	2823740		8.34				
3114-55-4	Chlorobenzene-d5	2848930		13.77				

U = Not Detected
RL = Reporting Limit
MDL = Method Detection Limit
E = Value Exceeds Calibration Range
D = Dilution
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
Q = indicates LCS control criteria did not meet requirements

Appendix B
Chain of Custody

CHEMTECH

284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 89

CHEMTECH Project No. : E3917

Client Contact Information	Bottle Order ID : **B1309055**	Courier : FED EX	1 of 2 COCs
Client ID : **JRHO01** Project ID :	**KoptD 12-01**	Sampler Name(s) : Vic Hoffke	Analysis / Matrix
Customer Name : **J.R.Holzmacher P.E., LLC**	Project Manager **Jim demartinis**	AIR ANALYSIS CHAIN-OF-CUSTODY	
	Phone Number : **631-234-2220**		
Address : **555 Veterans Memorial Highway**	Fax Number : **6312342221**		
Suite A	Site Details: 127-13 Merrick Blvd	Batch Certified	
City : **Ronkonkoma**	Analysis Turnaround Time		
State : **NY**	Standard : **15 business days** OR	Data Package Type :	
Zip Code : **11779**	Rush (Specify): _____ **Days**	EDD Type :	
Country :			

Sample Identification	Sample Date(s)	Time Start (24 hr Clock)	Time Stop (24 hr Clock)	Can Vacuum in Field ("Hg) (Start)	Can Vacuum in Field ("Hg) (Stop)**	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Out going Can Pressure ("Hg)(Lab)	In coming Can Pressure ("Hg)(Lab)	Flow Reg. ID	Can ID	Can Size (L)	Flow Controller Readout	Can Cert ID	TO-15				Indoor/Ambinet Air	Soil Gas		
EF-1	9/26/13	1214	1344	29	4			-30	-3.5	10580 ~~10561~~	10156	6 L	200	VL020678.D	X							

Temperature (Fahrenheit)	Ambient	Maximum	Minimum	
Start				
Stop				

Pressure (Inches of Hg)	Ambient	Maximum	Minimum	
Start				
Stop				

GC/MS Analyst Signature (TO-15)

** Submittal of this COC indicates approval of the analysis based on existing conditio

Please follow the instructions on the back of this CO

Special Instructions/QC Requirements & Comments :

Suspected Contamination: High Medium Low PID Readings:

Sampling site (State):

Quick Connector required : NO

Canisters Shiped by:	Date/Time: 9/18/13	Canisters Received by:	Date/Time: 9/19/13
Samples Relinquished by:	Date/Time: 9/27/13	Received by:	Date/Time:
Relinquished by: FED EX	Date/Time: 9-30-13 930	Received by:	Date/Time: 9-30-13 930

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CHEMTECH

284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 89

CHEMTECH Project No. : E3917

Client Contact Information	Bottle Order ID : **B1309055**	Courier : FED EX	2 of 2 COCs
Client ID : **JRHO01** Project ID : **KoptD 12-01**		Sampler Name(s) : PHIL HOFFKEN	Analysis / Matrix
Customer Name : **J.R.Holzmacher P.E., LLC**	Project Manager **Jim demartinis**	AIR ANALYSIS CHAIN-OF-CUSTODY	
	Phone Number : **631-234-2220**		
Address : **555 Veterans Memorial Highway**	Fax Number : **6312342221**		
Suite A	Site Details: 127-13 MERRICK BLVD	Batch Certified	
City : **Ronkonkoma**			
State : **NY**	Analysis Turnaround Time		
Zip Code : **11779**	Standard : **15 business days** **OR**	Data Package Type :	
Country :	Rush (Specify): _____ **Days**	EDD Type :	

Sample Identification	Sample Date(s)	Time Start (24 hr Clock)	Time Stop (24 hr Clock)	Can Vacuum in Field ("Hg) (Start)	Can Vacuum in Field ("Hg) (Stop)**	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Out going Can Pressure ("Hg)(Lab)	In coming Can Pressure ("Hg)(Lab)	Flow Reg. ID	Can ID	Can Size (L)	Flow Controller Readout	Can Cert ID	TO-15				Indoor/Ambinet Air	Soil Gas		
EF-2	9/26/13	1317	1342	27	0			-30	-5.1	10533	10319	6 L	200	VL020693.D	X							

Temperature (Fahrenheit)	Ambient	Maximum	Minimum	
Start				
Stop				

Pressure (Inches of Hg)	Ambient	Maximum	Minimum	
Start				
Stop				

GC/MS Analyst Signature (TO-15)

** Submittal of this COC indicates approval of the analysis based on existing conditio

Please follow the instructions on the back of this CO

Special Instructions/QC Requirements & Comments :

Suspected Contamination: High Medium Low PID Readings:

Sampling site (State):

Quick Connector required : NO

Canisters Shiped by:	Date/Time: 9/18/13	Canisters Received by:	Date/Time: 9/24/13
Samples Relinquished by:	Date/Time: 9/27/13	~~Received by:~~	~~Date/Time:~~
Relinquished by: Fed Ex	Date/Time: 9-30-13 930	Received by:	~~Date/Time: 9-30-13 930~~

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Appendix C
SDG Narrative

CHEMTECH
284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CASE NARRATIVE

J.R.Holzmacher P.E., LLC
Project Name: KoptD 12-01
Project # N/A
Chemtech Project # E3917
Test Name: TO-15

A. Number of Samples and Date of Receipt:
2 Air samples were received on 09/30/2013.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: SUMMA Canister Rental and TO-15. This data package contains results for TO-15.

C. Analytical Techniques:
The analysis performed on instrument MSVOA_L were done using GC column RTX-1, which is 60 meters, 0.32 mm id, 1.0 um df, Restek Cat. #10157. The Trap was supplied by Entech, glass bead and Tenax , Entech 7100A Preconcentrator.The analysis of TO-15 was based on method TO-15.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The Blank Spike for {VL0930ABS} with File ID: VL021076.D met requirements for all samples except for 1,4-Dioxane[134%], Dichlorodifluoromethane[54%] and tert-Butyl Alcohol[144%] .
The Blank analysis indicated presence of Methylene Chloride[0.31 ppbv] FileID:VL021075.D{VL0930ABL} due to possible lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .
The Tuning criteria met requirements.
Samples EF-1, EF-1DL and EF-2 were diluted due to high concentrations.

E. Additional Comments:
F. Manual Integration Comments:

CHEMTECH
284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signatu Mildred V Reyes

APPROVED
By Mildred V Reyes at 10:51 am, Apr 30, 2014

DATA USABILITY SUMMARY REPORT (DUSR)

ORGANIC ANALYSIS

EPA Compendium Method TO-15
VOLATILES BY GC/MS

For Sub-Slab and Indoor/Hallway Air Samples Collected
December 10, 2014 through December 11, 2014
From Dickson Residence
127-13 Merrick, New York
By Seacliff Environmental

SAMPLE DELIVERY GROUP NUMBER: SEI001
Pace Analytical (ELAP #10478)

SUBMITTED TO:

Mr. Jim DeMartinis
PO Box 2085
Miller Place, NY 11764

February 04, 2015

PREPARED BY:

Lori A. Beyer/President
L.A.B. Validation Corp.
14 West Point Drive
East Northport, NY 11731

Lori A. Beyer

127-13 Merrick, New York; December 2014.
Data Validation Report: Volatile Organics

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Data Qualifier Definitions
Sample Receipt

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- 1.7 Initial and Continuing Calibrations
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A. Chain of Custody Document
B. Data Summary Form Is with Qualifications
C. Tentatively Identified Compounds (TICs)
D. Case Narrative
E. NYSDEC ASP Forms

Introduction:

A validation was performed on two (2) air samples identified as "VP-2 Indoor/Hallway" and "VP-3 Sub-Slab"" for Volatile Organic analysis collected by Seacliff Environmental and submitted to Pace Analytical for subsequent analysis under chain of custody documentation. The samples were collected on December 10, 2014 through December 11, 2014.

The samples were analyzed by Pace Analytical utilizing EPA Method TO-15 and in accordance with NYSDEC Analytical Services Protocol and submitted under NYSDEC ASP Category B equivalent deliverable requirements for the associated analytical methodology employed. The analytical testing consisted of the selected TO-15 Compound List listed in Appendix B.

The data was evaluated in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (Publication 9240.1-05), EPA SOP #HW31 (Revision 6) and in conjunction with the analytical methodology for which the samples were analyzed, where applicable and relevant.

Data Qualifier Definitions:

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ - The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.

N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate quantity.

J+ - The result is an estimated quantity, but the result may be biased high.

J- - The result is an estimated quantity, but the result may be biased low.

D - Analyte concentration is from diluted analysis.

Sample Receipt:

The Chain of Custody document from 12/11/14 indicates that the air samples were hand delivered to the laboratory following completion of the sampling event. Sample login notes and the chain of custody indicate that at the Validated Time of Sample Receipt (VTSR) at the laboratory no discrepancies were noted.

Summa Canisters were leak tested prior to collection of each sample. Initial pressure gauge is recorded on the chain of custody and is required to be approximately 30 psi with zero air. Acceptable canister pressure was observed for these samples.

No qualifications were applied based on sample receipt documentation.

The data summary Form I's included in Appendix B includes all usable (qualified) and unusable (rejected) results for the samples identified above. These Form I's and tables summarize the detailed narrative section of the report. All data validation qualifications have been reported on the Form I's for ease of review and verification.

NOTE:
L.A.B. Validation Corp. believes it is appropriate to note that the data validation criteria utilized for data evaluation is different than the method requirements utilized by the laboratory. Qualified data does not necessarily mean that the laboratory was non-compliant in the analysis that was performed.

Volatile Organics by EPA Compendium Method TO-15

The following method criteria were reviewed: holding times, surrogate standards, LCS, Blanks, Tunes, Calibrations, Internal Standards, Target Component Identification and Quantitation, Reported Quantitation Limits and Overall System Performance. The volatile results were considered to be valid and useable as noted on the data summary Form I's in Appendix B and within the following text:

1.1 Holding Time

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

The Air samples pertaining to this SDG were performed within the method and technical required holding times of thirty (30) days from sample collection for analysis. No qualifications were required based upon holding time criteria.

1.2 Surrogate Standards

All samples are spiked with surrogate compounds prior to sample analysis to evaluate overall laboratory performance and efficiency of the analytical technique. If the measure of surrogate concentrations is outside contract specification, qualifications are required to be applied to associated samples and analytes.

Samples were spiked with BFB. Acceptable recovery values were obtained.

1.3 Matrix Spikes (MS)/ Matrix Spike Duplicates (MSD)/Duplicate /Field Duplicate Analysis

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices.

Matrix Spike/Matrix Spike Duplicate analysis was not performed on the sample pertaining to this SDG.

Laboratory duplicate analysis was not submitted with this data package.

Field Duplicate analysis was not collected for this sampling event. When collected, acceptable precision for air samples is 25%. The following criteria are utilized for Field Duplicate analysis when performed:

Criteria	Detected Compounds	Non-Detected Compounds
The RPD is within the limits of 0 and 25%	No qualification	No qualification
The RPD >25%	J in the parent and duplicate samples	Not applicable
The RPD could not be calculated since the compound was only detected in either the parent of duplicate sample. However, the detected concentration was </=2x the reporting limit	No qualification	No qualification
The RPD could not be calculated since the compound was only detected in either the parent or duplicate sample However, the detected concentration was >2x the reporting limit.	J in the parent or duplicate sample	UJ in the parent of duplicate sample

No qualifications to the data were required based on MS/MSD/Laboratory Duplicate and Field Duplicate analysis.

1.4 Laboratory Control Sample

The LCS data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and on the laboratory performance.

Acceptable LCS was analyzed with all applicable spiked target compounds yielding recovery values between 70-130% for all compounds with the exception of Bromoform (69%) and Toluene (134%). Results for Bromoform have been qualified, "UJ" as required in both samples. Toluene detections must be considered estimated, "J+" biased high.

1.5 Blank Contamination

Quality assurance (QA) blanks; i.e. method, trip and field blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field blanks measure cross-contamination of samples during field operations. Storage blanks measure cross-contamination during sample storage of the field samples. Canister blanks measure cross-contamination from the sampling media.

The following table was utilized to qualify target analyte results due to contamination. The largest value from all the associated blanks is required to be utilized:

Blank Type	Blank Result	Sample Result	Action for Samples
Method, Storage, field, Trip, Instrument	Detects	Not Detected	No qualification required
	<CRQL*	<CRQL*	Report CRQL value with a U
		>/= CRQL* and ,2x the CRQL**	No qualification required
	>CRQL*	</= CRQL*	Report CRQL value with a U
		>/=CRQL* and </= blank concentration	Report blank value for sample concentration with a U
		>/= CRQL* and > blank concentration	No qualification required
	=CRQL*	</= CRQL*	Report CRQL value with a U
		>CRQL*	No qualification required
	Gross Contamination**	Detects	Report blank value for sample concentration with a U

*2x the CRQL for methylene chloride, 2-butanone and acetone.
**4x the CRQL for methylene chloride, 2-butanone, and acetone
***Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 ug/L.
Below is a summary of the compounds in the sample and the associated qualifications that have been applied:

A) **Method Blank Contamination:**

Method blanks were determined to be free of any contamination.

Canister cleaning documentation was not provided in the lab report.

B) **Field Blank Contamination:**

Field Blank analysis was not conducted for this SDG.

C) **Trip Blank Contamination:**

Trip Blank analysis was not conducted for this SDG.

D) **Storage Blank Contamination:**

Storage blanks were not submitted for this SDG. It should be noted that storage blanks are not mandated by EPA Method TO-15.

1.6 GC/MS Instrument Performance Check

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The Tuning standard for volatile organics is Bromofluorobenzene (BFB).

Instrument performance was generated within acceptable limits and frequency (24 hours) for Bromofluorobenzene (BFB) for all analyses conducted for this SDG.

1.7 Initial and Continuing Calibrations

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

A) Response Factor GC/MS:
The response factor measures the instrument's response to specific chemical compounds. The response factor for all compounds must be >/= 0.05 in both initial and continuing calibrations. A value <0.05 indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J". All non-detects for that compound in the corresponding samples will be rejected, "R".

The following compounds are allowed to be >0.01 without qualification:
2-Butanone
Carbon Disulfide
Chloroethane
Chloromethane
1,2-Dibromoethane
1,2-Dichloropropane
1,4-Dioxane
1,2-Dibromo-3-chloroproane
Methylene Chloride

All the response factors for the target analytes reported were found to be within acceptable limits (>/=0.05) [or >/=0.01 for the 9 compounds above] and remaining analytes, for the initial and continuing calibrations.

B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):
Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentrations. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Percent RSD must be <30% and %D must be <30%. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects are flagged "UJ". If %RSD and %D grossly exceed QC criteria (>90%), non-detect data may be qualified, "R", unusable. Additionally, in cases where the %RSD is >30% and eliminating either the high or the low point of the curve does not restore the %RSD to less than or equal to 20% then positive results are

qualified, "J". In cases where removal of either the low or high point restores the linearity, then only low or high level results will be qualified, "J" in the portion of the curve where non linearity exists. The poor responders are permitted to have a maximum RSD and %D of 40%.

Initial Calibrations: The initial calibrations provided and the %RSD was within acceptable limits (30%) for all requested target compounds with the exception of Methylene Chloride (40.4%) and 1,2,4-Trichlorobenzene (32.6%). Results have been qualified, "J/UJ."

Continuing Calibrations: The continuing calibrations provided and the %D was within acceptable limits (30%) for all reported target compounds. No qualifications are required.

1.8 Internal Standards

Internal Standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than a factor of 2 (-40% to +40%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than +/-20 seconds from the associated continuing calibration standard. If the area count is outside the (-40% to +40%) range of the associated standard, all of the positive results for compounds quantitated using that IS are qualified as estimated, "J", and all non-detects as "UJ", or "R" if there is a severe loss of sensitivity.

If an internal standard retention time varies by more than 20 seconds, professional judgment will be used to determine either partial or total rejection of the data for that sample fraction.

Internal Standard area responses met QC requirements for all analysis pertaining to this data set as compared to the continuing calibration.

1.9 Target Compound List Identification

TCL compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within =/- 0.06RRT units of the standard compound and have an ion spectra which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound.

GC/MS spectra met the qualitative criteria for identification. All retention times were within required specifications.

1.10 Tentatively Identified Compounds (TICs)

TICs were reported in accordance with the project requirements. The identification must be considered tentative (both quantitative and qualitative) due to the lack of required compound specific response factors. Consequently all concentrations should be considered estimated, "J" and as a result of the qualitative uncertainty should be qualified, "N" where an identification has been made.

TICs were submitted. Results are included in Appendix C. Low concentration Hydrocarbons (Alkanes) were detected in both samples.

VP-2 Indoor/Hallway – Total TIC = 8.9 ppbv
VP-3 Sub-Slab – Total TIC = 12.6 ppbv

1.11 Compound Quantification and Reported Detection Limits

GC/MS quantitative analysis is considered to be acceptable. Correct internal standards and response factors and air volumes were used to calculate final concentrations.

Sample results have been presented in ug/m3 as well as ppbv on the laboratory reporting forms.

Samples were analyzed undiluted at 400mls. Values less than the reporting limit have not been reported. This is consistent with NELAP requirements.

1.12 Overall System Performance

GC/MS analytical methodology was acceptable for this analysis. The data reported agrees with the raw data provided in the final report. The laboratory provided a complete data package and reported all data using acceptable protocols and laboratory qualifiers as defined in the report package.

Reviewer's Signature Lori A. Beyer **Date** 2/04/15

Appendix A
Chain of Custody Document

PACE ANALYTICAL

~~H2M LABS, INC.~~

575 Broad Hollow Rd., Melville, NY 11747
Tel: (631) 694-3040 Fax:(631) 420-8436

0830

SEI001

AIR CANISTER CHAIN OF CUSTODY

Client Contact Information	Project Manager: J. DeMartinis	CLIENT:	H2M SDG NO.:
Company: SEACLIFF ENVIRONMENTAL	Phone: 631 742-6948	Samplers Name(s)	
Address: P.O. Box 2085	Site Contact:	James M. DeMartinis	
City/State/Zip Miller Place 11764			
Phone: 631 828-5994			
FAX:			
Project Name: 127-13 Merrick	Analysis Turnaround Time		
Site: Dickson residence	Standard (Specify) ✓		
PO #	Rush (Specify)		

Sample Identification	Date Collected	Time Collected	Temp. (F)	Canister Pressure FIELD Initial("Hg) (Start)	FIELD ("Hg) / PSI (Stop)	LAB Outgoing ("Hg) (Lab)	LAB Incoming ("Hg) (Lab)	Flow Controller ID	Canister ID	Can Size (L)	LAB ID No.	Analysis: TO-15	OTHER			Matrix: Indoor / Ambient Air	Soil Gas	Source Level	
VP-2 Indoor/Hallway	12/10-12/11	4:13 4:17	68°			30"		1158	3401	6	1412A59-1	X				X			
VP-3 Sub-slab	12/10-12/11	4:16 4:20	70°			30"		2061	3413	6	↓-2	X					X		
NOT USED						30"		2132	3414	6									

	Pressure				Temperature (Fahrenheit)			
		Ambient	Maximum	Minimum		Ambient	Maximum	Minimum
	Start				Start			
	Stop				Stop			

Special Instructions/QC Requirements & Comments:

Samples Relinquished by:	Date/Time: 12/12/14 10:20	Received by:	Date/Time: 12/12/14 10:20
Relinquished by:	Date/Time:	Received by:	Date/Time:

WHITE COPY - ORIGINAL YELLOW COPY - CLIENT PINK COPY - LABORATORY

* Notify lab if equipment is damaged upon receipt. Client is responsible for damage to equipement

PACE ANALYTICAL
575 Broad Hollow Road
Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
Website: www.pacelabs.com

Sample Receipt Checklist

SEI001

Client Name SEI

Date and Time Received: 12/12/2014 10:20:00 AM

Work Order Number: 1412A59 RcptNo: 1

Received by Asha Williams

Completed by: M. Wart

Reviewed by: Jennifer Ca

Completed Date: 12/15/2014 1:04:12 PM

Reviewed Date: 12/21/2014 2:42:48 PM

Carrier name: Client

Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Are matrices correctly identified on Chain of custody?	Yes ☑	No ☐		
Is it clear what analyses were requested?	Yes ☑	No ☐		
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present	☑
Samples in proper container/bottle?	Yes ☑	No ☐		
Were correct preservatives used and noted?	Yes ☑	No ☐	NA	☐
Preservative added to bottles:				
Sample Condition?	Intact ☑	Broken ☐	Leaking	☐
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
Were container labels complete (ID, Pres, Date)?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Was an attempt made to cool the samples?	Yes ☐	No ☐	NA	☑
All samples received at a temp. of > 0° C to 6.0° C?	Yes ☐	No ☐	NA	☑
Response when temperature is outside of range:				
Sample Temp. taken and recorded upon receipt?	Yes ☐	No ☑	To	°
Water - Were bubbles absent in VOC vials?	Yes ☐	No ☐	No Vials	☑
Water - Was there Chlorine Present?	Yes ☐	No ☐	NA	☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	No Water	☑
Are Samples considered acceptable?	Yes ☑	No ☐		
Custody Seals present?	Yes ☐	No ☑		
Airbill or Sticker?	Air Bil ☐	Sticker ☐	Not Present	☑
Airbill No:				

Case Number: SDG: SEI001 SAS:

Any No response should be detailed in the comments section below, if applicable.

Client Contacted? ☐ Yes ☐ No ☑ NA Person Contacted:

Contact Mode: ☐ Phone: ☐ Fax: ☐ Email: ☐ In Person:

Client Instructions:

Date Contacted: Contacted By:

Regarding:

Comments:

CorrectiveAction:

Appendix B
Data Summary Form I's with Qualifications

Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Seacliff Environmental, Inc.
P.O. Box 2085
Miller Place, NY 11764
Attn To : Jim DeMartinis
Collected :12/11/2014 4:17:00 PM
Received :12/12/2014 10:20:00 AM
Collected By JD99

Lab No. : 1412A59-001
Client Sample ID: VP-2 INDOOR/HALLWAY

Sample Information:
Type : Air
Origin:

Method: ETO-15 :

Parameter(s)	Result	Units	Qualifier	D.F.	Result	Units	Date Analyzed
1,1,1-Trichloroethane	0.31	ppbv		1	1.69	µg/m³	12/20/2014 9:17 AM
1,1,2,2-Tetrachloroethane	< 0.20	ppbv		1	< 1.37	µg/m³	12/20/2014 9:17 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	< 0.20	ppbv		1	< 1.53	µg/m³	12/20/2014 9:17 AM
1,1,2-Trichloroethane	< 0.20	ppbv		1	< 1.09	µg/m³	12/20/2014 9:17 AM
1,1-Dichloroethane	< 0.20	ppbv		1	< 0.81	µg/m³	12/20/2014 9:17 AM
1,1-Dichloroethene	< 0.20	ppbv		1	< 0.79	µg/m³	12/20/2014 9:17 AM
1,2,4-Trichlorobenzene	< 0.20	ppbv	UJ	1	< 1.48	µg/m³	12/20/2014 9:17 AM
1,2,4-Trimethylbenzene	< 0.20	ppbv		1	< 0.98	µg/m³	12/20/2014 9:17 AM
1,2-Dibromoethane	< 0.20	ppbv		1	< 1.54	µg/m³	12/20/2014 9:17 AM
1,2-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	µg/m³	12/20/2014 9:17 AM
1,2-Dichloroethane	< 0.20	ppbv		1	< 0.81	µg/m³	12/20/2014 9:17 AM
1,2-Dichloroethene (cis)	< 0.20	ppbv		1	< 0.79	µg/m³	12/20/2014 9:17 AM
1,2-Dichloroethene (trans)	< 0.20	ppbv		1	< 0.79	µg/m³	12/20/2014 9:17 AM
1,2-Dichloropropane	< 0.20	ppbv		1	< 0.92	µg/m³	12/20/2014 9:17 AM
1,2-Dichlorotetrafluoroethane	< 0.20	ppbv		1	< 1.40	µg/m³	12/20/2014 9:17 AM
1,3,5-Trimethylbenzene	< 0.20	ppbv		1	< 0.98	µg/m³	12/20/2014 9:17 AM
1,3-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	µg/m³	12/20/2014 9:17 AM
1,3-Dichloropropene (cis)	< 0.20	ppbv		1	< 0.91	µg/m³	12/20/2014 9:17 AM
1,3-Dichloropropene (trans)	< 0.20	ppbv		1	< 0.91	µg/m³	12/20/2014 9:17 AM
1,3-Hexachlorobutadiene	< 0.20	ppbv		1	< 2.13	µg/m³	12/20/2014 9:17 AM
1,4-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	µg/m³	12/20/2014 9:17 AM
Acetone	1.06	ppbv		1	2.52	µg/m³	12/20/2014 9:17 AM
Benzene	0.29	ppbv		1	0.93	µg/m³	12/20/2014 9:17 AM
Bromodichloromethane	< 0.20	ppbv		1	< 1.34	µg/m³	12/20/2014 9:17 AM
Bromoform	< 0.20	ppbv	~~S~~ UJ	1	< 2.07	µg/m³	12/20/2014 9:17 AM
Bromomethane	< 0.20	ppbv		1	< 0.78	µg/m³	12/20/2014 9:17 AM
Carbon disulfide	< 0.20	ppbv		1	< 0.62	µg/m³	12/20/2014 9:17 AM
Carbon tetrachloride	< 0.20	ppbv		1	< 1.26	µg/m³	12/20/2014 9:17 AM
Chlorobenzene	< 0.20	ppbv		1	< 0.92	µg/m³	12/20/2014 9:17 AM
Chloroethane	< 0.20	ppbv		1	< 0.53	µg/m³	12/20/2014 9:17 AM
Chloroform	< 0.20	ppbv		1	< 0.98	µg/m³	12/20/2014 9:17 AM
Chloromethane	0.63	ppbv		1	1.30	µg/m³	12/20/2014 9:17 AM
Dibromochloromethane	< 0.20	ppbv		1	< 1.70	µg/m³	12/20/2014 9:17 AM
Dichlorodifluoromethane	0.50	ppbv		1	2.47	µg/m³	12/20/2014 9:17 AM
Ethylbenzene	< 0.20	ppbv		1	< 0.87	µg/m³	12/20/2014 9:17 AM

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
H = Received/analyzed outside of analytical holding time
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
c = Calibration acceptability criteria exceeded for this analyte
r = Reporting limit > MDL and < LOQ, Value estimated.
J = Estimated value - below calibration range
S = Recovery exceeded control limits for this analyte
N = Indicates presumptive evidence of compound

Client Services Manager

Test results meet the requirements of NELAC unless otherwise noted.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Date Reported : 1/21/2015

1/21/15

Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Seacliff Environmental, Inc.
P.O. Box 2085
Miller Place, NY 11764
Attn To : Jim DeMartinis
Collected : 12/11/2014 4:17:00 PM
Received : 12/12/2014 10:20:00 AM
Collected By JD99

Lab No. : 1412A59-001
Client Sample ID: VP-2 INDOOR/HALLWAY

Sample Information:
Type : Air
Origin:

Method: ETO-15 :

Parameter(s)	Result	Units	Qualifier	D.F.	Result	Units	Date Analyzed
Methyl butyl ketone	< 0.20	ppbv	+	1	< 0.82	µg/m³	12/20/2014 9:17 AM
Methyl ethyl ketone	< 0.20	ppbv		1	< 0.59	µg/m³	12/20/2014 9:17 AM
Methyl isobutyl ketone	< 0.20	ppbv		1	< 0.82	µg/m³	12/20/2014 9:17 AM
Methyl tert-butyl ether	< 0.20	ppbv		1	< 0.72	µg/m³	12/20/2014 9:17 AM
Methylene chloride	0.50	ppbv	J	1	1.94	µg/m³	12/20/2014 9:17 AM
Styrene	< 0.20	ppbv		1	< 0.85	µg/m³	12/20/2014 9:17 AM
Tetrachloroethene	4.41	ppbv		1	29.9	µg/m³	12/20/2014 9:17 AM
Toluene	0.70	ppbv	~~S~~ J+	1	2.64	µg/m³	12/20/2014 9:17 AM
Trichloroethene	0.23	ppbv		1	1.24	µg/m³	12/20/2014 9:17 AM
Trichlorofluoromethane	0.26	ppbv		1	1.46	µg/m³	12/20/2014 9:17 AM
Vinyl acetate	< 0.20	ppbv		1	< 0.70	µg/m³	12/20/2014 9:17 AM
Vinyl chloride	< 0.20	ppbv		1	< 0.51	µg/m³	12/20/2014 9:17 AM
Xylenes (m&p)	0.28	ppbv		1	1.22	µg/m³	12/20/2014 9:17 AM
Xylenes (o)	< 0.20	ppbv		1	< 0.87	µg/m³	12/20/2014 9:17 AM
Surr: 4-Bromofluorobenzene	102	%REC	Limit	70-130	No M.W. Data		12/20/2014 9:17 AM

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
H = Received/analyzed outside of analytical holding time
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
c = Calibration acceptability criteria exceeded for this analyte
r = Reporting limit > MDL and < LOQ, Value estimated.
J = Estimated value - below calibration range
S = Recovery exceeded control limits for this analyte
N = Indicates presumptive evidence of compound

Client Services Manager

Test results meet the requirements of NELAC unless otherwise noted.

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Date Reported : 1/21/2015

Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Seacliff Environmental, Inc.
P.O. Box 2085
Miller Place, NY 11764
Attn To : Jim DeMartinis
Collected : 12/11/2014 4:20:00 PM
Received : 12/12/2014 10:20:00 AM
Collected By JD99

Lab No. : 1412A59-002
Client Sample ID: VP-3 SUB-SLAB

Sample Information:
Type : Air
Origin:

Method: ETO-15 :

Parameter(s)	Result	Units	Qualifier	D.F.	Result	Units	Date Analyzed
1,1,1-Trichloroethane	< 0.20	ppbv		1	< 1.09	µg/m³	12/20/2014 9:58 AM
1,1,2,2-Tetrachloroethane	< 0.20	ppbv		1	< 1.37	µg/m³	12/20/2014 9:58 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	< 0.20	ppbv		1	< 1.53	µg/m³	12/20/2014 9:58 AM
1,1,2-Trichloroethane	< 0.20	ppbv		1	< 1.09	µg/m³	12/20/2014 9:58 AM
1,1-Dichloroethane	< 0.20	ppbv		1	< 0.81	µg/m³	12/20/2014 9:58 AM
1,1-Dichloroethene	< 0.20	ppbv		1	< 0.79	µg/m³	12/20/2014 9:58 AM
1,2,4-Trichlorobenzene	< 0.20	ppbv	UJ	1	< 1.48	µg/m³	12/20/2014 9:58 AM
1,2,4-Trimethylbenzene	0.36	ppbv		1	1.77	µg/m³	12/20/2014 9:58 AM
1,2-Dibromoethane	< 0.20	ppbv		1	< 1.54	µg/m³	12/20/2014 9:58 AM
1,2-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	µg/m³	12/20/2014 9:58 AM
1,2-Dichloroethane	< 0.20	ppbv		1	< 0.81	µg/m³	12/20/2014 9:58 AM
1,2-Dichloroethene (cis)	< 0.20	ppbv		1	< 0.79	µg/m³	12/20/2014 9:58 AM
1,2-Dichloroethene (trans)	< 0.20	ppbv		1	< 0.79	µg/m³	12/20/2014 9:58 AM
1,2-Dichloropropane	< 0.20	ppbv		1	< 0.92	µg/m³	12/20/2014 9:58 AM
1,2-Dichlorotetrafluoroethane	< 0.20	ppbv		1	< 1.40	µg/m³	12/20/2014 9:58 AM
1,3,5-Trimethylbenzene	< 0.20	ppbv		1	< 0.98	µg/m³	12/20/2014 9:58 AM
1,3-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	µg/m³	12/20/2014 9:58 AM
1,3-Dichloropropene (cis)	< 0.20	ppbv		1	< 0.91	µg/m³	12/20/2014 9:58 AM
1,3-Dichloropropene (trans)	< 0.20	ppbv		1	< 0.91	µg/m³	12/20/2014 9:58 AM
1,3-Hexachlorobutadiene	< 0.20	ppbv		1	< 2.13	µg/m³	12/20/2014 9:58 AM
1,4-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	µg/m³	12/20/2014 9:58 AM
Acetone	0.77	ppbv		1	1.83	µg/m³	12/20/2014 9:58 AM
Benzene	0.21	ppbv		1	0.67	µg/m³	12/20/2014 9:58 AM
Bromodichloromethane	< 0.20	ppbv		1	< 1.34	µg/m³	12/20/2014 9:58 AM
Bromoform	< 0.20	ppbv	~~S~~ UJ	1	< 2.07	µg/m³	12/20/2014 9:58 AM
Bromomethane	< 0.20	ppbv		1	< 0.78	µg/m³	12/20/2014 9:58 AM
Carbon disulfide	< 0.20	ppbv		1	< 0.62	µg/m³	12/20/2014 9:58 AM
Carbon tetrachloride	< 0.20	ppbv		1	< 1.26	µg/m³	12/20/2014 9:58 AM
Chlorobenzene	< 0.20	ppbv		1	< 0.92	µg/m³	12/20/2014 9:58 AM
Chloroethane	< 0.20	ppbv		1	< 0.53	µg/m³	12/20/2014 9:58 AM
Chloroform	1.47	ppbv		1	7.18	µg/m³	12/20/2014 9:58 AM
Chloromethane	0.58	ppbv		1	1.20	µg/m³	12/20/2014 9:58 AM
Dibromochloromethane	< 0.20	ppbv		1	< 1.70	µg/m³	12/20/2014 9:58 AM
Dichlorodifluoromethane	0.83	ppbv		1	4.10	µg/m³	12/20/2014 9:58 AM
Ethylbenzene	< 0.20	ppbv		1	< 0.87	µg/m³	12/20/2014 9:58 AM

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
H = Received/analyzed outside of analytical holding time
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
c = Calibration acceptability criteria exceeded for this analyte
r = Reporting limit > MDL and < LOQ, Value estimated.
J = Estimated value - below calibration range
S = Recovery exceeded control limits for this analyte
N = Indicates presumptive evidence of compound

Client Services Manager

Test results meet the requirements of NELAC unless otherwise noted.

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Date Reported : 1/21/2015

2/3/15

Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested

Seacliff Environmental, Inc.
P.O. Box 2085
Miller Place, NY 11764
Attn To : Jim DeMartinis
Collected :12/11/2014 4:20:00 PM
Received :12/12/2014 10:20:00 AM
Collected By JD99

Lab No. : 1412A59-002
Client Sample ID: VP-3 SUB-SLAB

Sample Information:
Type : Air
Origin:

Method: ETO-15 :

Parameter(s)	Result	Units	Qualifier	D.F.	Result	Units	Date Analyzed
Methyl butyl ketone	< 0.20	ppbv	+	1	< 0.82	µg/m³	12/20/2014 9:58 AM
Methyl ethyl ketone	< 0.20	ppbv		1	< 0.59	µg/m³	12/20/2014 9:58 AM
Methyl isobutyl ketone	< 0.20	ppbv		1	< 0.82	µg/m³	12/20/2014 9:58 AM
Methyl tert-butyl ether	0.47	ppbv		1	1.69	µg/m³	12/20/2014 9:58 AM
Methylene chloride	15.8	ppbv	J	1	61.2	µg/m³	12/20/2014 9:58 AM
Styrene	< 0.20	ppbv		1	< 0.85	µg/m³	12/20/2014 9:58 AM
Tetrachloroethene	0.65	ppbv		1	4.41	µg/m³	12/20/2014 9:58 AM
Toluene	0.46	ppbv	~~S~~ J +	1	1.73	µg/m³	12/20/2014 9:58 AM
Trichloroethene	< 0.20	ppbv		1	< 1.07	µg/m³	12/20/2014 9:58 AM
Trichlorofluoromethane	0.49	ppbv		1	2.75	µg/m³	12/20/2014 9:58 AM
Vinyl acetate	< 0.20	ppbv		1	< 0.70	µg/m³	12/20/2014 9:58 AM
Vinyl chloride	< 0.20	ppbv		1	< 0.51	µg/m³	12/20/2014 9:58 AM
Xylenes (m&p)	0.26	ppbv		1	1.13	µg/m³	12/20/2014 9:58 AM
Xylenes (o)	< 0.20	ppbv		1	< 0.87	µg/m³	12/20/2014 9:58 AM
Surr: 4-Bromofluorobenzene	99.6	%REC	Limit	70-130	No M.W. Data		12/20/2014 9:58 AM

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
H = Received/analyzed outside of analytical holding time
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method
c = Calibration acceptability criteria exceeded for this analyte
r = Reporting limit > MDL and < LOQ, Value estimated.
J = Estimated value - below calibration range
S = Recovery exceeded control limits for this analyte
N = Indicates presumptive evidence of compound

Client Services Manager

Test results meet the requirements of NELAC unless otherwise noted.

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Date Reported : 1/21/2015

Appendix C
Tentatively Identified Compounds (TICs)

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VP-2 INDOOR/HALLWAY

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: SEI SAS No.: _____ SDG No.: SEI001

Matrix: (soil/water) AIR Lab Sample ID: 1412A59-001A

Sample wt/vol: 400 (g/mL) ML Lab File ID: 4\I14048.D

Level: (low/med) LOW Date Received: 12/12/14

% Moisture: not dec. Date Analyzed: 12/20/14

GC Column: Rxi-1MS ID: .32 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

CONCENTRATION UNITS:

Number TICs found: 1 (µg/L or µg/Kg) ppbv

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.	(DEL) Alkane: Branched	3.66	2.2	J
2.	(DEL) Alkane: Straight-Chain	3.92	2.5	J
3. 000064-17-5	Ethanol (4.4)	4.43	4.2	JN

TOTAL = 8.9 ppbv

BB 2/3/15

FORM I VOA-TIC

OLM04.2

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VP-3 SUB-SLAB

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: SEI SAS No.: _____ SDG No.: SEI001

Matrix: (soil/water) AIR Lab Sample ID: 1412A59-002A

Sample wt/vol: 400 (g/mL) ML Lab File ID: 4\I14049.D

Level: (low/med) LOW Date Received: 12/12/14

% Moisture: not dec. Date Analyzed: 12/20/14

GC Column: Rxi-1MS ID: .32 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

CONCENTRATION UNITS:

Number TICs found: 0 (µg/L or µg/Kg) ppbv

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.	(DEL) Alkane: Branched	3.67	2.0	J
2.	(DEL) Alkane: Straight-Chain (3.92)	3.92	1.7	J
3.	(DEL) Alkane: Straight-Chain (7.97)	7.97	7.7	J
4.	(DEL) Alkane: Straight-Chain (18.13)	18.13	1.2	J

TOTAL TIC = 12.6 ppbv

2/3/15

Appendix D
Case Narrative

Pace Long Island

575 Broad Hollow Road
Melville, NY 11747

tel 631.694.3040
fax 631.420.8436

SDG NARRATIVE FOR VOLATILE ANALYSES
SAMPLES RECEIVED: 12/12/14
SDG#: SEI001

For Sample(s):

VP-2 INDOOR/HALLWAY
VP-3 SUB-SLAB

The above air sample(s) was/were analyzed for a specific list of volatile organic analytes and for tentatively identified compounds (TICs) according to the requirements of EPA method TO-15 and reported with the deliverables of ASP 2000, Category B.

All quality control and calibration requirements were met unless discussed below. The following should be noted:

No matrix spike / matrix spike duplicate (MS/MSD) was submitted. A lab-fortified blank (LFB) was analyzed. All percent recoveries were within QC limits except for a 69% recovery for bromoform and toluene at 134% in LFB121914. These analytes are flagged with an S qualifier.

The RSD in the initial calibration for methylene chloride exceeds 40% and positives are flagged "C" as estimated in the sample reports and with the qualifier "Z" in the LFB report.

TICs identified as alkanes are not counted as TICs, but are included in the TIC report on Form 1F.

TICs identified as siloxanes are suspected column/septa bleed and are flagged with an "X" qualifier.

Results for targeted analytes are reported in both ppbv and ug/m3 units, and TICs are reported as ppbv.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: January 21, 2014

****
* *
* *
****

Joann M. Slavin
General Manager

Appendix E
NYSDEC ASP Forms

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

SDG: SEI001

Analytical Requirements

Customer Sample Code	Laboratory Sample Code	AIR
VP-2 INDOOR/HALLWAY	1412A59-001	X
VP-3 SUB-SLAB	1412A59-002	X
NOT USED	1412A59-003	X

CLP/Non-CLP (Please indicate year of protocol)
TCL/TAL, HSL, Priority Pollutant,

ASP B. 2005

RC 1-21-15

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE (VOA)
ANALYSES

SDG: SEI001

Laboratory Samp ID	Client Sample ID	Matrix	Analytical Protocol	Date Collected	DateRecd at Lab	Date Extracted	Date Analyzed	Extraction Method	DF	Level	Aux Cleanup
1412A59-001A	VP-2 INDOOR/HALLWA	Air	ETO-15	11-Dec-14	12-Dec-14		20-Dec-14		1	LOW	
1412A59-002A	VP-3 SUB-SLAB	Air	ETO-15	11-Dec-14	12-Dec-14		20-Dec-14		1	LOW	

PREMIER ENVIRONMENTAL SERVICES, INC.

DATA USABILITY SUMMARY REPORT

127-13 MERRICK ROAD
JAMAICA, NEW YORK

ORGANIC ANALYSES
IN AQUEOUS SAMPLES

AMERICAN ANALYTICAL LABORATORIES, LLC.
FARMINGDALE, NY

REPORT NUMBER: 1507184

September, 2015

Prepared for
Seacliff Environmental
Miller Place, New York

Prepared by
Premier Environmental Services
2815 Covered Bridge Road
Merrick, New York 11566
(516)223-9761

DATA VALIDATION FOR:	**Volatile Organic Compounds (VOC's)**
SITE:	**127-13 Merrick Road Jamaica, NY**
LABORATORY REPORT NO:	**1507184**
CONTRACT LAB:	**American Analytical Laboratories Farmingdale, NY**
REVIEWER:	**Renee Cohen**
DATE REVIEW COMPLETED:	**September, 2015**
MATRIX:	**Aqueous**

The data validation was performed according to the guidelines in the USEPA National Functional Guidelines for Organic Data Review and the USEPA Region II SOPs where applicable. In addition, method and QC criteria specified in the NYSDEC ASP documents were cited. All data are considered valid and acceptable except those analytes which have been deemed unusable "R" (unreliable). Due to various QC problems some analytes may have been qualified with a "J" (estimated), "N" (presumptive evidence for the presence of the material, "U" (non-detect), or "JN" (presumptive evidence for the presence of the material at an estimated value) flag. All actions are detailed on the attached sheets.

Table 1 of this report includes a cross reference between the field sample ID and laboratory sample ID's. Copies of the data qualifiers that may be used in this report are located in Appendix A of this report. Qualified data result pages are located in Appendix B of this report. Copies of the Chain of Custody (COC) documents are located in Appendix C of this report.

This data assessment is for four (4) aqueous samples listed on the COC documents that accompanied the samples to the laboratory. The samples associated with this data set were collected July 24, 2015e 4, 2015 and received at the laboratory on July 24, 2015 for the analyses requested on the COC documentation. This samples were analyzed for Volatile Organic Analytes (VOA) per the COC documents that accompanied the samples to the laboratory.

ORGANIC DATA ASSESSMENT

1. OVERVIEW:

This data review report is for the samples analyzed for Volatile Organic Analytes (VOA's). Analysis was performed in accordance with USEPA SW846 methodologies. Data validation will utilize the validation guidelines listed above, however, QA/QC requirements of SW846 will supersede CLP requirements in terms of calibration and holding time where applicable. The samples associated with this data set were analyzed and reported for Volatile Organics via the SW846-Method 8260C. American Analytical Laboratories, Inc. generated a stand-alone report for each fraction in compliance with the NYS DEC ASP Category B deliverables. A summary of the applicable QC will be discussed at each section of the report.

2. HOLDING TIME:

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Aqueous samples are to be properly preserved and stored/refrigerated at 4 degrees C until analysis. The holding time criteria for volatile organic samples is that properly preserved samples are to be analyzed within ten (10) days of VTSR.

Volatile Organic Analyses – Four (4) aqueous samples were collected July 24, 2015 and delivered to the laboratory on July 24, 2015. These samples were analyzed July 28, 2015. These samples and associated QC analyses were analyzed within the method holding time.

3. SURROGATES:

Samples to be analyzed for Volatile Organic Analytes (VOA) are fortified with three (3) method recommended surrogate compounds. These include Dibromofluoromethane, Toluene d8 and 4-Bromofluorobenzene prior to analysis to evaluate the overall laboratory performance and the efficiency of the analytical technique. The laboratory reported in-house surrogate recovery QC limits for the Volatile Organic surrogates compounds. The field sample and QC sample surrogate percent recoveries were summarized in this data report.

Volatile Organic Analyses (EPA Method 8260C) – The percent recovery of each surrogate compound met in-house QC criteria in each of the field samples and QC samples associated with this data set.

4. MATRIX SPIKE/SPIKE DUPLICATE, MS/MSD:

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis.

Site-specific MS/MSD analysis was performed on sample MW-1 (1507184-001) for volatile organic analytes. The percent recovery of target analytes in the MS and MSD sample met QC criteria. The RPD of reported target analytes met QC criteria.

In addition a blank spike sample/reference sample/LCS was prepared and analyzed with this sample set. The percent recovery of target analytes met QC criteria in the LCS analysis.

ORGANIC DATA ASSESSMENT

5. BLANK CONTAMINATION:

Quality assurance (QA) blanks, such as the method, trip, field, or rinse blanks are prepared to identify any contamination that may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field and rinse blanks measure cross-contamination of samples during field operations. Samples were only qualified with those QC samples associated with the particular blank.

A) Method Blank contamination

Volatile Organic Analyses (EPA Method 8260) – One (1) method blank sample is associated with the samples in this data set. Methylene Chloride (6.9 ug/l) and Acetone (1.7 J ug/l) were detected in the method blank that reported these samples analyses. Acetone and Methylene Chloride were detected in the associated samples at concentrations that can be attributed to the method blank sample. Acetone and Methylene Chloride have been negated "U" qualified in each of the samples reported in this data set.

Qualified data result pages are located in Appendix B of this report.

B) Field or Equipment Rinse Blank (ERB) contamination

A Field Blank sample is not associated with this data set.

C) Trip Blank contamination

A Trip Blank samples is not associated with this data set.

ORGANIC DATA ASSESSMENT

6. GC/MS CALIBRATION:

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument is giving satisfactory daily performance. Region USEPA and Region II criteria is the sample for analytes in both GC/MS Volatile and GC/MS Semivolatile Organic analyses is the same, therefore, all text discussion is for VOA and SVOA samples analyses.

A) RESPONSE FACTOR

The response factor measures the instrument's response to specific chemical compounds. Region II data review requires that the response factor of all analytes be greater than or equal to 0.05 in both initial and continuing calibration analyses. A value less than 0.05 indicates a serious detection and quantitation problem (poor sensitivity). Region II data validation criteria states that if the minimum RRF criteria is not met in an initial calibration the positive results are qualified "J". Non-detect results in the initial calibration with a RRF <0.05 are qualified "R", unusable. If RRF criteria is not met in the continuing calibration curve analysis, affected positive analytes will be qualified "J" estimated. Those analytes not detected are not qualified. The SW-846 Methods cite specific analytes known as System Performance Check Compounds (SPCC). Minimum response criteria is set for these analytes. If the minimum criteria is not met, analyses must stop and the source of problems must be found and corrected. Data associated with this set has been reviewed for the criteria in the cited in the EPA Method and the Region II criteria.

Volatile Organic Analyses (EPA Method 8260) – One (1) initial calibration curve analysis is associated with these sample analyses. The laboratory performed an initial multilevel calibration on July 23, 2015 (Inst. 5977V1). The RRF of target compounds met QC criteria in this initial calibration curve analysis.

One (1) continuing calibration standard (7/28/2015, V14088.D) is associated with the calibration curve analyses. The RRF of all target compounds met QC criteria in the continuing calibration standard.

6. GC/MS CALIBRATION (cont'd):

B) PERCENT RELATIVE STANDARD DEVIATION (RSD) AND PERCENT DIFFERENCE (%D):

Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentration. Percent D compares the response factor of the compounds in the continuing calibration standard to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Region II data validation criteria states that the percent RSD of the initial calibration curve must be less than or equal to 20%. The %D must be <20% in the continuing calibration standard. The criteria has been applied to all target analytes. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects may be flagged "UJ", based on professional judgment. If %RSD and %D grossly exceed QC criteria (>90%), non-detects data may be qualified "R", unusable. Data associated with this set has been reviewed for the criteria in the cited in the USEPA Data Validation Guidelines and the USEPA Region II criteria.

Volatile Organic Analyses (EPA Method 8260) – One (1) initial calibration curve analysis is associated with these sample analyses. The laboratory performed an initial multilevel calibration on July 23, 2015 (Inst. 5977V1). The RSD (%) met QC criteria for each target analyte with the exception of 1,1,2,2-Tetrachloroethane (20.4%), 2-Butanone (49.8%), 1,4-Dichlorobenzene (20.1%) and 2-Chloroethylvinylether (20.7%) . These target analytes have been estimated "UJ" qualified in each of the samples reported in this data set.

One (1) continuing calibration standard analysis is associated with this data set. The % difference of the reported target compounds met QC criteria in the continuing calibration standard with the analysis with the exception of the following:

Date/File ID	Analyte	%Difference
7/28/15 014088.D	2-Butanone	51.8
	Acetone	57.8
	Bromomethane	20.8
	Ethanol	23.5
	Methylene Chloride	63.2
	Vinyl Acetate	25.5

These target analyte, if not previously qualified have been estimated "UJ" qualified in each of the samples reported in this data set.

Qualified data result pages are located in Appendix B of this report.

ORGANIC DATA ASSESSMENT

7. GC/MS INTERNAL STANDARDS PERFORMANCE:

Internal standard (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every run. The method recommends that the internal standard area count must not vary by more than a factor of 2 (-50%to +100%) from the associated continuing calibration standard. The method recommends that the retention time of the internal standard must not vary more than ±30 seconds from the associated continuing calibration standard. The EPA CLP validation guidelines state that if the area count is outside the (-50% to +100%) range of the associated standard, all of the positive results for compounds quantitated using that IS are qualified estimated, "J", and all non-detects below 50% are qualified "UJ", non-detects above 100% should not be qualified or "R" if there is a severe loss of sensitivity. The internal standard evaluation criteria is applied to all field and QC samples.

Volatile Organic Analyses (EPA Method 8260) - Samples were spiked with the method specific internal standards prior to analysis. The area counts and retention time of each internal standard met QC criteria in all field and QC samples.

8. GC/MS MASS SPECTROMETER TUNING:

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds, and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The tuning standard for volatile organics is Bromofluorobenzene (BFB). If the mass calibration is in error, or missing, all associated data will be classified as unusable, "R".

Volatile Organic Analyses (EPA Method 8260) - The tune criteria listed in the data report met or exceeded that required by the method. The tuning criteria associated with these sample analyses were met.

9. COMPOUND IDENTIFICATION:

Target compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within ± 0.06 RRT units of the standard compound, and have an ion spectra which has a ratio of the primary and secondary ion intensities with 20% of that in the standard compound. Target compounds are identified on the GC by using the analytes retention time. Concentration is quantitated from the initial calibration curve.

Volatile Organic Analyses – Four (4) monitoring well samples were analyzed for VOA target analytes reported. Each of the samples was analyzed and reported with a dilution factor of 1. Results reported between the laboratory detection limit and the laboratory quantitation limit (LOQ) have been reported and qualified "J" by the laboratory. The volatile organic data associated with this sample set is acceptable for use with the noted data qualifiers.

10. SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

Analytical QC criteria were met for these analyses with the exception of what was described in the above report. The data reported agrees with the raw data provided in the final report. The laboratory provided a complete data package and reported all data using acceptable protocols and laboratory qualifiers as defined in the report package.

All data provided for this data set is acceptable for use, with noted data qualifiers. The qualified data result pages are located in Appendix B of this report.

TABLE 1

American Analytical Laboratories, LLC. - Workorder Sample Summary

WO#: 1507184

Date Reported: 7/28/2015
Original

Client: Seacliff Environmental

Project: 127-13 Merrick Blvd, Jamaica, NY

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1507184-001A	MW-1		7/24/2015 11:58 AM	7/24/2015 1:15 PM	Liquid
1507184-002A	MW-2		7/24/2015 12:15 PM	7/24/2015 1:15 PM	Liquid
1507184-003A	MW-3		7/24/2015 11:35 AM	7/24/2015 1:15 PM	Liquid
1507184-004A	MW-4		7/24/2015 11:20 AM	7/24/2015 1:15 PM	Liquid

APPENDIX A

DATA QUALIFIER DEFINITIONS

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are unreliable/unusable. The presence or absence of the analyte cannot be verified.

K – The analyte is present. The reported value may be biased high. The actual value is expected to be lower than reported.

L - The analyte is present. The reported value may be biased low. The actual value is expected to be higher than reported.

UL – The analyte was not detected, and the reported quantitation limit is probably higher than reported.

APPENDIX B

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-1

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: SEACLIFF ENV SAS No.: SDG No.: 1507184

Matrix: Liquid Lab Sample ID: 1507184-001A

Sample wt/vol: 5mL Lab File ID: V14095.D

Level: (low/med) LOW Date Collected: 7/24/2015 11:58 AM

% Moisture: N/A Date Received: 7/24/2015 1:15 PM

Extract Volume: 5000(µl) Date Prepped: 7/27/2015 10:41 AM

Seq Number: 182773 Date Analyzed: 7/28/2015 2:59 AM

GC Column: SN 1232517 Dilution Factor: 1.00

Column ID: 0.18mm(mm) Batch ID/ Ext Mthd: 5755/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
71-55-6	1,1,1-Trichloroethane	0.50	U	0.50	0.50	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	UJ 0.50	0.50	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.50	2.0
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.50	2.0
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.50	2.0
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.50	2.0
87-61-6	1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0
95-93-2	1,2,4,5-Tetramethylbenzene	0.50	U	0.50	0.50	2.0
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0
95-63-6	1,2,4-Trimethylbenzene	0.50	U	0.50	0.50	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0
106-93-4	1,2-Dibromoethane	0.50	U	0.50	0.50	2.0
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0
107-06-2	1,2-Dichloroethane	0.50	U	0.50	0.50	2.0
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.50	2.0
108-67-8	1,3,5-Trimethylbenzene	0.50	U	0.50	0.50	2.0
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0
142-28-9	1,3-dichloropropane	0.50	U	0.50	0.50	2.0
106-46-7	1,4-Dichlorobenzene	0.50	UJ U	UJ 0.50	0.50	2.0
123-91-1	1,4-Dioxane	0.50	U	0.50	0.50	2.0
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.50	2.0
78-93-3	2-Butanone	1.0	UJ U	UJ 1.0	1.0	4.0
110-75-8	2-Chloroethyl vinyl ether	0.50	UJ U	UJ 0.50	0.50	2.0
95-49-8	2-Chlorotoluene	0.50	U	0.50	0.50	2.0
591-78-6	2-Hexanone	1.0	U	1.0	1.0	4.0
67-63-0	2-Propanol	0.50	U	0.50	0.50	2.0
106-43-4	4-Chlorotoluene	0.50	U	0.50	0.50	2.0
99-87-6	4-Isopropyltoluene	0.50	U	0.50	0.50	2.0
108-10-1	4-Methyl-2-pentanone	1.0	U	1.0	1.0	4.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-1

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: SEACLIFF ENV SAS No.: SDG No.: 1507184

Matrix: Liquid Lab Sample ID: 1507184-001A

Sample wt/vol: 5mL Lab File ID: V14095.D

Level: (low/med) LOW Date Collected: 7/24/2015 11:58 AM

% Moisture: N/A Date Received: 7/24/2015 1:15 PM

Extract Volume: 5000(µl) Date Prepped: 7/27/2015 10:41 AM

Seq Number: 182773 Date Analyzed: 7/28/2015 2:59 AM

GC Column: SN 1232517 Dilution Factor: 1.00

Column ID: 0.18mm(mm) Batch ID/ Ext Mthd: 5755/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
67-64-1	Acetone	1.8	~~BJ*~~ UJ	1.0	1.0	4.0
71-43-2	Benzene	0.50	U	0.50	0.50	2.0
108-86-1	Bromobenzene	0.50	U	0.50	0.50	2.0
74-97-5	Bromochloromethane	0.50	U	0.50	0.50	2.0
75-27-4	Bromodichloromethane	0.50	U	0.50	0.50	2.0
75-25-2	Bromoform	0.50	U	0.50	0.50	2.0
74-83-9	Bromomethane	1.0	U	UJ 1.0	1.0	4.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50	2.0
56-23-5	Carbon tetrachloride	0.50	U	0.50	0.50	2.0
108-90-7	Chlorobenzene	0.50	U	0.50	0.50	2.0
75-45-6	Chlorodifluoromethane	0.30	U	0.30	0.30	2.0
75-00-3	Chloroethane	0.50	U	0.50	0.50	2.0
67-66-3	Chloroform	0.50	U	0.50	0.50	2.0
74-87-3	Chloromethane	0.50	U	0.50	0.50	2.0
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
110-82-7	Cyclohexane	0.50	U	0.50	0.50	2.0
124-48-1	Dibromochloromethane	0.50	U	0.50	0.50	2.0
74-95-3	Dibromomethane	0.50	U	0.50	0.50	2.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0
108-20-3	Diisopropyl ether	0.50	U	0.50	0.50	2.0
64-17-5	Ethanol	2.5	U	UJ 2.5	2.5	10
100-41-4	Ethylbenzene	0.50	U	0.50	0.50	2.0
76-14-2	Freon-114	0.50	U	0.50	0.50	2.0
87-68-3	Hexachlorobutadiene	0.50	U	0.50	0.50	2.0
98-82-8	Isopropylbenzene	0.50	U	0.50	0.50	2.0
179601-23-1	m,p-Xylene	1.0	U	1.0	1.0	4.0
79-20-9	Methyl Acetate	0.50	U	0.50	0.50	2.0
1634-04-4	Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0
75-09-2	Methylene chloride	6.1	~~B*~~ UJ	0.50	0.50	2.0
104-51-8	n-Butylbenzene	0.50	U	0.50	0.50	2.0
103-65-1	n-Propylbenzene	0.50	U	0.50	0.50	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-1

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: SEACLIFF ENV SAS No.: SDG No.: 1507184

Matrix: Liquid Lab Sample ID: 1507184-001A

Sample wt/vol: 5mL Lab File ID: V14095.D

Level: (low/med) LOW Date Collected: 7/24/2015 11:58 AM

% Moisture: N/A Date Received: 7/24/2015 1:15 PM

Extract Volume: 5000(µl) Date Prepped: 7/27/2015 10:41 AM

Seq Number: 182773 Date Analyzed: 7/28/2015 2:59 AM

GC Column: SN 1232517 Dilution Factor: 1.00

Column ID: 0.18mm(mm) Batch ID/ Ext Mthd: 5755/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
91-20-3	Naphthalene	0.50	U	0.50	0.50	2.0
95-47-6	o-Xylene	0.50	U	0.50	0.50	2.0
105-05-5	p-Diethylbenzene	0.50	U	0.50	0.50	2.0
622-96-8	p-Ethyltoluene	0.50	U	0.50	0.50	2.0
135-98-8	sec-Butylbenzene	0.50	U	0.50	0.50	2.0
100-42-5	Styrene	0.50	U	0.50	0.50	2.0
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.50	U	0.50	0.50	2.0
127-18-4	Tetrachloroethene	0.64	J	0.50	0.50	2.0
108-88-3	Toluene	0.50	U	0.50	0.50	2.0
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
79-01-6	Trichloroethene	0.50	U	0.50	0.50	2.0
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.50	2.0
108-05-4	Vinyl acetate	0.50	U	UJ 0.50	0.50	2.0
75-01-4	Vinyl chloride	0.50	U	0.50	0.50	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-2

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: SEACLIFF ENV SAS No.: SDG No.: 1507184

Matrix: Liquid Lab Sample ID: 1507184-002A

Sample wt/vol: 5mL Lab File ID: V14096.D

Level: (low/med) LOW Date Collected: 7/24/2015 12:15 PM

% Moisture: N/A Date Received: 7/24/2015 1:15 PM

Extract Volume: 5000(µl) Date Prepped: 7/27/2015 10:41 AM

Seq Number: 182774 Date Analyzed: 7/28/2015 3:27 AM

GC Column: SN 1232517 Dilution Factor: 1.00

Column ID: 0.18mm(mm) Batch ID/ Ext Mthd: 5755/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
71-55-6	1,1,1-Trichloroethane	0.50	U	0.50	0.50	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	UJ 0.50	0.50	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.50	2.0
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.50	2.0
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.50	2.0
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.50	2.0
87-61-6	1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0
95-93-2	1,2,4,5-Tetramethylbenzene	0.50	U	0.50	0.50	2.0
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0
95-63-6	1,2,4-Trimethylbenzene	0.50	U	0.50	0.50	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0
106-93-4	1,2-Dibromoethane	0.50	U	0.50	0.50	2.0
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0
107-06-2	1,2-Dichloroethane	0.50	U	0.50	0.50	2.0
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.50	2.0
108-67-8	1,3,5-Trimethylbenzene	0.50	U	0.50	0.50	2.0
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0
142-28-9	1,3-dichloropropane	0.50	U	0.50	0.50	2.0
106-46-7	1,4-Dichlorobenzene	0.50	~~UJ~~ U	UJ 0.50	0.50	2.0
123-91-1	1,4-Dioxane	0.50	U	0.50	0.50	2.0
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.50	2.0
78-93-3	2-Butanone	1.0	U	UJ 1.0	1.0	4.0
110-75-8	2-Chloroethyl vinyl ether	0.50	U	UJ 0.50	0.50	2.0
95-49-8	2-Chlorotoluene	0.50	U	0.50	0.50	2.0
591-78-6	2-Hexanone	1.0	U	1.0	1.0	4.0
67-63-0	2-Propanol	0.50	U	0.50	0.50	2.0
106-43-4	4-Chlorotoluene	0.50	U	0.50	0.50	2.0
99-87-6	4-Isopropyltoluene	0.50	U	0.50	0.50	2.0
108-10-1	4-Methyl-2-pentanone	1.0	U	1.0	1.0	4.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-2

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: SEACLIFF ENV SAS No.: SDG No.: 1507184

Matrix: Liquid Lab Sample ID: 1507184-002A

Sample wt/vol: 5mL Lab File ID: V14096.D

Level: (low/med) LOW Date Collected: 7/24/2015 12:15 PM

% Moisture: N/A Date Received: 7/24/2015 1:15 PM

Extract Volume: 5000(µl) Date Prepped: 7/27/2015 10:41 AM

Seq Number: 182774 Date Analyzed: 7/28/2015 3:27 AM

GC Column: SN 1232517 Dilution Factor: 1.00

Column ID: 0.18mm(mm) Batch ID/ Ext Mthd: 5755/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
67-64-1	Acetone	1.3	~~BJ*~~	UJ 1.0	1.0	4.0
71-43-2	Benzene	0.50	U	0.50	0.50	2.0
108-86-1	Bromobenzene	0.50	U	0.50	0.50	2.0
74-97-5	Bromochloromethane	0.50	U	0.50	0.50	2.0
75-27-4	Bromodichloromethane	0.50	U	0.50	0.50	2.0
75-25-2	Bromoform	0.50	U	0.50	0.50	2.0
74-83-9	Bromomethane	1.0	U	UJ 1.0	1.0	4.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50	2.0
56-23-5	Carbon tetrachloride	0.50	U	0.50	0.50	2.0
108-90-7	Chlorobenzene	0.50	U	0.50	0.50	2.0
75-45-6	Chlorodifluoromethane	0.30	U	0.30	0.30	2.0
75-00-3	Chloroethane	0.50	U	0.50	0.50	2.0
67-66-3	Chloroform	0.50	U	0.50	0.50	2.0
74-87-3	Chloromethane	0.50	U	0.50	0.50	2.0
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
110-82-7	Cyclohexane	0.50	U	0.50	0.50	2.0
124-48-1	Dibromochloromethane	0.50	U	0.50	0.50	2.0
74-95-3	Dibromomethane	0.50	U	0.50	0.50	2.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0
108-20-3	Diisopropyl ether	0.50	U	0.50	0.50	2.0
64-17-5	Ethanol	2.5	U	UJ 2.5	2.5	10
100-41-4	Ethylbenzene	0.50	U	0.50	0.50	2.0
76-14-2	Freon-114	0.50	U	0.50	0.50	2.0
87-68-3	Hexachlorobutadiene	0.50	U	0.50	0.50	2.0
98-82-8	Isopropylbenzene	0.50	U	0.50	0.50	2.0
179601-23-1	m,p-Xylene	1.0	U	1.0	1.0	4.0
79-20-9	Methyl Acetate	0.50	U	0.50	0.50	2.0
1634-04-4	Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0
75-09-2	Methylene chloride	6.8	~~B*~~	UJ 0.50	0.50	2.0
104-51-8	n-Butylbenzene	0.50	U	0.50	0.50	2.0
103-65-1	n-Propylbenzene	0.50	U	0.50	0.50	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-2

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: SEACLIFF ENV SAS No.: SDG No.: 1507184

Matrix: Liquid Lab Sample ID: 1507184-002A

Sample wt/vol: 5mL Lab File ID: V14096.D

Level: (low/med) LOW Date Collected: 7/24/2015 12:15 PM

% Moisture: N/A Date Received: 7/24/2015 1:15 PM

Extract Volume: 5000(µl) Date Prepped: 7/27/2015 10:41 AM

Seq Number: 182774 Date Analyzed: 7/28/2015 3:27 AM

GC Column: SN 1232517 Dilution Factor: 1.00

Column ID: 0.18mm(mm) Batch ID/ Ext Mthd: 5755/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
91-20-3	Naphthalene	0.50	U	0.50	0.50	2.0
95-47-6	o-Xylene	0.50	U	0.50	0.50	2.0
105-05-5	p-Diethylbenzene	0.50	U	0.50	0.50	2.0
622-96-8	p-Ethyltoluene	0.50	U	0.50	0.50	2.0
135-98-8	sec-Butylbenzene	0.50	U	0.50	0.50	2.0
100-42-5	Styrene	0.50	U	0.50	0.50	2.0
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.50	U	0.50	0.50	2.0
127-18-4	Tetrachloroethene	0.50	U	0.50	0.50	2.0
108-88-3	Toluene	0.50	U	0.50	0.50	2.0
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
79-01-6	Trichloroethene	0.50	U	0.50	0.50	2.0
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.50	2.0
108-05-4	Vinyl acetate	0.50	U	UJ 0.50	0.50	2.0
75-01-4	Vinyl chloride	0.50	U	0.50	0.50	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-3

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: SEACLIFF ENV SAS No.: SDG No.: 1507184

Matrix: Liquid Lab Sample ID: 1507184-003A

Sample wt/vol: 5mL Lab File ID: V14097.D

Level: (low/med) LOW Date Collected: 7/24/2015 11:35 AM

% Moisture: N/A Date Received: 7/24/2015 1:15 PM

Extract Volume: 5000(µl) Date Prepped: 7/27/2015 10:41 AM

Seq Number: 182775 Date Analyzed: 7/28/2015 3:54 AM

GC Column: SN 1232517 Dilution Factor: 1.00

Column ID: 0.18mm(mm) Batch ID/ Ext Mthd: 5755/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
71-55-6	1,1,1-Trichloroethane	0.50	U	0.50	0.50	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	UJ 0.50	0.50	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.50	2.0
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.50	2.0
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.50	2.0
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.50	2.0
87-61-6	1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0
95-93-2	1,2,4,5-Tetramethylbenzene	0.50	U	0.50	0.50	2.0
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0
95-63-6	1,2,4-Trimethylbenzene	0.50	U	0.50	0.50	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0
106-93-4	1,2-Dibromoethane	0.50	U	0.50	0.50	2.0
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0
107-06-2	1,2-Dichloroethane	0.50	U	0.50	0.50	2.0
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.50	2.0
108-67-8	1,3,5-Trimethylbenzene	0.50	U	0.50	0.50	2.0
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0
142-28-9	1,3-dichloropropane	0.50	U	0.50	0.50	2.0
106-46-7	1,4-Dichlorobenzene	0.50	U	UJ 0.50	0.50	2.0
123-91-1	1,4-Dioxane	0.50	U	0.50	0.50	2.0
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.50	2.0
78-93-3	2-Butanone	1.0	U	UJ 1.0	1.0	4.0
110-75-8	2-Chloroethyl vinyl ether	0.50	U	UJ 0.50	0.50	2.0
95-49-8	2-Chlorotoluene	0.50	U	0.50	0.50	2.0
591-78-6	2-Hexanone	1.0	U	1.0	1.0	4.0
67-63-0	2-Propanol	0.50	U	0.50	0.50	2.0
106-43-4	4-Chlorotoluene	0.50	U	0.50	0.50	2.0
99-87-6	4-Isopropyltoluene	0.50	U	0.50	0.50	2.0
108-10-1	4-Methyl-2-pentanone	1.0	U	1.0	1.0	4.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-3

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: SEACLIFF ENV SAS No.: SDG No.: 1507184

Matrix: Liquid Lab Sample ID: 1507184-003A

Sample wt/vol: 5mL Lab File ID: V14097.D

Level: (low/med) LOW Date Collected: 7/24/2015 11:35 AM

% Moisture: N/A Date Received: 7/24/2015 1:15 PM

Extract Volume: 5000(µl) Date Prepped: 7/27/2015 10:41 AM

Seq Number: 182775 Date Analyzed: 7/28/2015 3:54 AM

GC Column: SN 1232517 Dilution Factor: 1.00

Column ID: 0.18mm(mm) Batch ID/ Ext Mthd: 5755/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
67-64-1	Acetone	1.9	~~BJ*~~	UJ 1.0	1.0	4.0
71-43-2	Benzene	0.50	U	0.50	0.50	2.0
108-86-1	Bromobenzene	0.50	U	0.50	0.50	2.0
74-97-5	Bromochloromethane	0.50	U	0.50	0.50	2.0
75-27-4	Bromodichloromethane	0.50	U	0.50	0.50	2.0
75-25-2	Bromoform	0.50	U	0.50	0.50	2.0
74-83-9	Bromomethane	1.0	U	UJ 1.0	1.0	4.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50	2.0
56-23-5	Carbon tetrachloride	0.50	U	0.50	0.50	2.0
108-90-7	Chlorobenzene	0.50	U	0.50	0.50	2.0
75-45-6	Chlorodifluoromethane	0.30	U	0.30	0.30	2.0
75-00-3	Chloroethane	0.50	U	0.50	0.50	2.0
67-66-3	Chloroform	0.50	U	0.50	0.50	2.0
74-87-3	Chloromethane	0.50	U	0.50	0.50	2.0
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
110-82-7	Cyclohexane	0.50	U	0.50	0.50	2.0
124-48-1	Dibromochloromethane	0.50	U	0.50	0.50	2.0
74-95-3	Dibromomethane	0.50	U	0.50	0.50	2.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0
108-20-3	Diisopropyl ether	0.50	U	0.50	0.50	2.0
64-17-5	Ethanol	2.5	U	UJ 2.5	2.5	10
100-41-4	Ethylbenzene	0.50	U	0.50	0.50	2.0
76-14-2	Freon-114	0.50	U	0.50	0.50	2.0
87-68-3	Hexachlorobutadiene	0.50	U	0.50	0.50	2.0
98-82-8	Isopropylbenzene	0.50	U	0.50	0.50	2.0
179601-23-1	m,p-Xylene	1.0	U	1.0	1.0	4.0
79-20-9	Methyl Acetate	0.50	U	0.50	0.50	2.0
1634-04-4	Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0
75-09-2	Methylene chloride	7.0	~~B*~~	UJ 0.50	0.50	2.0
104-51-8	n-Butylbenzene	0.50	U	0.50	0.50	2.0
103-65-1	n-Propylbenzene	0.50	U	0.50	0.50	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-3

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: SEACLIFF ENV SAS No.: SDG No.: 1507184

Matrix: Liquid Lab Sample ID: 1507184-003A

Sample wt/vol: 5mL Lab File ID: V14097.D

Level: (low/med) LOW Date Collected: 7/24/2015 11:35 AM

% Moisture: N/A Date Received: 7/24/2015 1:15 PM

Extract Volume: 5000(µl) Date Prepped: 7/27/2015 10:41 AM

Seq Number: 182775 Date Analyzed: 7/28/2015 3:54 AM

GC Column: SN 1232517 Dilution Factor: 1.00

Column ID: 0.18mm(mm) Batch ID/ Ext Mthd: 5755/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
91-20-3	Naphthalene	0.50	U	0.50	0.50	2.0
95-47-6	o-Xylene	0.50	U	0.50	0.50	2.0
105-05-5	p-Diethylbenzene	0.50	U	0.50	0.50	2.0
622-96-8	p-Ethyltoluene	0.50	U	0.50	0.50	2.0
135-98-8	sec-Butylbenzene	0.50	U	0.50	0.50	2.0
100-42-5	Styrene	0.50	U	0.50	0.50	2.0
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.50	U	0.50	0.50	2.0
127-18-4	Tetrachloroethene	0.50	U	0.50	0.50	2.0
108-88-3	Toluene	0.50	U	0.50	0.50	2.0
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
79-01-6	Trichloroethene	0.50	U	0.50	0.50	2.0
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.50	2.0
108-05-4	Vinyl acetate	0.50	U	UJ 0.50	0.50	2.0
75-01-4	Vinyl chloride	0.50	U	0.50	0.50	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-4

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: SEACLIFF ENV SAS No.: SDG No.: 1507184

Matrix: Liquid Lab Sample ID: 1507184-004A

Sample wt/vol: 5mL Lab File ID: V14098.D

Level: (low/med) LOW Date Collected: 7/24/2015 11:20 AM

% Moisture: N/A Date Received: 7/24/2015 1:15 PM

Extract Volume: 5000(µl) Date Prepped: 7/27/2015 10:41 AM

Seq Number: 182776 Date Analyzed: 7/28/2015 4:22 AM

GC Column: SN 1232517 Dilution Factor: 1.00

Column ID: 0.18mm(mm) Batch ID/ Ext Mthd: 5755/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0
71-55-6	1,1,1-Trichloroethane	0.50	U	0.50	0.50	2.0
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	UJ 0.50	0.50	2.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.50	2.0
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.50	2.0
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.50	2.0
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.50	2.0
87-61-6	1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0
95-93-2	1,2,4,5-Tetramethylbenzene	0.50	U	0.50	0.50	2.0
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0
95-63-6	1,2,4-Trimethylbenzene	0.50	U	0.50	0.50	2.0
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0
106-93-4	1,2-Dibromoethane	0.50	U	0.50	0.50	2.0
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0
107-06-2	1,2-Dichloroethane	0.50	U	0.50	0.50	2.0
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.50	2.0
108-67-8	1,3,5-Trimethylbenzene	0.50	U	0.50	0.50	2.0
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0
142-28-9	1,3-dichloropropane	0.50	U	0.50	0.50	2.0
106-46-7	1,4-Dichlorobenzene	0.50	U	UJ 0.50	0.50	2.0
123-91-1	1,4-Dioxane	0.50	U	0.50	0.50	2.0
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.50	2.0
78-93-3	2-Butanone	1.0	U	UJ 1.0	1.0	4.0
110-75-8	2-Chloroethyl vinyl ether	0.50	U	UJ 0.50	0.50	2.0
95-49-8	2-Chlorotoluene	0.50	U	0.50	0.50	2.0
591-78-6	2-Hexanone	1.0	U	1.0	1.0	4.0
67-63-0	2-Propanol	0.50	U	0.50	0.50	2.0
106-43-4	4-Chlorotoluene	0.50	U	0.50	0.50	2.0
99-87-6	4-Isopropyltoluene	0.50	U	0.50	0.50	2.0
108-10-1	4-Methyl-2-pentanone	1.0	U	1.0	1.0	4.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-4

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: SEACLIFF ENV SAS No.: SDG No.: 1507184

Matrix: Liquid Lab Sample ID: 1507184-004A

Sample wt/vol: 5mL Lab File ID: V14098.D

Level: (low/med) LOW Date Collected: 7/24/2015 11:20 AM

% Moisture: N/A Date Received: 7/24/2015 1:15 PM

Extract Volume: 5000(µl) Date Prepped: 7/27/2015 10:41 AM

Seq Number: 182776 Date Analyzed: 7/28/2015 4:22 AM

GC Column: SN 1232517 Dilution Factor: 1.00

Column ID: 0.18mm(mm) Batch ID/ Ext Mthd: 5755/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q		DL	LOD	LOQ
67-64-1	Acetone	1.5	~~BJ~~	UJ	1.0	1.0	4.0
71-43-2	Benzene	0.50	U		0.50	0.50	2.0
108-86-1	Bromobenzene	0.50	U		0.50	0.50	2.0
74-97-5	Bromochloromethane	0.50	U		0.50	0.50	2.0
75-27-4	Bromodichloromethane	0.50	U		0.50	0.50	2.0
75-25-2	Bromoform	0.50	U		0.50	0.50	2.0
74-83-9	Bromomethane	1.0	U	UJ	1.0	1.0	4.0
75-15-0	Carbon disulfide	0.50	U		0.50	0.50	2.0
56-23-5	Carbon tetrachloride	0.50	U		0.50	0.50	2.0
108-90-7	Chlorobenzene	0.50	U		0.50	0.50	2.0
75-45-6	Chlorodifluoromethane	0.30	U		0.30	0.30	2.0
75-00-3	Chloroethane	0.50	U		0.50	0.50	2.0
67-66-3	Chloroform	0.50	U		0.50	0.50	2.0
74-87-3	Chloromethane	0.50	U		0.50	0.50	2.0
156-59-2	cis-1,2-Dichloroethene	0.50	U		0.50	0.50	2.0
10061-01-5	cis-1,3-Dichloropropene	0.50	U		0.50	0.50	2.0
110-82-7	Cyclohexane	0.50	U		0.50	0.50	2.0
124-48-1	Dibromochloromethane	0.50	U		0.50	0.50	2.0
74-95-3	Dibromomethane	0.50	U		0.50	0.50	2.0
75-71-8	Dichlorodifluoromethane	0.50	U		0.50	0.50	2.0
108-20-3	Diisopropyl ether	0.50	U		0.50	0.50	2.0
64-17-5	Ethanol	2.5	U	UJ	2.5	2.5	10
100-41-4	Ethylbenzene	0.50	U		0.50	0.50	2.0
76-14-2	Freon-114	0.50	U		0.50	0.50	2.0
87-68-3	Hexachlorobutadiene	0.50	U		0.50	0.50	2.0
98-82-8	Isopropylbenzene	0.50	U		0.50	0.50	2.0
179601-23-1	m,p-Xylene	1.0	U		1.0	1.0	4.0
79-20-9	Methyl Acetate	0.50	U		0.50	0.50	2.0
1634-04-4	Methyl tert-butyl ether	0.50	U		0.50	0.50	2.0
75-09-2	Methylene chloride	6.7	~~B~~	UJ	0.50	0.50	2.0
104-51-8	n-Butylbenzene	0.50	U		0.50	0.50	2.0
103-65-1	n-Propylbenzene	0.50	U		0.50	0.50	2.0

SW8260C

Form I

VOLATILE SW-846 METHOD 8260

CLIENT SAMPLE NO.

MW-4

Lab Name: American Analytical Laboratories, LLC. Contract:

Lab Code: AAL ClientID: SEACLIFF ENV SAS No.: SDG No.: 1507184

Matrix: Liquid Lab Sample ID: 1507184-004A

Sample wt/vol: 5mL Lab File ID: V14098.D

Level: (low/med) LOW Date Collected: 7/24/2015 11:20 AM

% Moisture: N/A Date Received: 7/24/2015 1:15 PM

Extract Volume: 5000(µl) Date Prepped: 7/27/2015 10:41 AM

Seq Number: 182776 Date Analyzed: 7/28/2015 4:22 AM

GC Column: SN 1232517 Dilution Factor: 1.00

Column ID: 0.18mm(mm) Batch ID/ Ext Mthd: 5755/PT

CAS NO.	COMPOUND	CONC. UNITS: µg/L	Q	DL	LOD	LOQ
91-20-3	Naphthalene	0.50	U	0.50	0.50	2.0
95-47-6	o-Xylene	0.50	U	0.50	0.50	2.0
105-05-5	p-Diethylbenzene	0.50	U	0.50	0.50	2.0
622-96-8	p-Ethyltoluene	0.50	U	0.50	0.50	2.0
135-98-8	sec-Butylbenzene	0.50	U	0.50	0.50	2.0
100-42-5	Styrene	0.50	U	0.50	0.50	2.0
75-65-0	t-Butyl alcohol	2.5	U	2.5	2.5	10
98-06-6	tert-Butylbenzene	0.50	U	0.50	0.50	2.0
127-18-4	Tetrachloroethene	0.50	U	0.50	0.50	2.0
108-88-3	Toluene	0.50	U	0.50	0.50	2.0
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0
79-01-6	Trichloroethene	0.50	U	0.50	0.50	2.0
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.50	2.0
108-05-4	Vinyl acetate	0.50	U	UJ 0.50	0.50	2.0
75-01-4	Vinyl chloride	0.50	U	0.50	0.50	2.0

SW8260C

APPENDIX C

AMERICAN ANALYTICAL LABORATORIES

CHAIN OF CUSTODY

56 Toledo Street, Farmingdale NY 11735
(T) 631-454-6100 (F) 631-454-8027
www.american-analytical.com

CERTIFICATIONS
NY ELAP - 11418 PA DEP - 68-00573
NJ DEP - NY050 CT DOH - PH-0205

Client Information

Company Name: Seacliff Environmental, Inc
Address: P.O. Box 2085
City: Miller Place State: NY Zip: 11764
Project Contact: Jim Demartinis
Phone #: 631 742-6948
E-mail:

Project Information

Project Name: 127-13 Merrick Blvd
Street: 127-13 Merrick Blvd
City: Jamaica State: NY Zip:
Project #:
Sampler's Name / Company: AT Scheff / Rtc Formation LTD
Sampler's Signature:

Analytical Information

Full VOCs - Category B deliverables

LAB SAMPLE # (LAB USE ONLY)	Client Sample ID	Sample Type	Matrix Code	Date	Time	Glass / Plastic	Total # of bottles	NONE	HCl	NaOH	HNO_3	H_2SO_4	$NaHSO_4$	MeOH	OTHER	Full VOCs - Category B deliverables
1507184-001	MW-1	G	L	7/24/15	1158	Glass	2		2							X
002	MW-2				1215											X
003	MW-3				1135											X
004	MW-4				1120											X

Turnaround Time (Business Days)

Standard: [X] 7-10 Business Days
[ ] 5 Day *RUSH*
[ ] 4 Day *RUSH*
[ ] 3 Day *RUSH*
[ ] 2 Day *RUSH*
[ ] 1 Day *RUSH*

SAMPLE TYPE

G = Grab
C = Composite
B = Blank

MATRIX CODES

L = Liquid
S = Soil
O = Oil
W = Wipe
PC = Paint Chip
SL = Sludge
SD = Solid
M = Miscellaneous

Comments / Remarks

Full VOCs - Category B deliverables

Cooler Temp: 1.9°C

Sample custody must be documented below, each time samples change possession, with a signature, date, and time.

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME
	7/24/15 1315	AT Scheff	P Masi	7/24/15 1315	Phyllis Masi
RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME

PREMIER ENVIRONMENTAL SERVICES, INC.

DATA USABILITY SUMMARY REPORT

127-13 MERRICK ROAD
QUEENS, NEW YORK

ORGANIC ANALYSES
IN AQUEOUS SAMPLES

AMERICAN ANALYTICAL LABORATORIES, LLC.
FARMINGDALE, NY

REPORT NUMBER: 1405006

December, 2015

Prepared for
Seacliff Environmental
Miller Place, New York

Prepared by
Premier Environmental Services
2815 Covered Bridge Road
Merrick, New York 11566
(516)223-9761

DATA VALIDATION FOR:	**Volatile Organic Compounds (VOC's)**
SITE:	**127-13 Merrick Road Jamaica, NY**
LABORATORY REPORT NO:	**1405006**
CONTRACT LAB:	**American Analytical Laboratories Farmingdale, NY**
REVIEWER:	**Renee Cohen**
DATE REVIEW COMPLETED:	**December, 2015**
MATRIX:	**Aqueous**

The data validation was performed according to the guidelines in the USEPA National Functional Guidelines for Organic Data Review and the USEPA Region II SOPs where applicable. In addition, method and QC criteria specified in the NYSDEC ASP documents were cited. All data are considered valid and acceptable except those analytes which have been deemed unusable "R" (unreliable). Due to various QC problems some analytes may have been qualified with a "J" (estimated), "N" (presumptive evidence for the presence of the material, "U" (non-detect), or "JN" (presumptive evidence for the presence of the material at an estimated value) flag. All actions are detailed on the attached sheets.

Table 1 of this report includes a cross reference between the field sample ID and laboratory sample ID's. Copies of the data qualifiers that may be used in this report are located in Appendix A of this report. Qualified data result pages are located in Appendix B of this report. Copies of the Chain of Custody (COC) documents are located in Appendix C of this report.

This data assessment is for four (4) aqueous samples listed on the COC documents that accompanied the samples to the laboratory. The samples associated with this data set were collected May 1, 2014 and received at the laboratory on May 1, 2014 for the analyses requested on the COC documentation. This samples were analyzed for Volatile Organic Analytes (VOA) per the COC documents that accompanied the samples to the laboratory.

ORGANIC DATA ASSESSMENT

1. OVERVIEW:

This data review report is for the samples analyzed for Volatile Organic Analytes (VOA's). Analysis was performed in accordance with USEPA SW846 methodologies. Data validation will utilize the validation guidelines listed above, however, QA/QC requirements of SW846 will supersede CLP requirements in terms of calibration and holding time where applicable. The samples associated with this data set were analyzed and reported for Volatile Organics via the SW846-Method 8260C. American Analytical Laboratories, Inc. generated a stand-alone report for each fraction in compliance with the NYS DEC ASP Category B deliverables. A summary of the applicable QC will be discussed at each section of the report.

2. HOLDING TIME:

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Aqueous samples are to be properly preserved and stored/refrigerated at 4 degrees C until analysis. The holding time criteria for volatile organic samples is that properly preserved samples are to be analyzed within ten (10) days of VTSR.

Volatile Organic Analyses – Four (4) aqueous samples were collected and delivered to the laboratory on May 1, 2014. These samples were analyzed May 2-3, 2014 and May 5, 2014.

These samples and associated QC analyses were analyzed within the method holding time.

3. SURROGATES:

Samples to be analyzed for Volatile Organic Analytes (VOA) are fortified with three (3) method recommended surrogate compounds. These include Dibromofluoromethane, Toluene d8 and 4-Bromofluorobenzene prior to analysis to evaluate the overall laboratory performance and the efficiency of the analytical technique. The laboratory reported in-house surrogate recovery QC limits for the Volatile Organic surrogates compounds. The field sample and QC sample surrogate percent recoveries were summarized in this data report.

Volatile Organic Analyses (EPA Method 8260) – The percent recovery of each surrogate compound met in-house QC criteria in each of the field samples and QC samples associated with this data set.

4. MATRIX SPIKE/SPIKE DUPLICATE, MS/MSD:

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis.

Site-specific MS/MSD analysis was not reported with this data set. Batch QC MS/MSD was reported with each sample batch. Sample data has not been qualified based on the results of Batch QC MS/MSD analysis.

In addition a blank spike sample/reference sample/LCS was prepared and analyzed with each sample batch. Two (2) Blank Spike samples are reported with this data set. The percent recovery of target analytes with the exception of Methylene Chloride met QC criteria. Methylene Chloride was recovered below QC limits in each of the Blank Spike samples reported. Methylene Chloride was previously negated "U" qualified due to method blank contamination. The final data qualifier for Methylene Chloride is estimated "UJ" qualified.

Qualified data result pages are located in Appendix B of this report.

ORGANIC DATA ASSESSMENT

5. BLANK CONTAMINATION:

Quality assurance (QA) blanks, such as the method, trip, field, or rinse blanks are prepared to identify any contamination that may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field and rinse blanks measure cross-contamination of samples during field operations. Samples were only qualified with those QC samples associated with the particular blank.

A) Method Blank contamination

Volatile Organic Analyses (EPA Method 8260) – Two (2) method blank sample analyses are associated with the samples in this data set. Methylene Chloride (5.6 J ug/l) and Acetone (3.6 J ug/l) were detected in the method blank sample analyzed on 5/3/14. Acetone (2.5 J ug/l) was detected in the method blank sample analyzed 5/5/14. Acetone and Methylene Chloride were detected in the associated samples at concentrations that can be attributed to the method blank sample. Acetone and Methylene Chloride have been negated "U" qualified in each of the samples reported in this data set.

Qualified data result pages are located in Appendix B of this report.

B) Field or Equipment Rinse Blank (ERB) contamination

A Field Blank sample is not associated with this data set.

C) Trip Blank contamination

A Trip Blank samples is not associated with this data set.

ORGANIC DATA ASSESSMENT

6. GC/MS CALIBRATION:

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument is giving satisfactory daily performance. Region USEPA and Region II criteria is the sample for analytes in both GC/MS Volatile and GC/MS Semivolatile Organic analyses is the same, therefore, all text discussion is for VOA and SVOA samples analyses.

A) RESPONSE FACTOR

The response factor measures the instrument's response to specific chemical compounds. Region II data review requires that the response factor of all analytes be greater than or equal to 0.05 in both initial and continuing calibration analyses. A value less than 0.05 indicates a serious detection and quantitation problem (poor sensitivity). Region II data validation criteria states that if the minimum RRF criteria is not met in an initial calibration the positive results are qualified "J". Non-detect results in the initial calibration with a RRF <0.05 are qualified "R", unusable. If RRF criteria is not met in the continuing calibration curve analysis, affected positive analytes will be qualified "J" estimated. Those analytes not detected are not qualified. The SW-846 Methods cite specific analytes known as System Performance Check Compounds (SPCC). Minimum response criteria is set for these analytes. If the minimum criteria is not met, analyses must stop and the source of problems must be found and corrected. Data associated with this set has been reviewed for the criteria in the cited in the EPA Method and the Region II criteria.

Volatile Organic Analyses (EPA Method 8260) – One (1) initial calibration curve analysis is associated with these sample analyses. The laboratory performed an initial multilevel calibration on May 1, 2014 (Inst. 5977V2). The RRF of target compounds met QC criteria in this initial calibration curve analysis with the exception of Ethanol. Ethanol has been deemed unusable "R" qualified in each of these samples reported in this data set.

Two (2) continuing calibration standards (5/1/14-V23600.D, 5/5/14-V223643) are associated with the calibration curve analyses. The RRF of all target compounds met QC criteria in each of the continuing calibration standards with the exception of ethanol. Ethanol has been previously qualified, therefore no further action has been taken.

Qualified data result pages are located in Appendix B of this report.

6. GC/MS CALIBRATION (cont'd):

B) PERCENT RELATIVE STANDARD DEVIATION (RSD) AND PERCENT DIFFERENCE (%D):

Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentration. Percent D compares the response factor of the compounds in the continuing calibration standard to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Region II data validation criteria states that the percent RSD of the initial calibration curve must be less than or equal to 20%. The %D must be <20% in the continuing calibration standard. The criteria has been applied to all target analytes. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects may be flagged "UJ", based on professional judgment. If %RSD and %D grossly exceed QC criteria (>90%), non-detects data may be qualified "R", unusable. Data associated with this set has been reviewed for the criteria in the cited in the USEPA Data Validation Guidelines and the USEPA Region II criteria.

Volatile Organic Analyses (EPA Method 8260) – One (1) initial calibration curve analysis is associated with these sample analyses. The laboratory performed an initial multilevel calibration on December 1, 2014 (Inst. 5977V2). The RSD (%) met QC criteria for each target analyte with the exception of 2-Butanone (24.4 %), Methyl Acetate (24.0 %). Tert-Butyl Alcohol (TBA) (25.2 %) and Vinyl Acetate (28.0 %). These target analytes have been estimated "UJ" qualified in each of the samples reported in this data set.

Two (2) continuing calibration standard analyses are associated with this data set. The % difference of the reported target compounds met QC criteria in the continuing calibration standard with the analysis with the exception of the following:

Date/File ID	Analyte	%Difference
5/1/14 V23600.D	Acetone	57.3
	Methylene Chloride	75.7
	Vinyl Acetate	26.6
5/5/14 V23643.D	Acetone	58.7
	Methylene Chloride	78.9
	Tert-Butyl Alcohol	23.6
	Vinyl Acetate	42.4

These target analyte, if not previously qualified have been estimated "UJ" qualified in each of the samples reported in this data set.

Qualified data result pages are located in Appendix B of this report.

ORGANIC DATA ASSESSMENT

7. GC/MS INTERNAL STANDARDS PERFORMANCE:

Internal standard (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every run. The method recommends that the internal standard area count must not vary by more than a factor of 2 (-50%to +100%) from the associated continuing calibration standard. The method recommends that the retention time of the internal standard must not vary more than ±30 seconds from the associated continuing calibration standard. The EPA CLP validation guidelines state that if the area count is outside the (-50% to +100%) range of the associated standard, all of the positive results for compounds quantitated using that IS are qualified estimated, "J", and all non-detects below 50% are qualified "UJ", non-detects above 100% should not be qualified or "R" if there is a severe loss of sensitivity. The internal standard evaluation criteria is applied to all field and QC samples.

Volatile Organic Analyses (EPA Method 8260) - Samples were spiked with the method specific internal standards prior to analysis. The area counts and retention time of each internal standard met QC criteria in all field and QC samples.

8. GC/MS MASS SPECTROMETER TUNING:

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds, and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The tuning standard for volatile organics is Bromofluorobenzene (BFB). If the mass calibration is in error, or missing, all associated data will be classified as unusable, "R".

Volatile Organic Analyses (EPA Method 8260) - The tune criteria listed in the data report met or exceeded that required by the method. The tuning criteria associated with these sample analyses were met.

9. COMPOUND IDENTIFICATION:

Target compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within ± 0.06 RRT units of the standard compound, and have an ion spectra which has a ratio of the primary and secondary ion intensities with 20% of that in the standard compound. Target compounds are identified on the GC by using the analytes retention time. Concentration is quantitated from the initial calibration curve.

Volatile Organic Analyses – Four (4) monitoring well samples were analyzed for VOA target analytes reported. Each of the samples was analyzed and reported with a dilution factor of 1. Results reported between the laboratory detection limit and the laboratory quantitation limit (LOQ) have been reported and qualified "J" by the laboratory. The volatile organic data associated with this sample set is acceptable for use with the noted data qualifiers.

10. SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

Analytical QC criteria were met for these analyses with the exception of what was described in the above report. The data reported agrees with the raw data provided in the final report. The laboratory provided a complete data package and reported all data using acceptable protocols and laboratory qualifiers as defined in the report package.

All data provided for this data set is acceptable for use, with noted data qualifiers. The qualified data result pages are located in Appendix B of this report.

TABLE 1

American Analytical Laboratories, LLC. - Workorder Sample Summary

WO#: 1405006

Date Reported: 5/6/2014
Revision v1

Client: J.R. Holzmacher P.E. LLC

Project: 127-13 Merrick Blvd., Queens, NY

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1405006-001A	MW-1		5/1/2014 12:36 PM	5/1/2014 1:44 PM	Liquid
1405006-002A	MW-2		5/1/2014 11:52 AM	5/1/2014 1:44 PM	Liquid
1405006-003A	MW-3		5/1/2014 12:50 PM	5/1/2014 1:44 PM	Liquid
1405006-004A	MW-4		5/1/2014 12:58 PM	5/1/2014 1:44 PM	Liquid

APPENDIX A

DATA QUALIFIER DEFINITIONS

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are unreliable/unusable. The presence or absence of the analyte cannot be verified.

K – The analyte is present. The reported value may be biased high. The actual value is expected to be lower than reported.

L - The analyte is present. The reported value may be biased low. The actual value is expected to be higher than reported.

UL – The analyte was not detected, and the reported quantitation limit is probably higher than reported.

APPENDIX B

American Analytical Laboratories, LLC. - Analytical Report

WO#: 1405006

Date Reported: 5/6/2014
Revision v1

Client:	J.R. Holzmacher P.E. LLC	**Collection Date:**	5/1/2014 12:36:00 PM
Project:	127-13 Merrick Blvd., Queens, NY		
Lab ID:	1405006-001	**Matrix:**	Liquid
Client Sample ID:	MW-1		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
VOLATILE SW-846 METHOD 8260			**Method: 8260**		**SW5030C**			**Analyst: LA**
1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
1,1,1-Trichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
1,1,2-Trichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
1,1-Dichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
1,1-Dichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
1,1-Dichloropropene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
1,2,4,5-Tetramethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
1,2,4-Trimethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
1,2-Dibromoethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
1,2-Dichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
1,2-Dichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
1,3,5-Trimethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
1,3-dichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
1,4-Dichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
1,4-Dioxane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
2,2-Dichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
2-Butanone	1.3	U UJ	1.3	1.3	5.0	µg/L	1	5/5/2014 1:40 PM
2-Chloroethyl vinyl ether	1.0	U	1.0	1.0	4.0	µg/L	1	5/5/2014 1:40 PM
2-Chlorotoluene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
2-Hexanone	1.3	U	1.3	1.3	5.0	µg/L	1	5/5/2014 1:40 PM
2-Propanol	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
4-Chlorotoluene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
4-Isopropyltoluene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
4-Methyl-2-pentanone	1.3	U	1.3	1.3	5.0	µg/L	1	5/5/2014 1:40 PM
Acetone	2.1	~~Bd*~~ m U	1.3	1.3	5.0	µg/L	1	5/5/2014 1:40 PM
Benzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Bromobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Bromochloromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Bromodichloromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Bromoform	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Bromomethane	1.0	U	1.0	1.0	4.0	µg/L	1	5/5/2014 1:40 PM
Carbon disulfide	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Carbon tetrachloride	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Chlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Chlorodifluoromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM

American Analytical Laboratories, LLC. - Analytical Report

WO#: 1405006

Date Reported: 5/6/2014
Revision v1

Client:	J.R. Holzmacher P.E. LLC	**Collection Date:**	5/1/2014 12:36:00 PM
Project:	127-13 Merrick Blvd., Queens, NY		
Lab ID:	1405006-001	**Matrix:**	Liquid
Client Sample ID:	MW-1		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Chloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Chloroform	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Chloromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
cis-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Cyclohexane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Dibromochloromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Dibromomethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Diisopropyl ether	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Ethanol	2.5	U R	2.5	2.5	10	µg/L	1	5/5/2014 1:40 PM
Ethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Freon-114	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Hexachlorobutadiene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Isopropylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
m,p-Xylene	1.0	U	1.0	1.0	4.0	µg/L	1	5/5/2014 1:40 PM
Methyl Acetate	0.50	U UJ	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Methylene chloride	4.2	~~B~~ UJ	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
n-Butylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
n-Propylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Naphthalene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
o-Xylene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
p-Diethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
p-Ethyltoluene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
sec-Butylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Styrene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
t-Butyl alcohol	2.5	U UJ	2.5	2.5	10	µg/L	1	5/5/2014 1:40 PM
tert-Butylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Tetrachloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Toluene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
trans-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Trichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Trichlorofluoromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Vinyl acetate	0.50	U UJ	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Vinyl chloride	0.50	U	0.50	0.50	2.0	µg/L	1	5/5/2014 1:40 PM
Surr: 4-Bromofluorobenzene	93.3			70-128		%Rec	1	5/5/2014 1:40 PM
Surr: Dibromofluoromethane	104			75-129		%Rec	1	5/5/2014 1:40 PM
Surr: Toluene-d8	101			70-124		%Rec	1	5/5/2014 1:40 PM

American Analytical Laboratories, LLC. - Analytical Report

WO#: 1405006

Date Reported: 5/6/2014
Revision v1

Client:	J.R. Holzmacher P.E. LLC	**Collection Date:**	5/1/2014 11:52:00 AM
Project:	127-13 Merrick Blvd., Queens, NY		
Lab ID:	1405006-002	**Matrix:**	Liquid
Client Sample ID:	MW-2		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
VOLATILE SW-846 METHOD 8260			**Method: 8260**		**SW5030C**			**Analyst: LA**
1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
1,1,1-Trichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
1,1,2-Trichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
1,1-Dichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
1,1-Dichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
1,1-Dichloropropene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
1,2,4,5-Tetramethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
1,2,4-Trimethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
1,2-Dibromoethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
1,2-Dichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
1,2-Dichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
1,3,5-Trimethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
1,3-dichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
1,4-Dichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
1,4-Dioxane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
2,2-Dichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
2-Butanone	1.3	U UJ	1.3	1.3	5.0	µg/L	1	5/3/2014 5:48 AM
2-Chloroethyl vinyl ether	1.0	U	1.0	1.0	4.0	µg/L	1	5/3/2014 5:48 AM
2-Chlorotoluene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
2-Hexanone	1.3	U	1.3	1.3	5.0	µg/L	1	5/3/2014 5:48 AM
2-Propanol	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
4-Chlorotoluene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
4-Isopropyltoluene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
4-Methyl-2-pentanone	1.3	U	1.3	1.3	5.0	µg/L	1	5/3/2014 5:48 AM
Acetone	2.2	~~BJ*~~ U	1.3	1.3	5.0	µg/L	1	5/3/2014 5:48 AM
Benzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Bromobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Bromochloromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Bromodichloromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Bromoform	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Bromomethane	1.0	U	1.0	1.0	4.0	µg/L	1	5/3/2014 5:48 AM
Carbon disulfide	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Carbon tetrachloride	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Chlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Chlorodifluoromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Chloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM

American Analytical Laboratories, LLC. - Analytical Report

WO#: 1405006

Date Reported: 5/6/2014
Revision v1

Client:	J.R. Holzmacher P.E. LLC	**Collection Date:**	5/1/2014 11:52:00 AM
Project:	127-13 Merrick Blvd., Queens, NY		
Lab ID:	1405006-002	**Matrix:**	Liquid
Client Sample ID:	MW-2		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Chloroform	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Chloromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
cis-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Cyclohexane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Dibromochloromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Dibromomethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Diisopropyl ether	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Ethanol	2.5	U R	2.5	2.5	10	µg/L	1	5/3/2014 5:48 AM
Ethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Freon-114	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Hexachlorobutadiene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Isopropylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
m,p-Xylene	1.0	U	1.0	1.0	4.0	µg/L	1	5/3/2014 5:48 AM
Methyl Acetate	0.50	U UJ	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Methylene chloride	6.2	~~B~~ UJ	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
n-Butylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
n-Propylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Naphthalene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
o-Xylene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
p-Diethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
p-Ethyltoluene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
sec-Butylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Styrene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
t-Butyl alcohol	2.5	U UJ	2.5	2.5	10	µg/L	1	5/3/2014 5:48 AM
tert-Butylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Tetrachloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Toluene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
trans-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Trichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Trichlorofluoromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Vinyl acetate	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Vinyl chloride	0.50	UJ	0.50	0.50	2.0	µg/L	1	5/3/2014 5:48 AM
Surr: 4-Bromofluorobenzene	95.3			70-128		%Rec	1	5/3/2014 5:48 AM
Surr: Dibromofluoromethane	111			75-129		%Rec	1	5/3/2014 5:48 AM
Surr: Toluene-d8	104			70-124		%Rec	1	5/3/2014 5:48 AM

American Analytical Laboratories, LLC. - Analytical Report

WO#: 1405006

Date Reported: 5/6/2014
Revision v1

Client:	J.R. Holzmacher P.E. LLC	**Collection Date:**	5/1/2014 12:50:00 PM
Project:	127-13 Merrick Blvd., Queens, NY		
Lab ID:	1405006-003	**Matrix:**	Liquid
Client Sample ID:	MW-3		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
VOLATILE SW-846 METHOD 8260			**Method: 8260**		**SW5030C**			**Analyst: LA**
1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
1,1,1-Trichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
1,1,2-Trichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
1,1-Dichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
1,1-Dichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
1,1-Dichloropropene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
1,2,4,5-Tetramethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
1,2,4-Trimethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
1,2-Dibromoethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
1,2-Dichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
1,2-Dichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
1,3,5-Trimethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
1,3-dichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
1,4-Dichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
1,4-Dioxane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
2,2-Dichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
2-Butanone	1.3	U UJ	1.3	1.3	5.0	µg/L	1	5/3/2014 6:15 AM
2-Chloroethyl vinyl ether	1.0	U	1.0	1.0	4.0	µg/L	1	5/3/2014 6:15 AM
2-Chlorotoluene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
2-Hexanone	1.3	U	1.3	1.3	5.0	µg/L	1	5/3/2014 6:15 AM
2-Propanol	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
4-Chlorotoluene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
4-Isopropyltoluene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
4-Methyl-2-pentanone	1.3	U	1.3	1.3	5.0	µg/L	1	5/3/2014 6:15 AM
Acetone	2.2	~~BJ~~ U	1.3	1.3	5.0	µg/L	1	5/3/2014 6:15 AM
Benzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Bromobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Bromochloromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Bromodichloromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Bromoform	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Bromomethane	1.0	U	1.0	1.0	4.0	µg/L	1	5/3/2014 6:15 AM
Carbon disulfide	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Carbon tetrachloride	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Chlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Chlorodifluoromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Chloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM

American Analytical Laboratories, LLC. - Analytical Report

WO#: 1405006

Date Reported: 5/6/2014
Revision v1

Client:	J.R. Holzmacher P.E. LLC	**Collection Date:**	5/1/2014 12:50:00 PM
Project:	127-13 Merrick Blvd., Queens, NY		
Lab ID:	1405006-003	**Matrix:**	Liquid
Client Sample ID:	MW-3		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Chloroform	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Chloromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
cis-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Cyclohexane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Dibromochloromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Dibromomethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Diisopropyl ether	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Ethanol	2.5	U R	2.5	2.5	10	µg/L	1	5/3/2014 6:15 AM
Ethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Freon-114	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Hexachlorobutadiene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Isopropylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
m,p-Xylene	1.0	U	1.0	1.0	4.0	µg/L	1	5/3/2014 6:15 AM
Methyl Acetate	0.50	U UJ	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Methylene chloride	5.7	~~B~~ UJ	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
n-Butylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
n-Propylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Naphthalene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
o-Xylene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
p-Diethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
p-Ethyltoluene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
sec-Butylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Styrene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
t-Butyl alcohol	2.5	U UJ	2.5	2.5	10	µg/L	1	5/3/2014 6:15 AM
tert-Butylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Tetrachloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Toluene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
trans-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Trichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Trichlorofluoromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Vinyl acetate	0.50	U UJ	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Vinyl chloride	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:15 AM
Surr: 4-Bromofluorobenzene	94.1			70-128		%Rec	1	5/3/2014 6:15 AM
Surr: Dibromofluoromethane	107			75-129		%Rec	1	5/3/2014 6:15 AM
Surr: Toluene-d8	104			70-124		%Rec	1	5/3/2014 6:15 AM

American Analytical Laboratories, LLC. - Analytical Report

WO#: 1405006

Date Reported: 5/6/2014
Revision v1

Client:	J.R. Holzmacher P.E. LLC	**Collection Date:**	5/1/2014 12:58:00 PM
Project:	127-13 Merrick Blvd., Queens, NY		
Lab ID:	1405006-004	**Matrix:**	Liquid
Client Sample ID:	MW-4		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
VOLATILE SW-846 METHOD 8260			**Method: 8260**		**SW5030C**			**Analyst: LA**
1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
1,1,1-Trichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
1,1,2-Trichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
1,1-Dichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
1,1-Dichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
1,1-Dichloropropene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
1,2,4,5-Tetramethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
1,2,4-Trimethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
1,2-Dibromoethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
1,2-Dichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
1,2-Dichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
1,3,5-Trimethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
1,3-dichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
1,4-Dichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
1,4-Dioxane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
2,2-Dichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
2-Butanone	1.3	U UJ	1.3	1.3	5.0	µg/L	1	5/3/2014 6:43 AM
2-Chloroethyl vinyl ether	1.0	U	1.0	1.0	4.0	µg/L	1	5/3/2014 6:43 AM
2-Chlorotoluene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
2-Hexanone	1.3	U	1.3	1.3	5.0	µg/L	1	5/3/2014 6:43 AM
2-Propanol	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
4-Chlorotoluene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
4-Isopropyltoluene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
4-Methyl-2-pentanone	1.3	U	1.3	1.3	5.0	µg/L	1	5/3/2014 6:43 AM
Acetone	2.3	~~BJ~~ U	1.3	1.3	5.0	µg/L	1	5/3/2014 6:43 AM
Benzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Bromobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Bromochloromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Bromodichloromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Bromoform	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Bromomethane	1.0	U	1.0	1.0	4.0	µg/L	1	5/3/2014 6:43 AM
Carbon disulfide	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Carbon tetrachloride	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Chlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Chlorodifluoromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Chloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM

American Analytical Laboratories, LLC. - Analytical Report

WO#: 1405006

Date Reported: 5/6/2014
Revision v1

Client:	J.R. Holzmacher P.E. LLC	**Collection Date:**	5/1/2014 12:58:00 PM
Project:	127-13 Merrick Blvd., Queens, NY		
Lab ID:	1405006-004	**Matrix:**	Liquid
Client Sample ID:	MW-4		

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Chloroform	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Chloromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
cis-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Cyclohexane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Dibromochloromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Dibromomethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Diisopropyl ether	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Ethanol	2.5	U UJ	2.5	2.5	10	µg/L	1	5/3/2014 6:43 AM
Ethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Freon-114	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Hexachlorobutadiene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Isopropylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
m,p-Xylene	1.0	U	1.0	1.0	4.0	µg/L	1	5/3/2014 6:43 AM
Methyl Acetate	0.50	U UJ	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Methylene chloride	5.8	~~B~~ UJ	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
n-Butylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
n-Propylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Naphthalene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
o-Xylene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
p-Diethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
p-Ethyltoluene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
sec-Butylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Styrene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
t-Butyl alcohol	2.5	U UJ	2.5	2.5	10	µg/L	1	5/3/2014 6:43 AM
tert-Butylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Tetrachloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Toluene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
trans-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Trichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Trichlorofluoromethane	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Vinyl acetate	0.50	U UJ	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Vinyl chloride	0.50	U	0.50	0.50	2.0	µg/L	1	5/3/2014 6:43 AM
Surr: 4-Bromofluorobenzene	94.9			70-128		%Rec	1	5/3/2014 6:43 AM
Surr: Dibromofluoromethane	110			75-129		%Rec	1	5/3/2014 6:43 AM
Surr: Toluene-d8	103			70-124		%Rec	1	5/3/2014 6:43 AM

APPENDIX C

CHAIN OF CUSTODY

AMERICAN ANALYTICAL LABORATORIES
56 Toledo Street, Farmingdale NY 11735
(T) 631-454-6100 (F) 631-454-8027
www.american-analytical.com

CERTIFICATIONS
NY ELAP - 11418 PA DEP - 68-00573
NJ DEP - NY050 CT DOH - PH-0205

Client Information

Company Name: JR HOLZMACHER
Address: 3555 VETERANS MEMORIAL HWY
City: RONKONKOMA State: NY Zip: 11779
Project Contact: JIM D
Phone #: 631-234-2220
E-mail:

Project Information

Project Name: 127-13 MERRICK BLVD
Street: 127-13 MERRICK BLVD
City: QUEENS State: NY Zip: 11434
Project #: KOPT D 14-01
Sampler's Name / Company: PHIL HOFFKEN J - JRH
Sampler's Signature:

Analytical Information

LAB SAMPLE # (LAB USE ONLY)	Client Sample ID	Sample Type	Matrix Code	Date	Time	Glass / Plastic	Total # of bottles	NONE	HCl	NaOH	HNO_3	H_2SO_4	$NaHSO_4$	MeOH	OTHER	VOC (FULL LIST)
1405006-001A	MW-1	G	L	5/1/14	1236	G	2		X							X
002A	MW-2	↓	↓	↓	1152	↓	↓		X							X
003A	MW-3				1250				X							X
004A	MW-4				1258				X							X

Turnaround Time (Business Days)

Standard
[X] 7-10 Business Days
[ ] 3 Day *RUSH*
[ ] 5 Day *RUSH*
[ ] 2 Day *RUSH*
[ ] 4 Day *RUSH*
[ ] 1 Day *RUSH*

SAMPLE TYPE

G = Grab
C = Composite
B = Blank

MATRIX CODES

L = Liquid
PC = Paint Chip
S = Soil
SL = Sludge
O = Oil
SD = Solid
W = Wipe
M = Miscellaneous

Comments / Remarks

Cooler Temp: 4.6

Sample custody must be documented below, each time samples change possession, with a signature, date, and time.

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME
	5/1/14 1344	PHILIP HOFFKEN Jr		5/1/14 1344	Cate Ferrara
RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME

Sample Log-In Check List

Client Name:	HOLZMACHER	Work Order Number:	1405006
Logged by:	Cate Ferrara	5/1/2014 1:44 PM	C Ferrara
Completed By:	Cate Ferrara	5/1/2014 12:00 AM	C Ferrara
Reviewed By:	Lori Beyer	5/1/2014 3:34 PM	Lori Beyer

Chain of Custody

1.	Were seals intact?	Yes [x]	No [ ]	Not Present [ ]
2.	Is Chain of Custody complete?	Yes [x]	No [ ]	Not Present [ ]
3.	How was the sample delivered?	Yes [x]	No [ ]	Not Present [ ]

Log In

4.	Coolers are present?	Yes [x]	No [ ]	Not Present [ ]
5.	Was an attempt made to cool the samples?	Yes [x]	No [ ]	NA [ ]
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes [x]	No [ ]	NA [ ]
7.	Sample(s) in proper container(s)?	Yes [x]	No [ ]	
8.	Sufficient sample volume for indicated test(s)?	Yes [x]	No [ ]	
9.	Are samples (except VOA and ONG) properly preserved?	Yes [x]	No [ ]	
10.	Was preservative added to bottles?	Yes [ ]	No [x]	
11.	Is the headspace in the VOA vials less than 1/4 inch or 6 mm?	Yes [x]	No [ ]	Not Present [ ]
12.	Were any sample containers received broken?	Yes [x]	No [ ]	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes [x]	No [ ]	
14.	Are matrices correctly identified on Chain of Custody?	Yes [x]	No [ ]	
15.	Is it clear what analyses were requested?	Yes [x]	No [ ]	
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes [x]	No [ ]	

Special Handling (if applicable)

17.	Was client notified of all discrepancies with this order?	Yes [ ]	No [ ]	Not Present [x]

Person Notified: Date:
By Whom: Via [ ] email [ ] Phone [ ] Fax [ ] In Person
Regarding:
Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
		Good	No			

Appendix L

Gravel Information Sheet

More saving. More doing.

Your Store: **Huntington,NY #1272**
Use Current Location or find store

Vigoro | Model # 54775V | Internet # 202026926 | Store SKU # 469552

0.5 cu. ft. All-Purpose Decorative Stone

★★★★★ (15) | **Write a Review** | **Questions & Answers (8)**

Open Expanded View | Click Image to Zoom

$3.98 /each

IN STOCK AT YOUR SELECTED STORE

Huntington,NY #1272
Huntington, NY 11743

70 **In Stock**
Aisle 51, Bay 008

PRODUCT OVERVIEW

Model # 54775V | Internet # 202026926 | Store SKU # 469552

All-Purpose Decorative Stone can be used in almost any area of your yard as both a decorative and functional ground cover. It is extremely durable and resists losing its color or being scattered by wind and rain. This rock can help keep soil moist and in place. It generally does not attract termites or ants.

- Crushed decorative stone mulch for landscaping around trees, shrubs, decks, driveways and other areas
- Helps retain moisture and reduce erosion
- Resists discoloration and being carried away by wind or rain
- Extremely durable ground cover provides beauty that lasts
- Does not attract termites or ants in normal use
- Note: Product may vary by store

SPECIFICATIONS

DIMENSIONS

Coverage Area (sq. ft.)	2.597	Product Height (in.)	18
Product Depth (in.)	4	Product Width (in.)	15

DETAILS

Bag Capacity/Dry Volume (cu. ft.)	.5 cu ft	Rock Size	Medium

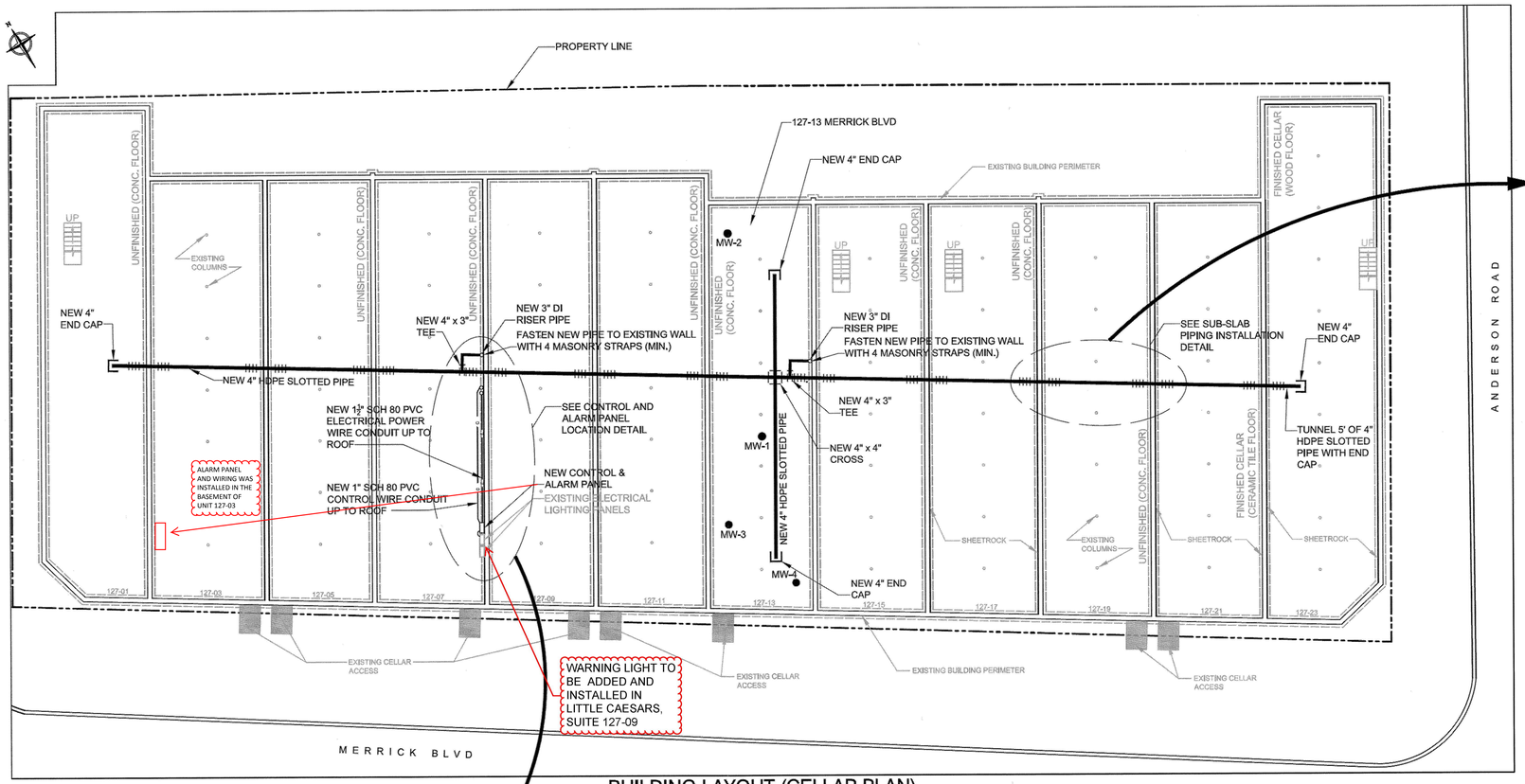
Bag Weight (lb.)	48	Rock Type	Other
Color Family	Gray		

WARRANTY / CERTIFICATIONS

Manufacturer Warranty	NA

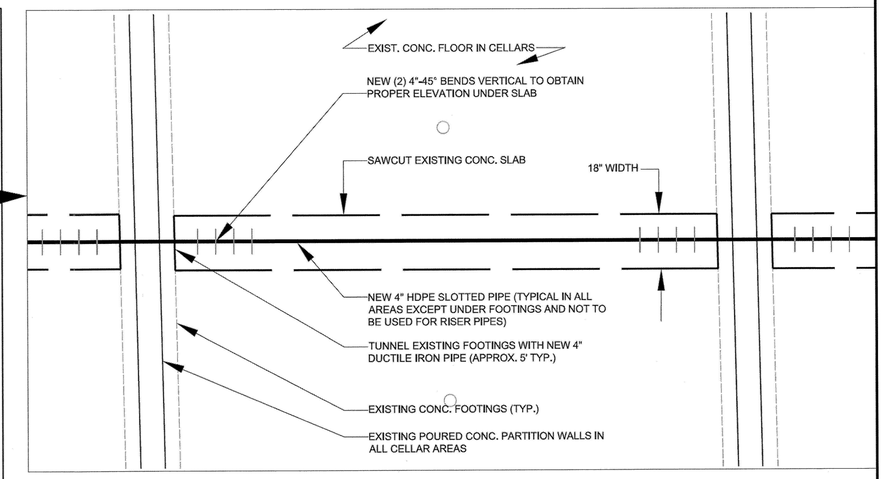
Appendix M

SSDS Layout Drawings



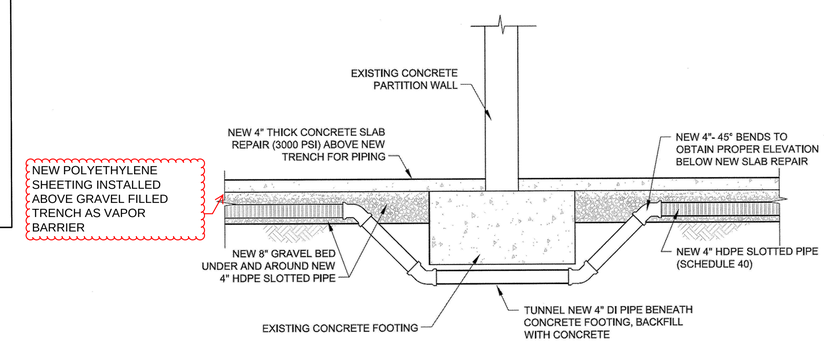
BUILDING LAYOUT (CELLAR PLAN)

SCALE: 1" = 10'



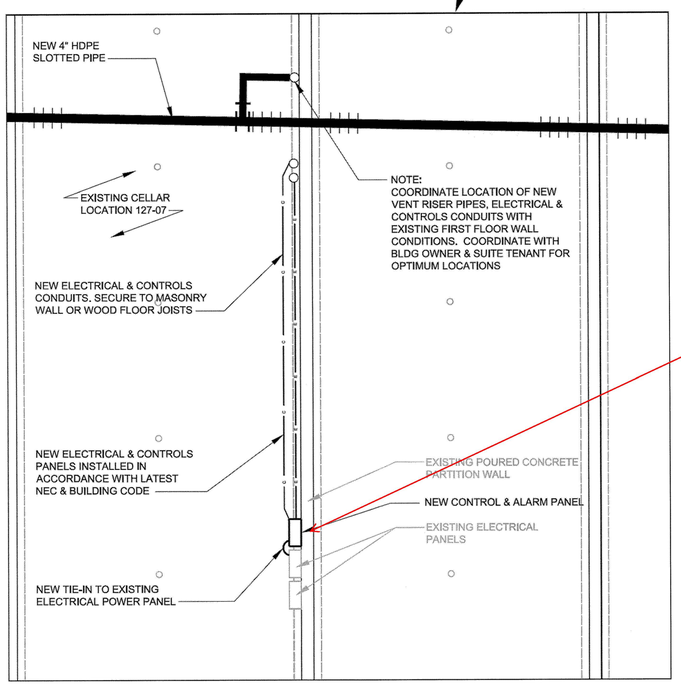
TYPICAL SUB-SLAB PIPING INSTALLATION

SCALE: 1" = 2'



TYPICAL SECTION AT CELLAR SLABS

SCALE: N.T.S.



NEW CONTROL AND ALARM PANEL LOCATION

SCALE: 1" = 4'

NOTE: WARNING LIGHT TO BE ADDED AND INSTALLED IN LITTLE CAESARS, SUITE 127-09 AS PER AGREEMENT WITH POTENTIAL NEW OWNER OF PROPERTY...

BUILT AS DESIGNED
*EXCEPT FOR LOCATION OF INDICATOR LIGHT WHICH WILL BE INSTALLED IN SUITE 127-09, LITTLE CAESARS

STATE OF NEW YORK · KAREN GAIL TYLL · 079623 · LICENSED PROFESSIONAL ENGINEER

CERTIFIED BY:
KAREN G. TYLL, PE
TYLL ENGINEERING & CONSULTING, PC
169 COMMACK ROAD, SUITE H173
COMMACK, NY 11725
SEPTEMBER 30, 2015

ALTERATION OF THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL IS ILLEGAL

REV	DATE	CK	DESCRIPTION

REVISIONS

127-13 Merrick Blvd.

Queens, New York

SUB-SLAB DEPRESSURIZATION SYSTEM

J.R. HOLZMACHER P.E., LLC

The Third Generation of Excellence In Water Supply, Water Resources, Civil and Environmental Engineering

300 Wheeler Road, Suite 402, Hauppauge, NY 11788

PHONE: (631) 234-2220 FAX: (631) 234-2221 E-MAIL: info@holzmacher.com

SHEET TITLE:	CELLAR SSDS LAYOUT		
DESIGNED BY: AJZ		SCALE: AS SHOWN	SHEET 2
REVIEWED BY: JMD		DATE: September 19, 2012	
PLAN SHEET BY: DGH		PROJECT NO: KoptD 12-01	

drawing location on the server P:\2012\Kopt\D12-01 127-13 Merrick Blvd - Brown\Bldd\Task 2 SSDS Design\Cadd\SSDS Plan Sht 2 thru 3 09-19-12.dwg

GENERAL NOTES- SUB-SLAB DEPRESSURIZATION SYSTEM (Soil Gas Mitigation)

I. PURPOSE

The intent of the Sub-Slab Depressurization System described in this plan is to promote public safety and welfare by controlling soil gas intrusion potentially emanating from beneath the existing building sub grade. The system is not intended to regulate flammable vapors that may originate in and propagate from other sources, which include, but are not limited to, ruptured hazardous material transmission lines, underground atmospheric tanks, or similar installations.

II. GENERAL REQUIREMENTS

CODES:
All work shall be in compliance with the current Building Code and policies of the Department of Building and all applicable County, State, and Federal Codes.

INSPECTION:
All work, requiring inspection by the Department of Building, shall be available to the inspector prior to being covered by subsequent work.

III. MITIGATION REQUIREMENTS

A. MAINTENANCE OF MITIGATION SYSTEMS

All mechanical ventilation systems shall be maintained and serviced in proper working condition and meet all requirements of the Department of Building Electrical and Mechanical Code. The testing, maintenance and service procedure for gas detection and mechanical ventilation systems shall be performed in accordance with the manufacturer's current written instructions and the following:

1. The manufacturer's instructions shall be approved by the Fire Department. A person certified by the Fire Department shall perform testing and servicing of each system.

IV. CONSTRUCTION CRITERIA

A. ACTIVE SYSTEM

The Active System consists of the following; Sub-Slab Vent System and Mechanical Extraction System including controls and alarms.

1. Sub-Slab Vent System
   Sub-Slab Vent System shall consist of Perforated Horizontal Pipes, Under portions of existing cellar slabs, Gravel Blanket Around Perforated Horizontal Pipes, and Vent Risers.
   a. Perforated Horizontal Pipes:
      i. Perforated Horizontal Pipes shall be listed, minimum Schedule 40, slotted or perforated High Density Polyethylene (HDPE) or Polyvinyl Chloride (PVC) pipe or other materials approved by the Department of Building for the intended use.
      ii. Perforated Horizontal Pipe shall be installed as follows:
         - Spacing and location of Perforated Horizontal Pipes shall be as indicated on the plans.
         - Pipes used only as vents may be installed in the horizontal position.
         - Undulations in the Perforated Horizontal Pipes, which may impede the passage of gas, shall be avoided (e.g. Perforated Horizontal Pipes shall not be deformed to pass below interior footings).
   b. Gravel Thickness Around Perforated Horizontal Pipes:
      i. Gravel thickness around Perforated Horizontal Pipes shall be as indicated on the plan details.
      ii. Gravel shall be composed entirely of particles that have no more than one fractured face.
      iii. The gradations of gravel shall conform to Table 1 shown on this sheet.
   c. Vent Risers:
      i. Vent Risers shall be connected to Perforated Horizontal Pipes and constructed of cast or ductile iron. Exception:
      ii. Vent Risers shall be spaced and located as per plan layout.
      iii. Vent Riser outlets shall be located at least:
         - 10 feet above grade,
         - 10 feet away from any window, doors, roof hatch, opening or air intake into the building,
         - 3 feet above highest point of roof within a 10' radius of outlet,
         - 3 feet away from any parapet,
         - 4 feet away from the property line and
         - 5 feet away from any electrical device.
      iv. If rain guards are provided, they shall be non-restricting.

2. Seals at Concrete Slab Penetrations:
   a. To retard soil gas entry, all control joints, isolation joints, construction joints, and any other joints in concrete slabs or between slabs and foundation walls shall be sealed. A continuous formed gap (for example, a "tooled edge") which allows the application of a sealant that will provide a continuous, airtight seal shall be created along all joints. When the slab has cured, the gap shall be cleared of loose material and filled with an elastomeric joint sealant, as defined in ASTM C920-97, and applied in accordance with the manufacturer's recommendations.

3. Mechanical Extraction System
   The Mechanical Extraction System shall consist of Pressure Sensors in Vent Risers, Control/Alarm Panel and Gas extraction powered devices and shall be constructed for the migration of subsurface gas.
   a. Sensors in Vent Risers
      i. Sensors and associated transmitters shall be listed by a recognized testing laboratory for the intended use.
      ii. Sensors and associated wiring shall be immune to radio frequency and infrared remote-transmitters frequency interference.
      iii. Sensors shall be fitted within the vent pipe so that no gas may leak through the fittings.
      iv. The associated wiring and associated raceways shall be:
         - Mounted to a secure surface independent of sensors and their associated transmitter.
         - Protected from physical damage.
   b. Gas Extraction Powered Devices
      i. Gas extraction powered devices shall consist of fans, blowers, or other powered devices to exhaust the space below the concrete slab and shall be capable of ventilating the Perforated Horizontal Pipes spaces to create a negative pressure below the slabs.

4. Alarm Systems
   a. Alarm Systems shall consist of audible and visual signals to notify buildings Superintendent or occupants of mechanical malfunction or failure of active system components.
   b. Audible alarms shall be at least 15dB above ambient noise level.
   c. Visual alarms shall be a minimum of 15-candela output and be located at each audible device.
   d. The audible signal shall be distinctively different from the fire alarm systems.

5. Control Panel
   a. General Installation
      i. Control Panel shall be listed by a recognized testing laboratory.
      ii. Control Panel shall have the following characteristics:
         - Designed not to override the building fire alarm, smoke control and ventilation systems.
         - A manual shall be provided with the Control Panel describing the installation, wiring, operation, maintenance and testing.
         - Control Panel shall monitor the power to Pressure Sensors, annunciator and associated components.
   b. Power Source
      i. Primary Power Source
         - Control Panel shall be hard wired to the building normal power.
         - The circuits supplying power to the Control Panel shall be lockable in the open position.
      ii. Back-Up Power Supply (for control panel and alarm)
         - Back-Up battery or emergency power shall be rated for a minimum of 24 hours for standby mode plus 5 minutes of alarm under full load condition.
         - This Back-Up power shall be available within 60 seconds of primary power loss.
   c. Panel Operation
      i. Device Activation
         - Control Panel shall recognize alarm conditions, and then activate required audible devices, visual devices and Gas Extraction Powered Devices.

B. MISCELLANEOUS SYSTEMS

1. Wiring
   The wiring system shall be in accordance with the NYCDOB Electrical Code, International Building Code, NEC and as required herein, including latest code revisions.
   a. Outdoor Enclosures
      All outdoor enclosures shall be NEMA rated for each particular situation, (wet, submerged or gasous vapors).
   b. Conduit Seal Fittings and Cable Seal Fittings
      Conduit Seal Fittings and Cable Seal Fittings are designed to prevent the passage of gases, vapors, or flames inside the electrical conduits.
      i. Any conduit or cable that penetrates the Concrete Slab shall be provided with a conduit or cable seal.
      ii. Conduit Seal Fittings shall be installed in the vertical portion of conduit where the PVC conduit emerges from a sub-slab location. Rigid material shall be rigid metal that has the same trade size as conduit runs.
   c. Grounding Electrical Systems
      Electrical systems required to be grounded shall be connected to earth using approved methods in accordance with the NYCDOB Electrical Code.

V. SYSTEMS MAINTENANCE

A. PROCEDURES

The test, maintenance and service procedure for the Mechanical Ventilation System shall be performed in accordance with the manufacturer's instructions. Maintenance personnel for the development, shall perform testing and arrange for servicing of the Mechanical Ventilation System, if required.

B. SCHEDULE

Notwithstanding the recommendations of the manufacturer, testing, maintaining and servicing of each system shall be performed in accordance with the stipulations set fourth by the governing regulatory agency, (NYSDEC).

C. REPAIRS

All components required to mitigate soil gases shall be repaired or replaced to the manufacturer's original specification.

D. OCCUPANT NOTIFICATION

A permanent notification shall be provided indicating the presence of the Sub Slab Depressurization System. This notification shall be posted at the entrance to each cellar access, be visible and be legible as approved by the Engineer. See Detail this sheet.

SUB SLAB DEPRESSURIZATION SYSTEM
DO NOT PENETRATE CELLAR
CONCRETE SLAB

Notes:
1. This notification is to be permanently placarded at the cellar access points or other location approved by the Building Inspector at the time of construction.
2. All letters 1/2" (min.) in height.
3. At least one required per individual building unit cellar.
4. This notification shall be posted and maintained.

SSDS Notification Placard

NOTE: WARNING LIGHT TO BE ADDED AND INSTALLED IN LITTLE CAESARS, SUITE 127-09 AS PER AGREEMENT WITH POTENTIAL NEW OWNER OF PROPERTY.

FORM 1 - SUB SLAB DEPRESSURIZATION SYSTEM (SSDS) INSTALLATION CERTIFICATE
***After installation of the SSDS, a copy of this certificate shall be given to the Building Inspector.**

Site Address:______________________________
Legal Description:
Section:_______________Block:_________Lot:_______
Building Use:______________________________

Name:

Mailing Address:

Telephone:

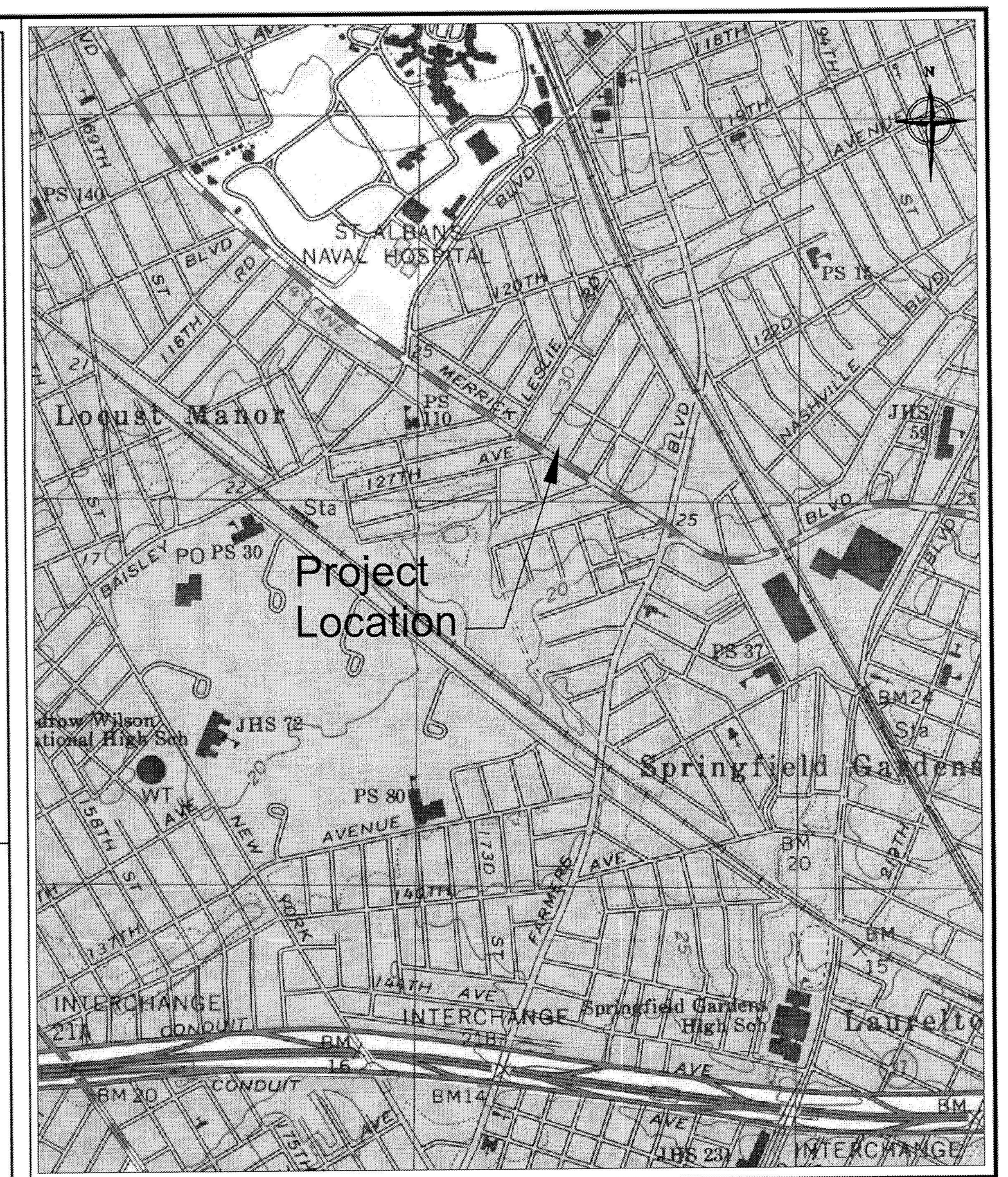
I hereby certify that I have inspected the installation and reviewed the test results of the Sub Slab Depressurization System at the above described property. On the basis of these inspections and tests it is my conclusion that the system was installed in conformity with the recommendations of the manufacturer and the requirements of this Plan. Where the inspection and testing of all or part of the work above is delegated, full responsibility shall be assumed by the Certified Installer whose signature is affixed thereon.

Signed:__________________________Date:__________

Table 1 - SPECIFICATIONS FOR GRAVEL

SIEVE SIZE	PERCENTAGE PASSING SIEVE	
	3/4" Gravel	3/8" Gravel
1-1/2" (37.5 mm)	100	-
1" (25.0 mm)	90-100	-
3/4" (19.0 mm)	55-85	100
3/8" (9.5 mm)	8-20	85-100
No. 4 (4.75 mm)	0-5	0-30
No. 8 (2.36 mm)	0-5	0-10
No. 200 (75um)	0-2	0-2
ASTM C 131 TEST GRADING	B	C

New York State Dept. of Health Soil Vapor Intrusion Guidance, October 2006.
Once a mitigation system is installed in a building, an information package must be given to the building's owner and tenants, if applicable, to facilitate their understanding of the system's operation, maintenance and monitoring. This package must include the following:
a description of the mitigation system installed and its basic operating principles;
how the owner or tenant can check that the system is operating properly;
how the system will be maintained and monitored and by whom;
a list of appropriate actions for the owner or tenant to take if the system's warning device (e.g., pressure gauge, alarm, etc.) indicates system degradation or failure; and
contact information (e.g., names, telephone numbers, etc.) if the owner or tenant has questions, comments or concerns.
The building's owner should also receive the following information:
any building permits required by local codes;
copies of contracts and warranties; and
a description of the proper operating procedures of any mechanical or electrical system installed, including manufacturer's operation and maintenance instructions and warranties.



Location Map
SCALE: NTS

BUILT AS DESIGNED
*EXCEPT FOR LOCATION OF INDICATOR LIGHT WHICH WILL BE INSTALLED IN SUITE 127-09, LITTLE CAESARS

STATE OF NEW YORK · KAREN GAIL TYLL · 079520 · LICENSED PROFESSIONAL ENGINEER

CERTIFIED BY:
KAREN G. TYLL, PE
TYLL ENGINEERING & CONSULTING, PC
169 COMMACK ROAD, SUITE H173
COMMACK, NY 11725
SEPTEMBER 30, 2015

ALTERATION OF THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL IS ILLEGAL

REV	DATE	CK	DESCRIPTION

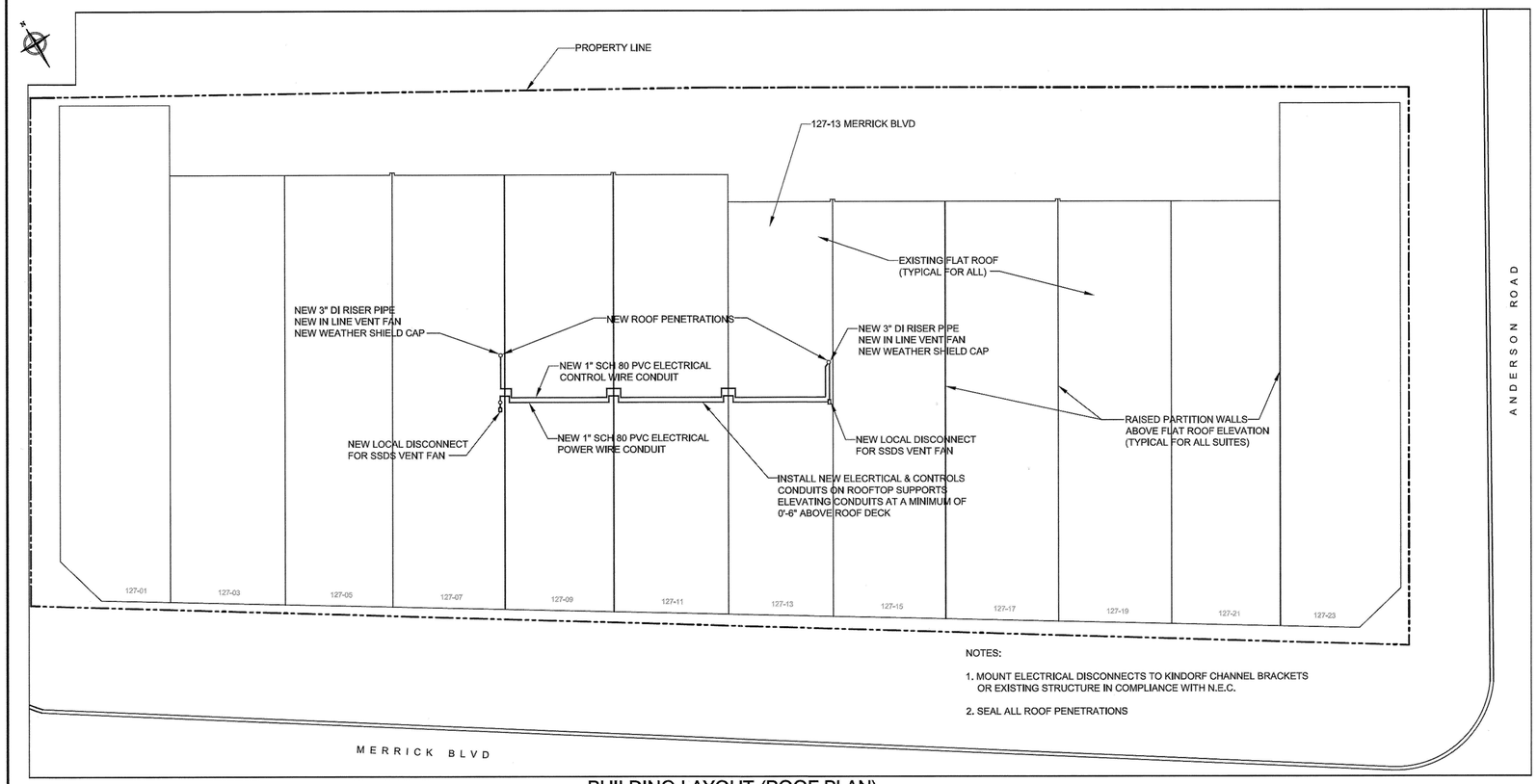
REVISIONS

127-13 Merrick Blvd
Queens, New York

SUB-SLAB DEPRESSURIZATION SYSTEM

J.R. HOLZMACHER P.E., LLC
The Third Generation of Excellence In Water Supply, Water Resources, Civil and Environmental Engineering
300 Wheeler Road, Suite 402, Hauppauge, NY 11788
PHONE: (631) 234-2220 FAX: (631) 234-2221 E-MAIL: info@holzmacher.com

SHEET TITLE: CONSTRUCTION NOTES		
DESIGNED BY: AJZ	SCALE: AS SHOWN	SHEET 1
REVIEWED BY: JRH	DATE: September 19, 2012	
PLAN SHEET BY: DGH	PROJECT NO: KoptD 12-01	

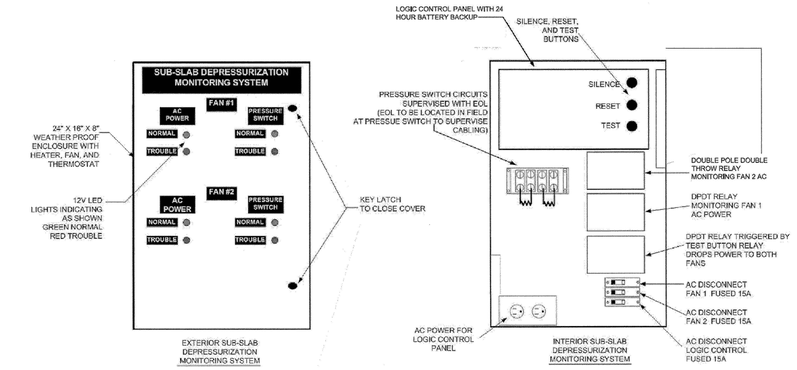


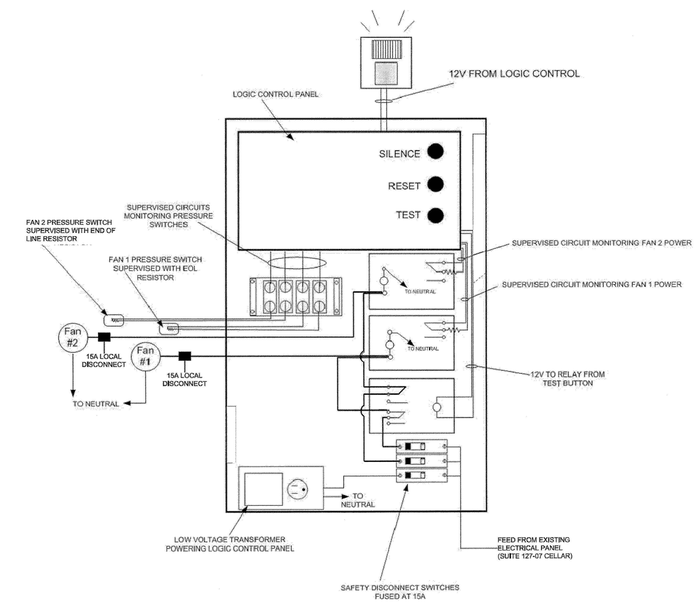
NOTES:

1. MOUNT ELECTRICAL DISCONNECTS TO KINDORF CHANNEL BRACKETS OR EXISTING STRUCTURE IN COMPLIANCE WITH N.E.C.
2. SEAL ALL ROOF PENETRATIONS

BUILDING LAYOUT (ROOF PLAN)

SCALE: 1" = 10'

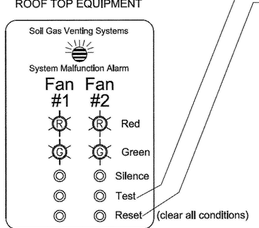




ELECTRICAL SINGLE LINE DIAGRAM

SCALE: N.T.S.

WARNING LIGHT TO BE ADDED AND INSTALLED IN LITTLE CAESARS, SUITE 127-09

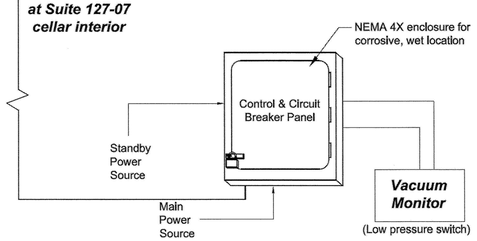


The test button is for activating all alarm lights and audible device on the alarm panel only.

The reset button is for clearing all alarm conditions weather the system is running or off.

Note: The primary intent of the Alarm/Control Panel is to alert the Bldg.Supt. or occupant of a failure of normal operations of the mechanical portion of the Active Sub-Slab Depressurization System installed at the building. The red indicator lights shall energize upon signal from the low pressure transmitters installed at each of the rooftop fan locations if pressure loss occurs. Pressure loss may occur from inoperable fan, (power loss or failure) or vent line blockage. The Electrical/Controls contractor shall provide during shop drawing submittal, logic diagrams for review by engineer prior to installation of equipment.

Alarm Panel at Suite 127-07 cellar interior

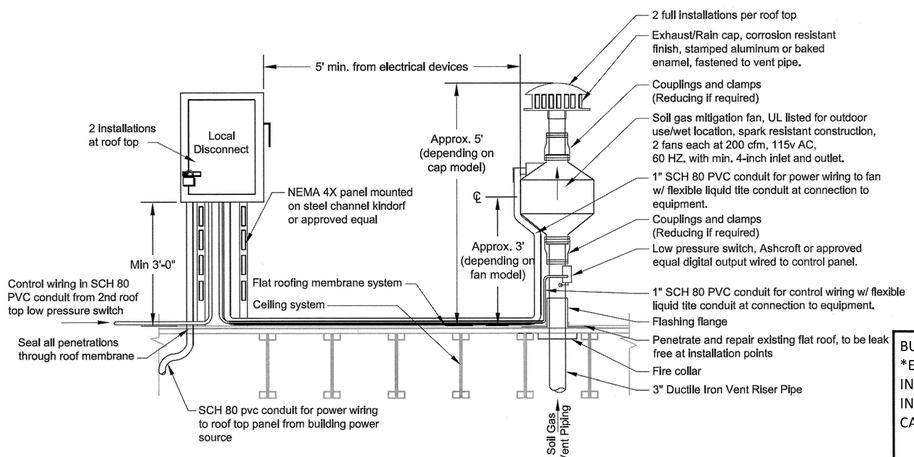


Notes:

1. The Soil Gas Venting System Shall Operate 24 HR./Day Continuously.
2. Building Strobe/Alarms to Sound Simultaneously Upon Any System Malfunction.
3. Standby power shall provide sufficient power to the control panel for 24 hours.

SOIL GAS VENTING SYSTEM ELECTRICAL AND CONTROL PANELS

SCALE: N.T.S.



TYPICAL ROOF TOP EQUIPMENT INSTALLATION

SCALE: N.T.S.

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BUILT AS DESIGNED
*EXCEPT FOR LOCATION OF INDICATOR LIGHT WHICH WILL BE INSTALLED IN SUITE 127-09, LITTLE CAESARS

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SHEET TITLE:	ROOF SSDS LAYOUT		
DESIGNED BY: AJZ	SCALE: AS SHOWN		SHEET 3
REVIEWED BY: JMD	DATE: September 19, 2012		
PLAN SHEET BY: DGH	PROJECT NO: KoptD 12-01		

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drawing location on the server: P:\2012\Kopt\01\12-01 127-13 Merrick Blvd - Brownfields\Task 2 SSDS Design\Cad\SSDS Plan Sht 2 Rev 3 09-19-12.dwg