Jimenez, Jose

From: Hosford, Chip
Sent: Thursday, August 01, 2013 8:18 AM
To: augustine, bruce; Killian, Richard; Kline, James; Barnes, Betty
Subject: FW: Air Monitoring Data
Attachments: air results.xlsx; Lauff Air Date Collected 10.11.11.pdf; LauffAir Date Collected 5.3.12.pdf

Bowen (Chip) Hosford
Office of Enforcement and Compliance Assurance
Air Protection Division
US EPA
1650 Arch Street
Mail Code 3AP20
Philadelphia, PA 19103
215-814-3158

From: Lindsey, Deborah
Sent: Tuesday, July 30, 2013 5:08 PM
To: Hosford, Chip
Subject: Air Monitoring Data

Chip
Attached is a summary sheet that I put together for the air monitoring data collected by the Homeowner. I will see if I have the actual results also available electronically.
Debbie Lindsey

CARTER IMPOUNDMENT AIR SAMPLING - SUMMA

		EPA TO-14A ------ ug/m3 ------		EPA TO-15 ------ ug/m3 ------	
		10/14/2011	RL	5/3/2012	MRL
100-41-4	**Ethylbenzene**	**0.34**	**0.22**	1.2	1.2
100-42-5	Styrene	ND	0.21	1.2	1.2
100-44-7	Benzyl Chloride				
10061-01-5	cis-1,3-Dichloropropene	ND	0.23	1.3	1.3
10061-02-6	trans-1,3-Dichloropropene	ND	0.23	0.65	0.65
103-65-1	n-Propylbenzene				
106-46-7	**1,4-Dichlorobenzene**	ND	0.3	1.7	1.7
106-93-4	1,2-Dibromoethane	ND	0.38	0.22	0.22
106-99-0	1,3-Butadiene				
107-02-8	Acrolein				
107-05-1	3-Chloro-1-propene				
107-06-2	1,2-Dichloroethane	ND	0.2	0.59	0.59
107-13-1	Acrylonitrile				
108-05-4	Vinyl Acetate			6.5	6.5
108-10-1	4-Methyl-2-pentanone			1.2	1.2
108-20-3	Diisopropyl Ether				
108-21-4	Isopropyl Acetate				
108-67-8	1,3,5-Trimethylbenzene	ND	0.25		
108-88-3	**Toluene**	**2**	**0.19**	**0.68**	**0.53**
108-90-7	Chlorobenzene	ND	0.23	0.66	0.66
109-99-9	Tetrahydrofuran (THF)				
110-54-3	**n-Hexane**				
110-82-7	Cyclohexane				
111-65-9	n-Octane				
111-84-2	n-Nonane				
1120-21-4	n-Undecane				
115-07-1	Propene				
120-82-1	1,2,4-Trichlorobenzene	ND	0.37		
123-86-4	n-Butyl Acetate				
123-91-1	1,4-Dioxane				
124-18-5	n-Decane				
124-48-1	Dibromochloromethane			0.25	0.25
127-18-4	Tetrachloroethene (PCE)			0.1	0.1
135-98-8	sec-Butylbenzene			1.2	0.59
141-78-6	Ethyl Acetate				
142-82-5	n-Heptane				
156-59-2	cis-1,2-Dichloroethene			0.57	0.57
156-60-5	trans-1,2-Dichloroethene			0.57	0.57
1634-04-4	Methyl tert-Butyl Ether			1	1

17060-07-0	1,2-Dichloroethane-d4				
179601-23-1	**m,p-Xylenes**	**0.92**	**0.43**	2.5	2.5
2037-26-5	Toluene-d8				
3114-55-4	Chlorobenzene-d5				
460-00-4	4-Bromofluorobenzene				
526-73-8	1,2,3-Trimethylbenzene				
540-36-3	1,4-Difluorobenzene				
540-84-1	2,2,4-Trimethylpentane (Isooctane)				
541-73-1	1,3-Dichlorobenzene	ND	0.3	1.7	1.7
56-23-5	**Carbon Tetrachloride**	**0.57**	**0.31**	**0.71**	**0.091**
56-23-5	Carbon Tetrachloride				
591-78-6	2-Hexanone			0.59	0.59
5989-27-5	d-Limonene				
611-14-3	2-Ethyltoluene				
620-14-4	3-Ethyltoluene				
622-96-8	4-Ethyltoluene				
637-92-3	Ethyl tert-Butyl Ether				
64-17-5	Ethanol				
67-63-0	2-Propanol				
67-64-1	**Acetone**			**9.3**	**6.5**
67-66-3	Chloroform	ND	0.24	0.7	0.7
71-36-3	1-Butanol				
71-43-2	**Benzene**	**0.89**	**0.16**	0.46	0.46
71-55-6	1,1,1-Trichloroethane (TCA)	ND	0.27	0.78	0.78
74-83-9	Bromomethane	ND	0.19	0.56	0.56
74-87-3	**Chloromethane**	**1**	**0.1**	**1.2**	**0.59**
74-97-5	Bromochloromethane				
75-00-3	Chloroethane	ND	0.13	0.75	0.75
75-01-4	Vinyl Chloride	ND	0.13	0.078	0.078
75-05-8	Acetonitrile				
75-09-2	Dichloromethane				
75-09-2	**Methylene Chloride**	**2**	**1.7**	0.49	0.49
75-15-0	Carbon Disulfide			0.44	0.44
75-25-2	Bromoform			1.5	1.5
75-27-4	Bromodichloromethane			0.2	0.2
75-34-3	1,1-Dichloroethane (1,1-DCA)	ND	0.2	0.59	0.59
75-35-4	1,1-Dichloroethene (1,1-DCE)			0.57	0.57
75-65-0	2-Methyl-2-propanol				
75-69-4	**Trichlorofluoromethane (CFC 11)**	**1.8**	**0.28**	**1.5**	**0.81**
75-71-8	**Dichlorodifluoromethane (CFC 12)**	**2.6**	**0.25**		
76-13-1	**1,1,2-Trichlorotrifluoroethane**			**0.63**	**0.22**
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.35		
78-87-5	1,2-Dichloropropane	ND	0.23	0.66	0.66
78-93-3	**2-Butanone (MEK)**			**1.7**	**0.85**

79-00-5	1,1,2-Trichloroethane	ND	0.27	0.78	0.78
79-01-6	Trichloroethene (TCE)			0.078	0.078
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.34	0.2	0.2
80-56-8	alpha-Pinene				
80-62-6	Methyl Methacrylate				
87-68-3	Hexachlorobutadiene	ND	0.53		
91-20-3	Naphthalene				
95-47-6	**o-Xylene**	**0.39**	**0.22**	1.2	1.2
95-50-1	1,2-Dichlorobenzene	ND	0.3	1.7	1.7
95-63-6	**1,2,4-Trimethylbenzene**	**0.38**	**0.25**		
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)				
98-82-8	Isopropylbenzene (Cumene)				
98-83-9	alpha-Methylstyrene				
994-05-8	tert-Amyl Methyl Ether				
99-87-6	4-Isopropyltoluene				
	1,1-Dichloroethylene	ND	0.2		
	1,1,2-Trichloro-1,2,2-trifluoroethane (CFC 113)	**0.64**	**0.38**		
	cis-1,2-Dichloroethylene	ND	0.2		
	Tetrachloroethylene	**0.56**	**0.34**		
	Trichloroethylene	ND	0.27		
TENTATIVELY IDENTIFIED COMPOUNDS					
	Benzaldehyde				
	Propane				
	Isobutane				
	n-Butane				
	Isopentane				
	n-Pentane				
	Hexamethylcyclotriisiloxane				
	Unidentified Compound				
	n-Nonanal				

CANNISTER

PA- Carter -East EPA TO-15 ------ ug/m3 ------		PA- Carter -South EPA TO-15 ------ ug/m3 ------	
1/4/2013	MRL	1/4/2013	MRL
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	**1.0**	**0.67**
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	4.0	ND	2.7
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	10.0	ND	6.7
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	**0.99**	**0.67**
ND	2.0	ND	1.3
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	2.0	ND	1.3
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67

ND	2.0	ND	1.3
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	10.0	ND	6.7
ND	10.0	ND	6.7
ND	10.0	ND	6.7
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	6.7
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
1.4	1.0	**1.4**	0.67
2.8	1.0	**2.8**	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	10.0	ND	6.7

ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	2.0	ND	1.3
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
ND	1.0	ND	0.67
4.8	not provided		
		7.2	not provided
		4.0	not provided
		7.1	not provided
		3.6	not provided
		3.5	not provided
		5.0	not provided
		4.4	not provided
		2.9	not provided

SHALETEST

PO Box 594
Denton, TX 76202

Chris Lauff
[redacted]

June 18, 2012

Dear: Mr. Lauff,

ShaleTest.org recently provided ambient air analysis for you at no charge and provides no warranties, expressed or implied, regarding these results or any interpretation of these results. This analysis was completed by Columbia Analytical Services, Inc., in Rochester, NY. ShaleTest.org, does not interpret results or give advice regarding the results. If you have further questions on your results, we suggest you talk to a qualified chemist, physician, or toxicologist.

ShaleTest.org is a non-profit organization that is affiliated with the national environmental organization Earthworks. ShaleTest.org has a mission to provide environmental testing of private individuals' drinking water, air and soil, for those affected or potentially impacted by natural gas development whose personal financial situation prohibit the costs of test. We are unable to complete this mission without the generosity of others. A tax deductible donation to ShaleTest.org, will help us carry on this service to others in need. Please make any donations payable to Earthworks.

Sincerely,

Calvin Tillman,
ShaleTest.org

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client: ShaleTest
Project: Colcum
Sample Matrix: Air

Service Request: R1202930
Date Collected: 5/ 3/12 1820
Date Received: 5/11/12

Sample Name: Lauff
Lab Code: R1202930-007

Analytical Method: TO-15

Date Analyzed: 5/15/12 0223
Canister Dilution Factor: 1.30

Initial Pressure (psig): -0.69 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Data Qualifier
74-87-3	**Chloromethane**	1000	**1.2**	0.59	
75-01-4	Vinyl Chloride	1000	0.078	0.078	U
74-83-9	Bromomethane	1000	0.56	0.56	U
75-00-3	Chloroethane	1000	0.75	0.75	U
67-64-1	**Acetone**	1000	**9.3**	6.5	
75-69-4	**Trichlorofluoromethane (CFC 11)**	1000	**1.5**	0.81	
75-35-4	1,1-Dichloroethene	1000	0.57	0.57	U
75-09-2	Methylene Chloride	1000	0.49	0.49	U
76-13-1	**1,1,2-Trichloro-1,2,2-trifluoroethane**	1000	**0.63**	0.22	
75-15-0	Carbon Disulfide	1000	0.44	0.44	U
156-60-5	trans-1,2-Dichloroethene	1000	0.57	0.57	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	0.59	0.59	U
1634-04-4	Methyl tert-Butyl Ether	1000	1.0	1.0	U
108-05-4	Vinyl Acetate	1000	6.5	6.5	U
78-93-3	**2-Butanone (MEK)**	1000	**1.7**	0.85	
156-59-2	cis-1,2-Dichloroethene	1000	0.57	0.57	U
67-66-3	Chloroform	1000	0.70	0.70	U
107-06-2	1,2-Dichloroethane	1000	0.59	0.59	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	0.78	0.78	U
71-43-2	Benzene	1000	0.46	0.46	U
56-23-5	**Carbon Tetrachloride**	1000	**0.71**	0.091	
78-87-5	1,2-Dichloropropane	1000	0.66	0.66	U
75-27-4	Bromodichloromethane	1000	0.20	0.20	U
79-01-6	Trichloroethene (TCE)	1000	0.078	0.078	U
10061-01-5	cis-1,3-Dichloropropene	1000	1.3	1.3	U
108-10-1	4-Methyl-2-pentanone	1000	1.2	1.2	U
10061-02-6	trans-1,3-Dichloropropene	1000	0.65	0.65	U
79-00-5	1,1,2-Trichloroethane	1000	0.78	0.78	U
108-88-3	**Toluene**	1000	**0.68**	0.53	
591-78-6	2-Hexanone	1000	0.59	0.59	U
124-48-1	Dibromochloromethane	1000	0.25	0.25	U
106-93-4	1,2-Dibromoethane	1000	0.22	0.22	U
127-18-4	Tetrachloroethene (PCE)	1000	0.10	0.10	U
108-90-7	Chlorobenzene	1000	0.66	0.66	U
100-41-4	Ethylbenzene	1000	1.2	1.2	U
179601-23-1	m,p-Xylenes	1000	2.5	2.5	U

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group

Analytical Report

Client: ShaleTest
Project: Colcum
Sample Matrix: Air

Service Request: R1202930
Date Collected: 5/ 3/12 1820
Date Received: 5/11/12

Sample Name: Lauff
Lab Code: R1202930-007

Analytical Method: TO-15

Date Analyzed: 5/15/12 0223
Canister Dilution Factor: 1.30

Initial Pressure (psig): -0.69 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Data Qualifier
75-25-2	Bromoform	1000	1.5	1.5	U
100-42-5	Styrene	1000	1.2	1.2	U
95-47-6	o-Xylene	1000	1.2	1.2	U
79-34-5	1,1,2,2-Tetrachloroethane	1000	0.20	0.20	U
541-73-1	1,3-Dichlorobenzene	1000	1.7	1.7	U
106-46-7	1,4-Dichlorobenzene	1000	1.7	1.7	U
95-50-1	1,2-Dichlorobenzene	1000	1.7	1.7	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	107	70-130	5/15/12 0223	

SHALETEST

PO Box 594
Denton, TX 76202

Chris Lauff
[redacted]

Dear Mr. Lauff,

ShaleTest.org provided professional ambient air analysis for you at no charge and provides no warranties, expressed or implied, regarding these results or any interpretation of these results. This analysis was completed by Contest Analytical Laboratories in East Longmeadow, MA. ShaleTest.org, does not interpret results or give advice regarding the results. If you have further questions on your results, we suggest you talk to a qualified chemist, physician, or toxicologist.

ShaleTest.org is a non-profit organization that is affiliated with the national environmental organization Earthworks. ShaleTest.org has a mission to provide environmental testing of private individuals' drinking water, air and soil, for those affected or potentially impacted by natural gas development whose personal financial situation prohibit the costs of test. We are unable to complete this mission without the generosity of others. A tax deductible donation to ShaleTest.org, will help us carry on this service to others in need.

Sincerely,

Calvin Tillman,
ShaleTest.org

con-test®
ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Marcellus
Date Received: 10/14/2011
Field Sample #: 004 Lauff
Sample ID: 11J0515-04
Sample Matrix: Ambient Air
Sampled: 10/11/2011 15:03

Sample Description/Location:
Sub Description/Location:
Canister ID: 1171
Canister Size: 6 liter
Flow Controller ID: 3007
Sample Type: 24 hr

Work Order: 11J0515
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -9
Receipt Vacuum(in Hg): -8
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-14A

Analyte	ppbv Results	ppbv RL	Flag	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Benzene	0.28	0.050		0.89	0.16	1	10/18/11 2:20	TPH
Bromomethane	ND	0.050		ND	0.19	1	10/18/11 2:20	TPH
Carbon Tetrachloride	0.090	0.050		0.57	0.31	1	10/18/11 2:20	TPH
Chlorobenzene	ND	0.050		ND	0.23	1	10/18/11 2:20	TPH
Chloroethane	ND	0.050		ND	0.13	1	10/18/11 2:20	TPH
Chloroform	ND	0.050		ND	0.24	1	10/18/11 2:20	TPH
Chloromethane	0.49	0.050		1.0	0.10	1	10/18/11 2:20	TPH
1,2-Dibromoethane (EDB)	ND	0.050		ND	0.38	1	10/18/11 2:20	TPH
1,2-Dichlorobenzene	ND	0.050		ND	0.30	1	10/18/11 2:20	TPH
1,3-Dichlorobenzene	ND	0.050		ND	0.30	1	10/18/11 2:20	TPH
1,4-Dichlorobenzene	ND	0.050		ND	0.30	1	10/18/11 2:20	TPH
Dichlorodifluoromethane (Freon 12)	0.53	0.050	V-06	2.6	0.25	1	10/18/11 2:20	TPH
1,1-Dichloroethane	ND	0.050		ND	0.20	1	10/18/11 2:20	TPH
1,2-Dichloroethane	ND	0.050		ND	0.20	1	10/18/11 2:20	TPH
1,1-Dichloroethylene	ND	0.050		ND	0.20	1	10/18/11 2:20	TPH
cis-1,2-Dichloroethylene	ND	0.050		ND	0.20	1	10/18/11 2:20	TPH
1,2-Dichloropropane	ND	0.050		ND	0.23	1	10/18/11 2:20	TPH
cis-1,3-Dichloropropene	ND	0.050		ND	0.23	1	10/18/11 2:20	TPH
trans-1,3-Dichloropropene	ND	0.050		ND	0.23	1	10/18/11 2:20	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.050		ND	0.35	1	10/18/11 2:20	TPH
Ethylbenzene	0.079	0.050		0.34	0.22	1	10/18/11 2:20	TPH
Hexachlorobutadiene	ND	0.050		ND	0.53	1	10/18/11 2:20	TPH
Methylene Chloride	0.58	0.50		2.0	1.7	1	10/18/11 2:20	TPH
Styrene	ND	0.050		ND	0.21	1	10/18/11 2:20	TPH
1,1,2,2-Tetrachloroethane	ND	0.050		ND	0.34	1	10/18/11 2:20	TPH
Tetrachloroethylene	0.082	0.050		0.56	0.34	1	10/18/11 2:20	TPH
Toluene	0.52	0.050		2.0	0.19	1	10/18/11 2:20	TPH
1,2,4-Trichlorobenzene	ND	0.050		ND	0.37	1	10/18/11 2:20	TPH
1,1,1-Trichloroethane	ND	0.050		ND	0.27	1	10/18/11 2:20	TPH
1,1,2-Trichloroethane	ND	0.050		ND	0.27	1	10/18/11 2:20	TPH
Trichloroethylene	ND	0.050		ND	0.27	1	10/18/11 2:20	TPH
Trichlorofluoromethane (Freon 11)	0.32	0.050		1.8	0.28	1	10/18/11 2:20	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.084	0.050		0.64	0.38	1	10/18/11 2:20	TPH
1,2,4-Trimethylbenzene	0.078	0.050		0.38	0.25	1	10/18/11 2:20	TPH
1,3,5-Trimethylbenzene	ND	0.050		ND	0.25	1	10/18/11 2:20	TPH
Vinyl Chloride	ND	0.050		ND	0.13	1	10/18/11 2:20	TPH
m&p-Xylene	0.21	0.10		0.92	0.43	1	10/18/11 2:20	TPH
o-Xylene	0.089	0.050		0.39	0.22	1	10/18/11 2:20	TPH

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ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: Marcellus
Date Received: 10/14/2011
Field Sample #: 004 Lauff
Sample ID: 11J0515-04
Sample Matrix: Ambient Air
Sampled: 10/11/2011 15:03

Sample Description/Location:
Sub Description/Location:
Canister ID: 1171
Canister Size: 6 liter
Flow Controller ID: 3007
Sample Type: 24 hr

Work Order: 11J0515
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -9
Receipt Vacuum(in Hg): -8
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-14A

Analyte	ppbv Results	ppbv RL	Flag	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Surrogates	% Recovery			% REC Limits				
4-Bromofluorobenzene (1)		102		70-130			10/18/11 2:20	