

ANALYTICAL RESULTS

Prepared by:

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Prepared for:

PA Dept. of Env. Protection
Rachel Carson Off.Bldg. 14th F
PO Box 8471
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November 08, 2012

Project: 1-263

Submittal Date: 11/01/2012

Group Number: 1346120

SDG: PDV16

PO Number: 4000016590

Release Number: 1-263

State of Sample Origin: PA

Client Sample Description318 Layfield-House Pre Air
318 Layfield-Shower Pre Air
318 Layfield-Shower Air
DUP103112 Air
318 Layfield-Bathroom Post Air
318 Layfield Ambient AirLancaster Labs (LLI) #6845185
6845186
6845187
6845188
6845189
6845190

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC

SAIC

Attn: Rich Merhar

COPY TO

ELECTRONIC

PA Dept. of Env. Protection

Attn: Ann Asbury

COPY TO

ELECTRONIC

PA Dept. of Env. Protection

Attn: Colin Wade

COPY TO

1 COPY TO

Data Package Group

Respectfully Submitted,



Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Sample Description: 318 Layfield-House Pre Air
Summa Canister #1020
1-263

LLI Sample # AQ 6845185
LLI Group # 1346120
Account # 06195

Project Name: 1-263

Collected: 10/31/2012 10:36
through 10/31/2012 10:54
Submitted: 11/01/2012 16:50
Reported: 11/08/2012 10:59

PA Dept. of Env. Protection
Rachel Carson Off.Bldg. 14th F
PO Box 8471
Harrisburg PA 17105-8471

HOUSE SDG#: PDV16-01

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
Volatiles in Air		EPA TO-15	ug/m3	ug/m3	ppb (v)	ppb (v)	
05298	Acetone	67-64-1	31	1.2	13	0.50	1
05298	Benzene	71-43-2	0.73 J	0.64	0.23 J	0.20	1
05298	Bromobenzene	108-86-1	N.D.	1.3	N.D.	0.20	1
05298	Bromodichloromethane	75-27-4	N.D.	1.3	N.D.	0.20	1
05298	Bromoform	75-25-2	N.D.	2.1	N.D.	0.20	1
05298	Bromomethane	74-83-9	N.D.	0.78	N.D.	0.20	1
05298	1,3-Butadiene	106-99-0	N.D.	1.1	N.D.	0.50	1
05298	2-Butanone	78-93-3	N.D.	1.5	N.D.	0.50	1
05298	Carbon Disulfide	75-15-0	N.D.	0.62	N.D.	0.20	1
05298	Carbon Tetrachloride	56-23-5	N.D.	1.3	N.D.	0.20	1
05298	Chlorobenzene	108-90-7	N.D.	0.92	N.D.	0.20	1
05298	Chlorodifluoromethane	75-45-6	0.87 J	0.71	0.25 J	0.20	1
05298	Chloroethane	75-00-3	N.D.	0.53	N.D.	0.20	1
05298	Chloroform	67-66-3	N.D.	0.98	N.D.	0.20	1
05298	Chloromethane	74-87-3	0.85 J	0.41	0.41 J	0.20	1
05298	3-Chloropropene	107-05-1	N.D.	0.63	N.D.	0.20	1
05298	Cumene	98-82-8	N.D.	0.98	N.D.	0.20	1
05298	Dibromochloromethane	124-48-1	N.D.	1.7	N.D.	0.20	1
05298	1,2-Dibromoethane	106-93-4	N.D.	1.5	N.D.	0.20	1
05298	Dibromomethane	74-95-3	N.D.	1.4	N.D.	0.20	1
05298	1,2-Dichlorobenzene	95-50-1	3.1 J	1.2	0.51 J	0.20	1
05298	1,3-Dichlorobenzene	541-73-1	N.D.	1.2	N.D.	0.20	1
05298	1,4-Dichlorobenzene	106-46-7	N.D.	1.2	N.D.	0.20	1
05298	Dichlorodifluoromethane	75-71-8	4.9 J	0.99	1.0 J	0.20	1
05298	1,1-Dichloroethane	75-34-3	4.3	0.81	1.1	0.20	1
05298	1,2-Dichloroethane	107-06-2	N.D.	0.81	N.D.	0.20	1
05298	1,1-Dichloroethene	75-35-4	2.5 J	0.79	0.62 J	0.20	1
05298	cis-1,2-Dichloroethene	156-59-2	23	0.79	5.8	0.20	1
05298	trans-1,2-Dichloroethene	156-60-5	N.D.	0.79	N.D.	0.20	1
05298	Dichlorofluoromethane	75-43-4	N.D.	0.84	N.D.	0.20	1
05298	1,2-Dichloropropane	78-87-5	N.D.	0.92	N.D.	0.20	1
05298	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.91	N.D.	0.20	1
05298	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.91	N.D.	0.20	1
05298	Ethylbenzene	100-41-4	1.0 J	0.87	0.24 J	0.20	1
05298	4-Ethyltoluene	622-96-8	N.D.	0.98	N.D.	0.20	1
05298	Freon 113	76-13-1	N.D.	3.8	N.D.	0.50	1
05298	Freon 114	76-14-2	N.D.	1.4	N.D.	0.20	1
05298	Heptane	142-82-5	N.D.	0.82	N.D.	0.20	1
05298	Hexachloroethane	67-72-1	N.D.	1.9	N.D.	0.20	1
05298	Hexane	110-54-3	0.85 J	0.70	0.24 J	0.20	1
05298	2-Hexanone	591-78-6	N.D.	2.0	N.D.	0.50	1
05298	Isooctane	540-84-1	N.D.	0.93	N.D.	0.20	1
05298	Methyl t-Butyl Ether	1634-04-4	1.4 J	0.72	0.39 J	0.20	1
05298	4-Methyl-2-Pentanone	108-10-1	N.D.	2.0	N.D.	0.50	1
05298	Methylene Chloride	75-09-2	0.99 J	0.69	0.29 J	0.20	1
05298	Naphthalene	91-20-3	N.D.	2.1	N.D.	0.40	1
05298	Octane	111-65-9	N.D.	0.93	N.D.	0.20	1
05298	Pentane	109-66-0	2.0 J	0.59	0.67 J	0.20	1
05298	Styrene	100-42-5	N.D.	0.85	N.D.	0.20	1
05298	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1.4	N.D.	0.20	1
05298	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1.4	N.D.	0.20	1

Sample Description: 318 Layfield-House Pre Air
Summa Canister #1020
1-263

LLI Sample # AQ 6845185
LLI Group # 1346120
Account # 06195

Project Name: 1-263

Collected: 10/31/2012 10:36
through 10/31/2012 10:54
Submitted: 11/01/2012 16:50
Reported: 11/08/2012 10:59

PA Dept. of Env. Protection
Rachel Carson Off.Bldg. 14th F
PO Box 8471
Harrisburg PA 17105-8471

HOUSE SDG#: PDV16-01

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
Volatiles in Air		EPA TO-15	ug/m3	ug/m3	ppb (v)	ppb (v)	
05298	Tetrachloroethene	127-18-4	N.D.	1.4	N.D.	0.20	1
05298	Toluene	108-88-3	3.9	0.75	1.0	0.20	1
05298	1,2,4-Trichlorobenzene	120-82-1	N.D.	3.7	N.D.	0.50	1
05298	1,1,1-Trichloroethane	71-55-6	N.D.	1.1	N.D.	0.20	1
05298	1,1,2-Trichloroethane	79-00-5	N.D.	1.1	N.D.	0.20	1
05298	Trichloroethene	79-01-6	10	1.1	1.9	0.20	1
05298	Trichlorofluoromethane	75-69-4	3.7 J	1.1	0.66 J	0.20	1
05298	1,2,3-Trichloropropane	96-18-4	N.D.	1.2	N.D.	0.20	1
05298	1,2,4-Trimethylbenzene	95-63-6	2.1 J	0.98	0.42 J	0.20	1
05298	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.98	N.D.	0.20	1
05298	Vinyl Chloride	75-01-4	0.86 J	0.51	0.34 J	0.20	1
05298	m/p-Xylene	179601-23-1	4.1 J	0.87	0.95 J	0.20	1
05298	o-Xylene	95-47-6	1.4 J	0.87	0.33 J	0.20	1

MDL = Method Detection Limit

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/13

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05298	12.21 TO-15 VOA Extended List	EPA TO-15	1	C1230930AA	11/05/2012 03:54	Michael A Ziegler	1

Sample Description: 318 Layfield-Shower Pre Air
Summa Canister #864
1-263

LLI Sample # AQ 6845186
LLI Group # 1346120
Account # 06195

Project Name: 1-263

Collected: 10/31/2012 10:38
through 10/31/2012 10:57
Submitted: 11/01/2012 16:50
Reported: 11/08/2012 10:59

PA Dept. of Env. Protection
Rachel Carson Off.Bldg. 14th F
PO Box 8471
Harrisburg PA 17105-8471

SHOWP SDG#: PDV16-02

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
Volatiles in Air		EPA TO-15	ug/m3	ug/m3	ppb (v)	ppb (v)	
05298	Acetone	67-64-1	60	1.2	25	0.50	1
05298	Benzene	71-43-2	1.1 J	0.64	0.36 J	0.20	1
05298	Bromobenzene	108-86-1	N.D.	1.3	N.D.	0.20	1
05298	Bromodichloromethane	75-27-4	N.D.	1.3	N.D.	0.20	1
05298	Bromoform	75-25-2	N.D.	2.1	N.D.	0.20	1
05298	Bromomethane	74-83-9	N.D.	0.78	N.D.	0.20	1
05298	1,3-Butadiene	106-99-0	N.D.	1.1	N.D.	0.50	1
05298	2-Butanone	78-93-3	1.6 J	1.5	0.53 J	0.50	1
05298	Carbon Disulfide	75-15-0	N.D.	0.62	N.D.	0.20	1
05298	Carbon Tetrachloride	56-23-5	N.D.	1.3	N.D.	0.20	1
05298	Chlorobenzene	108-90-7	0.96 J	0.92	0.21 J	0.20	1
05298	Chlorodifluoromethane	75-45-6	0.96 J	0.71	0.27 J	0.20	1
05298	Chloroethane	75-00-3	N.D.	0.53	N.D.	0.20	1
05298	Chloroform	67-66-3	N.D.	0.98	N.D.	0.20	1
05298	Chloromethane	74-87-3	0.95 J	0.41	0.46 J	0.20	1
05298	3-Chloropropene	107-05-1	N.D.	0.63	N.D.	0.20	1
05298	Cumene	98-82-8	N.D.	0.98	N.D.	0.20	1
05298	Dibromochloromethane	124-48-1	N.D.	1.7	N.D.	0.20	1
05298	1,2-Dibromoethane	106-93-4	N.D.	1.5	N.D.	0.20	1
05298	Dibromomethane	74-95-3	N.D.	1.4	N.D.	0.20	1
05298	1,2-Dichlorobenzene	95-50-1	6.4	1.2	1.1	0.20	1
05298	1,3-Dichlorobenzene	541-73-1	N.D.	1.2	N.D.	0.20	1
05298	1,4-Dichlorobenzene	106-46-7	1.5 J	1.2	0.25 J	0.20	1
05298	Dichlorodifluoromethane	75-71-8	4.4 J	0.99	0.90 J	0.20	1
05298	1,1-Dichloroethane	75-34-3	9.4	0.81	2.3	0.20	1
05298	1,2-Dichloroethane	107-06-2	N.D.	0.81	N.D.	0.20	1
05298	1,1-Dichloroethene	75-35-4	5.4	0.79	1.4	0.20	1
05298	cis-1,2-Dichloroethene	156-59-2	58	0.79	15	0.20	1
05298	trans-1,2-Dichloroethene	156-60-5	N.D.	0.79	N.D.	0.20	1
05298	Dichlorofluoromethane	75-43-4	N.D.	0.84	N.D.	0.20	1
05298	1,2-Dichloropropane	78-87-5	N.D.	0.92	N.D.	0.20	1
05298	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.91	N.D.	0.20	1
05298	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.91	N.D.	0.20	1
05298	Ethylbenzene	100-41-4	1.1 J	0.87	0.26 J	0.20	1
05298	4-Ethyltoluene	622-96-8	N.D.	0.98	N.D.	0.20	1
05298	Freon 113	76-13-1	N.D.	3.8	N.D.	0.50	1
05298	Freon 114	76-14-2	N.D.	1.4	N.D.	0.20	1
05298	Heptane	142-82-5	N.D.	0.82	N.D.	0.20	1
05298	Hexachloroethane	67-72-1	N.D.	1.9	N.D.	0.20	1
05298	Hexane	110-54-3	1.5 J	0.70	0.44 J	0.20	1
05298	2-Hexanone	591-78-6	N.D.	2.0	N.D.	0.50	1
05298	Isooctane	540-84-1	N.D.	0.93	N.D.	0.20	1
05298	Methyl t-Butyl Ether	1634-04-4	2.6 J	0.72	0.72 J	0.20	1
05298	4-Methyl-2-Pentanone	108-10-1	N.D.	2.0	N.D.	0.50	1
05298	Methylene Chloride	75-09-2	2.6 J	0.69	0.74 J	0.20	1
05298	Naphthalene	91-20-3	N.D.	2.1	N.D.	0.40	1
05298	Octane	111-65-9	N.D.	0.93	N.D.	0.20	1
05298	Pentane	109-66-0	3.8	0.59	1.3	0.20	1
05298	Styrene	100-42-5	N.D.	0.85	N.D.	0.20	1
05298	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1.4	N.D.	0.20	1
05298	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1.4	N.D.	0.20	1

Sample Description: 318 Layfield-Shower Pre Air
Summa Canister #864
1-263

LLI Sample # AQ 6845186
LLI Group # 1346120
Account # 06195

Project Name: 1-263

Collected: 10/31/2012 10:38
through 10/31/2012 10:57
Submitted: 11/01/2012 16:50
Reported: 11/08/2012 10:59

PA Dept. of Env. Protection
Rachel Carson Off.Bldg. 14th F
PO Box 8471
Harrisburg PA 17105-8471

SHOWP SDG#: PDV16-02

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
Volatiles in Air		EPA TO-15	ug/m3	ug/m3	ppb (v)	ppb (v)	
05298	Tetrachloroethene	127-18-4	N.D.	1.4	N.D.	0.20	1
05298	Toluene	108-88-3	5.3	0.75	1.4	0.20	1
05298	1,2,4-Trichlorobenzene	120-82-1	N.D.	3.7	N.D.	0.50	1
05298	1,1,1-Trichloroethane	71-55-6	N.D.	1.1	N.D.	0.20	1
05298	1,1,2-Trichloroethane	79-00-5	N.D.	1.1	N.D.	0.20	1
05298	Trichloroethene	79-01-6	26	1.1	4.8	0.20	1
05298	Trichlorofluoromethane	75-69-4	3.8 J	1.1	0.67 J	0.20	1
05298	1,2,3-Trichloropropane	96-18-4	N.D.	1.2	N.D.	0.20	1
05298	1,2,4-Trimethylbenzene	95-63-6	2.0 J	0.98	0.41 J	0.20	1
05298	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.98	N.D.	0.20	1
05298	Vinyl Chloride	75-01-4	1.7 J	0.51	0.67 J	0.20	1
05298	m/p-Xylene	179601-23-1	4.8	0.87	1.1	0.20	1
05298	o-Xylene	95-47-6	1.7 J	0.87	0.39 J	0.20	1

MDL = Method Detection Limit

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/13

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05298	12.21 TO-15 VOA Extended List	EPA TO-15	1	C1230930AA	11/05/2012 04:40	Michael A Ziegler	1

Sample Description: 318 Layfield-Shower Air
Summa Canister #1082
1-263

LLI Sample # AQ 6845187
LLI Group # 1346120
Account # 06195

Project Name: 1-263

Collected: 10/31/2012 11:13
through 10/31/2012 11:30
Submitted: 11/01/2012 16:50
Reported: 11/08/2012 10:59

PA Dept. of Env. Protection
Rachel Carson Off.Bldg. 14th F
PO Box 8471
Harrisburg PA 17105-8471

SHOWR SDG#: PDV16-03

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
Volatiles in Air		EPA TO-15	ug/m3	ug/m3	ppb (v)	ppb (v)	
05298	Acetone	67-64-1	44	1.2	19	0.50	1
05298	Benzene	71-43-2	39	0.64	12	0.20	1
05298	Bromobenzene	108-86-1	N.D.	1.3	N.D.	0.20	1
05298	Bromodichloromethane	75-27-4	N.D.	1.3	N.D.	0.20	1
05298	Bromoform	75-25-2	N.D.	2.1	N.D.	0.20	1
05298	Bromomethane	74-83-9	N.D.	0.78	N.D.	0.20	1
05298	1,3-Butadiene	106-99-0	N.D.	1.1	N.D.	0.50	1
05298	2-Butanone	78-93-3	N.D.	1.5	N.D.	0.50	1
05298	Carbon Disulfide	75-15-0	N.D.	0.62	N.D.	0.20	1
05298	Carbon Tetrachloride	56-23-5	N.D.	1.3	N.D.	0.20	1
05298	Chlorobenzene	108-90-7	120	0.92	25	0.20	1
05298	Chlorodifluoromethane	75-45-6	0.86 J	0.71	0.24 J	0.20	1
05298	Chloroethane	75-00-3	4.0	0.53	1.5	0.20	1
05298	Chloroform	67-66-3	N.D.	0.98	N.D.	0.20	1
05298	Chloromethane	74-87-3	1.0 J	0.41	0.50 J	0.20	1
05298	3-Chloropropene	107-05-1	N.D.	0.63	N.D.	0.20	1
05298	Cumene	98-82-8	1.4 J	0.98	0.29 J	0.20	1
05298	Dibromochloromethane	124-48-1	N.D.	1.7	N.D.	0.20	1
05298	1,2-Dibromoethane	106-93-4	N.D.	1.5	N.D.	0.20	1
05298	Dibromomethane	74-95-3	N.D.	1.4	N.D.	0.20	1
05298	1,2-Dichlorobenzene	95-50-1	950	24	160	4.0	20
05298	1,3-Dichlorobenzene	541-73-1	9.0	1.2	1.5	0.20	1
05298	1,4-Dichlorobenzene	106-46-7	110 J	24	18 J	4.0	20
05298	Dichlorodifluoromethane	75-71-8	3.7 J	0.99	0.74 J	0.20	1
05298	1,1-Dichloroethane	75-34-3	540	16	130	4.0	20
05298	1,2-Dichloroethane	107-06-2	16	0.81	4.0	0.20	1
05298	1,1-Dichloroethene	75-35-4	210	0.79	53	0.20	1
05298	cis-1,2-Dichloroethene	156-59-2	4,900	16	1,200	4.0	20
05298	trans-1,2-Dichloroethene	156-60-5	27	0.79	6.7	0.20	1
05298	Dichlorofluoromethane	75-43-4	N.D.	0.84	N.D.	0.20	1
05298	1,2-Dichloropropane	78-87-5	4.1 J	0.92	0.89 J	0.20	1
05298	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.91	N.D.	0.20	1
05298	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.91	N.D.	0.20	1
05298	Ethylbenzene	100-41-4	3.0 J	0.87	0.70 J	0.20	1
05298	4-Ethyltoluene	622-96-8	1.3 J	0.98	0.27 J	0.20	1
05298	Freon 113	76-13-1	N.D.	3.8	N.D.	0.50	1
05298	Freon 114	76-14-2	N.D.	1.4	N.D.	0.20	1
05298	Heptane	142-82-5	N.D.	0.82	N.D.	0.20	1
05298	Hexachloroethane	67-72-1	N.D.	1.9	N.D.	0.20	1
05298	Hexane	110-54-3	0.92 J	0.70	0.26 J	0.20	1
05298	2-Hexanone	591-78-6	N.D.	2.0	N.D.	0.50	1
05298	Isooctane	540-84-1	N.D.	0.93	N.D.	0.20	1
05298	Methyl t-Butyl Ether	1634-04-4	550	14	150	4.0	20
05298	4-Methyl-2-Pentanone	108-10-1	N.D.	2.0	N.D.	0.50	1
05298	Methylene Chloride	75-09-2	1.5 J	0.69	0.43 J	0.20	1
05298	Naphthalene	91-20-3	N.D.	2.1	N.D.	0.40	1
05298	Octane	111-65-9	N.D.	0.93	N.D.	0.20	1
05298	Pentane	109-66-0	6.3	0.59	2.1	0.20	1
05298	Styrene	100-42-5	1.1 J	0.85	0.26 J	0.20	1
05298	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1.4	N.D.	0.20	1
05298	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1.4	N.D.	0.20	1

Sample Description: 318 Layfield-Shower Air
Summa Canister #1082
1-263

LLI Sample # AQ 6845187
LLI Group # 1346120
Account # 06195

Project Name: 1-263

Collected: 10/31/2012 11:13
through 10/31/2012 11:30
Submitted: 11/01/2012 16:50
Reported: 11/08/2012 10:59

PA Dept. of Env. Protection
Rachel Carson Off.Bldg. 14th F
PO Box 8471
Harrisburg PA 17105-8471

SHOWR SDG#: PDV16-03

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
Volatiles in Air		EPA TO-15	ug/m3	ug/m3	ppb (v)	ppb (v)	
05298	Tetrachloroethene	127-18-4	1.6 J	1.4	0.23 J	0.20	1
05298	Toluene	108-88-3	9.2	0.75	2.4	0.20	1
05298	1,2,4-Trichlorobenzene	120-82-1	N.D.	3.7	N.D.	0.50	1
05298	1,1,1-Trichloroethane	71-55-6	5.9	1.1	1.1	0.20	1
05298	1,1,2-Trichloroethane	79-00-5	N.D.	1.1	N.D.	0.20	1
05298	Trichloroethene	79-01-6	1,800	21	340	4.0	20
05298	Trichlorofluoromethane	75-69-4	3.8 J	1.1	0.67 J	0.20	1
05298	1,2,3-Trichloropropane	96-18-4	N.D.	1.2	N.D.	0.20	1
05298	1,2,4-Trimethylbenzene	95-63-6	5.0	0.98	1.0	0.20	1
05298	1,3,5-Trimethylbenzene	108-67-8	1.2 J	0.98	0.23 J	0.20	1
05298	Vinyl Chloride	75-01-4	78	0.51	30	0.20	1
05298	m/p-Xylene	179601-23-1	14	0.87	3.2	0.20	1
05298	o-Xylene	95-47-6	5.1	0.87	1.2	0.20	1

MDL = Method Detection Limit

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/13

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05298	12.21 TO-15 VOA Extended List	EPA TO-15	1	C1230930AA	11/05/2012 05:26	Michael A Ziegler	1
05298	12.21 TO-15 VOA Extended List	EPA TO-15	1	C1230930AB	11/05/2012 15:10	Jeffrey B Smith	20

Sample Description: DUP103112 Air
Summa Canister #1113
1-263

LLI Sample # AQ 6845188
LLI Group # 1346120
Account # 06195

Project Name: 1-263

Collected: 10/31/2012 11:13
through 10/31/2012 11:30
Submitted: 11/01/2012 16:50
Reported: 11/08/2012 10:59

PA Dept. of Env. Protection
Rachel Carson Off.Bldg. 14th F
PO Box 8471
Harrisburg PA 17105-8471

1031D SDG#: PDV16-04FD

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
Volatiles in Air		EPA TO-15	ug/m3	ug/m3	ppb (v)	ppb (v)	
05298	Acetone	67-64-1	62	12	26	5.0	10
05298	Benzene	71-43-2	33	6.4	10	2.0	10
05298	Bromobenzene	108-86-1	N.D.	13	N.D.	2.0	10
05298	Bromodichloromethane	75-27-4	N.D.	13	N.D.	2.0	10
05298	Bromoform	75-25-2	N.D.	21	N.D.	2.0	10
05298	Bromomethane	74-83-9	N.D.	7.8	N.D.	2.0	10
05298	1,3-Butadiene	106-99-0	N.D.	11	N.D.	5.0	10
05298	2-Butanone	78-93-3	N.D.	15	N.D.	5.0	10
05298	Carbon Disulfide	75-15-0	N.D.	6.2	N.D.	2.0	10
05298	Carbon Tetrachloride	56-23-5	13 J	13	2.0 J	2.0	10
05298	Chlorobenzene	108-90-7	110	9.2	24	2.0	10
05298	Chlorodifluoromethane	75-45-6	N.D.	7.1	N.D.	2.0	10
05298	Chloroethane	75-00-3	9.5 J	5.3	3.6 J	2.0	10
05298	Chloroform	67-66-3	N.D.	9.8	N.D.	2.0	10
05298	Chloromethane	74-87-3	4.3 J	4.1	2.1 J	2.0	10
05298	3-Chloropropene	107-05-1	N.D.	6.3	N.D.	2.0	10
05298	Cumene	98-82-8	N.D.	9.8	N.D.	2.0	10
05298	Dibromochloromethane	124-48-1	N.D.	17	N.D.	2.0	10
05298	1,2-Dibromoethane	106-93-4	N.D.	15	N.D.	2.0	10
05298	Dibromomethane	74-95-3	N.D.	14	N.D.	2.0	10
05298	1,2-Dichlorobenzene	95-50-1	1,100	12	190	2.0	10
05298	1,3-Dichlorobenzene	541-73-1	19 J	12	3.2 J	2.0	10
05298	1,4-Dichlorobenzene	106-46-7	150	12	25	2.0	10
05298	Dichlorodifluoromethane	75-71-8	13 J	9.9	2.6 J	2.0	10
05298	1,1-Dichloroethane	75-34-3	470	8.1	120	2.0	10
05298	1,2-Dichloroethane	107-06-2	22 J	8.1	5.3 J	2.0	10
05298	1,1-Dichloroethene	75-35-4	230	7.9	59	2.0	10
05298	cis-1,2-Dichloroethene	156-59-2	4,100	16	1,000	4.0	20
05298	trans-1,2-Dichloroethene	156-60-5	39 J	7.9	9.7 J	2.0	10
05298	Dichlorofluoromethane	75-43-4	N.D.	8.4	N.D.	2.0	10
05298	1,2-Dichloropropane	78-87-5	N.D.	9.2	N.D.	2.0	10
05298	cis-1,3-Dichloropropene	10061-01-5	N.D.	9.1	N.D.	2.0	10
05298	trans-1,3-Dichloropropene	10061-02-6	N.D.	9.1	N.D.	2.0	10
05298	Ethylbenzene	100-41-4	N.D.	8.7	N.D.	2.0	10
05298	4-Ethyltoluene	622-96-8	N.D.	9.8	N.D.	2.0	10
05298	Freon 113	76-13-1	N.D.	38	N.D.	5.0	10
05298	Freon 114	76-14-2	N.D.	14	N.D.	2.0	10
05298	Heptane	142-82-5	N.D.	8.2	N.D.	2.0	10
05298	Hexachloroethane	67-72-1	N.D.	19	N.D.	2.0	10
05298	Hexane	110-54-3	N.D.	7.0	N.D.	2.0	10
05298	2-Hexanone	591-78-6	N.D.	20	N.D.	5.0	10
05298	Isooctane	540-84-1	N.D.	9.3	N.D.	2.0	10
05298	Methyl t-Butyl Ether	1634-04-4	510	7.2	140	2.0	10
05298	4-Methyl-2-Pentanone	108-10-1	N.D.	20	N.D.	5.0	10
05298	Methylene Chloride	75-09-2	12 J	6.9	3.4 J	2.0	10
05298	Naphthalene	91-20-3	N.D.	21	N.D.	4.0	10
05298	Octane	111-65-9	N.D.	9.3	N.D.	2.0	10
05298	Pentane	109-66-0	7.7 J	5.9	2.6 J	2.0	10
05298	Styrene	100-42-5	N.D.	8.5	N.D.	2.0	10
05298	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	14	N.D.	2.0	10
05298	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	14	N.D.	2.0	10

Sample Description: DUP103112 Air
Summa Canister #1113
1-263

LLI Sample # AQ 6845188
LLI Group # 1346120
Account # 06195

Project Name: 1-263

Collected: 10/31/2012 11:13
through 10/31/2012 11:30
Submitted: 11/01/2012 16:50
Reported: 11/08/2012 10:59

PA Dept. of Env. Protection
Rachel Carson Off.Bldg. 14th F
PO Box 8471
Harrisburg PA 17105-8471

1031D SDG#: PDV16-04FD

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
Volatiles in Air		EPA TO-15	ug/m3	ug/m3	ppb (v)	ppb (v)	
05298	Tetrachloroethene	127-18-4	N.D.	14	N.D.	2.0	10
05298	Toluene	108-88-3	8.5 J	7.5	2.3 J	2.0	10
05298	1,2,4-Trichlorobenzene	120-82-1	N.D.	37	N.D.	5.0	10
05298	1,1,1-Trichloroethane	71-55-6	16 J	11	3.0 J	2.0	10
05298	1,1,2-Trichloroethane	79-00-5	N.D.	11	N.D.	2.0	10
05298	Trichloroethene	79-01-6	1,600	11	290	2.0	10
05298	Trichlorofluoromethane	75-69-4	17 J	11	3.0 J	2.0	10
05298	1,2,3-Trichloropropane	96-18-4	N.D.	12	N.D.	2.0	10
05298	1,2,4-Trimethylbenzene	95-63-6	N.D.	9.8	N.D.	2.0	10
05298	1,3,5-Trimethylbenzene	108-67-8	N.D.	9.8	N.D.	2.0	10
05298	Vinyl Chloride	75-01-4	94	5.1	37	2.0	10
05298	m/p-Xylene	179601-23-1	19 J	8.7	4.4 J	2.0	10
05298	o-Xylene	95-47-6	10 J	8.7	2.4 J	2.0	10

Reporting limits were raised due to interference from the sample matrix.

MDL = Method Detection Limit

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/13

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05298	12.21 TO-15 VOA Extended List	EPA TO-15	1	C1230930AB	11/05/2012 21:06	Michael A Ziegler	20
05298	12.21 TO-15 VOA Extended List	EPA TO-15	1	C1230930AB	11/06/2012 08:56	Michael A Ziegler	10

Sample Description: 318 Layfield-Bathroom Post Air
Summa Canister #1088
1-263

LLI Sample # AQ 6845189
LLI Group # 1346120
Account # 06195

Project Name: 1-263

Collected: 10/31/2012 11:30
through 10/31/2012 11:49
Submitted: 11/01/2012 16:50
Reported: 11/08/2012 10:59

PA Dept. of Env. Protection
Rachel Carson Off.Bldg. 14th F
PO Box 8471
Harrisburg PA 17105-8471

BATH- SDG#: PDV16-05

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
Volatiles in Air		EPA TO-15	ug/m3	ug/m3	ppb (v)	ppb (v)	
05298	Acetone	67-64-1	78	1.2	33	0.50	1
05298	Benzene	71-43-2	4.2	0.64	1.3	0.20	1
05298	Bromobenzene	108-86-1	N.D.	1.3	N.D.	0.20	1
05298	Bromodichloromethane	75-27-4	N.D.	1.3	N.D.	0.20	1
05298	Bromoform	75-25-2	N.D.	2.1	N.D.	0.20	1
05298	Bromomethane	74-83-9	N.D.	0.78	N.D.	0.20	1
05298	1,3-Butadiene	106-99-0	N.D.	1.1	N.D.	0.50	1
05298	2-Butanone	78-93-3	N.D.	1.5	N.D.	0.50	1
05298	Carbon Disulfide	75-15-0	N.D.	0.62	N.D.	0.20	1
05298	Carbon Tetrachloride	56-23-5	N.D.	1.3	N.D.	0.20	1
05298	Chlorobenzene	108-90-7	16	0.92	3.5	0.20	1
05298	Chlorodifluoromethane	75-45-6	0.88 J	0.71	0.25 J	0.20	1
05298	Chloroethane	75-00-3	N.D.	0.53	N.D.	0.20	1
05298	Chloroform	67-66-3	N.D.	0.98	N.D.	0.20	1
05298	Chloromethane	74-87-3	0.86 J	0.41	0.42 J	0.20	1
05298	3-Chloropropene	107-05-1	N.D.	0.63	N.D.	0.20	1
05298	Cumene	98-82-8	N.D.	0.98	N.D.	0.20	1
05298	Dibromochloromethane	124-48-1	N.D.	1.7	N.D.	0.20	1
05298	1,2-Dibromoethane	106-93-4	N.D.	1.5	N.D.	0.20	1
05298	Dibromomethane	74-95-3	N.D.	1.4	N.D.	0.20	1
05298	1,2-Dichlorobenzene	95-50-1	170	12	29	2.0	10
05298	1,3-Dichlorobenzene	541-73-1	1.8 J	1.2	0.29 J	0.20	1
05298	1,4-Dichlorobenzene	106-46-7	31	1.2	5.2	0.20	1
05298	Dichlorodifluoromethane	75-71-8	3.6 J	0.99	0.74 J	0.20	1
05298	1,1-Dichloroethane	75-34-3	63	0.81	16	0.20	1
05298	1,2-Dichloroethane	107-06-2	2.2 J	0.81	0.54 J	0.20	1
05298	1,1-Dichloroethene	75-35-4	27	0.79	6.9	0.20	1
05298	cis-1,2-Dichloroethene	156-59-2	460	7.9	120	2.0	10
05298	trans-1,2-Dichloroethene	156-60-5	3.9 J	0.79	0.97 J	0.20	1
05298	Dichlorofluoromethane	75-43-4	N.D.	0.84	N.D.	0.20	1
05298	1,2-Dichloropropane	78-87-5	N.D.	0.92	N.D.	0.20	1
05298	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.91	N.D.	0.20	1
05298	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.91	N.D.	0.20	1
05298	Ethylbenzene	100-41-4	0.96 J	0.87	0.22 J	0.20	1
05298	4-Ethyltoluene	622-96-8	N.D.	0.98	N.D.	0.20	1
05298	Freon 113	76-13-1	N.D.	3.8	N.D.	0.50	1
05298	Freon 114	76-14-2	N.D.	1.4	N.D.	0.20	1
05298	Heptane	142-82-5	N.D.	0.82	N.D.	0.20	1
05298	Hexachloroethane	67-72-1	N.D.	1.9	N.D.	0.20	1
05298	Hexane	110-54-3	N.D.	0.70	N.D.	0.20	1
05298	2-Hexanone	591-78-6	N.D.	2.0	N.D.	0.50	1
05298	Isooctane	540-84-1	N.D.	0.93	N.D.	0.20	1
05298	Methyl t-Butyl Ether	1634-04-4	52	0.72	14	0.20	1
05298	4-Methyl-2-Pentanone	108-10-1	N.D.	2.0	N.D.	0.50	1
05298	Methylene Chloride	75-09-2	1.2 J	0.69	0.34 J	0.20	1
05298	Naphthalene	91-20-3	N.D.	2.1	N.D.	0.40	1
05298	Octane	111-65-9	N.D.	0.93	N.D.	0.20	1
05298	Pentane	109-66-0	1.7 J	0.59	0.58 J	0.20	1
05298	Styrene	100-42-5	N.D.	0.85	N.D.	0.20	1
05298	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1.4	N.D.	0.20	1
05298	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1.4	N.D.	0.20	1

Sample Description: 318 Layfield-Bathroom Post Air
Summa Canister #1088
1-263

LLI Sample # AQ 6845189
LLI Group # 1346120
Account # 06195

Project Name: 1-263

Collected: 10/31/2012 11:30
through 10/31/2012 11:49
Submitted: 11/01/2012 16:50
Reported: 11/08/2012 10:59

PA Dept. of Env. Protection
Rachel Carson Off.Bldg. 14th F
PO Box 8471
Harrisburg PA 17105-8471

BATH- SDG#: PDV16-05

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
Volatiles in Air		EPA TO-15	ug/m3	ug/m3	ppb (v)	ppb (v)	
05298	Tetrachloroethene	127-18-4	N.D.	1.4	N.D.	0.20	1
05298	Toluene	108-88-3	3.2 J	0.75	0.86 J	0.20	1
05298	1,2,4-Trichlorobenzene	120-82-1	N.D.	3.7	N.D.	0.50	1
05298	1,1,1-Trichloroethane	71-55-6	1.4 J	1.1	0.25 J	0.20	1
05298	1,1,2-Trichloroethane	79-00-5	N.D.	1.1	N.D.	0.20	1
05298	Trichloroethene	79-01-6	230	1.1	44	0.20	1
05298	Trichlorofluoromethane	75-69-4	4.2 J	1.1	0.75 J	0.20	1
05298	1,2,3-Trichloropropane	96-18-4	N.D.	1.2	N.D.	0.20	1
05298	1,2,4-Trimethylbenzene	95-63-6	1.2 J	0.98	0.25 J	0.20	1
05298	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.98	N.D.	0.20	1
05298	Vinyl Chloride	75-01-4	8.9	0.51	3.5	0.20	1
05298	m/p-Xylene	179601-23-1	3.4 J	0.87	0.78 J	0.20	1
05298	o-Xylene	95-47-6	1.1 J	0.87	0.26 J	0.20	1

MDL = Method Detection Limit

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/13

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05298	12.21 TO-15 VOA Extended List	EPA TO-15	1	C1230930AB	11/05/2012 21:48	Michael A Ziegler	10
05298	12.21 TO-15 VOA Extended List	EPA TO-15	1	C1230930AB	11/06/2012 09:41	Michael A Ziegler	1

Sample Description: 318 Layfield Ambient Air
Summa Canister #553
1-263

LLI Sample # AQ 6845190
LLI Group # 1346120
Account # 06195

Project Name: 1-263

Collected: 10/31/2012 10:35
through 10/31/2012 11:50
Submitted: 11/01/2012 16:50
Reported: 11/08/2012 10:59

PA Dept. of Env. Protection
Rachel Carson Off.Bldg. 14th F
PO Box 8471
Harrisburg PA 17105-8471

318AB SDG#: PDV16-06AB*

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
Volatiles in Air		EPA TO-15	ug/m3	ug/m3	ppb (v)	ppb (v)	
05298	Acetone	67-64-1	5.2	1.2	2.2	0.50	1
05298	Benzene	71-43-2	N.D.	0.64	N.D.	0.20	1
05298	Bromobenzene	108-86-1	N.D.	1.3	N.D.	0.20	1
05298	Bromodichloromethane	75-27-4	N.D.	1.3	N.D.	0.20	1
05298	Bromoform	75-25-2	N.D.	2.1	N.D.	0.20	1
05298	Bromomethane	74-83-9	N.D.	0.78	N.D.	0.20	1
05298	1,3-Butadiene	106-99-0	N.D.	1.1	N.D.	0.50	1
05298	2-Butanone	78-93-3	N.D.	1.5	N.D.	0.50	1
05298	Carbon Disulfide	75-15-0	N.D.	0.62	N.D.	0.20	1
05298	Carbon Tetrachloride	56-23-5	N.D.	1.3	N.D.	0.20	1
05298	Chlorobenzene	108-90-7	N.D.	0.92	N.D.	0.20	1
05298	Chlorodifluoromethane	75-45-6	0.84 J	0.71	0.24 J	0.20	1
05298	Chloroethane	75-00-3	N.D.	0.53	N.D.	0.20	1
05298	Chloroform	67-66-3	N.D.	0.98	N.D.	0.20	1
05298	Chloromethane	74-87-3	0.87 J	0.41	0.42 J	0.20	1
05298	3-Chloropropene	107-05-1	N.D.	0.63	N.D.	0.20	1
05298	Cumene	98-82-8	N.D.	0.98	N.D.	0.20	1
05298	Dibromochloromethane	124-48-1	N.D.	1.7	N.D.	0.20	1
05298	1,2-Dibromoethane	106-93-4	N.D.	1.5	N.D.	0.20	1
05298	Dibromomethane	74-95-3	N.D.	1.4	N.D.	0.20	1
05298	1,2-Dichlorobenzene	95-50-1	N.D.	1.2	N.D.	0.20	1
05298	1,3-Dichlorobenzene	541-73-1	N.D.	1.2	N.D.	0.20	1
05298	1,4-Dichlorobenzene	106-46-7	N.D.	1.2	N.D.	0.20	1
05298	Dichlorodifluoromethane	75-71-8	2.7 J	0.99	0.55 J	0.20	1
05298	1,1-Dichloroethane	75-34-3	N.D.	0.81	N.D.	0.20	1
05298	1,2-Dichloroethane	107-06-2	N.D.	0.81	N.D.	0.20	1
05298	1,1-Dichloroethene	75-35-4	N.D.	0.79	N.D.	0.20	1
05298	cis-1,2-Dichloroethene	156-59-2	N.D.	0.79	N.D.	0.20	1
05298	trans-1,2-Dichloroethene	156-60-5	N.D.	0.79	N.D.	0.20	1
05298	Dichlorofluoromethane	75-43-4	N.D.	0.84	N.D.	0.20	1
05298	1,2-Dichloropropane	78-87-5	N.D.	0.92	N.D.	0.20	1
05298	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.91	N.D.	0.20	1
05298	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.91	N.D.	0.20	1
05298	Ethylbenzene	100-41-4	N.D.	0.87	N.D.	0.20	1
05298	4-Ethyltoluene	622-96-8	N.D.	0.98	N.D.	0.20	1
05298	Freon 113	76-13-1	N.D.	3.8	N.D.	0.50	1
05298	Freon 114	76-14-2	N.D.	1.4	N.D.	0.20	1
05298	Heptane	142-82-5	N.D.	0.82	N.D.	0.20	1
05298	Hexachloroethane	67-72-1	N.D.	1.9	N.D.	0.20	1
05298	Hexane	110-54-3	N.D.	0.70	N.D.	0.20	1
05298	2-Hexanone	591-78-6	N.D.	2.0	N.D.	0.50	1
05298	Isooctane	540-84-1	N.D.	0.93	N.D.	0.20	1
05298	Methyl t-Butyl Ether	1634-04-4	N.D.	0.72	N.D.	0.20	1
05298	4-Methyl-2-Pentanone	108-10-1	N.D.	2.0	N.D.	0.50	1
05298	Methylene Chloride	75-09-2	0.81 J	0.69	0.23 J	0.20	1
05298	Naphthalene	91-20-3	N.D.	2.1	N.D.	0.40	1
05298	Octane	111-65-9	N.D.	0.93	N.D.	0.20	1
05298	Pentane	109-66-0	N.D.	0.59	N.D.	0.20	1
05298	Styrene	100-42-5	N.D.	0.85	N.D.	0.20	1
05298	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1.4	N.D.	0.20	1
05298	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1.4	N.D.	0.20	1

Sample Description: 318 Layfield Ambient Air
Summa Canister #553
1-263

LLI Sample # AQ 6845190
LLI Group # 1346120
Account # 06195

Project Name: 1-263

Collected: 10/31/2012 10:35
through 10/31/2012 11:50
Submitted: 11/01/2012 16:50
Reported: 11/08/2012 10:59

PA Dept. of Env. Protection
Rachel Carson Off.Bldg. 14th F
PO Box 8471
Harrisburg PA 17105-8471

318AB SDG#: PDV16-06AB*

CAT No.	Analysis Name	CAS Number	As Received Final Result	MDL	As Received Final Result	MDL	DF
Volatiles in Air		EPA TO-15	ug/m3	ug/m3	ppb (v)	ppb (v)	
05298	Tetrachloroethene	127-18-4	N.D.	1.4	N.D.	0.20	1
05298	Toluene	108-88-3	N.D.	0.75	N.D.	0.20	1
05298	1,2,4-Trichlorobenzene	120-82-1	N.D.	3.7	N.D.	0.50	1
05298	1,1,1-Trichloroethane	71-55-6	N.D.	1.1	N.D.	0.20	1
05298	1,1,2-Trichloroethane	79-00-5	N.D.	1.1	N.D.	0.20	1
05298	Trichloroethene	79-01-6	N.D.	1.1	N.D.	0.20	1
05298	Trichlorofluoromethane	75-69-4	1.7 J	1.1	0.30 J	0.20	1
05298	1,2,3-Trichloropropane	96-18-4	N.D.	1.2	N.D.	0.20	1
05298	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.98	N.D.	0.20	1
05298	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.98	N.D.	0.20	1
05298	Vinyl Chloride	75-01-4	N.D.	0.51	N.D.	0.20	1
05298	m/p-Xylene	179601-23-1	1.2 J	0.87	0.27 J	0.20	1
05298	o-Xylene	95-47-6	N.D.	0.87	N.D.	0.20	1

MDL = Method Detection Limit

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/13

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05298	12.21 TO-15 VOA Extended List	EPA TO-15	1	C1230930AA	11/05/2012 07:44	Michael A Ziegler	1

Quality Control Summary

Client Name: PA Dept. of Env. Protection
Reported: 11/08/12 at 10:59 AM

Group Number: 1346120

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: C1230930AA	Sample number(s): 6845185-6845187, 6845190							
Acetone	N.D.	1.2	ug/m3	89	91	67-138	2	25
Benzene	N.D.	0.64	ug/m3	88	88	70-130	1	25
Bromobenzene	N.D.	1.3	ug/m3					
Bromodichloromethane	N.D.	1.3	ug/m3	90	92	70-138	2	25
Bromoform	N.D.	2.1	ug/m3	104	106	71-150	2	25
Bromomethane	N.D.	0.78	ug/m3	92	96	70-130	4	25
1,3-Butadiene	N.D.	1.1	ug/m3	83	86	60-135	4	25
2-Butanone	N.D.	1.5	ug/m3	92	93	66-129	1	25
Carbon Disulfide	N.D.	1.6	ug/m3	72	75	56-106	4	25
Carbon Tetrachloride	N.D.	1.3	ug/m3	99	101	70-130	1	25
Chlorobenzene	N.D.	0.92	ug/m3	85	88	70-130	4	25
Chlorodifluoromethane	N.D.	0.71	ug/m3					
Chloroethane	N.D.	0.53	ug/m3	90	91	71-129	1	25
Chloroform	N.D.	0.98	ug/m3	86	87	70-130	2	25
Chloromethane	N.D.	0.41	ug/m3	74	77	58-129	4	25
3-Chloropropene	N.D.	0.63	ug/m3					
Cumene	N.D.	0.98	ug/m3					
Dibromochloromethane	N.D.	1.7	ug/m3	92	95	68-138	3	25
1,2-Dibromoethane	N.D.	1.5	ug/m3	96	99	71-135	3	25
Dibromomethane	N.D.	1.4	ug/m3					
1,2-Dichlorobenzene	N.D.	1.2	ug/m3	100	103	71-143	3	25
1,3-Dichlorobenzene	N.D.	1.2	ug/m3	93	96	68-136	3	25
1,4-Dichlorobenzene	N.D.	1.2	ug/m3	94	97	67-140	3	25
Dichlorodifluoromethane	N.D.	0.99	ug/m3	98	100	72-140	2	25
1,1-Dichloroethane	N.D.	0.81	ug/m3	86	86	66-126	0	25
1,2-Dichloroethane	N.D.	0.81	ug/m3	94	95	70-130	0	25
1,1-Dichloroethene	N.D.	0.79	ug/m3	83	87	64-117	4	25
cis-1,2-Dichloroethene	N.D.	0.79	ug/m3	83	80	69-120	3	25
trans-1,2-Dichloroethene	N.D.	0.79	ug/m3	89	91	67-121	2	25
Dichlorofluoromethane	N.D.	0.84	ug/m3					
1,2-Dichloropropane	N.D.	0.92	ug/m3	73	73	70-130	0	25
cis-1,3-Dichloropropene	N.D.	0.91	ug/m3	97	95	67-134	1	25
trans-1,3-Dichloropropene	N.D.	0.91	ug/m3	88	88	67-134	1	25
Ethylbenzene	N.D.	0.87	ug/m3	94	97	70-130	3	25
4-Ethyltoluene	N.D.	0.98	ug/m3	96	99	69-135	3	25
Freon 113	N.D.	3.8	ug/m3	86	89	67-115	3	25
Freon 114	N.D.	1.4	ug/m3	85	87	66-120	3	25
Heptane	N.D.	0.82	ug/m3	75	77	60-125	2	25
Hexachloroethane	N.D.	1.9	ug/m3					
Hexane	N.D.	0.70	ug/m3	85	86	62-120	1	25
2-Hexanone	N.D.	2.0	ug/m3	90	93	54-166	2	25
Isooctane	N.D.	0.93	ug/m3					
Methyl t-Butyl Ether	N.D.	0.72	ug/m3	85	87	64-124	2	25

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: PA Dept. of Env. Protection
Reported: 11/08/12 at 10:59 AM

Group Number: 1346120

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
4-Methyl-2-Pentanone	N.D.	2.0	ug/m3	88	89	61-145	1	25
Methylene Chloride	N.D.	0.69	ug/m3	87	88	70-130	1	25
Naphthalene	N.D.	2.1	ug/m3	136	141	38-200	4	25
Octane	N.D.	0.93	ug/m3					
Pentane	N.D.	0.59	ug/m3					
Styrene	N.D.	0.85	ug/m3	100	103	70-139	3	25
1,1,1,2-Tetrachloroethane	N.D.	1.4	ug/m3					
1,1,2,2-Tetrachloroethane	N.D.	1.4	ug/m3	86	88	67-145	2	25
Tetrachloroethene	N.D.	1.4	ug/m3	89	92	70-130	3	25
Toluene	N.D.	0.75	ug/m3	95	97	70-130	3	25
1,2,4-Trichlorobenzene	N.D.	3.7	ug/m3	118	123	45-182	4	25
1,1,1-Trichloroethane	N.D.	1.1	ug/m3	95	96	70-130	2	25
1,1,2-Trichloroethane	N.D.	1.1	ug/m3	87	89	68-128	2	25
Trichloroethene	N.D.	1.1	ug/m3	90	91	70-130	2	25
Trichlorofluoromethane	N.D.	1.1	ug/m3	102	106	70-130	4	25
1,2,3-Trichloropropane	N.D.	1.2	ug/m3					
1,2,4-Trimethylbenzene	N.D.	0.98	ug/m3	97	100	69-138	3	25
1,3,5-Trimethylbenzene	N.D.	0.98	ug/m3	104	106	71-142	2	25
Vinyl Chloride	N.D.	0.51	ug/m3	89	92	70-130	3	25
m/p-Xylene	N.D.	0.87	ug/m3	105	109	70-130	3	25
o-Xylene	N.D.	0.87	ug/m3	105	107	70-130	2	25
Batch number: C1230930AB Sample number(s): 6845187-6845189								
Acetone	N.D.	1.2	ug/m3	89	91	67-138	2	25
Benzene	N.D.	0.64	ug/m3	88	88	70-130	1	25
Bromobenzene	N.D.	1.3	ug/m3					
Bromodichloromethane	N.D.	1.3	ug/m3	90	92	70-138	2	25
Bromoform	N.D.	2.1	ug/m3	104	106	71-150	2	25
Bromomethane	N.D.	0.78	ug/m3	92	96	70-130	4	25
1,3-Butadiene	N.D.	1.1	ug/m3	83	86	60-135	4	25
2-Butanone	N.D.	1.5	ug/m3	92	93	66-129	1	25
Carbon Disulfide	N.D.	1.6	ug/m3	72	75	56-106	4	25
Carbon Tetrachloride	N.D.	1.3	ug/m3	99	101	70-130	1	25
Chlorobenzene	N.D.	0.92	ug/m3	85	88	70-130	4	25
Chlorodifluoromethane	N.D.	0.71	ug/m3					
Chloroethane	N.D.	0.53	ug/m3	90	91	71-129	1	25
Chloroform	N.D.	0.98	ug/m3	86	87	70-130	2	25
Chloromethane	N.D.	0.41	ug/m3	74	77	58-129	4	25
3-Chloropropene	N.D.	0.63	ug/m3					
Cumene	N.D.	0.98	ug/m3					
Dibromochloromethane	N.D.	1.7	ug/m3	92	95	68-138	3	25
1,2-Dibromoethane	N.D.	1.5	ug/m3	96	99	71-135	3	25
Dibromomethane	N.D.	1.4	ug/m3					
1,2-Dichlorobenzene	N.D.	1.2	ug/m3	100	103	71-143	3	25
1,3-Dichlorobenzene	N.D.	1.2	ug/m3	93	96	68-136	3	25
1,4-Dichlorobenzene	N.D.	1.2	ug/m3	94	97	67-140	3	25
Dichlorodifluoromethane	N.D.	0.99	ug/m3	98	100	72-140	2	25
1,1-Dichloroethane	N.D.	0.81	ug/m3	86	86	66-126	0	25
1,2-Dichloroethane	N.D.	0.81	ug/m3	94	95	70-130	0	25
1,1-Dichloroethene	N.D.	0.79	ug/m3	83	87	64-117	4	25
cis-1,2-Dichloroethene	N.D.	0.79	ug/m3	83	80	69-120	3	25
trans-1,2-Dichloroethene	N.D.	0.79	ug/m3	89	91	67-121	2	25
Dichlorofluoromethane	N.D.	0.84	ug/m3					
1,2-Dichloropropane	N.D.	0.92	ug/m3	73	73	70-130	0	25
cis-1,3-Dichloropropene	N.D.	0.91	ug/m3	97	95	67-134	1	25
trans-1,3-Dichloropropene	N.D.	0.91	ug/m3	88	88	67-134	1	25

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: PA Dept. of Env. Protection
Reported: 11/08/12 at 10:59 AM

Group Number: 1346120

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Ethylbenzene	N.D.	0.87	ug/m3	94	97	70-130	3	25
4-Ethyltoluene	N.D.	0.98	ug/m3	96	99	69-135	3	25
Freon 113	N.D.	3.8	ug/m3	86	89	67-115	3	25
Freon 114	N.D.	1.4	ug/m3	85	87	66-120	3	25
Heptane	N.D.	0.82	ug/m3	75	77	60-125	2	25
Hexachloroethane	N.D.	1.9	ug/m3					
Hexane	N.D.	0.70	ug/m3	85	86	62-120	1	25
2-Hexanone	N.D.	2.0	ug/m3	90	93	54-166	2	25
Isooctane	N.D.	0.93	ug/m3					
Methyl t-Butyl Ether	N.D.	0.72	ug/m3	85	87	64-124	2	25
4-Methyl-2-Pentanone	N.D.	2.0	ug/m3	88	89	61-145	1	25
Methylene Chloride	N.D.	0.69	ug/m3	87	88	70-130	1	25
Naphthalene	N.D.	2.1	ug/m3	136	141	38-200	4	25
Octane	N.D.	0.93	ug/m3					
Pentane	N.D.	0.59	ug/m3					
Styrene	N.D.	0.85	ug/m3	100	103	70-139	3	25
1,1,1,2-Tetrachloroethane	N.D.	1.4	ug/m3					
1,1,2,2-Tetrachloroethane	N.D.	1.4	ug/m3	86	88	67-145	2	25
Tetrachloroethene	N.D.	1.4	ug/m3	89	92	70-130	3	25
Toluene	N.D.	0.75	ug/m3	95	97	70-130	3	25
1,2,4-Trichlorobenzene	N.D.	3.7	ug/m3	118	123	45-182	4	25
1,1,1-Trichloroethane	N.D.	1.1	ug/m3	95	96	70-130	2	25
1,1,2-Trichloroethane	N.D.	1.1	ug/m3	87	89	68-128	2	25
Trichloroethene	N.D.	1.1	ug/m3	90	91	70-130	2	25
Trichlorofluoromethane	N.D.	1.1	ug/m3	102	106	70-130	4	25
1,2,3-Trichloropropane	N.D.	1.2	ug/m3					
1,2,4-Trimethylbenzene	N.D.	0.98	ug/m3	97	100	69-138	3	25
1,3,5-Trimethylbenzene	N.D.	0.98	ug/m3	104	106	71-142	2	25
Vinyl Chloride	N.D.	0.51	ug/m3	89	92	70-130	3	25
m/p-Xylene	N.D.	0.87	ug/m3	105	109	70-130	3	25
o-Xylene	N.D.	0.87	ug/m3	105	107	70-130	2	25

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Summa Canister Field Test Data/Chain of Custody



**Lancaster
Laboratories**

Acct. # 6195 Group # 1346120 For Lancaster Laboratories use only
Sample # 6845185-90
Instructions on reverse side correspond with circled numbers.

Bottle Order (SCR) # _____

1 Client Information Client <u>PA DEP</u> Account # <u>06125</u> Project Name/## <u>Gtgc Hoff VC</u> <u>1-263</u> Project Manager _____ P.O. # _____ Sampler <u>SAIC</u> Quote # _____ Name of state where samples were collected <u>PA</u> <u>order # 130346</u>												3 Turnaround Time Requested (TAT) (circle one) <u>Standard</u> <u>Rush (specify) 7 days</u> <u>KAK/1885</u> 4 Data Package Required? <u>Yes</u> No 5 EDD Required? <u>Yes</u> No				6 Analyses Requested EPA TO - 15 ☒ EPA 18 ☐ MTBE ☐ BTEX ☐ EPA 25 (select range below) Helium as tracer O2/CO2 Library Search <u>per PA DEP RFA + Rick Merhar.</u>																																																																																																																																																																																																																																																																									
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7 Instructions/QC Requirements & Comments <u>CC Richard.L.Merhar.II@SAIC.com</u> <u>700</u>												EPA 25 (check one) ☐ C1 - C4 ☐ C2 - C10 ☐ C1 - C10 ☐ C4 - C10 (GRO) ☐ C2 - C4																																																																																																																																																																																																																																																																													
Canisters Shipped by: <u>Dimitri Quins</u>		Date/Time: <u>10/11/12</u>		Canisters Received by: <u>[Signature]</u>		Date/Time: <u>11/1/12</u>		Relinquished by: <u>[Signature]</u>		Date/Time: <u>11/1/12</u>		Received by: <u>[Signature]</u>		Date/Time: <u>11/1/12</u>		(8)																																																																																																																																																																																																																																																																									
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Kathy Klinefelter

From: Merhar, Richard L. II [RICHARD.L.MERHAR.II@saic.com]
Sent: Monday, November 05, 2012 1:17 PM
To: Kathy Klinefelter
Subject: RE: 1346120 - PADEP 1-263 TAT question.

Kathy, DEP still wants 1 week turnaround if that is possible.

Rich

Richard Merhar, P.G.

Project Manager | Water, Environment & Transportation
SAIC Energy, Environment & Infrastructure, LLC (SEE&I)
office: 610.594.4326 | mobile: 484.252.9617

From: Kathy Klinefelter [mailto:KKlinefelter@lancasterlabs.com]
Sent: Monday, November 05, 2012 11:34 AM
To: Merhar, Richard L. II
Subject: 1346120 - PADEP 1-263 TAT question.

<<1346120c.pdf>>

Hello Rich,

Please see the attached COC. The COC is marked for standard (2 week) TAT for emailed results. The RFA for this project we received from PADEP requested 7 day (1 week) rush TAT for emailed results. Should the COC be revised to reflect 7 day (1 week) rush TAT? Please advise.

Thanks,

Kathy Klinefelter
Principal Project Manager, Environmental Client Services

Eurofins Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601
Phone: 717-556-7256
Fax: 717-656-6766

Website: www.LancasterLabsEnv.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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