Imperial Pointe Ambient Air Sampling Results / Method EPA TO15 + Tentatively Identified Compounds

PLEASE NOTE: Ambient levels of these compounds are not regulated by the EPA or ACHD

Compounds Detected	Inhalation Reference Concentration (RfC)* (converted to ppbv)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	3/12/2014 ppbv	3/12/2014 Duplicate	3/18/2014 ppbv	4/11/2014 ppbv	4/11/2014 Duplicate	4/17/2014 pppv	4/23/2014 ppbv	4/29/2014 ppbv	5/5/2014 ppbv	5/11/2014 ppbv	5/17/2014 ppbv
Acetone	NA	NA	Inadequate data	NA	2.8	2.7	7.9	5.1	3.5	U	4.2	5.7	5.1	5.7	3.7
Benzene	9.39	Decreased blood cell count	A - human carcinogen	0.41 - 1.41	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	NA	NA	NA	NA	U	U	U	0.6	0.5	U	U	0.5	0.9	U	U
Chlorobenzene					U	U	U	U	U	U	U	U	U	U	U
Chloromethane	NA	NA	NA	NA	0.7	0.7	0.9	0.8	0.8	0.9	0.8	0.9	0.9	1.0	1.1
1,4-Dichlorobenzene					U	U	U	U	U	U	U	U	U	U	U
Dichlorodifluoromethane	NA	NA	NA	NA	0.6	0.6	0.6	0.6	0.6	0.6	0.6	U	0.7	0.6	0.7
1,4-Dioxane	8.33	Damage to the nervous and respiratory systems	Likely to be carcinogenic	NA	U	U	U	U	U	U	U	U	U	U	U
Ethanol	NA	NA	NA	NA	3.0	3.0	3.5	5.4	3.2	3.4	3.8	48.1	2.6	6.1	8.4
Ethyl Acetate	NA	NA	NA	NA	U	U	U	1.0	U	U	U	U	U	0.9	U
Hexane	198.6	Damage to the nervous system	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U
Isopropyl Alcohol	NA	NA	NA	NA	0.9	0.5	1.0	2.2	0.7	0.5	1.9	3.5	1.5	0.5	0.8
Methylene Chloride	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Toluene	1326.8	Neurological effects	Inadequate data	NA	1.0	U	U	1.1	U	U	0.9	U	U	1.1	U
m,p-Xylene	23.0	Impaired motor coordination	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U

Tentative ID (TIC)	Inhalation Reference Concentration (RfC)* (converted to ppbV)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	3/13/2014 ppbv	3/13/2014 Duplicate	3/19/2014 ppbv	4/11/2014 ppbv	4/11/2014 Duplicate	4/17/2014 pppv	4/23/2014 Duplicate	4/29/2014 ppbv	5/5/2014 ppbv	5/11/2014 ppbv	5/17/2014 ppbv
Acetaldehyde	5.00	Damage to the nasal lining	B2 - probable human carcinogen	2.78								2.0			
Propane	NA	NA	NA	NA	1.4	1.5		1.1	1.1					1.2	
Butane	NA	NA	NA	NA	1.3	1.5	1.2	1.6	1.1	1.8	1.0			1.4	
tert-Butyldimethylsilanol	NA	NA	NA	NA											
2-Methyl Butane	NA	NA	NA	NA		0.8	8.0	0.9							0.8
2-Methyl 2-Propanol	NA	NA	NA	NA											
2-Methyl Butanal	NA	NA	NA	NA											
3-Methyl Butanal	NA	NA	NA	NA											
1,1-Difluoroethane	1.48	No adverse effects observed	NA	NA											
Difluorochloromethane	NA	NA	NA	NA											
d-Limonene	NA		NA	NA											
Decanal	NA	NA	NA	NA											
Nonanal	NA	NA	NA	NA										1.3	
1-Bromo-pentane	NA	NA	NA	NA				2.2							
Trimethyl Silanol	NA	NA	NA	NA					0.8			1.3			1.5
Triflurodimethyl Silane	NA	NA	NA	NA											
Pentane	NA	NA	NA	NA			0.9	1.0							
Undecane	NA	NA	NA	NA			1.0								
2-Ethyl 1-Hexanol	NA	NA	NA	NA											
Unknown	NA	NA	NA	NA			1.0								

* = per EPA's Integrated Risk Information System (IRIS) [as of October 22, 2014]
** = missing days due to technical failure
NA = not available
NOTE: All reference levels are for informational purposes only. It is not applicable to compare long term reference levels to individual short term measurements.
NOTE: Due to unreliability, any lab reported value less than the Minimum Detectable Limit (0.5 ppb for all compounds, except for m,p-Xylene, which is 1.0 ppb) has been replaced with a "U"

U=undetectable
= baseline (pre-drilling)
= site construction
= drilling has started
= fracking
= flaring
= production

Imperial Pointe Ambient Air Sampling Results / Method EPA TO15 + Tentatively Identified Compounds

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Compounds Detected	Inhalation Reference Concentration (RfC)* (converted to ppbv)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	5/29/2014 ppbv	6/4/2014 pppv	6/10/2014 pppv	6/16/2014 ppbv	6/22/2014 ppbv	6/22/2014 Duplicate	6/28/2014 ppbv	7/4/2014 ppbv	7/10/2014 ppbv	7/16/2014 ppbv	7/22/2014 ppbv
Acetone	NA	NA	Inadequate data	NA	3.9	4.0	5.8	4.9	2.9	3.1	6.6	2.5	9.0	3.6	4.9
Benzene	9.39	Decreased blood cell count	A - human carcinogen	0.41 - 1.41	U	U	0.5	U	U	U	U	U	U	U	U
2-Butanone	NA	NA	NA	NA	U	U	0.6	0.6	0.5	0.5	2.1	U	0.9	U	0.6
Chlorobenzene					U	U	U	U	U	U	U	U	U	U	U
Chloromethane	NA	NA	NA	NA	0.8	0.8	0.8	0.8	0.6	0.6	0.5	0.5	1.0	0.9	0.9
1,4-Dichlorobenzene					U	U	U	U	U	U	U	U	U	U	U
Dichlorodifluoromethane	NA	NA	NA	NA	0.6	0.6	0.5	U	U	U	U	U	0.5	0.6	0.6
1,4-Dioxane	8.33	Damage to the nervous and respiratory systems	Likely to be carcinogenic	NA	U	U	U	U	U	U	U	U	U	U	U
Ethanol	NA	NA	NA	NA	8.7	8.2	9.3	6.7	6.4	5.3	9.2	5.4	11.3	4.9	5.3
Ethyl Acetate	NA	NA	NA	NA	U	1.1	2.3	1.2	0.8	0.8	1.1	0.5	1.0	0.8	1.2
Hexane	198.6	Damage to the nervous system	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U
Isopropyl Alcohol	NA	NA	NA	NA	0.5	1.6	0.9	2.6	0.8	1.0	2.0	0.5	1.6	2.5	1.2
Methylene Chloride	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	NA	NA	NA	NA	U	U	U	1.4	U	1.3	U	U	1.4	0.7	U
Toluene	1326.8	Neurological effects	Inadequate data	NA	0.6	1.5	7.6	1.0	2.4	1.0	4.5	0.5	0.8	0.6	2.0
m,p-Xylene	23.0	Impaired motor coordination	Inadequate data	NA	U	U	1.3	U	U	U	U	U	U	U	U

Tentative ID (TIC)	Inhalation Reference Concentration (RfC)* (converted to ppbV)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	5/29/2014 ppbv	6/4/2014 pppv	6/10/2014 pppv	6/16/2014 ppbv	6/22/2014 ppbv	6/22/2014 Duplicate	6/28/2014 ppbv	7/4/2014 ppbv	7/10/2014 ppbv	7/16/2014 ppbv	7/22/2014 ppbv
Acetaldehyde	5.00	Damage to the nasal lining	B2 - probable human carcinogen	2.78									0.8		
Propane	NA	NA	NA	NA	1.2	0.9	1.9	2.1	1.0	1.1					1.4
Butane	NA	NA	NA	NA	1.9	1.1	1.8	2.2	1.1	1.3	1.2				1.2
tert-Butyldimethylsilanol	NA	NA	NA	NA											
2-Methyl Butane	NA	NA	NA	NA	2.4		1.3	1.4		1.0	1.3				0.8
2-Methyl 2-Propanol	NA	NA	NA	NA							2.6				
2-Methyl Butanal	NA	NA	NA	NA											
3-Methyl Butanal	NA	NA	NA	NA											
1,1-Difluoroethane	1.48	No adverse effects observed	NA	NA											
Difluorochloromethane	NA	NA	NA	NA								3.0	0.8		
d-Limonene	NA		NA	NA											
Decanal	NA	NA	NA	NA											
Nonanal	NA	NA	NA	NA		0.8				1.1					
1-Bromo-pentane	NA	NA	NA	NA											
Trimethyl Silanol	NA	NA	NA	NA	0.8		1.6		2.6			1.2	4.3		
Triflurodimethyl Silane	NA	NA	NA	NA		0.9									
Pentane	NA	NA	NA	NA	0.9		0.8	1.1		0.9	1.0				
Undecane	NA	NA	NA	NA											
2-Ethyl 1-Hexanol	NA	NA	NA	NA	2.0	2.6	0.8	2.5	1.8	3.8		1.8			
Unknown	NA	NA	NA	NA			0.9	0.8		1.0	1.0				

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NOTE: Due to unreliability, any lab reported value less than the Minimum Detectable Limit (0.5 ppb for all compounds, except for m,p-Xylene, which is 1.0 ppb) has been replaced with a "U"

U=undetectable
= baseline (pre-drilling)
= site construction
= drilling has started
= fracking
= flaring
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Compounds Detected	Inhalation Reference Concentration (RfC)* (converted to ppbv)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	7/28/2014 ppbv	8/3/2014 ppbv	8/9/2014 ppbv	8/21/2014 ppbv	8/27/2014 ppbv	8/27/2014 Duplicate	9/2/2014 ppbv	9/8/2014 ppbv	9/14/2014 ppbv	9/20/2014 ppbv	9/26/2014 ppbv
Acetone	NA	NA	Inadequate data	NA	3.2	4.6	6.6	4.5	5.8	4.8	4.1	3.1	1.9	3.6	3.0
Benzene	9.39	Decreased blood cell count	A - human carcinogen	0.41 - 1.41	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	NA	NA	NA	NA	U	U	0.5	U	0.5	0.6	U	U	U	U	U
Chlorobenzene					U	U	U	U	U	U	U	U	U	U	U
Chloromethane	NA	NA	NA	NA	0.9	0.8	1.0	1.0	1.0	1.1	0.8	1.2	0.6	0.7	0.9
1,4-Dichlorobenzene					U	U	U	U	U	U	U	U	U	U	U
Dichlorodifluoromethane	NA	NA	NA	NA	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
1,4-Dioxane	8.33	Damage to the nervous and respiratory systems	Likely to be carcinogenic	NA	U	U	U	U	U	U	U	U	U	U	U
Ethanol	NA	NA	NA	NA	2.5	3.6	4.9	4.6	5.8	9.7	4.0	3.8	1.5	2.6	2.6
Ethyl Acetate	NA	NA	NA	NA	0.6	0.6	1.3	0.7	0.9	1.2	0.7	0.8	U	U	U
Hexane	198.6	Damage to the nervous system	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U
Isopropyl Alcohol	NA	NA	NA	NA	1.2	1.0	2.2	0.9	2.6	0.9	1.1	0.7	0.5	0.5	0.7
Methylene Chloride	NA	NA	NA	NA	U	U	U	U	U	U	U	0.5	U	U	U
Tetrachloroethene	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Toluene	1326.8	Neurological effects	Inadequate data	NA	U	0.9	1.8	U	0.9	1.8	U	1.1	U	0.5	0.5
m,p-Xylene	23.0	Impaired motor coordination	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U

Tentative ID (TIC)	Inhalation Reference Concentration (RfC)* (converted to ppbV)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	7/28/2014 ppbv	8/3/2014 ppbv	8/9/2014 ppbv	8/21/2014 ppbv	8/27/2014 ppbv	8/27/2014 Duplicate	9/2/2014 ppbv	9/8/2014 ppbv	9/14/2014 ppbv	9/20/2014 ppbv	9/26/2014 ppbv
Acetaldehyde	5.00	Damage to the nasal lining	B2 - probable human carcinogen	2.78											
Propane	NA	NA	NA	NA				0.9	1.6	1.7	0.9			1.1	
Butane	NA	NA	NA	NA				1.0	1.7	1.6				1.0	0.9
tert-Butyldimethylsilanol	NA	NA	NA	NA											
2-Methyl Butane	NA	NA	NA	NA			0.8		0.8	0.9					0.8
2-Methyl 2-Propanol	NA	NA	NA	NA											
2-Methyl Butanal	NA	NA	NA	NA											
3-Methyl Butanal	NA	NA	NA	NA											
1,1-Difluoroethane	1.48	No adverse effects observed	NA	NA											
Difluorochloromethane	NA	NA	NA	NA											
d-Limonene	NA		NA	NA											
Decanal	NA	NA	NA	NA											
Nonanal	NA	NA	NA	NA											
1-Bromo-pentane	NA	NA	NA	NA											
Trimethyl Silanol	NA	NA	NA	NA											
Triflurodimethyl Silane	NA	NA	NA	NA											
Pentane	NA	NA	NA	NA											
Undecane	NA	NA	NA	NA											
2-Ethyl 1-Hexanol	NA	NA	NA	NA											
Unknown	NA	NA	NA	NA		0.8									0.8

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Compounds Detected	Inhalation Reference Concentration (RfC)* (converted to ppbv)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	10/8/2014 ppbv	10/8/2014 duplicate	10/14/2014 ppbv	10/26/2014 ppbv	11/7/2014 ppbv	11/15/2014 ppbv	11/19/2014 ppbv	11/25/2014 ppbv	12/1/2014 ppbv	12/7/2014 ppbv	12/13/2014 ppbv
Acetone	NA	NA	Inadequate data	NA	2.0	2.7	3.3	3.1	2.3	1.8	2	1.3	1.6	1.2	2.1
Benzene	9.39	Decreased blood cell count	A - human carcinogen	0.41 - 1.41	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Chlorobenzene					U	U	U	U	U	U	U	U	U	U	U
Chloromethane	NA	NA	NA	NA	0.9	1.0	0.8	0.9	0.8	0.8	0.9	0.7	0.8	0.8	0.7
1,4-Dichlorobenzene					U	U	U	U	U	U	U	U	U	U	U
Dichlorodifluoromethane	NA	NA	NA	NA	0.6	0.6	0.6	0.7	0.6	0.7	0.7	0.6	0.6	0.6	0.6
1,4-Dioxane	8.33	Damage to the nervous and respiratory systems	Likely to be carcinogenic	NA	U	U	U	U	U	U	U	U	U	U	U
Ethanol	NA	NA	NA	NA	2.1	2.9	4.3	3.5	1.8	2.5	1.7	1.7	1.1	2.1	1.1
Ethyl Acetate	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Hexane	198.6	Damage to the nervous system	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U
Isopropyl Alcohol	NA	NA	NA	NA	U	U	1.6	U	U	0.5	U	U	U	U	U
Methylene Chloride	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Toluene	1326.8	Neurological effects	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U
m,p-Xylene	23.0	Impaired motor coordination	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U

Tentative ID (TIC)	Inhalation Reference Concentration (RfC)* (converted to ppbV)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	10/8/2014 ppbv	10/8/2014 duplicate	10/14/2014 ppbv	10/26/2014 ppbv	11/7/2014 ppbv	11/15/2014 ppbv	11/19/2014 ppbv	11/25/2014 ppbv	12/1/2014 ppbv	12/7/2014 ppbv	12/13/2014 ppbv
Acetaldehyde	5.00	Damage to the nasal lining	B2 - probable human carcinogen	2.78											
Propane	NA	NA	NA	NA	1.0	1.0				1.1	1.4				1.4
Butane	NA	NA	NA	NA	0.9	1.0		0.8		1.0	1.2				0.8
tert-Butyldimethylsilanol	NA	NA	NA	NA											
2-Methyl Butane	NA	NA	NA	NA											
2-Methyl 2-Propanol	NA	NA	NA	NA											
2-Methyl Butanal	NA	NA	NA	NA											
3-Methyl Butanal	NA	NA	NA	NA											
1,1-Difluoroethane	1.48	No adverse effects observed	NA	NA					1.0	1.2					
Difluorochloromethane	NA	NA	NA	NA											
d-Limonene	NA		NA	NA											
Decanal	NA	NA	NA	NA											
Nonanal	NA	NA	NA	NA											
1-Bromo-pentane	NA	NA	NA	NA											
Trimethyl Silanol	NA	NA	NA	NA											
Triflurodimethyl Silane	NA	NA	NA	NA											
Pentane	NA	NA	NA	NA			3.8								
Undecane	NA	NA	NA	NA											
2-Ethyl 1-Hexanol	NA	NA	NA	NA											
Unknown	NA	NA	NA	NA											

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NA = not available
NOTE: All reference levels are for informational purposes only. It is not applicable to compare long term reference levels to individual short term measurements.
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Compounds Detected	Inhalation Reference Concentration (RfC)* (converted to ppbv)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	12/19/2014 ppbv	12/25/2014 ppbv	12/31/2014 ppbv	1/6/2015 ppbv	1/12/2015 ppbv	1/18/2015 ppbv	1/24/2015 ppbv	1/30/2015 ppbv	2/5/2015 ppbv	2/11/2015 ppbv	2/17/2015 ppbv
Acetone	NA	NA	Inadequate data	NA	1.5	1.2	0.8	1.1	1.4	1.0	1.0	0.8	1.3	1.6	1.3
Benzene	9.39	Decreased blood cell count	A - human carcinogen	0.41 - 1.41	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Chlorobenzene					U	U	U	U	U	U	U	U	U	U	U
Chloromethane	NA	NA	NA	NA	0.8	0.8	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.9	0.8
1,4-Dichlorobenzene					U	U	U	U	U	U	U	U	U	U	U
Dichlorodifluoromethane	NA	NA	NA	NA	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
1,4-Dioxane	8.33	Damage to the nervous and respiratory systems	Likely to be carcinogenic	NA	U	U	U	U	U	U	U	U	U	U	U
Ethanol	NA	NA	NA	NA	2.3	0.8	0.5	0.7	0.5	0.6	0.7	0.5	0.5	0.9	1.1
Ethyl Acetate	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Hexane	198.6	Damage to the nervous system	Inadequate data	NA	U	U	U	U	U	U	U	U	U	0.5	U
Isopropyl Alcohol	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Methylene Chloride	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Toluene	1326.8	Neurological effects	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U
m,p-Xylene	23.0	Impaired motor coordination	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U

Tentative ID (TIC)	Inhalation Reference Concentration (RfC)* (converted to ppbV)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	12/19/2014 ppbv	12/25/2014 ppbv	12/13/2014 ppbv	1/6/2015 ppbv	1/12/2015 ppbv	1/18/2015 ppbv	1/24/2015 ppbv	1/30/2015 ppbv	2/5/2015 ppbv	2/11/2015 ppbv	2/17/2015 ppbv
Acetaldehyde	5.00	Damage to the nasal lining	B2 - probable human carcinogen	2.78											
Propane	NA	NA	NA	NA	0.9	0.9			1.2	0.9	1.3	1.1			
Butane	NA	NA	NA	NA					0.9		1.2	1.0		4.0	1.4
tert-Butyldimethylsilanol	NA	NA	NA	NA											
2-Methyl Butane	NA	NA	NA	NA										3.4	1.3
2-Methyl 2-Propanol	NA	NA	NA	NA										1.4	0.8
2-Methyl Butanal	NA	NA	NA	NA											
3-Methyl Butanal	NA	NA	NA	NA											
1,1-Difluoroethane	1.48	No adverse effects observed	NA	NA											
Difluorochloromethane	NA	NA	NA	NA											
d-Limonene	NA		NA	NA											
Decanal	NA	NA	NA	NA											
Nonanal	NA	NA	NA	NA											
1-Bromo-pentane	NA	NA	NA	NA											
Trimethyl Silanol	NA	NA	NA	NA											
Triflurodimethyl Silane	NA	NA	NA	NA											
Pentane	NA	NA	NA	NA	0.8									1.6	1.8
Undecane	NA	NA	NA	NA											
2-Ethyl 1-Hexanol	NA	NA	NA	NA											
Unknown	NA	NA	NA	NA											

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NOTE: Due to unreliability, any lab reported value less than the Minimum Detectable Limit (0.5 ppb for all compounds, except for m,p-Xylene, which is 1.0 ppb) has been replaced with a "U"

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= baseline (pre-drilling)
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Imperial Pointe Ambient Air Sampling Results / Method EPA TO15 + Tentatively Identified Compounds

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Compounds Detected	Inhalation Reference Concentration (RfC)* (converted to ppbv)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	2/23/2015 ppbv	3/19/15** ppbv	3/25/2015 ppbv	3/31/2015 ppbv	4/6/2015 ppbv	4/12/2015 ppbv	4/18/2015 ppbv	4/24/2015 ppbv	4/30/2015 ppbv	5/6/2015 ppbv	5/12/2015 ppbv
Acetone	NA	NA	Inadequate data	NA	1.0	1.6	4.9	1.6	2.8	2.9	3.5	2.8	4.9	4.5	3.1
Benzene	9.39	Decreased blood cell count	A - human carcinogen	0.41 - 1.41	U	U	0.6	U	U	U	U	U	U	U	U
2-Butanone	NA	NA	NA	NA	U	U	0.5	U	U	U	0.5	U	U	U	U
Chlorobenzene					U	U	U	U	U	U	U	U	U	U	U
Chloromethane	NA	NA	NA	NA	0.8	0.8	0.9	0.8	0.8	1.0	0.8	0.7	0.7	0.7	0.7
1,4-Dichlorobenzene					U	U	U	U	U	U	U	U	U	U	U
Dichlorodifluoromethane	NA	NA	NA	NA	0.5	0.5	0.5	0.6	0.5	0.6	0.6	0.5	0.5	0.5	U
1,4-Dioxane	8.33	Damage to the nervous and respiratory systems	Likely to be carcinogenic	NA	U	U	U	U	U	U	U	U	U	U	U
Ethanol	NA	NA	NA	NA	0.7	2.2	10.0	1.9	3.2	3.6	2.5	1.1	2.3	2.3	1.8
Ethyl Acetate	NA	NA	NA	NA	U	U	1.1	U	U	U	U	U	U	U	U
Hexane	198.6	Damage to the nervous system	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U
Isopropyl Alcohol	NA	NA	NA	NA	U	0.5	4.2	U	0.5	0.6	0.8	U	2.8	0.8	1.0
Methylene Chloride	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Toluene	1326.8	Neurological effects	Inadequate data	NA	U	0.5	2.2	U	0.6	0.5	0.8	U	U	U	0.6
m,p-Xylene	23.0	Impaired motor coordination	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U

Tentative ID (TIC)	Inhalation Reference Concentration (RfC)* (converted to ppbV)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	2/23/2015 ppbv	3/19/15** ppbv	3/25/2015 ppbv	3/31/2015 ppbv	4/6/2015 ppbv	4/12/2015 ppbv	4/18/2015 ppbv	4/24/2015 ppbv	4/30/2015 ppbv	5/6/2015 ppbv	5/12/2015 ppbv
Acetaldehyde	5.00	Damage to the nasal lining	B2 - probable human carcinogen	2.78			1.4						1.0		
Propane	NA	NA	NA	NA		1.0	1.6	1.1	2.1	1.6	2.5			1.6	
Butane	NA	NA	NA	NA		1.2		1.2	2.3	2.2	2.8			1.9	
tert-Butyldimethylsilanol	NA	NA	NA	NA											
2-Methyl Butane	NA	NA	NA	NA					1.1	1.9	1.5			1.1	
2-Methyl 2-Propanol	NA	NA	NA	NA											
2-Methyl Butanal	NA	NA	NA	NA											
3-Methyl Butanal	NA	NA	NA	NA											
1,1-Difluoroethane	1.48	No adverse effects observed	NA	NA											
Difluorochloromethane	NA	NA	NA	NA											
d-Limonene	NA		NA	NA											
Decanal	NA	NA	NA	NA											
Nonanal	NA	NA	NA	NA										0.9	
1-Bromo-pentane	NA	NA	NA	NA											
Trimethyl Silanol	NA	NA	NA	NA											
Triflurodimethyl Silane	NA	NA	NA	NA											
Pentane	NA	NA	NA	NA					0.9	0.9	1.2			0.9	
Undecane	NA	NA	NA	NA											
2-Ethyl 1-Hexanol	NA	NA	NA	NA											
Unknown	NA	NA	NA	NA											

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Compounds Detected	Inhalation Reference Concentration (RfC)* (converted to ppbv)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	5/18/2015 ppbv	5/30/2015** ppbv	6/5/2015 ppbv	6/5/15 - dup ppbv	6/11/2015 ppbv	6/17/2015 ppbv	6/23/2015 ppbv	6/29/2015 ppbv	7/5/2015 ppbv	7/11/2015 ppbv	7/17/2015 ppbv
Acetone	NA	NA	Inadequate data	NA	3.8	4.1	3.1	3.5	12.6	3.8	3.9	2.3	3.0	14.1	11.0
Benzene	9.39	Decreased blood cell count	A - human carcinogen	0.41 - 1.41	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	NA	NA	NA	NA	U	U	U	U	0.7	0.5	U	U	U	0.8	0.6
Chlorobenzene					U	U	U	U	U	U	U	U	U	U	U
Chloromethane	NA	NA	NA	NA	0.8	0.8	0.7	0.7	0.7	0.8	0.8	0.7	0.7	0.7	0.8
1,4-Dichlorobenzene					U	U	U	U	U	U	U	U	U	U	U
Dichlorodifluoromethane	NA	NA	NA	NA	U	0.5	U	U	U	0.5	U	U	U	U	0.5
1,4-Dioxane	8.33	Damage to the nervous and respiratory systems	Likely to be carcinogenic	NA	U	U	U	U	U	U	U	U	U	U	U
Ethanol	NA	NA	NA	NA	3.9	3.1	2.8	4.0	U	105	4.0	2.2	2.4	2.2	2.1
Ethyl Acetate	NA	NA	NA	NA	U	0.5	0.5	0.8	0.5	U	0.5	U	U	U	U
Hexane	198.6	Damage to the nervous system	Inadequate data	NA	U	U	U	U	U	U	U	U	0.6	0.5	U
Isopropyl Alcohol	NA	NA	NA	NA	1.5	3.5	1.0	1.9	4.1	1.1	1.1	0.5	0.8	1.7	6.8
Methylene Chloride	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	0.5	U
Tetrachloroethene	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Toluene	1326.8	Neurological effects	Inadequate data	NA	0.5	U	0.5	1.3	1.1	3.0	0.7	U	0.7	0.5	1.1
m,p-Xylene	23.0	Impaired motor coordination	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U

Tentative ID (TIC)	Inhalation Reference Concentration (RfC)* (converted to ppbV)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	5/18/2015 ppbv	5/30/2015 ppbv	6/5/2015 ppbv	6/5/15 - dup ppbv	6/11/2015 ppbv	6/17/2015 pbbv	6/23/2015 ppbv	6/29/2015 ppbv	7/5/2015 ppbv	7/11/2015 ppbv	7/17/2015 ppbv
Acetaldehyde	5.00	Damage to the nasal lining	B2 - probable human carcinogen	2.78											
Propane	NA	NA	NA	NA	1.1	1.4			0.8	0.9		1.3	5.5	4.3	1.8
Butane	NA	NA	NA	NA	1.9	1.6				1.2		1.6	5.2	4.8	1.8
tert-Butyldimethylsilanol	NA	NA	NA	NA											
2-Methyl Butane	NA	NA	NA	NA	0.9	1.0				2.0			1.9	1.7	1.9
2-Methyl 2-Propanol	NA	NA	NA	NA											
2-Methyl Butanal	NA	NA	NA	NA											
3-Methyl Butanal	NA	NA	NA	NA											
1,1-Difluoroethane	1.48	No adverse effects observed	NA	NA											
Difluorochloromethane	NA	NA	NA	NA											
d-Limonene	NA		NA	NA			1.3								
Decanal	NA	NA	NA	NA										0.8	
Nonanal	NA	NA	NA	NA	1.4	1.0	0.9							2.1	
1-Bromo-pentane	NA	NA	NA	NA											
Trimethyl Silanol	NA	NA	NA	NA					1.0						
Triflurodimethyl Silane	NA	NA	NA	NA											
Pentane	NA	NA	NA	NA	1.2	0.8				8.3	0.9		2.0	1.8	0.9
Undecane	NA	NA	NA	NA											
2-Ethyl 1-Hexanol	NA	NA	NA	NA											
Unknown	NA	NA	NA	NA				1.0	2.0		1.3			1.3	

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Compounds Detected	Inhalation Reference Concentration (RfC)* (converted to ppbv)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	7/23/2015 ppbv	7/29/2015 ppbv	8/4/2015 ppbv	8/16/15** ppbv	8/22/2015 ppbv	8/28/2015 ppbv	9/3/2015 ppbv	9/9/2015 ppbv	9/15/2015 ppbv	9/21/2015 ppbv	9/27/2015 ppbv	10/9/15** ppbv
Acetone	NA	NA	Inadequate data	NA	3.1	6.3	3.4	3.6	2.4	10.2	9.8	3.6	2.5	2.7	2.1	4.8
Benzene	9.39	Decreased blood cell count	A - human carcinogen	0.41 - 1.41	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	NA	NA	NA	NA	U	0.5	U	U	U	0.5	0.6	U	U	U	U	U
Chlorobenzene					U	U	U	U	U	U	U	U	U	U	U	U
Chloromethane	NA	NA	NA	NA	0.8	0.9	0.8	0.6	0.7	0.7	0.8	0.8	0.8	0.7	0.8	0.8
1,4-Dichlorobenzene					U	U	U	U	U	U	U	U	U	U	U	U
Dichlorodifluoromethane	NA	NA	NA	NA	0.5	0.5	0.8	U	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
1,4-Dioxane	8.33	Damage to the nervous and respiratory systems	Likely to be carcinogenic	NA	U	U	U	U	U	U	U	U	U	U	U	U
Ethanol	NA	NA	NA	NA	2.0	5.6	2.4	3.2	2.1	1.0	3.3	2.6	1.8	1.9	1.4	1.4
Ethyl Acetate	NA	NA	NA	NA	0.5	0.7	0.6	0.5	U	U	U	U	U	U	U	U
Hexane	198.6	Damage to the nervous system	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U	U
Isopropyl Alcohol	NA	NA	NA	NA	0.5	3.2	0.6	1.1	U	2.3	4.6	0.9	U	0.8	U	1.1
Methylene Chloride	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	1326.8	Neurological effects	Inadequate data	NA	U	1.1	U	1.1	U	0.5	0.5	U	U	U	U	U
m,p-Xylene	23.0	Impaired motor coordination	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U	U

Tentative ID (TIC)	Inhalation Reference Concentration (RfC)* (converted to ppbV)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	7/23/2015 ppbv	7/23/2015 ppbv	8/4/2015 ppbv	8/16/15** ppbv	8/22/2015 ppbv	8/28/2015 ppbv	9/3/2015 ppbv	9/9/2015 ppbv	9/15/2015 ppbv	9/21/2015 ppbv	9/27/2015 ppbv	10/9/15** ppbv
Acetaldehyde	5.00	Damage to the nasal lining	B2 - probable human carcinogen	2.78												
Propane	NA	NA	NA	NA	2.2						0.9	1.1	1.0			1.4
Butane	NA	NA	NA	NA	1.6	0.9		1.0				1.2	0.8			1.1
tert-Butyldimethylsilanol	NA	NA	NA	NA												
2-Methyl Butane	NA	NA	NA	NA	0.9	0.8										
2-Methyl 2-Propanol	NA	NA	NA	NA												
2-Methyl Butanal	NA	NA	NA	NA												
3-Methyl Butanal	NA	NA	NA	NA												
1,1-Difluoroethane	1.48	No adverse effects observed	NA	NA												
Difluorochloromethane	NA	NA	NA	NA												
d-Limonene	NA		NA	NA												
Decanal	NA	NA	NA	NA												
Nonanal	NA	NA	NA	NA						1.7						
1-Bromo-pentane	NA	NA	NA	NA												
Trimethyl Silanol	NA	NA	NA	NA												
Triflurodimethyl Silane	NA	NA	NA	NA												
Pentane	NA	NA	NA	NA	0.9		1.7									
Undecane	NA	NA	NA	NA												
2-Ethyl 1-Hexanol	NA	NA	NA	NA		2.6					1.5					
Unknown	NA	NA	NA	NA		1.0		0.9		1.2	1.3					

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Compounds Detected	Inhalation Reference Concentration (RfC)* (converted to ppbv)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	10/21/15** ppbv	10/27/2015 ppbv	11/2/2015 ppbv	11/8/2015 ppbv	11/14/2015 ppbv	11/20/2015 ppbv	11/26/2015 ppbv	12/2/2015 ppbv	12/8/2015 ppbv	12/14/2015 ppbv	12/20/2015 ppbv
Acetone	NA	NA	Inadequate data	NA	2.7	1.8	2.1	1.6	2.0	1.3	1.9	1.1	2.7	1.7	1.4
Benzene	9.39	Decreased blood cell count	A - human carcinogen	0.41 - 1.41	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Chlorobenzene					U	U	U	U	U	U	U	U	U	U	U
Chloromethane	NA	NA	NA	NA	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8
1,4-Dichlorobenzene					U	U	U	U	U	U	U	U	U	U	U
Dichlorodifluoromethane	NA	NA	NA	NA	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
1,4-Dioxane	8.33	Damage to the nervous and respiratory systems	Likely to be carcinogenic	NA	U	U	U	U	U	U	U	U	U	U	U
Ethanol	NA	NA	NA	NA	2.5	1.9	4.9	1.6	0.6	1.4	2.8	0.7	1.0	1.3	1.4
Ethyl Acetate	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Hexane	198.6	Damage to the nervous system	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U
Isopropyl Alcohol	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Methylene Chloride	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Toluene	1326.8	Neurological effects	Inadequate data	NA	U	U	U	U	U	U	U	U	0.5	U	0.5
m,p-Xylene	23.0	Impaired motor coordination	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U

Tentative ID (TIC)	Inhalation Reference Concentration (RfC)* (converted to ppbV)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	10/21/15** ppbv	10/27/2015 ppbv	11/2/2015 ppbv	11/8/2015 ppbv	11/14/2015 ppbv	11/20/2015 ppbv	11/26/2015 ppbv	12/2/2015 ppbv	12/8/2015 ppbv	12/14/2015 ppbv	12/20/2015 ppbv
Acetaldehyde	5.00	Damage to the nasal lining	B2 - probable human carcinogen	2.78											
Propane	NA	NA	NA	NA	1.6		1.1					0.9	3.3	1.1	1.3
Butane	NA	NA	NA	NA	1.2		1.4					0.9	2.6	1.0	1.0
tert-Butyldimethylsilanol	NA	NA	NA	NA											
2-Methyl Butane	NA	NA	NA	NA			1.1						1.4		
2-Methyl 2-Propanol	NA	NA	NA	NA											
2-Methyl Butanal	NA	NA	NA	NA											
3-Methyl Butanal	NA	NA	NA	NA											
1,1-Difluoroethane	1.48	No adverse effects observed	NA	NA											
Difluorochloromethane	NA	NA	NA	NA											
d-Limonene	NA		NA	NA											
Decanal	NA	NA	NA	NA											
Nonanal	NA	NA	NA	NA											
1-Bromo-pentane	NA	NA	NA	NA											
Trimethyl Silanol	NA	NA	NA	NA											
Triflurodimethyl Silane	NA	NA	NA	NA											
Pentane	NA	NA	NA	NA									1.1		1.6
Undecane	NA	NA	NA	NA											
2-Ethyl 1-Hexanol	NA	NA	NA	NA											
Unknown	NA	NA	NA	NA							0.9				

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Compounds Detected	Inhalation Reference Concentration (RfC)* (converted to ppbv)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	12/26/2015 ppbv	1/1/2016 ppbv	1/7/2016 ppbv	1/13/2016 ppbv	1/25/16** ppbv	1/31/2016 ppbv	2/6/2016 ppbv	2/12/2016 ppbv	2/18/2016 ppbv	2/24/2016 ppbv	3/7/2016 ppbv	3/13/2016 ppbv
Acetone	NA	NA	Inadequate data	NA	1.4	1.4	3.9	1.5	1.5	1.8	1.2	1.7	1.0	1.3	1.9	1.8
Benzene	9.39	Decreased blood cell count	A - human carcinogen	0.41 - 1.41	U	U	0.8	U	U	U	U	U	U	U	U	U
2-Butanone	NA	NA	NA	NA	U	U	0.5	U	U	U	U	U	U	U	U	U
Chlorobenzene					U	U	U	U	U	U	U	U	U	U	U	U
Chloromethane	NA	NA	NA	NA	0.7	0.8	0.5	0.7	0.7	0.6	0.5	0.5	0.6	0.6	0.5	0.6
1,4-Dichlorobenzene					U	U	U	U	U	U	U	U	U	U	U	U
Dichlorodifluoromethane	NA	NA	NA	NA	0.5	0.5	0.5	0.5	0.5	0.5	U	U	U	U	U	U
1,4-Dioxane	8.33	Damage to the nervous and respiratory systems	Likely to be carcinogenic	NA	U	U	U	U	U	U	U	U	U	U	U	U
Ethanol	NA	NA	NA	NA	1.2	1.0	4.3	1.1	1.5	0.9	1.2	3.4	1.3	1.5	2.6	1.5
Ethyl Acetate	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
Hexane	198.6	Damage to the nervous system	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U	U
Isopropyl Alcohol	NA	NA	NA	NA	U	U	1.8	U	U	U	U	1.3	U	U	U	U
Methylene Chloride	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	1326.8	Neurological effects	Inadequate data	NA	U	0.5	0.8	U	U	0.7	U	U	U	U	0.6	U
m,p-Xylene	23.0	Impaired motor coordination	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U	U

Tentative ID (TIC)	Inhalation Reference Concentration (RfC)* (converted to ppbV)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	12/26/2015 ppbv	1/1/2016 ppbv	1/7/2016 ppbv	1/13/2016 ppbv	1/25/16** ppbv	1/31/2016 ppbv	2/6/2016 ppbv	2/12/2016 ppbv	2/18/2016 ppbv	2/24/2016 ppbv	3/7/2016 ppbv	3/13/2016 ppbv
Acetaldehyde	5.00	Damage to the nasal lining	B2 - probable human carcinogen	2.78												
Propane	NA	NA	NA	NA			1.5	1.0	1.7	1.1	1.2	1.0			1.2	
Butane	NA	NA	NA	NA			2.4	1.1	1.9	1.1	1.2	1.1			1.1	0.9
tert-Butyldimethylsilanol	NA	NA	NA	NA												
2-Methyl Butane	NA	NA	NA	NA			1.2									
2-Methyl 2-Propanol	NA	NA	NA	NA												
2-Methyl Butanal	NA	NA	NA	NA												
3-Methyl Butanal	NA	NA	NA	NA												
1,1-Difluoroethane	1.48	No adverse effects observed	NA	NA												
Difluorochloromethane	NA	NA	NA	NA												
d-Limonene	NA		NA	NA												
Decanal	NA	NA	NA	NA												
Nonanal	NA	NA	NA	NA						1.3						
1-Bromo-pentane	NA	NA	NA	NA												
Trimethyl Silanol	NA	NA	NA	NA											0.9	
Triflurodimethyl Silane	NA	NA	NA	NA												
Pentane	NA	NA	NA	NA			0.8					1.3				
Undecane	NA	NA	NA	NA												
2-Ethyl 1-Hexanol	NA	NA	NA	NA												
Unknown	NA	NA	NA	NA												

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** = missing days due to technical failure
NA = not available
NOTE: All reference levels are for informational purposes only. It is not applicable to compare long term reference levels to individual short term measurements.
NOTE: Due to unreliability, any lab reported value less than the Minimum Detectable Limit (0.5 ppb for all compounds, except for m,p-Xylene, which is 1.0 ppb) has been replaced with a "U"

U=undetectable
= baseline (pre-drilling)
= site construction
= drilling has started
= fracking
= flaring
= production

Imperial Pointe Ambient Air Sampling Results / Method EPA TO15 + Tentatively Identified Compounds

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Compounds Detected	Inhalation Reference Concentration (RfC)* (converted to ppbv)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	3/19/2016 ppbv	3/25/2016 ppbv	3/31/2016 ppbv	4/6/2016 ppbv	4/12/2016 ppbv	4/18/2016 ppbv	4/30/2016 ppbv	5/6/2016 ppbv	5/12/2016 ppbv	5/18/2016 ppbv	5/24/2016 ppbv
Acetone	NA	NA	Inadequate data	NA	2.1	1.2	1.8	1.2	2.2	2.3	1.6	4.3	2.2	1.3	2.5
Benzene	9.39	Decreased blood cell count	A - human carcinogen	0.41 - 1.41	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	NA	NA	NA	NA	U	U	U	U	U	U	U	0.6	U	U	U
Chlorobenzene					U	U	U	U	U	U	U	U	U	U	U
Chloromethane	NA	NA	NA	NA	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6
1,4-Dichlorobenzene					U	U	U	U	U	U	U	U	U	U	U
Dichlorodifluoromethane	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	0.5
1,4-Dioxane	8.33	Damage to the nervous and respiratory systems	Likely to be carcinogenic	NA	U	U	U	U	U	0.6	U	U	U	U	U
Ethanol	NA	NA	NA	NA	1.3	0.7	0.9	1.3	0.6	3.8	1.1	4.4	2.1	1.3	2.5
Ethyl Acetate	NA	NA	NA	NA	U	U	U	U	U	U	U	0.6	U	U	U
Hexane	198.6	Damage to the nervous system	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U
Isopropyl Alcohol	NA	NA	NA	NA	0.8	U	U	U	1.7	U	U	2.5	U	U	U
Methylene Chloride	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Toluene	1326.8	Neurological effects	Inadequate data	NA	0.5	U	0.6	U	U	U	U	1.5	U	0.5	U
m,p-Xylene	23.0	Impaired motor coordination	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U

Tentative ID (TIC)	Inhalation Reference Concentration (RfC)* (converted to ppbV)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	3/19/2016 ppbv	3/25/2016 ppbv	3/31/2016 ppbv	4/6/2016 ppbv	4/12/2016 ppbv	4/18/2016 ppbv	4/30/2016 ppbv	5/6/2016 ppbv	5/12/2016 ppbv	5/18/2016 ppbv	5/24/2016 ppbv
Acetaldehyde	5.00	Damage to the nasal lining	B2 - probable human carcinogen	2.78	1.9							1.4			
Propane	NA	NA	NA	NA				0.8					0.9		
Butane	NA	NA	NA	NA									1.2		
tert-Butyldimethylsilanol	NA	NA	NA	NA						1.7	1.1				
2-Methyl Butane	NA	NA	NA	NA											
2-Methyl 2-Propanol	NA	NA	NA	NA											
2-Methyl Butanal	NA	NA	NA	NA											
3-Methyl Butanal	NA	NA	NA	NA											
1,1-Difluoroethane	1.48	No adverse effects observed	NA	NA											
Difluorochloromethane	NA	NA	NA	NA											
d-Limonene	NA		NA	NA											
Decanal	NA	NA	NA	NA											
Nonanal	NA	NA	NA	NA			1.1	0.9				1.5			
1-Bromo-pentane	NA	NA	NA	NA											
Trimethyl Silanol	NA	NA	NA	NA											
Triflurodimethyl Silane	NA	NA	NA	NA											
Pentane	NA	NA	NA	NA											
Undecane	NA	NA	NA	NA											
2-Ethyl 1-Hexanol	NA	NA	NA	NA											
Unknown	NA	NA	NA	NA											

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Compounds Detected	Inhalation Reference Concentration (RfC)* (converted to ppbv)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	5/30/2016 ppbv	6/5/2016 ppbv	6/11/2016 ppbv	6/23/2016** ppbv	6/29/2016 ppbv	7/11/16** ppbv	7/17/2016 ppbv	7/23/2016 ppbv	7/29/2016 ppbv	8/4/2016 ppbv	8/16/16** ppbv
Acetone	NA	NA	Inadequate data	NA	2.8	8.5	4.2	2.5	3.4	3.6	2.9	8.8	2.7	3.0	3.4
Benzene	9.39	Decreased blood cell count	A - human carcinogen	0.41 - 1.41	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	NA	NA	NA	NA	U	0.8	0.5	U	U	U	U	0.9	0.6	U	U
Chlorobenzene					U	U	U	U	U	U	U	U	U	U	0.7
Chloromethane	NA	NA	NA	NA	0.7	0.8	0.7	0.8	0.7	0.6	0.6	0.6	0.7	0.7	0.8
1,4-Dichlorobenzene					U	U	U	U	U	U	U	U	U	U	0.5
Dichlorodifluoromethane	NA	NA	NA	NA	U	0.5	0.5	0.5	0.5	0.5	0.5	U	U	0.5	0.5
1,4-Dioxane	8.33	Damage to the nervous and respiratory systems	Likely to be carcinogenic	NA	U	U	U	U	U	U	U	U	U	U	U
Ethanol	NA	NA	NA	NA	6.8	8.9	3.2	2.7	4.7	3.5	4.3	10.1	3.1	2.6	2.5
Ethyl Acetate	NA	NA	NA	NA	U	U	U	U	U	0.5	0.6	0.6	U	U	U
Hexane	198.6	Damage to the nervous system	Inadequate data	NA	U	U	U	U	0.6	U	U	U	U	U	U
Isopropyl Alcohol	NA	NA	NA	NA	0.7	5.2	U	0.5	1.1	1.4	0.6	5.9	0.6	0.5	1.7
Methylene Chloride	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	NA	NA	NA	NA	U	U	1.2	U	U	U	U	U	U	U	U
Toluene	1326.8	Neurological effects	Inadequate data	NA	2.3	U	1.6	U	2.3	3.2	0.5	2.2	U	2.0	U
m,p-Xylene	23.0	Impaired motor coordination	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U

Tentative ID (TIC)	Inhalation Reference Concentration (RfC)* (converted to ppbV)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	5/30/2016 ppbv	6/5/2016 ppbv	6/11/2016 ppbv	6/23/2016** ppbv	6/29/2016 ppbv	7/11/16** ppbv	7/17/2016 ppbv	7/23/2016 ppbv	7/29/2016 ppbv	8/4/2016 ppbv	8/16/16** ppbv
Acetaldehyde	5.00	Damage to the nasal lining	B2 - probable human carcinogen	2.78		2.7						3.0			
Propane	NA	NA	NA	NA					1.9						
Butane	NA	NA	NA	NA	0.9		1.1	0.8	2.7	0.9	0.8		0.9		1.1
tert-Butyldimethylsilanol	NA	NA	NA	NA											
2-Methyl Butane	NA	NA	NA	NA					1.3						
2-Methyl 2-Propanol	NA	NA	NA	NA											
2-Methyl Butanal	NA	NA	NA	NA											
3-Methyl Butanal	NA	NA	NA	NA											
1,1-Difluoroethane	1.48	No adverse effects observed	NA	NA											
Difluorochloromethane	NA	NA	NA	NA											
d-Limonene	NA		NA	NA											
Decanal	NA	NA	NA	NA											
Nonanal	NA	NA	NA	NA	1.2	1.3	1.0				0.8	1.7			
1-Bromo-pentane	NA	NA	NA	NA											
Trimethyl Silanol	NA	NA	NA	NA		1.8			2.9			1.2			
Triflurodimethyl Silane	NA	NA	NA	NA											
Pentane	NA	NA	NA	NA				1.4	1.6						
Undecane	NA	NA	NA	NA											
2-Ethyl 1-Hexanol	NA	NA	NA	NA				0.9			1.5				
Unknown	NA	NA	NA	NA											

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Compounds Detected	Inhalation Reference Concentration (RfC)* (converted to ppbv)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	8/22/2016 ppbv	8/28/2016 ppbv	9/3/2016 ppbv	9/9/2016 ppbv	9/15/2016 ppbv	9/21/2016 ppbv	9/27/2016 ppbv	10/3/2016 ppbv	10/9/2016 ppbv	10/27/2016 ppbv	11/2/2016 ppbv	11/20/2016 ppbv
Acetone	NA	NA	Inadequate data	NA	1.8	10.5	1.9	2.8	1.7	3.6	4.80	1.70	1.10	2.60	7.80	0.90
Benzene	9.39	Decreased blood cell count	A - human carcinogen	0.41 - 1.41	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	NA	NA	NA	NA	U	1.2	U	U	U	0.9	0.50	U	U	U	1.20	U
Chlorobenzene					U	U	U	U	U	U	U	U	U	U	U	U
Chloromethane	NA	NA	NA	NA	0.6	0.8	0.6	0.7	0.6	0.7	0.60	0.60	0.50	0.60	0.60	0.60
1,4-Dichlorobenzene					U	U	U	U	U	U	U	U	U	U	U	U
Dichlorodifluoromethane	NA	NA	NA	NA	0.5	0.5	0.5	0.5	0.5	0.5	0.50	0.50	U	0.50	0.50	0.50
1,4-Dioxane	8.33	Damage to the nervous and respiratory systems	Likely to be carcinogenic	NA	U	U	U	U	U	U	U	U	U	U	U	U
Ethanol	NA	NA	NA	NA	2.0	13.2	2.2	2.5	3.1	3.6	5.80	U	U	2.00	7.70	0.70
Ethyl Acetate	NA	NA	NA	NA	U	0.6	U	U	U	U	U	U	U	U	U	U
Hexane	198.6	Damage to the nervous system	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U	U
Isopropyl Alcohol	NA	NA	NA	NA	0.5	12.2	U	0.9	U	0.6	3.10	U	U	U	4.00	U
Methylene Chloride	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	6.60	U	U
Tetrachloroethene	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	1326.8	Neurological effects	Inadequate data	NA	1.6	0.6	1.2	U	1.1	0.5	1.5	U	U	U	2.90	U
m,p-Xylene	23.0	Impaired motor coordination	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U	U

Tentative ID (TIC)	Inhalation Reference Concentration (RfC)* (converted to ppbV)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	8/22/2016 ppbv	8/28/2016 ppbv	9/3/2016 ppbv	9/9/2016 ppbv	9/15/2016 ppbv	9/21/2016 ppbv	9/27/2016 ppbv	10/3/2016 ppbv	10/9/2016 ppbv	10/27/2016 ppbv	11/2/2016 ppbv	11/20/2016 ppbv
Acetaldehyde	5.00	Damage to the nasal lining	B2 - probable human carcinogen	2.78		3.9					1.70				2.10	
Propane	NA	NA	NA	NA		1.0						0.90			1.10	
Butane	NA	NA	NA	NA						1.9		1.40		0.90		
tert-Butyldimethylsilanol	NA	NA	NA	NA		1.0										
2-Methyl Butane	NA	NA	NA	NA						1.0		0.80				
2-Methyl 2-Propanol	NA	NA	NA	NA						1.9						
2-Methyl Butanal	NA	NA	NA	NA						2.3						
3-Methyl Butanal	NA	NA	NA	NA						3.1						
1,1-Difluoroethane	1.48	No adverse effects observed	NA	NA												
Difluorochloromethane	NA	NA	NA	NA												
d-Limonene	NA		NA	NA												
Decanal	NA	NA	NA	NA												
Nonanal	NA	NA	NA	NA		2.0					0.90				2.00	
1-Bromo-pentane	NA	NA	NA	NA												
Trimethyl Silanol	NA	NA	NA	NA												
Triflurodimethyl Silane	NA	NA	NA	NA												
Pentane	NA	NA	NA	NA						0.8						
Undecane	NA	NA	NA	NA												
2-Ethyl 1-Hexanol	NA	NA	NA	NA												
Unknown	NA	NA	NA	NA				1.1		1.0						

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Compounds Detected	Inhalation Reference Concentration (RfC)* (converted to ppbv)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	11/26/2016 ppbv	12/2/2016 ppbv	12/8/2016 ppbv	12/26/2016 ppbv	1/1/2017 ppbv	1/13/2017 ppbv	1/19/2017 ppbv	1/31/2017 ppbv	2/6/2017 ppbv	2/18/2017 ppbv	2/24/2017 ppbv	3/2/2017 ppbv
Acetone	NA	NA	Inadequate data	NA	1.40	1.30	2.60	1.40	1.00	1.00	3.40	1.00	1.60	1.40	3.70	0.90
Benzene	9.39	Decreased blood cell count	A - human carcinogen	0.41 - 1.41	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	0.60	U
Chlorobenzene					U	U	U	U	U	U	U	U	U	U	U	U
Chloromethane	NA	NA	NA	NA	0.60	0.60	0.70	0.60	0.60	0.60	0.70	0.50	0.50	0.60	0.50	0.60
1,4-Dichlorobenzene					U	U	U	U	U	U	U	U	U	U	U	U
Dichlorodifluoromethane	NA	NA	NA	NA	0.50	0.50	0.50	0.50	0.50	0.50	0.50	U	U	U	U	U
1,4-Dioxane	8.33	Damage to the nervous and respiratory systems	Likely to be carcinogenic	NA	U	U	U	U	U	U	U	U	U	U	U	U
Ethanol	NA	NA	NA	NA	1.30	1.40	1.90	0.90	1.10	U	2.30	U	0.90	1.00	2.80	U
Ethyl Acetate	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
Hexane	198.6	Damage to the nervous system	Inadequate data	NA	U	U	U	U	U	U	0.60	U	U	U	U	U
Isopropyl Alcohol	NA	NA	NA	NA	U	U	1.10	U	U	U	2.00	U	U	U	1.90	U
Methylene Chloride	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	1326.8	Neurological effects	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U	U
m,p-Xylene	23.0	Impaired motor coordination	Inadequate data	NA	U	U	U	U	U	U	U	U	U	U	U	U

Tentative ID (TIC)	Inhalation Reference Concentration (RfC)* (converted to ppbV)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	11/26/2016 ppbv	12/2/2016 ppbv	12/8/2016 ppbv	12/26/2016 ppbv	1/1/2017 ppbv	1/13/2017 ppbv	1/19/2017 ppbv	1/31/2017 ppbv	2/6/2017 ppbv	2/18/2017 ppbv	2/24/2017 ppbv	3/2/2017 ppbv
Acetaldehyde	5.00	Damage to the nasal lining	B2 - probable human carcinogen	2.78											1.30	
Propane	NA	NA	NA	NA							1.80					
Butane	NA	NA	NA	NA	0.90	1.10	1.70	0.90	0.80		4.70		1.30	1.20		
tert-Butyldimethylsilanol	NA	NA	NA	NA												
2-Methyl Butane	NA	NA	NA	NA							1.40					
2-Methyl 2-Propanol	NA	NA	NA	NA												
2-Methyl Butanal	NA	NA	NA	NA												
3-Methyl Butanal	NA	NA	NA	NA												
1,1-Difluoroethane	1.48	No adverse effects observed	NA	NA												
Difluorochloromethane	NA	NA	NA	NA												
d-Limonene	NA		NA	NA												
Decanal	NA	NA	NA	NA												
Nonanal	NA	NA	NA	NA											2.00	
1-Bromo-pentane	NA	NA	NA	NA												
Trimethyl Silanol	NA	NA	NA	NA										1.60		1.00
Triflurodimethyl Silane	NA	NA	NA	NA												
Pentane	NA	NA	NA	NA							1.90					
Undecane	NA	NA	NA	NA												
2-Ethyl 1-Hexanol	NA	NA	NA	NA												
Unknown	NA	NA	NA	NA												

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Imperial Pointe Ambient Air Sampling Results / Method EPA TO15 + Tentatively Identified Compounds

PLEASE NOTE: Ambient levels of these compounds are not regulated by the EPA or ACHD

Compounds Detected	Inhalation Reference Concentration (RfC)* (converted to ppbv)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	3/8/2017 ppbv	3/14/2017 ppbv	3/20/2017 ppbv	3/26/2017 ppbv	4/1/2017 ppbv	4/13/2017 ppbv	4/25/2017 ppbv	5/1/2017 ppbv	5/7/2017 ppbv
Acetone	NA	NA	Inadequate data	NA	0.90	1.30	2.80	4.30	1.00	1.90	2.40	4.20	1.60
Benzene	9.39	Decreased blood cell count	A - human carcinogen	0.41 - 1.41	U	U	U	U	U	U	U	U	U
2-Butanone	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U
Chlorobenzene					U	U	U	U	U	U	U	U	U
Chloromethane	NA	NA	NA	NA	0.60	0.50	0.60	0.60	0.80	0.60	0.90	0.70	0.70
1,4-Dichlorobenzene					U	U	U	U	U	U	U	U	U
Dichlorodifluoromethane	NA	NA	NA	NA	U	U	U	U	U	0.50	0.50	U	0.50
1,4-Dioxane	8.33	Damage to the nervous and respiratory systems	Likely to be carcinogenic	NA	U	U	U	U	U	U	U	U	U
Ethanol	NA	NA	NA	NA	U	0.50	0.70	6.20	0.50	1.30	1.00	5.30	0.50
Ethyl Acetate	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U
Hexane	198.6	Damage to the nervous system	Inadequate data	NA	U	U	U	U	U	U	U	U	U
Isopropyl Alcohol	NA	NA	NA	NA	U	U	U	2.10	U	U	U	1.90	U
Methylene Chloride	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U
Tetrachloroethene	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U
Toluene	1326.8	Neurological effects	Inadequate data	NA	U	U	U	U	U	U	U	1.10	U
m,p-Xylene	23.0	Impaired motor coordination	Inadequate data	NA	U	U	U	U	U	U	U	U	U

Tentative ID (TIC)	Inhalation Reference Concentration (RfC)* (converted to ppbV)	Critical Health Effect*	Carcinogenic Classification*	Lifetime continuous exposure (converted to ppbv) for an added 1 in 100,000 risk of cancer*	3/8/2017 ppbv	3/14/2017 ppbv	3/20/2017 ppbv	3/26/2017 ppbv	4/1/2017 ppbv	4/13/2017 ppbv	4/25/2017 ppbv	5/1/2017 ppbv	5/7/2017 ppbv
Acetaldehyde	5.00	Damage to the nasal lining	B2 - probable human carcinogen	2.78				1.20				1.40	
Propane	NA	NA	NA	NA			1.10						
Butane	NA	NA	NA	NA			1.30		0.80				
tert-Butyldimethylsilanol	NA	NA	NA	NA									
2-Methyl Butane	NA	NA	NA	NA									
2-Methyl 2-Propanol	NA	NA	NA	NA									
2-Methyl Butanal	NA	NA	NA	NA									
3-Methyl Butanal	NA	NA	NA	NA									
1,1-Difluoroethane	1.48	No adverse effects observed	NA	NA									
Difluorochloromethane	NA	NA	NA	NA									
d-Limonene	NA		NA	NA									
Decanal	NA	NA	NA	NA									
Nonanal	NA	NA	NA	NA							1.20	1.00	
1-Bromo-pentane	NA	NA	NA	NA									
Trimethyl Silanol	NA	NA	NA	NA								4.80	
Triflurodimethyl Silane	NA	NA	NA	NA									
Pentane	NA	NA	NA	NA									
Undecane	NA	NA	NA	NA									
2-Ethyl 1-Hexanol	NA	NA	NA	NA									
Unknown	NA	NA	NA	NA								1.00	

* = per EPA's Integrated Risk Information System (IRIS) [as of October 22, 2014]
** = missing days due to technical failure
NA = not available
NOTE: All reference levels are for informational purposes only. It is not applicable to compare long term reference levels to individual short term measurements.
NOTE: Due to unreliability, any lab reported value less than the Minimum Detectable Limit (0.5 ppb for all compounds, except for m,p-Xylene, which is 1.0 ppb) has been replaced with a "U"

U=undetectable
= baseline (pre-drilling)
= site construction
= drilling has started
= fracking
= flaring
= production