

Introduction

All samples collected during this sampling event are area samples collected at the source location and thus would be expected to contain the highest concentrations. While these area samples provide an indication of the identity and concentration of a chemical at the source of the sample, they cannot be used to determine personnel exposure compliance at the source or exposure levels at a distant point. All samples collected during this sampling event were collected at high odor potential areas identified during the initial odor evaluation by Arcadis.

~8 hour sample collection times were utilized to compare results to occupational health standards

Occupational Health Definitions

TWA	Occupational health standards are based on 8 hour Time Weighted Averages (TWAs). The TWA concentration for a conventional 8-hour workday and a 40-hour workweek, to which it is believed that nearly all workers may be repeatedly exposed, day after day, for a working lifetime without adverse effect.
Ceiling	Occupational health standard "ceiling" is the exposure concentration that should not be exceeded during any part of the worker exposure

Exposure Standards Source Reference

Source	Source Name	Reference Used	Description	Additional information
FMI OEL	Freeport McMoRan Occupational Exposure Limit	FMI Industrial Hygiene Field Guide	A Freeport McMoRan adopted standard based on a review of health data and standard determination.	More stringent than MSHA/OSHA compliance standards
ACGIH TLV	American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV)	2015 ACGIH Guide to Occupational Exposure Values	ACGIH® TLVs® and BEIs® are health-based values. ACGIH® TLVs® and BEIs® are established by committees that review existing published and peer-reviewed literature in various scientific disciplines (e.g., industrial hygiene, toxicology, occupational medicine, and epidemiology). Based on the available information, ACGIH® formulates a conclusion on the level of exposure that the typical worker can experience without adverse health effects. The TLVs® and BEIs® represent conditions under which ACGIH® believes that nearly all workers may be repeatedly exposed without adverse health effects. They are not fine lines between safe and dangerous exposures, nor are they a relative index of toxicology. The TLVs® and BEIs® are not quantitative estimates of risk at different exposure levels or by different routes of exposure.	Not used for compliance, TLVs are more stringent than MSHA/OSHA compliance standards.
AIHA WEEL	American Industrial Hygiene Association Workplace Environmental Exposure Levels (WEELs)	2015 ACGIH Guide to Occupational Exposure Values	Occupational exposure limits (OELs) are developed for protection of healthy workers; they are not intended for the general public, which includes sensitive populations such as infants, the elderly, or the infirm. OELs are based on repeated daily exposures over a working lifetime. They are normally averaged over an 8-hour workday and serve to protect against acute and chronic health effects	Not used for compliance, WEELs are more stringent than MSHA/OSHA compliance standards.

DECANT POND

Inorganic Acids

Sample #	Analyte	Concentration mg/m3	Exposure Standard mg/m3	Exposure Standard Source	Comments
MS150918A3	Sulfuric Acid	0.0273	1	FMI OEL	
	Hydrofluoric Acid		< Reporting Limit		
	Hydrochloric Acid		< Reporting Limit		
	Hydrobromic Acid		< Reporting Limit		
	Nitric Acid		< Reporting Limit		
	Phosphoric Acid		< Reporting Limit		

Carbonyls

Sample #	Analyte	Concentration mg/m3	Exposure Standard mg/m3	Exposure Standard Source	Comments
MS150918A4	Formaldehyde	0.0021	0.37	ACGIH Ceiling Limit	
	Acetaldehyde	0.0024	45	ACGIH Ceiling Limit	
	Acetone	0.0033	2400	FMI OEL	
	MEK and Butyraldehyde	0.0044	590 73.7	ACGIH TLV (MEK) AIHA WEEL (Butyraldehyde)	
	Acrolein		< Reporting Limit		
	Propionaldehyde		< Reporting Limit		
	Crotonaldehyde		< Reporting Limit		
	Methacrolein		< Reporting Limit		
	Benzaldehyde		< Reporting Limit		
	Valeraldehyde		< Reporting Limit		
	m-Tolualdehyde		< Reporting Limit		
	Hexaldehyde		< Reporting Limit		

SEMI-VOLATILE COMPOUNDS

Sample #	Analyte	Concentration mg/m3	Exposure Standard mg/m3	Exposure Standard Source	Comments
	Acenaphthene		< Reporting Limit		
	Acenaphthylene		< Reporting Limit		
	Anthracene		< Reporting Limit		
	Benzo(g,h,i)perylene		< Reporting Limit		
	Benzoic Acid		< Reporting Limit		
	Benzyl Alcohol		< Reporting Limit		
	Bis(2-Chloroethoxy)methane		< Reporting Limit		
	Bis(2-Chloroethyl)ether		< Reporting Limit		
	Bis(2-chloroisopropyl) ether		< Reporting Limit		

MS150918A2

Bis(2-ethylhexyl) phthalate	< Reporting Limit	
4-Bromophenyl phenyl ether	< Reporting Limit	
Butyl benzyl phthalate	< Reporting Limit	
4-Chloro-3-methylphenol	< Reporting Limit	
4-Chloroaniline	< Reporting Limit	
2-Chloronaphthalene	< Reporting Limit	
2-Chlorophenol	< Reporting Limit	
4-Chlorophenyl phenyl ether	< Reporting Limit	
Di-n-butyl phthalate	< Reporting Limit	
Di-n-octyl phthalate (Dioctyl ester)	< Reporting Limit	
Dibenzofuran	< Reporting Limit	
1,2-Dichlorobenzene	< Reporting Limit	
1,3-Dichlorobenzene	< Reporting Limit	
1,4-Dichlorobenzene	< Reporting Limit	
3,3'-Dichlorobenzidine	< Reporting Limit	
2,4-Dichlorophenol	< Reporting Limit	
Diethyl phthalate (Diethyl ester)	< Reporting Limit	
Dimethyl phthalate (Dimethyl ester)	< Reporting Limit	
2,4-Dimethylphenol	< Reporting Limit	
4,6-Dinitro-2-methylphenol	< Reporting Limit	
2,4-Dinitrophenol	< Reporting Limit	
2,4-Dinitrotoluene	< Reporting Limit	
2,6-Dinitrotoluene (2,6-DNT)	< Reporting Limit	
Fluoranthene	< Reporting Limit	
Fluorene	< Reporting Limit	
Hexachlorobenzene	< Reporting Limit	
Hexachlorobutadiene	< Reporting Limit	
Hexachlorocyclopentadiene	< Reporting Limit	
Hexachloroethane	< Reporting Limit	
Isophorone	< Reporting Limit	
2-Methylnaphthalene	< Reporting Limit	
4-Methylphenol	< Reporting Limit	
2-Methylphenol (2-Cresol)	< Reporting Limit	
3-Methylphenol (3-Cresol)	< Reporting Limit	
N-Nitroso-Di-n-propylamine	< Reporting Limit	
Naphthalene	< Reporting Limit	
2-Nitroaniline	< Reporting Limit	
3-Nitroaniline	< Reporting Limit	
4-Nitroaniline	< Reporting Limit	

Nitrobenzene (NB)	< Reporting Limit	
4-Nitrophenol	< Reporting Limit	
2-Nitrophenol (o-Nitrophenol)	< Reporting Limit	
N-nitrosodiphenylamine	< Reporting Limit	
Pentachlorophenol	< Reporting Limit	
Phenanthrene	< Reporting Limit	
Phenol	< Reporting Limit	
Pyrene	< Reporting Limit	
1,2,4-Trichlorobenzene	< Reporting Limit	
2,4,5-Trichlorophenol	< Reporting Limit	
2,4,6-Trichlorophenol	< Reporting Limit	
Benzo(a)anthracene	< Reporting Limit	
Benzo(a)pyrene	< Reporting Limit	
Benzo(b)fluoranthene	< Reporting Limit	
Benzo(k)fluoranthene	< Reporting Limit	
Chrysene	< Reporting Limit	
Dibenzo(a,h)anthracene	< Reporting Limit	
Indeno(1,2,3-cd)pyrene	< Reporting Limit	

GASOLINE RANGE ORGANICS, DIESEL RANGE ORGANICS, OIL RANGE ORGANICS (GRO, DRO, ORO)

Sample #	Analyte	Concentration mg/m3	Exposure Standard mg/m3	Exposure Standard Source	Comments
MS150918A2	C9-C11 Petroleum Hydrocarbons	12.3143		Not Established	
	C12-C13 Petroleum Hydrocarbons	18.5363		Not Established	
	C14-C15 Petroleum Hydrocarbons	20.8209		Not Established	
	C16-C17 Petroleum Hydrocarbons	13.5296		Not Established	
	C18-C19 Petroleum Hydrocarbons	10.5320		Not Established	
	C20-C21 Petroleum Hydrocarbons	7.2509		Not Established	
	C22-C23 Petroleum Hydrocarbons	4.5612		Not Established	
	C24-C25 Petroleum Hydrocarbons	0.2560		Not Established	
	C26-C27 Petroleum Hydrocarbons	3.4756		Not Established	
	C28-C29 Petroleum Hydrocarbons	4.9014		Not Established	
	C30-C31 Petroleum Hydrocarbons			< Reporting Limit	
	C32-C33 Petroleum Hydrocarbons	1.4826		Not Established	
	C34-C35 Petroleum Hydrocarbons			< Reporting Limit	
	C36-C37 Petroleum Hydrocarbons	1.5879		Not Established	
	C38-C39 Petroleum Hydrocarbons			< Reporting Limit	
	C40-C41 Petroleum Hydrocarbons			< Reporting Limit	
TPH Total (C9-C41)	83.4457		Not Established		

SULFUR COMPOUNDS

Sample #	Analyte	Concentration ppmV	Exposure Standard ppm	Exposure Standard Source	Comments
MS150918A1	Hydrogen Sulfide	0.1530	20	FMI Ceiling Limit	
	Carbonyl Sulfide/Sulfur Dioxide	0.2410	2	FMI OEL (SO2)	
	Total Reduced Sulfurs as H2S	0.1530			No exposure standard for Total Reduced Sulfurs; Not all total reduced sulfur is hydrogen sulfide
	Methyl Mercaptan		< Reporting Limit		
	Ethyl Mercaptan		< Reporting Limit		
	Dimethyl Sulfide		< Reporting Limit		
	Carbon Disulfide		< Reporting Limit		
	Isopropyl Mercaptan		< Reporting Limit		
	tert-Butyl Mercaptan		< Reporting Limit		
	n-Propyl Mercaptan		< Reporting Limit		
	Methylethylsulfide		< Reporting Limit		
	sec-Butyl Mercaptan		< Reporting Limit		
	Thiophene		< Reporting Limit		
	iso-Butyl Mercaptan		< Reporting Limit		
	Diethyl Sulfide		< Reporting Limit		
	n-Butyl Mercaptan		< Reporting Limit		
	Dimethyl Disulfide		< Reporting Limit		
	2-methylthiophene		< Reporting Limit		
	3-Methylthiophene		< Reporting Limit		
	Tetrahydrothiophene		< Reporting Limit		
	Bromothiophene		< Reporting Limit		
Thiophenol		< Reporting Limit			
Diethyl disulfide		< Reporting Limit			
Total Unidentified Sulfur		< Reporting Limit			
VOLATILE ORGANIC COMPOUNDS					
Sample #	Analyte	Concentration ppmV	Exposure Standard ppm	Exposure Standard Source	Comments
	Ethanol	0.0103	1000	OSHA PEL	
	Acetone	0.0055	250	ACGIH TLV	
	Methylene Chloride (DCM)	0.0135	25	OSHA PEL	
	Carbon Disulfide	0.0069	30 1	FMI Ceiling FMI OEL	
	Chlorodifluoromethane		< Reporting Limit		
	Propene		< Reporting Limit		
	Dichlorodifluoromethane		< Reporting Limit		

Chloromethane	< Reporting Limit	
Dichlorotetrafluoroethane	< Reporting Limit	
Vinyl Chloride	< Reporting Limit	
Methanol	< Reporting Limit	
1,3-Butadiene	< Reporting Limit	
Bromomethane	< Reporting Limit	
Chloroethane	< Reporting Limit	
Dichlorofluoromethane	< Reporting Limit	
Vinyl Bromide	< Reporting Limit	
Trichlorofluoromethane	< Reporting Limit	
2-Propanol	< Reporting Limit	
Acrylonitrile	< Reporting Limit	
1,1-Dichloroethene	< Reporting Limit	
Allyl Chloride	< Reporting Limit	
Trichlorotrifluoroethane	< Reporting Limit	
trans-1,2-Dichloroethene	< Reporting Limit	
1,1-Dichloroethane	< Reporting Limit	
Methyl Tert Butyl Ether (MTBE)	< Reporting Limit	
Vinyl Acetate	< Reporting Limit	
2-Butanone (MEK)	< Reporting Limit	
cis-1,2-Dichloroethene	< Reporting Limit	
Hexane	< Reporting Limit	
Chloroform	< Reporting Limit	
Ethyl Acetate	< Reporting Limit	
Tetrahydrofuran	< Reporting Limit	
1,2-Dichloroethane	< Reporting Limit	
1,1,1-Trichloroethane	< Reporting Limit	
Benzene	< Reporting Limit	
Carbon Tetrachloride	< Reporting Limit	
Cyclohexane	< Reporting Limit	
1,2-Dichloropropane	< Reporting Limit	
Bromodichloromethane	< Reporting Limit	
1,4-Dioxane	< Reporting Limit	
Trichloroethene (TCE)	< Reporting Limit	
2,2,4-Trimethylpentane	< Reporting Limit	
Heptane	< Reporting Limit	
cis-1,3-Dichloropropene	< Reporting Limit	
4-Methyl-2-pentanone (MiBK)	< Reporting Limit	
trans-1,3-Dichloropropene	< Reporting Limit	

MS150918A1

1,1,2-Trichloroethane	< Reporting Limit	
Toluene	< Reporting Limit	
2-Hexanone (MBK)	< Reporting Limit	
Dibromochloromethane	< Reporting Limit	
1,2-Dibromoethane	< Reporting Limit	
Tetrachloroethene (PCE)	< Reporting Limit	
Chlorobenzene	< Reporting Limit	
Ethylbenzene	< Reporting Limit	
m & p-Xylene	< Reporting Limit	
Bromoform	< Reporting Limit	
Styrene	< Reporting Limit	
1,1,2,2-Tetrachloroethane	< Reporting Limit	
o-Xylene	< Reporting Limit	
4-Ethyltoluene	< Reporting Limit	
1,3,5-Trimethylbenzene	< Reporting Limit	
1,2,4-Trimethylbenzene	< Reporting Limit	
Benzyl Chloride (a-Chlorotoluene)	< Reporting Limit	
1,3-Dichlorobenzene	< Reporting Limit	
1,4-Dichlorobenzene	< Reporting Limit	
1,2-Dichlorobenzene	< Reporting Limit	
1,2,4-Trichlorobenzene	< Reporting Limit	
Hexachlorobutadiene	< Reporting Limit	

TENTATIVELY IDENTIFIED COMPOUNDS

Sample #	Analyte	Concentration ppmV	Exposure Standard ppm	Exposure Standard Source	Comments
MS150918A1	1-Butanol	0.0029	20	ACGIH TLV	
	2-Ethylhexanal	0.0015		Not Established	
	2-Ethyl-2-hexenal	0.0017		Not Established	

MILL PACK CELLS

Inorganic Acids

Sample #	Analyte	Concentration mg/m3	Exposure Standard mg/m3	Exposure Standard Source	Comments
MS150918B3	Hydrochloric Acid	0.0308	7.5	FMI Ceiling Limit	
	Sulfuric Acid	0.0309	1	FMI OEL	
	Hydrofluoric Acid		< Reporting Limit		
	Hydrobromic Acid		< Reporting Limit		
	Nitric Acid		< Reporting Limit		
	Phosphoric Acid		< Reporting Limit		

Carbonyls

Sample #	Analyte	Concentration mg/m3	Exposure Standard mg/m3	Exposure Standard Source	Comments
MS150918B4	Formaldehyde	0.0033	0.37	ACGIH Ceiling Limit	
	Acetaldehyde	0.0030	45	ACGIH Ceiling Limit	
	Acetone	0.0063	2375	FMI OEL	
	Propionaldehyde	0.0089	48	ACGIH TLV	
	MEK and Butyraldehyde	0.3610	590 73.7	ACGIH TLV (MEK) AIHA WEEL (Butyraldehyde)	
	Benzaldehyde	0.0023	8.7	AIHA WEEL	
	Valeraldehyde	0.0009	176	ACGIH TLV	
	Hexaldehyde	0.0040	Not Established		
	Acrolein		< Reporting Limit		
	Crotonaldehyde		< Reporting Limit		
	Methacrolein		< Reporting Limit		
	m-Tolualdehyde		< Reporting Limit		

SULFUR COMPOUNDS

Sample #	Analyte	Concentration ppmV	Exposure Standard ppm	Exposure Standard Source	Comments
	Carbon Disulfide	0.1100	30 1	FMI Ceiling FMI OEL	
	Total Reduced Sulfurs as H2S	0.1100			No exposure standard for Total Reduced Sulfurs; Not all total reduced sulfur is hydrogen sulfide
	Hydrogen Sulfide		< Reporting Limit		
	Carbonyl Sulfide/Sulfur Dioxide		< Reporting Limit		
	Methyl Mercaptan		< Reporting Limit		
	Ethyl Mercaptan		< Reporting Limit		
	Dimethyl Sulfide		< Reporting Limit		
	Isopropyl Mercaptan		< Reporting Limit		
	tert-Butyl Mercaptan		< Reporting Limit		
	n-Propyl Mercaptan		< Reporting Limit		

MS150918B1	Methylethylsulfide	< Reporting Limit	
	sec-Butyl Mercaptan	< Reporting Limit	
	Thiophene	< Reporting Limit	
	iso-Butyl Mercaptan	< Reporting Limit	
	Diethyl Sulfide	< Reporting Limit	
	n-Butyl Mercaptan	< Reporting Limit	
	Dimethyl Disulfide	< Reporting Limit	
	2-methylthiophene	< Reporting Limit	
	3-Methylthiophene	< Reporting Limit	
	Tetrahydrothiophene	< Reporting Limit	
	Bromothiophene	< Reporting Limit	
	Thiophenol	< Reporting Limit	
	Diethyl disulfide	< Reporting Limit	
	Total Unidentified Sulfur	< Reporting Limit	

SEMI-VOLATILE COMPOUNDS

Sample #	Analyte	Concentration mg/m3	Exposure Standard mg/m3	Exposure Standard Source	Comments
	2-Methylnaphthalene	0.2105	3	ACGIH TLV	
	Naphthalene	0.0144	5278.6	ACGIH TLV	
	Acenaphthene		< Reporting Limit		
	Acenaphthylene		< Reporting Limit		
	Anthracene		< Reporting Limit		
	Benzo(g,h,i)perylene		< Reporting Limit		
	Benzoic Acid		< Reporting Limit		
	Benzyl Alcohol		< Reporting Limit		
	Bis(2-Chloroethoxy)methane		< Reporting Limit		
	Bis(2-Chloroethyl)ether		< Reporting Limit		
	Bis(2-chloroisopropyl) ether		< Reporting Limit		
	Bis(2-ethylhexyl) phthalate		< Reporting Limit		
	4-Bromophenyl phenyl ether		< Reporting Limit		
	Butyl benzyl phthalate		< Reporting Limit		
	4-Chloro-3-methylphenol		< Reporting Limit		
	4-Chloroaniline		< Reporting Limit		
	2-Chloronaphthalene		< Reporting Limit		
	2-Chlorophenol		< Reporting Limit		
	4-Chlorophenyl phenyl ether		< Reporting Limit		
	Di-n-butyl phthalate		< Reporting Limit		
	Di-n-octyl phthalate (Diocyl ester)		< Reporting Limit		
	Dibenzofuran		< Reporting Limit		
	1,2-Dichlorobenzene		< Reporting Limit		
	1,3-Dichlorobenzene		< Reporting Limit		
	1,4-Dichlorobenzene		< Reporting Limit		
	3,3'-Dichlorobenzidine		< Reporting Limit		

MS150918B2	2,4-Dichlorophenol		< Reporting Limit	
	Diethyl phthalate (Diethyl ester)		< Reporting Limit	
	Dimethyl phthalate (Dimethyl ester)		< Reporting Limit	
	2,4-Dimethylphenol		< Reporting Limit	
	4,6-Dinitro-2-methylphenol		< Reporting Limit	
	2,4-Dinitrophenol		< Reporting Limit	
	2,4-Dinitrotoluene		< Reporting Limit	
	2,6-Dinitrotoluene (2,6-DNT)		< Reporting Limit	
	Fluoranthene		< Reporting Limit	
	Fluorene		< Reporting Limit	
	Hexachlorobenzene		< Reporting Limit	
	Hexachlorobutadiene		< Reporting Limit	
	Hexachlorocyclopentadiene		< Reporting Limit	
	Hexachloroethane		< Reporting Limit	
	Isophorone		< Reporting Limit	
	4-Methylphenol		< Reporting Limit	
	2-Methylphenol (2-Cresol)		< Reporting Limit	
	3-Methylphenol (3-Cresol)		< Reporting Limit	
	N-Nitroso-Di-n-propylamine		< Reporting Limit	
	2-Nitroaniline		< Reporting Limit	
	3-Nitroaniline		< Reporting Limit	
	4-Nitroaniline		< Reporting Limit	
	Nitrobenzene (NB)		< Reporting Limit	
	4-Nitrophenol		< Reporting Limit	
	2-Nitrophenol (o-Nitrophenol)		< Reporting Limit	
	N-nitrosodiphenylamine		< Reporting Limit	
	Pentachlorophenol		< Reporting Limit	
	Phenanthrene		< Reporting Limit	
	Phenol		< Reporting Limit	
	Pyrene		< Reporting Limit	
	1,2,4-Trichlorobenzene		< Reporting Limit	
	2,4,5-Trichlorophenol		< Reporting Limit	
	2,4,6-Trichlorophenol		< Reporting Limit	
	Benzo(a)anthracene		< Reporting Limit	
	Benzo(a)pyrene		< Reporting Limit	
	Benzo(b)fluoranthene		< Reporting Limit	
	Benzo(k)fluoranthene		< Reporting Limit	
	Chrysene		< Reporting Limit	
	Dibenzo(a,h)anthracene		< Reporting Limit	
	Indeno(1,2,3-cd)pyrene		< Reporting Limit	

GASOLINE RANGE ORGANICS, DIESEL RANGE ORGANICS, OIL RANGE ORGANICS (GRO, DRO, ORO)

Sample #	Analyte	Concentration mg/m3	Exposure Standard mg/m3	Exposure Standard Source	Comments
----------	---------	------------------------	----------------------------	--------------------------	----------

MS150918B2	C9-C11 Petroleum Hydrocarbons	442.2850	Not Established
	C12-C13 Petroleum Hydrocarbons	186.0593	Not Established
	C14-C15 Petroleum Hydrocarbons	657.5145	Not Established
	C16-C17 Petroleum Hydrocarbons	292.4915	Not Established
	C18-C19 Petroleum Hydrocarbons	5.3216	Not Established
	C20-C21 Petroleum Hydrocarbons	4.6988	Not Established
	C22-C23 Petroleum Hydrocarbons	2.9959	Not Established
	C24-C25 Petroleum Hydrocarbons	0.0171	Not Established
	C26-C27 Petroleum Hydrocarbons	2.4755	Not Established
	C28-C29 Petroleum Hydrocarbons	0.8199	Not Established
	C30-C31 Petroleum Hydrocarbons	1.3166	Not Established
	C32-C33 Petroleum Hydrocarbons	0.6875	Not Established
	C34-C35 Petroleum Hydrocarbons		< Reporting Limit
	C36-C37 Petroleum Hydrocarbons		< Reporting Limit
	C38-C39 Petroleum Hydrocarbons		< Reporting Limit
	C40-C41 Petroleum Hydrocarbons		< Reporting Limit
TPH Total (C9-C41)	1600.4251	Not Established	

VOLATILE ORGANIC COMPOUNDS

Sample #	Analyte	Concentration ppmV	Exposure Standard ppm	Exposure Standard Source	Comments
	Ethanol	0.0301	1000	OSHA PEL	
	Acetone	0.0112	250	ACGIH TLV	
	2-Propanol	0.0074	200	ACGIH TLV	
	Methylene Chloride (DCM)	0.0956	25	OSHA PEL	
		0.0636	30	FMI Ceiling	
	Carbon Disulfide		1	FMI OEL	
	2-Butanone (MEK)	0.0042	200	ACGIH TLV	
	Ethyl Acetate	0.0024	400	ACGIH TLV	
	Tetrahydrofuran	0.0073	50	ACGIH TLV	
	Toluene	0.0113	20	FMI OEL	
	Ethylbenzene	0.0041	20	FMI OEL	
	m & p-Xylene	0.0163	100	FMI OEL	
	o-Xylene	0.0068	100	FMI OEL	
	4-Ethyltoluene	0.0028	Not Established		
	1,3,5-Trimethylbenzene	0.0048	25	ACGIH TLV	
	1,2,4-Trimethylbenzene	0.0168	25	ACGIH TLV	
	Chlorodifluoromethane		< Reporting Limit		
	Propene		< Reporting Limit		
	Dichlorodifluoromethane		< Reporting Limit		
	Chloromethane		< Reporting Limit		
	Dichlorotetrafluoroethane		< Reporting Limit		
	Vinyl Chloride		< Reporting Limit		
	Methanol		< Reporting Limit		

MS150918B1

1,3-Butadiene	< Reporting Limit	
Bromomethane	< Reporting Limit	
Chloroethane	< Reporting Limit	
Dichlorofluoromethane	< Reporting Limit	
Vinyl Bromide	< Reporting Limit	
Trichlorofluoromethane	< Reporting Limit	
Acrylonitrile	< Reporting Limit	
1,1-Dichloroethene	< Reporting Limit	
Allyl Chloride	< Reporting Limit	
Trichlorotrifluoroethane	< Reporting Limit	
trans-1,2-Dichloroethene	< Reporting Limit	
1,1-Dichloroethane	< Reporting Limit	
Methyl Tert Butyl Ether (MTBE)	< Reporting Limit	
Vinyl Acetate	< Reporting Limit	
cis-1,2-Dichloroethene	< Reporting Limit	
Hexane	< Reporting Limit	
Chloroform	< Reporting Limit	
1,2-Dichloroethane	< Reporting Limit	
1,1,1-Trichloroethane	< Reporting Limit	
Benzene	< Reporting Limit	
Carbon Tetrachloride	< Reporting Limit	
Cyclohexane	< Reporting Limit	
1,2-Dichloropropane	< Reporting Limit	
Bromodichloromethane	< Reporting Limit	
1,4-Dioxane	< Reporting Limit	
Trichloroethene (TCE)	< Reporting Limit	
2,2,4-Trimethylpentane	< Reporting Limit	
Heptane	< Reporting Limit	
cis-1,3-Dichloropropene	< Reporting Limit	
4-Methyl-2-pentanone (MiBK)	< Reporting Limit	
trans-1,3-Dichloropropene	< Reporting Limit	
1,1,2-Trichloroethane	< Reporting Limit	
2-Hexanone (MBK)	< Reporting Limit	
Dibromochloromethane	< Reporting Limit	
1,2-Dibromoethane	< Reporting Limit	
Tetrachloroethene (PCE)	< Reporting Limit	
Chlorobenzene	< Reporting Limit	
Bromoform	< Reporting Limit	
Styrene	< Reporting Limit	
1,1,2,2-Tetrachloroethane	< Reporting Limit	
Benzyl Chloride (a-Chlorotoluene)	< Reporting Limit	
1,3-Dichlorobenzene	< Reporting Limit	
1,4-Dichlorobenzene	< Reporting Limit	

1,2-Dichlorobenzene	< Reporting Limit	
1,2,4-Trichlorobenzene	< Reporting Limit	
Hexachlorobutadiene	< Reporting Limit	

TENTATIVELY IDENTIFIED COMPOUNDS

Sample #	Analyte	Concentration ppmV	Exposure Standard ppm	Exposure Standard Source	Comments
MS150918B1	Butanal (<i>Butyraldehyde</i>)	0.0288	25	AIHA WEEL	
	1-Butanol	0.0295	20	ACGIH TLV	
	Unknown Hydrocarbon #1	0.0205		Not Established	
	2-Ethylhexanal	0.1790		Not Established	
	Butyl Ester butanoic acid	0.0227		Not Established	
	2-Ethyl-2-hexenal	0.1300		Not Established	
	C10H12 Hydrocarbon #1	0.0157		Not Established	
	C10H12 Hydrocarbon #2	0.0186		Not Established	
	Naphthalene	0.0222	10	ACGIH TLV	
	2,6,8-Trimethyl-4-nonanone	0.0259		Not Established	
	Unknown Hydrocarbon #2	0.0558		Not Established	
	Unknown Hydrocarbon #3	0.0265		Not Established	
	Unknown Hydrocarbon #4	0.0274		Not Established	
	C11H14 Hydrocarbon #1	0.0294		Not Established	
	C11H14 Hydrocarbon #2	0.0338		Not Established	
	Unknown Hydrocarbon #5	0.0230		Not Established	
	C11H14 Hydrocarbon #3	0.0158		Not Established	
	Unknown Hydrocarbon #6	0.0197		Not Established	
	Methylnaphthalene #1	0.0292		Not Established	
	Methylnaphthalene #2	0.0186		Not Established	

Xanthate Mixing Exhaust

Inorganic Acids

Sample #	Analyte	Concentration mg/m3	Exposure Standard mg/m3	Exposure Standard Source	Comments
MS150918C2	Sulfuric Acid	0.0356	1	FMI OEL	
	Hydrofluoric Acid		< Reporting Limit		
	Hydrochloric Acid		< Reporting Limit		
	Hydrobromic Acid		< Reporting Limit		
	Nitric Acid		< Reporting Limit		
	Phosphoric Acid		< Reporting Limit		

SULFUR COMPOUNDS

Sample #	Analyte	Concentration ppmV	Exposure Standard ppm	Exposure Standard Source	Comments
MS150918C1	Carbonyl Sulfide/Sulfur Dioxide	0.0140	5 2	ACGIH TLV (COS) FMI OEL (SO2)	
	Ethyl Mercaptan	0.0160	0.5	ACGIH TLV	
	Carbon Disulfide	4.2300	30 1	FMI Ceiling FMI OEL	Personal air sampling completed April 2015; results indicate carbon disulfide levels below analytical reporting limit.
	Total Reduced Sulfurs as H2S	4.2500			No exposure standard for Total Reduced Sulfurs; Not all total reduced sulfur is hydrogen sulfide
	Hydrogen Sulfide		< Reporting Limit		
	Methyl Mercaptan		< Reporting Limit		
	Dimethyl Sulfide		< Reporting Limit		
	Isopropyl Mercaptan		< Reporting Limit		
	tert-Butyl Mercaptan		< Reporting Limit		
	n-Propyl Mercaptan		< Reporting Limit		
	Methylethylsulfide		< Reporting Limit		
	sec-Butyl Mercaptan		< Reporting Limit		
	Thiophene		< Reporting Limit		
	iso-Butyl Mercaptan		< Reporting Limit		
	Diethyl Sulfide		< Reporting Limit		
	n-Butyl Mercaptan		< Reporting Limit		
	Dimethyl Disulfide		< Reporting Limit		
	2-methylthiophene		< Reporting Limit		
	3-Methylthiophene		< Reporting Limit		
	Tetrahydrothiophene		< Reporting Limit		
Bromothiophene		< Reporting Limit			
Thiophenol		< Reporting Limit			
Diethyl disulfide		< Reporting Limit			

Total Unidentified Sulfur	< Reporting Limit
---------------------------	-------------------

VOLATILE ORGANIC COMPOUNDS

Sample #	Analyte	Concentration ppmV	Exposure Standard ppm	Exposure Standard Source	Comments
	Ethanol	0.3180	1000	OSHA PEL	
	Acetone	0.0071	250	ACGIH TLV	
	2-Propanol	0.0659	200	ACGIH TLV	
	Carbon Disulfide	1.8700	30 1	FMI Ceiling FMI OEL	Personal air sampling completed April 2015; results indicate carbon disulfide levels below analytical reporting limit.
	2-Butanone (MEK)	0.0025	200	ACGIH TLV	
	Toluene	0.0018	20	FMI OEL	
	Chlorodifluoromethane		< Reporting Limit		
	Propene		< Reporting Limit		
	Dichlorodifluoromethane		< Reporting Limit		
	Chloromethane		< Reporting Limit		
	Dichlorotetrafluoroethane		< Reporting Limit		
	Vinyl Chloride		< Reporting Limit		
	Methanol		< Reporting Limit		
	1,3-Butadiene		< Reporting Limit		
	Bromomethane		< Reporting Limit		
	Chloroethane		< Reporting Limit		
	Dichlorofluoromethane		< Reporting Limit		
	Vinyl Bromide		< Reporting Limit		
	Trichlorofluoromethane		< Reporting Limit		
	Acrylonitrile		< Reporting Limit		
	1,1-Dichloroethene		< Reporting Limit		
	Methylene Chloride (DCM)		< Reporting Limit		
	Allyl Chloride		< Reporting Limit		
	Trichlorotrifluoroethane		< Reporting Limit		
	trans-1,2-Dichloroethene		< Reporting Limit		
	1,1-Dichloroethane		< Reporting Limit		
	Methyl Tert Butyl Ether (MTBE)		< Reporting Limit		
	Vinyl Acetate		< Reporting Limit		
	cis-1,2-Dichloroethene		< Reporting Limit		
	Hexane		< Reporting Limit		
	Chloroform		< Reporting Limit		
	Ethyl Acetate		< Reporting Limit		
	Tetrahydrofuran		< Reporting Limit		
	1,2-Dichloroethane		< Reporting Limit		

MS150918C1

1,1,1-Trichloroethane	< Reporting Limit	
Benzene	< Reporting Limit	
Carbon Tetrachloride	< Reporting Limit	
Cyclohexane	< Reporting Limit	
1,2-Dichloropropane	< Reporting Limit	
Bromodichloromethane	< Reporting Limit	
1,4-Dioxane	< Reporting Limit	
Trichloroethene (TCE)	< Reporting Limit	
2,2,4-Trimethylpentane	< Reporting Limit	
Heptane	< Reporting Limit	
cis-1,3-Dichloropropene	< Reporting Limit	
4-Methyl-2-pentanone (MiBK)	< Reporting Limit	
trans-1,3-Dichloropropene	< Reporting Limit	
1,1,2-Trichloroethane	< Reporting Limit	
2-Hexanone (MBK)	< Reporting Limit	
Dibromochloromethane	< Reporting Limit	
1,2-Dibromoethane	< Reporting Limit	
Tetrachloroethene (PCE)	< Reporting Limit	
Chlorobenzene	< Reporting Limit	
Ethylbenzene	< Reporting Limit	
m & p-Xylene	< Reporting Limit	
Bromoform	< Reporting Limit	
Styrene	< Reporting Limit	
1,1,1,2-Tetrachloroethane	< Reporting Limit	
o-Xylene	< Reporting Limit	
4-Ethyltoluene	< Reporting Limit	
1,3,5-Trimethylbenzene	< Reporting Limit	
1,2,4-Trimethylbenzene	< Reporting Limit	
Benzyl Chloride (a-Chlorotoluene)	< Reporting Limit	
1,3-Dichlorobenzene	< Reporting Limit	
1,4-Dichlorobenzene	< Reporting Limit	
1,2-Dichlorobenzene	< Reporting Limit	
1,2,4-Trichlorobenzene	< Reporting Limit	
Hexachlorobutadiene	< Reporting Limit	

TENTATIVELY IDENTIFIED COMPOUNDS

Sample #	Analyte	Concentration ppmV	Exposure Standard ppm	Exposure Standard Source	Comments
	Acetaldehyde	0.0074	25	ACGIH Ceiling Limit	
	2-Methyl-1-propanal	0.4700	25	AIHA WEEL	
	3-Methyl-1-butanol	0.3230	100	ACGIH TLV	

MS150918C1	2-Methyl-1-butanol	0.3220		Not Established	
	1-Pentanol	0.0130	100	AIHA WEEL	
	2-Ethylhexanal	0.0047		Not Established	
	4-Methylnonane	0.0197		Not Established	
	2-Ethyl-2-hexenal	0.0046		Not Established	

Primary Crusher - Diesel Exhaust

SULFUR COMPOUNDS

Sample #	Analyte	Concentration ppmV	Exposure Standard ppm	Exposure Standard Source	Comments
MS150918D1	Hydrogen Sulfide		< Reporting Limit		
	Carbonyl Sulfide/Sulfur Dioxide		< Reporting Limit		
	Methyl Mercaptan		< Reporting Limit		
	Ethyl Mercaptan		< Reporting Limit		
	Dimethyl Sulfide		< Reporting Limit		
	Carbon Disulfide		< Reporting Limit		
	Isopropyl Mercaptan		< Reporting Limit		
	tert-Butyl Mercaptan		< Reporting Limit		
	n-Propyl Mercaptan		< Reporting Limit		
	Methylethylsulfide		< Reporting Limit		
	sec-Butyl Mercaptan		< Reporting Limit		
	Thiophene		< Reporting Limit		
	iso-Butyl Mercaptan		< Reporting Limit		
	Diethyl Sulfide		< Reporting Limit		
	n-Butyl Mercaptan		< Reporting Limit		
	Dimethyl Disulfide		< Reporting Limit		
	2-methylthiophene		< Reporting Limit		
	3-Methylthiophene		< Reporting Limit		
	Tetrahydrothiophene		< Reporting Limit		
	Bromothiophene		< Reporting Limit		
Thiophenol		< Reporting Limit			
Diethyl disulfide		< Reporting Limit			
Total Unidentified Sulfur		< Reporting Limit			
Total Reduced Sulfurs as H2S		< Reporting Limit			

SEMI-VOLATILE COMPOUNDS

Sample #	Analyte	Concentration mg/m3	Exposure Standard mg/m3	Exposure Standard Source	Comments
	Acenaphthene		< Reporting Limit		
	Acenaphthylene		< Reporting Limit		
	Anthracene		< Reporting Limit		
	Benzo(g,h,i)perylene		< Reporting Limit		
	Benzoic Acid		< Reporting Limit		

MS150918D2

Benzyl Alcohol	< Reporting Limit	
Bis(2-Chloroethoxy)methane	< Reporting Limit	
Bis(2-Chloroethyl)ether	< Reporting Limit	
Bis(2-chloroisopropyl) ether	< Reporting Limit	
Bis(2-ethylhexyl) phthalate	< Reporting Limit	
4-Bromophenyl phenyl ether	< Reporting Limit	
Butyl benzyl phthalate	< Reporting Limit	
4-Chloro-3-methylphenol	< Reporting Limit	
4-Chloroaniline	< Reporting Limit	
2-Chloronaphthalene	< Reporting Limit	
2-Chlorophenol	< Reporting Limit	
4-Chlorophenyl phenyl ether	< Reporting Limit	
Di-n-butyl phthalate	< Reporting Limit	
Di-n-octyl phthalate (Dioctyl ester)	< Reporting Limit	
Dibenzofuran	< Reporting Limit	
1,2-Dichlorobenzene	< Reporting Limit	
1,3-Dichlorobenzene	< Reporting Limit	
1,4-Dichlorobenzene	< Reporting Limit	
3,3'-Dichlorobenzidine	< Reporting Limit	
2,4-Dichlorophenol	< Reporting Limit	
Diethyl phthalate (Diethyl ester)	< Reporting Limit	
Dimethyl phthalate (Dimethyl ester)	< Reporting Limit	
2,4-Dimethylphenol	< Reporting Limit	
4,6-Dinitro-2-methylphenol	< Reporting Limit	
2,4-Dinitrophenol	< Reporting Limit	
2,4-Dinitrotoluene	< Reporting Limit	
2,6-Dinitrotoluene (2,6-DNT)	< Reporting Limit	
Fluoranthene	< Reporting Limit	
Fluorene	< Reporting Limit	
Hexachlorobenzene	< Reporting Limit	
Hexachlorobutadiene	< Reporting Limit	
Hexachlorocyclopentadiene	< Reporting Limit	
Hexachloroethane	< Reporting Limit	
Isophorone	< Reporting Limit	
2-Methylnaphthalene	< Reporting Limit	
4-Methylphenol	< Reporting Limit	
2-Methylphenol (2-Cresol)	< Reporting Limit	
3-Methylphenol (3-Cresol)	< Reporting Limit	
N-Nitroso-Di-n-propylamine	< Reporting Limit	

Naphthalene	< Reporting Limit	
2-Nitroaniline	< Reporting Limit	
3-Nitroaniline	< Reporting Limit	
4-Nitroaniline	< Reporting Limit	
Nitrobenzene (NB)	< Reporting Limit	
4-Nitrophenol	< Reporting Limit	
2-Nitrophenol (o-Nitrophenol)	< Reporting Limit	
N-nitrosodiphenylamine	< Reporting Limit	
Pentachlorophenol	< Reporting Limit	
Phenanthrene	< Reporting Limit	
Phenol	< Reporting Limit	
Pyrene	< Reporting Limit	
1,2,4-Trichlorobenzene	< Reporting Limit	
2,4,5-Trichlorophenol	< Reporting Limit	
2,4,6-Trichlorophenol	< Reporting Limit	
Benzo(a)anthracene	< Reporting Limit	
Benzo(a)pyrene	< Reporting Limit	
Benzo(b)fluoranthene	< Reporting Limit	
Benzo(k)fluoranthene	< Reporting Limit	
Chrysene	< Reporting Limit	
Dibenzo(a,h)anthracene	< Reporting Limit	
Indeno(1,2,3-cd)pyrene	< Reporting Limit	

GASOLINE RANGE ORGANICS, DIESEL RANGE ORGANICS, OIL RANGE ORGANICS (GRO, DRO, ORO)

Sample #	Analyte	Concentration mg/m3	Exposure Standard mg/m3	Exposure Standard Source	Comments
MS150918D2	C9-C11 Petroleum Hydrocarbons	41.9312		Not Established	
	C12-C13 Petroleum Hydrocarbons	11.6946		Not Established	
	C14-C15 Petroleum Hydrocarbons	47.1886		Not Established	
	C16-C17 Petroleum Hydrocarbons	19.4910		Not Established	
	C18-C19 Petroleum Hydrocarbons	15.9005		Not Established	
	C20-C21 Petroleum Hydrocarbons			< Reporting Limit	
	C22-C23 Petroleum Hydrocarbons	18.7216		Not Established	
	C24-C25 Petroleum Hydrocarbons	6.2833		Not Established	
	C26-C27 Petroleum Hydrocarbons	3.8982		Not Established	
	C28-C29 Petroleum Hydrocarbons	4.9497		Not Established	
	C30-C31 Petroleum Hydrocarbons			< Reporting Limit	
	C32-C33 Petroleum Hydrocarbons	8.8094		Not Established	

C34-C35 Petroleum Hydrocarbons	< Reporting Limit	
C36-C37 Petroleum Hydrocarbons	< Reporting Limit	
C38-C39 Petroleum Hydrocarbons	< Reporting Limit	
C40-C41 Petroleum Hydrocarbons	< Reporting Limit	
TPH Total (C9-C41)	179.5219	Not Established

VOLATILE ORGANIC COMPOUNDS

Sample #	Analyte	Concentration ppmV	Exposure Standard ppm	Exposure Standard Source	Comments
	Toluene	0.0010	20	FMI OEL	
	Chlorodifluoromethane		< Reporting Limit		
	Propene		< Reporting Limit		
	Dichlorodifluoromethane		< Reporting Limit		
	Chloromethane		< Reporting Limit		
	Dichlorotetrafluoroethane		< Reporting Limit		
	Vinyl Chloride		< Reporting Limit		
	Methanol		< Reporting Limit		
	1,3-Butadiene		< Reporting Limit		
	Bromomethane		< Reporting Limit		
	Chloroethane		< Reporting Limit		
	Dichlorofluoromethane		< Reporting Limit		
	Ethanol		< Reporting Limit		
	Vinyl Bromide		< Reporting Limit		
	Acetone		< Reporting Limit		
	Trichlorofluoromethane		< Reporting Limit		
	2-Propanol		< Reporting Limit		
	Acrylonitrile		< Reporting Limit		
	1,1-Dichloroethene		< Reporting Limit		
	Methylene Chloride (DCM)		< Reporting Limit		
	Allyl Chloride		< Reporting Limit		
	Carbon Disulfide		< Reporting Limit		
	Trichlorotrifluoroethane		< Reporting Limit		
	trans-1,2-Dichloroethene		< Reporting Limit		
	1,1-Dichloroethane		< Reporting Limit		
	Methyl Tert Butyl Ether (MTBE)		< Reporting Limit		
	Vinyl Acetate		< Reporting Limit		
	2-Butanone (MEK)		< Reporting Limit		
	cis-1,2-Dichloroethene		< Reporting Limit		

MS150918D1

Hexane	< Reporting Limit	
Chloroform	< Reporting Limit	
Ethyl Acetate	< Reporting Limit	
Tetrahydrofuran	< Reporting Limit	
1,2-Dichloroethane	< Reporting Limit	
1,1,1-Trichloroethane	< Reporting Limit	
Benzene	< Reporting Limit	
Carbon Tetrachloride	< Reporting Limit	
Cyclohexane	< Reporting Limit	
1,2-Dichloropropane	< Reporting Limit	
Bromodichloromethane	< Reporting Limit	
1,4-Dioxane	< Reporting Limit	
Trichloroethene (TCE)	< Reporting Limit	
2,2,4-Trimethylpentane	< Reporting Limit	
Heptane	< Reporting Limit	
cis-1,3-Dichloropropene	< Reporting Limit	
4-Methyl-2-pentanone (MiBK)	< Reporting Limit	
trans-1,3-Dichloropropene	< Reporting Limit	
1,1,2-Trichloroethane	< Reporting Limit	
2-Hexanone (MBK)	< Reporting Limit	
Dibromochloromethane	< Reporting Limit	
1,2-Dibromoethane	< Reporting Limit	
Tetrachloroethene (PCE)	< Reporting Limit	
Chlorobenzene	< Reporting Limit	
Ethylbenzene	< Reporting Limit	
m & p-Xylene	< Reporting Limit	
Bromoform	< Reporting Limit	
Styrene	< Reporting Limit	
1,1,2,2-Tetrachloroethane	< Reporting Limit	
o-Xylene	< Reporting Limit	
4-Ethyltoluene	< Reporting Limit	
1,3,5-Trimethylbenzene	< Reporting Limit	
1,2,4-Trimethylbenzene	< Reporting Limit	
Benzyl Chloride (a-Chlorotoluene)	< Reporting Limit	
1,3-Dichlorobenzene	< Reporting Limit	
1,4-Dichlorobenzene	< Reporting Limit	
1,2-Dichlorobenzene	< Reporting Limit	
1,2,4-Trichlorobenzene	< Reporting Limit	
Hexachlorobutadiene	< Reporting Limit	

TENTATIVELY IDENTIFIED COMPOUNDS

Sample #	Analyte	Concentration ppmV	Exposure Standard ppm	Exposure Standard Source	Comments
MS150918D1	Acetaldehyde	0.0013	25	ACGIH Ceiling Limit	

Outside of Mill by Analytical Lab

SULFUR COMPOUNDS

Sample #	Analyte	Concentration ppmV	Exposure Standard ppm	Exposure Standard Source	Comments
MS150918F1	Hydrogen Sulfide	< Reporting Limit			
	Carbonyl Sulfide/Sulfur Dioxide	< Reporting Limit			
	Methyl Mercaptan	< Reporting Limit			
	Ethyl Mercaptan	< Reporting Limit			
	Dimethyl Sulfide	< Reporting Limit			
	Carbon Disulfide	< Reporting Limit			
	Isopropyl Mercaptan	< Reporting Limit			
	tert-Butyl Mercaptan	< Reporting Limit			
	n-Propyl Mercaptan	< Reporting Limit			
	Methylethylsulfide	< Reporting Limit			
	sec-Butyl Mercaptan	< Reporting Limit			
	Thiophene	< Reporting Limit			
	iso-Butyl Mercaptan	< Reporting Limit			
	Diethyl Sulfide	< Reporting Limit			
	n-Butyl Mercaptan	< Reporting Limit			
	Dimethyl Disulfide	< Reporting Limit			
	2-methylthiophene	< Reporting Limit			
	3-Methylthiophene	< Reporting Limit			
	Tetrahydrothiophene	< Reporting Limit			
	Bromothiophene	< Reporting Limit			
Thiophenol	< Reporting Limit				
Diethyl disulfide	< Reporting Limit				
Total Unidentified Sulfur	< Reporting Limit				
Total Reduced Sulfurs as H2S	< Reporting Limit				

VOLATILE ORGANIC COMPOUNDS

Sample #	Analyte	Concentration ppmV	Exposure Standard ppm	Exposure Standard Source	Comments
----------	---------	-----------------------	-----------------------------	--------------------------------	----------

	Chlorodifluoromethane	< Reporting Limit	
	Propene	< Reporting Limit	
	Dichlorodifluoromethane	< Reporting Limit	
	Chloromethane	< Reporting Limit	
	Dichlorotetrafluoroethane	< Reporting Limit	
	Vinyl Chloride	< Reporting Limit	
	Methanol	< Reporting Limit	
	1,3-Butadiene	< Reporting Limit	
	Bromomethane	< Reporting Limit	
	Chloroethane	< Reporting Limit	
	Dichlorofluoromethane	< Reporting Limit	
	Ethanol	< Reporting Limit	
	Vinyl Bromide	< Reporting Limit	
	Acetone	< Reporting Limit	
	Trichlorofluoromethane	< Reporting Limit	
	2-Propanol	< Reporting Limit	
	Acrylonitrile	< Reporting Limit	
	1,1-Dichloroethene	< Reporting Limit	
	Methylene Chloride (DCM)	< Reporting Limit	
	Allyl Chloride	< Reporting Limit	
	Carbon Disulfide	< Reporting Limit	
	Trichlorotrifluoroethane	< Reporting Limit	
	trans-1,2-Dichloroethene	< Reporting Limit	
	1,1-Dichloroethane	< Reporting Limit	
	Methyl Tert Butyl Ether (MTBE)	< Reporting Limit	
	Vinyl Acetate	< Reporting Limit	
	2-Butanone (MEK)	< Reporting Limit	
	cis-1,2-Dichloroethene	< Reporting Limit	
	Hexane	< Reporting Limit	
	Chloroform	< Reporting Limit	
	Ethyl Acetate	< Reporting Limit	
	Tetrahydrofuran	< Reporting Limit	
	1,2-Dichloroethane	< Reporting Limit	
	1,1,1-Trichloroethane	< Reporting Limit	

1010010101	Benzene	< Reporting Limit	
	Carbon Tetrachloride	< Reporting Limit	
	Cyclohexane	< Reporting Limit	
	1,2-Dichloropropane	< Reporting Limit	
	Bromodichloromethane	< Reporting Limit	
	1,4-Dioxane	< Reporting Limit	
	Trichloroethene (TCE)	< Reporting Limit	
	2,2,4-Trimethylpentane	< Reporting Limit	
	Heptane	< Reporting Limit	
	cis-1,3-Dichloropropene	< Reporting Limit	
	4-Methyl-2-pentanone (MiBK)	< Reporting Limit	
	trans-1,3-Dichloropropene	< Reporting Limit	
	1,1,2-Trichloroethane	< Reporting Limit	
	Toluene	< Reporting Limit	
	2-Hexanone (MBK)	< Reporting Limit	
	Dibromochloromethane	< Reporting Limit	
	1,2-Dibromoethane	< Reporting Limit	
	Tetrachloroethene (PCE)	< Reporting Limit	
	Chlorobenzene	< Reporting Limit	
	Ethylbenzene	< Reporting Limit	
	m & p-Xylene	< Reporting Limit	
	Bromoform	< Reporting Limit	
	Styrene	< Reporting Limit	
	1,1,2,2-Tetrachloroethane	< Reporting Limit	
	o-Xylene	< Reporting Limit	
	4-Ethyltoluene	< Reporting Limit	
	1,3,5-Trimethylbenzene	< Reporting Limit	
	1,2,4-Trimethylbenzene	< Reporting Limit	
	Benzyl Chloride (a-Chlorotoluene)	< Reporting Limit	
	1,3-Dichlorobenzene	< Reporting Limit	
	1,4-Dichlorobenzene	< Reporting Limit	
	1,2-Dichlorobenzene	< Reporting Limit	
	1,2,4-Trichlorobenzene	< Reporting Limit	
	Hexachlorobutadiene	< Reporting Limit	

TENTATIVELY IDENTIFIED COMPOUNDS

Sample #	Analyte	Concentration ppmV	Exposure Standard ppm	Exposure Standard Source	Comments
No TIC Peaks Detected					