APPENDIX D

VOC HAP Emissions Data

D1. VOC HAP Calculations – Run 1

D2. VOC HAP Calculations – Run 2 (Vessel Transfer)

D3. VOC HAP Calculations – Run 3

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D7. VOC HAP Analytical Report – Runs 1 and 2

D8. VOC HAP Analytical Report – Runs 3, 4 and 5

D9. VOC HAP Analytical Report – Run 6

D1. VOC HAP Calculations – Run 1

VOC HAP Emission Summary - Global South Portland Asphalt Tank #9					
Page 1 of 2	Tank #9 - Run 1 SUMMA #7871				
Date	27-Jul-12				
Start	14:28				
Stop	17:00				
Compounds		ppb	ug/M3	lb/hr	ton/yr
Dichlorodifluoromethane (FREON 12)	<	4.8	23.7	3.87E-05	1.69E-04
1,2-Dichlorotetrafluoroethane	<	4.1	28.5	4.65E-05	2.04E-04
Chloromethane	<	7.2	14.9	2.43E-05	1.07E-04
Vinyl Chloride	<	4.3	11	1.80E-05	7.87E-05
Chloroethane	<	7.2	19	3.10E-05	1.36E-04
1,3-Butadiene	<	12	26.5	4.33E-05	1.90E-04
Trichlorofluoromethane (FREON 11)		11.3	3.8	6.20E-06	2.72E-05
Ethanol (ethyl alcohol)		564	1060	1.73E-03	7.58E-03
Trichlorotrifluoroethane	<	3.6	27.6	4.51E-05	1.97E-04
2-propanol		365	897	1.46E-03	6.41E-03
2-Propanone		2330	5540	9.05E-03	3.96E-02
Methyl Ethyl Ketone (2-Butanone)		1430	4230	6.91E-03	3.03E-02
Methyl Isobutyl Ketone	<	77	315	5.14E-04	2.25E-03
Methyl Butyl Ketone (2-Hexanone)		225	922	1.51E-03	6.59E-03
Methyl t-butyl ether (MTBE)	<	4.8	17.3	2.82E-05	1.24E-04
Ethyl Acetate	<	53	190	3.10E-04	1.36E-03
1,1-Dichloroethylene	<	6	23.8	3.89E-05	1.70E-04
cis-1,2-Dichloroethylene	<	4.6	18.1	2.96E-05	1.29E-04
trans-1,2-Dichloroethylene	<	4.8	19	3.10E-05	1.36E-04
Methylene Chloride(Dichloromethane)	<	19	66.7	1.09E-04	4.77E-04
Chloroform		5.4	26.2	4.28E-05	1.87E-04
Carbon Tetrachloride	<	7.2	45.3	7.40E-05	3.24E-04
1,1-Dichloroethane	<	4.8	19.4	3.17E-05	1.39E-04
1,2-Dichloroethane	<	4.8	19.4	3.17E-05	1.39E-04
Ethylene Dibromide	<	4.1	31.3	5.11E-05	2.24E-04
1,1,1-Trichloroethane	<	7.2	39.3	6.42E-05	2.81E-04
1,1,2-Trichloroethane	<	3.6	19.6	3.20E-05	1.40E-04
1,1,2,2-Tetrachloroethane	<	4.8	33	5.39E-05	2.36E-04
cis-1,3-Dichloropropene	<	4.3	19.6	3.20E-05	1.40E-04
trans-1,3-Dichloropropene	<	4.1	18.5	3.02E-05	1.32E-04
1,2-Dichloropropane	<	9.6	44.4	7.25E-05	3.18E-04
Bromomethane	<	4.3	16.8	2.74E-05	1.20E-04
Bromoform	<	4.8	49.6	8.10E-05	3.55E-04
Bromodichloromethane	<	4.8	32.2	5.26E-05	2.30E-04
Dibromochloromethane	<	4.8	40.9	6.68E-05	2.93E-04
Trichloroethylene	<	7.2	38.7	6.32E-05	2.77E-04
Volumetric Flow (scfh)	26100				

VOC HAP Emission Summary - Global South Portland Asphalt Tank #9					
Page 2 of 2	Tank #9 - Run 1 SUMMA #7871				
Date	27-Jul-12				
Start	14:28				
Stop	17:00				
Compounds		ppb	ug/M3	lb/hr	ton/yr
Tetrachloroethylene	<	4.8	32.6	5.32E-05	2.33E-04
Benzene		27.1	86.6	1.41E-04	6.19E-04
Toluene		150	566	9.24E-04	4.05E-03
Ethylbenzene		97	421	6.87E-04	3.01E-03
p+m-Xylene		316	1370	2.24E-03	9.80E-03
o-Xylene		190	825	1.35E-03	5.90E-03
Styrene	<	13	55.4	9.05E-05	3.96E-04
4-ethyltoluene		111	546	8.92E-04	3.90E-03
1,3,5-Trimethylbenzene		108	532	8.69E-04	3.80E-03
1,2,4-Trimethylbenzene		507	2490	4.07E-03	1.78E-02
Chlorobenzene	<	4.8	22.1	3.61E-05	1.58E-04
Benzyl chloride	<	24	124	2.02E-04	8.87E-04
1,3-Dichlorobenzene	<	9.6	57.7	9.42E-05	4.13E-04
1,4-Dichlorobenzene		13.5	80.9	1.32E-04	5.79E-04
1,2-Dichlorobenzene	<	9.6	57.7	9.42E-05	4.13E-04
1,2,4-Trichlorobenzene	<	48	356	5.81E-04	2.55E-03
Hexachlorobutadiene	<	72	768	1.25E-03	5.49E-03
Hexane		574	2020	3.30E-03	1.44E-02
Heptane		685	2810	4.59E-03	2.01E-02
Cyclohexane		169	581	9.49E-04	4.16E-03
Tetrahydrofuran	<	9.6	28.3	4.62E-05	2.02E-04
1,4-Dioxane	<	48	173	2.82E-04	1.24E-03
Xylene (Total)		506	2200	3.59E-03	1.57E-02
Vinyl Bromide	<	4.8	21	3.43E-05	1.50E-04
Propene		797	1370	2.24E-03	9.80E-03
2,2,4-Trimethylpentane	<	4.8	22.4	3.66E-05	1.60E-04
Carbon Disulfide	<	39	121	1.98E-04	8.65E-04
Vinyl Acetate	<	4.8	16.9	2.76E-05	1.21E-04
Surrogate Recovery (%)					
Bromochloromethane	82				
D5-Chlorobenzene	8				
Difluorobenzene	82				
Volumetric Flow (scfh):	**26100**				
Max Detected Compound (tons/year):	**2-Propanone**	**3.96E-02**			
Total Detected HAP (tons/year):	**2.04E-01**				
Total Detected/Nondetected HAP (tons/year):	**2.27E-01**				

VOC Tentitively Identified Compounds - Global South Portland Asphalt Tank #9				
Page 1 of 1	Tank #9 - Run 1 SUMMA #7871			
Date	27-Jul-12			
Start	14:28			
Stop	17:00			
Tentitively Identified Compounds	ppb	ug/M3	lb/hr	ton/yr
Acetaldehyde	980	1800	2.94E-03	1.29E-02
Butane, 2-methyl-	270	805	1.31E-03	5.76E-03
Pentane	610	1800	2.94E-03	1.29E-02
Pentane, 2-methyl-	480	1700	2.78E-03	1.22E-02
Butanal	320	930	1.52E-03	6.65E-03
Heptane, 2-methyl-	450	2100	3.43E-03	1.50E-02
Octane	550	2500	4.08E-03	1.79E-02
Unknown hydrocarbon C8H16 Mol. Wt. 112	240	1100	1.80E-03	7.87E-03
Cyclohexane, 1,1,3-trimethyl	270	1400	2.29E-03	1.00E-02
Nonane	605	3200	5.22E-03	2.29E-02
Unknown aromatic hydrocarbon C9H12 Mol. Wt. 120	290	1400	2.29E-03	1.00E-02
Decane, 4-methyl-	320	2030	3.31E-03	1.45E-02
Benzene, 1-propenyl-	280	1300	2.12E-03	9.30E-03
Unknown aromatic hydrocarbon C10H14 Mol. Wt. 134	290	1600	2.61E-03	1.14E-02
Unknown aromatic hydrocarbon C10H14 Mol. Wt. 134	310	1700	2.78E-03	1.22E-02
Unknown aromatic hydrocarbon C10H14 Mol. Wt. 134	270	1500	2.45E-03	1.07E-02
Undecane	590	3700	6.04E-03	2.65E-02
Unknown aromatic hydrocarbon C10H14 Mol. Wt. 134	370	2040	3.33E-03	1.46E-02
Unknown aromatic hydrocarbon C10H14 Mol. Wt. 134	305	1700	2.78E-03	1.22E-02
Unknown aromatic hydrocarbon C10H14 Mol. Wt. 134	360	1900	3.10E-03	1.36E-02
Volumetric Flow (scfh)	26100			
Total TICs (tons/year)	**0.26**			

D2. VOC HAP Calculations – Run 2 (Vessel Transfer)

VOC HAP Emission Summary - Global South Portland Asphalt Tank #9					
Page 1 of 2	Tank #9 - Run 2 (Vessel Transfer) SUMMA #7820				
Date	29-Jul-12				
Start	6:20				
Stop	7:20				
Compounds		ppb	ug/M3	lb/hr	tons/transfer
Dichlorodifluoromethane (FREON 12)	<	21	104	1.59E-04	1.03E-06
1,2-Dichlorotetrafluoroethane	<	18	125	1.91E-04	1.24E-06
Chloromethane	<	32	65	9.93E-05	6.45E-07
Vinyl Chloride	<	19	48.3	7.38E-05	4.80E-07
Chloroethane	<	32	83.1	1.27E-04	8.25E-07
1,3-Butadiene	<	53	116	1.77E-04	1.15E-06
Trichlorofluoromethane (FREON 11)	<	21	118	1.80E-04	1.17E-06
Ethanol (ethyl alcohol)		1010	1900	2.90E-03	1.89E-05
Trichlorotrifluoroethane	<	16	121	1.85E-04	1.20E-06
2-propanol		543	1330	2.03E-03	1.32E-05
2-Propanone		4030	9570	1.46E-02	9.50E-05
Methyl Ethyl Ketone (2-Butanone)	<	5200	15300	2.34E-02	1.52E-04
Methyl Isobutyl Ketone	<	340	1380	2.11E-03	1.37E-05
Methyl Butyl Ketone (2-Hexanone)	<	210	860	1.31E-03	8.54E-06
Methyl t-butyl ether (MTBE)	<	21	75.7	1.16E-04	7.52E-07
Ethyl Acetate	<	230	832	1.27E-03	8.26E-06
1,1-Dichloroethylene	<	26	104	1.59E-04	1.03E-06
cis-1,2-Dichloroethylene	<	20	79.1	1.21E-04	7.85E-07
trans-1,2-Dichloroethylene	<	21	83.3	1.27E-04	8.27E-07
Methylene Chloride(Dichloromethane)	<	84	292	4.46E-04	2.90E-06
Chloroform	<	16	76.9	1.17E-04	7.64E-07
Carbon Tetrachloride	<	32	198	3.02E-04	1.97E-06
1,1-Dichloroethane	<	21	85	1.30E-04	8.44E-07
1,2-Dichloroethane	<	21	85	1.30E-04	8.44E-07
Ethylene Dibromide	<	18	137	2.09E-04	1.36E-06
1,1,1-Trichloroethane	<	32	172	2.63E-04	1.71E-06
1,1,2-Trichloroethane	<	16	85.9	1.31E-04	8.53E-07
1,1,2,2-Tetrachloroethane	<	21	144	2.20E-04	1.43E-06
cis-1,3-Dichloropropene	<	19	85.8	1.31E-04	8.52E-07
trans-1,3-Dichloropropene	<	18	81	1.24E-04	8.04E-07
1,2-Dichloropropane	<	42	194	2.96E-04	1.93E-06
Bromomethane	<	19	73.4	1.12E-04	7.29E-07
Bromoform	<	21	217	3.32E-04	2.15E-06
Bromodichloromethane	<	21	141	2.15E-04	1.40E-06
Dibromochloromethane	<	21	179	2.73E-04	1.78E-06
Trichloroethylene	<	32	169	2.58E-04	1.68E-06
Volumetric Flow (scfh)	24420				

VOC HAP Emission Summary - Global South Portland Asphalt Tank #9					
Page 2 of 2	Tank #9 - Run 2 (Vessel Transfer) SUMMA #7820				
Date	29-Jul-12				
Start	6:20				
Stop	7:20				
Compounds		ppb	ug/M3	lb/hr	tons/transfer
Tetrachloroethylene	<	21	142	2.17E-04	1.41E-06
Benzene		396	1260	1.92E-03	1.25E-05
Toluene		1770	6650	1.02E-02	6.60E-05
Ethylbenzene		1250	5420	8.28E-03	5.38E-05
p+m-Xylene		2530	11000	1.68E-02	1.09E-04
o-Xylene		1160	5030	7.68E-03	4.99E-05
Styrene	<	77	328	5.01E-04	3.26E-06
4-ethyltoluene		632	3110	4.75E-03	3.09E-05
1,3,5-Trimethylbenzene		578	2840	4.34E-03	2.82E-05
1,2,4-Trimethylbenzene		2020	9910	1.51E-02	9.84E-05
Chlorobenzene	<	21	96.7	1.48E-04	9.60E-07
Benzyl chloride	<	110	544	8.31E-04	5.40E-06
1,3-Dichlorobenzene	<	42	253	3.87E-04	2.51E-06
1,4-Dichlorobenzene	<	42	253	3.87E-04	2.51E-06
1,2-Dichlorobenzene	<	42	253	3.87E-04	2.51E-06
1,2,4-Trichlorobenzene	<	210	1560	2.38E-03	1.55E-05
Hexachlorobutadiene	<	320	3360	5.13E-03	3.34E-05
Hexane		4680	16500	2.52E-02	1.64E-04
Heptane		4480	18400	2.81E-02	1.83E-04
Cyclohexane		1150	3950	6.03E-03	3.92E-05
Tetrahydrofuran	<	42	124	1.89E-04	1.23E-06
1,4-Dioxane	<	210	757	1.16E-03	7.52E-06
Xylene (Total)		3690	16000	2.44E-02	1.59E-04
Vinyl Bromide	<	21	91.9	1.40E-04	9.13E-07
Propene		13700	23600	3.61E-02	2.34E-04
2,2,4-Trimethylpentane	<	21	98.1	1.50E-04	9.74E-07
Carbon Disulfide		285	888	1.36E-03	8.82E-06
Vinyl Acetate	<	21	73.9	1.13E-04	7.34E-07
Surrogate Recovery (%)					
Bromochloromethane	73				
D5-Chlorobenzene	78				
Difluorobenzene	85				
Volumetric Flow (scfh)	**24420**				
Max Detected Compound (tons/transfer):	**Propene**	**2.34E-04**			
Total Detected HAP (tons/transfer):	**1.36E-03**				
Total Detected/Nondetected HAP (tons/transfer):	**1.66E-03**				

VOC Tentitively Identified Compounds - Global South Portland Asphalt Tank #9				
Page 1 of 1	Tank #9 - Run 2 (Vessel Transfer) SUMMA #7820			
Date	29-Jul-12			
Start	6:20			
Stop	7:20			
Tentitively Identified Compounds	ppb	ug/M3	lb/hr	ton/yr
Isobutane	2100	5000	7.64E-03	4.96E-05
1-Propene, 2-methyl-	3600	8300	1.27E-02	8.24E-05
Butane, 2-methyl-	2400	7200	1.10E-02	7.15E-05
1-Pentene	1300	3800	5.81E-03	3.77E-05
Pentane	6000	18000	2.75E-02	1.79E-04
2-Pentene	880	2500	3.82E-03	2.48E-05
Unknown hydrocarbon C5H10 Mol. Wt. 70	1100	3200	4.89E-03	3.18E-05
Cyclopentene	1300	3600	5.50E-03	3.57E-05
Pentane, 2-methyl-	4200	15000	2.29E-02	1.49E-04
Pentane, 3-methyl-	1500	5100	7.79E-03	5.06E-05
3-Hexene, (E)-	1100	3800	5.81E-03	3.77E-05
Cyclopentane, methyl-	1600	5600	8.56E-03	5.56E-05
Hexane, 3-methyl-	1300	5200	7.94E-03	5.16E-05
Heptane, 2-methyl-	3100	15000	2.29E-02	1.49E-04
Heptane, 3-methyl-	890	4200	6.42E-03	4.17E-05
Unknown hydrocarbon C8H16 Mol. Wt.112	1000	4600	7.03E-03	4.57E-05
Octane	3400	16000	2.44E-02	1.59E-04
Cyclohexane, ethyl-	930	4300	6.57E-03	4.27E-05
Nonane	2500	13000	1.99E-02	1.29E-04
Heptane, 3-ethyl-2-methyl-	1400	7900	1.21E-02	7.84E-05
Unknown aromatic hydrocarbon C9H12 Mol. Wt. 120	1100	5300	8.10E-03	5.26E-05
Decane, 4-methyl-	1000	6500	9.93E-03	6.45E-05
Undecane	1800	11000	1.68E-02	1.09E-04
Volumetric Flow (scfh)	**24420**			
Total TIC (tons/transfer)	**4.77E-04**			

D3. VOC HAP Calculations – Run 3

VOC HAP Emission Summary - Global South Portland Asphalt Tank #9					
Page 1 of 2	Tank #9 - Run 3 SUMMA #332				
Date	8-Aug-12				
Start	11:15				
Stop	11:30				
Compounds		ppb	ug/M3	lb/hr	ton/yr
Dichlorodifluoromethane (FREON 12)	<	8.4	41.5	6.46E-05	2.83E-04
1,2-Dichlorotetrafluoroethane	<	7.1	49.9	7.77E-05	3.40E-04
Chloromethane	<	13	26	4.05E-05	1.77E-04
Vinyl Chloride	<	7.6	19.3	3.01E-05	1.32E-04
Chloroethane	<	13	33.2	5.17E-05	2.27E-04
1,3-Butadiene	<	21	46.5	7.24E-05	3.17E-04
Trichlorofluoromethane (FREON 11)		15.2	85.3	1.33E-04	5.82E-04
Ethanol (ethyl alcohol)	<	860	1620	2.52E-03	1.11E-02
Trichlorotrifluoroethane	<	6.3	48.3	7.52E-05	3.30E-04
2-propanol	<	130	310	4.83E-04	2.12E-03
2-Propanone		2220	5270	8.21E-03	3.60E-02
Methyl Ethyl Ketone (2-Butanone)	<	130	372	5.79E-04	2.54E-03
Methyl Isobutyl Ketone	<	130	551	8.58E-04	3.76E-03
Methyl Butyl Ketone (2-Hexanone)	<	84	344	5.36E-04	2.35E-03
Methyl t-butyl ether (MTBE)	<	8.4	30.3	4.72E-05	2.07E-04
Ethyl Acetate	<	92	333	5.19E-04	2.27E-03
1,1-Dichloroethylene	<	11	41.6	6.48E-05	2.84E-04
cis-1,2-Dichloroethylene	<	8	31.6	4.92E-05	2.16E-04
trans-1,2-Dichloroethylene	<	8.4	33.3	5.19E-05	2.27E-04
Methylene Chloride(Dichloromethane)	<	34	117	1.82E-04	7.98E-04
Chloroform	<	6.3	30.8	4.80E-05	2.10E-04
Carbon Tetrachloride	<	13	79.3	1.24E-04	5.41E-04
1,1-Dichloroethane	<	8.4	34	5.30E-05	2.32E-04
1,2-Dichloroethane	<	8.4	34	5.30E-05	2.32E-04
Ethylene Dibromide	<	7.1	54.9	8.55E-05	3.75E-04
1,1,1-Trichloroethane	<	13	68.7	1.07E-04	4.69E-04
1,1,2-Trichloroethane	<	6.3	34.4	5.36E-05	2.35E-04
1,1,2,2-Tetrachloroethane	<	8.4	57.7	8.99E-05	3.94E-04
cis-1,3-Dichloropropene	<	7.6	34.3	5.34E-05	2.34E-04
trans-1,3-Dichloropropene	<	7.1	32.4	5.05E-05	2.21E-04
1,2-Dichloropropane	<	17	77.6	1.21E-04	5.29E-04
Bromomethane	<	7.6	29.4	4.58E-05	2.01E-04
Bromoform	<	8.4	86.8	1.35E-04	5.92E-04
Bromodichloromethane	<	8.4	56.3	8.77E-05	3.84E-04
Dibromochloromethane	<	8.4	71.6	1.12E-04	4.89E-04
Trichloroethylene	<	13	67.7	1.05E-04	4.62E-04
Volumetric Flow (scfh)	24900				

VOC HAP Emission Summary - Global South Portland Asphalt Tank #9					
Page 2 of 2	Tank #9 - Run 3 SUMMA #332				
Date	8-Aug-12				
Start	11:15				
Stop	11:30				
Compounds		ppb	ug/M3	lb/hr	ton/yr
Tetrachloroethylene	<	8.4	57	8.88E-05	3.89E-04
Benzene		207	660	1.03E-03	4.50E-03
Toluene		1060	3980	6.20E-03	2.72E-02
Ethylbenzene		876	3800	5.92E-03	2.59E-02
p+m-Xylene		1700	7390	1.15E-02	5.04E-02
o-Xylene		814	3540	5.51E-03	2.42E-02
Styrene	<	40	170	2.65E-04	1.16E-03
4-ethyltoluene		514	2530	3.94E-03	1.73E-02
1,3,5-Trimethylbenzene		465	2290	3.57E-03	1.56E-02
1,2,4-Trimethylbenzene		1770	8680	1.35E-02	5.92E-02
Chlorobenzene	<	8.4	38.7	6.03E-05	2.64E-04
Benzyl chloride	<	42	217	3.38E-04	1.48E-03
1,3-Dichlorobenzene	<	17	101	1.57E-04	6.89E-04
1,4-Dichlorobenzene	<	17	101	1.57E-04	6.89E-04
1,2-Dichlorobenzene	<	17	101	1.57E-04	6.89E-04
1,2,4-Trichlorobenzene	<	84	623	9.70E-04	4.25E-03
Hexachlorobutadiene	<	130	1340	2.09E-03	9.14E-03
Hexane		2370	8350	1.30E-02	5.70E-02
Heptane		2430	9950	1.55E-02	6.79E-02
Cyclohexane		568	1960	3.05E-03	1.34E-02
Tetrahydrofuran	<	17	49.5	7.71E-05	3.38E-04
1,4-Dioxane	<	84	303	4.72E-04	2.07E-03
Xylene (Total)		2520	10900	1.70E-02	7.44E-02
Vinyl Bromide	<	8.4	36.7	5.72E-05	2.50E-04
Propene	<	6100	10600	1.65E-02	7.23E-02
2,2,4-Trimethylpentane	<	8.4	39.2	6.11E-05	2.67E-04
Carbon Disulfide	<	120	374	5.83E-04	2.55E-03
Vinyl Acetate	<	8.4	29.6	4.61E-05	2.02E-04
Surrogate Recovery (%)					
Bromochloromethane	81				
D5-Chlorobenzene	79				
Difluorobenzene	85				
Volumetric Flow (scfh)	**24900**				
Max Detected Compound (tons/year):	**Xylene (Total)**		**7.44E-02**		
Total Detected HAP (tons/year):	**4.73E-01**				
Total Detected/Nondetected HAP (tons/year):	**6.04E-01**				

VOC Tentitively Identified Compounds - Global South Portland Asphalt Tank #9				
Page 1 of 1	Tank #9 - Run 3 SUMMA #332			
Date	8-Aug-12			
Start	11:15			
Stop	11:30			
Tentitively Identified Compounds	ppb	ug/M3	lb/hr	ton/yr
Hydrogen sulfide	2600	3600	5.61E-03	2.46E-02
Isobutane	1200	2800	4.36E-03	1.91E-02
Acetaldehyde	1400	2500	3.89E-03	1.71E-02
Butane, 2-methyl-	1400	4100	6.39E-03	2.80E-02
Cyclopropane, ethyl-	700	2000	3.12E-03	1.36E-02
Unknown hydrocarbon C5H10 Mol. Wt. 70	770	2200	3.43E-03	1.50E-02
Pentane	3200	9400	1.46E-02	6.41E-02
Bicyclo[2.1.0]pentane	650	1800	2.80E-03	1.23E-02
Butane, 2,3-dimethyl-	1800	6300	9.81E-03	4.30E-02
Pentane, 3-methyl-	740	2600	4.05E-03	1.77E-02
1-Hexene	710	2400	3.74E-03	1.64E-02
Cyclopentane, methyl-	830	2900	4.52E-03	1.98E-02
Hexane, 3-methyl-	770	3100	4.83E-03	2.12E-02
Heptane, 2-methyl-	1700	7900	1.23E-02	5.39E-02
Octane	1800	8300	1.29E-02	5.66E-02
Nonane	1900	9900	1.54E-02	6.75E-02
Unknown aromatic hydrocarbon C9H12 Mol. Wt. 120	770	3800	5.92E-03	2.59E-02
Unknown hydrocarbon C11H24 Mol. Wt. 156	790	5040	7.85E-03	3.44E-02
Decane, 3-methyl-	700	4500	7.01E-03	3.07E-02
Undecane	2100	13000	2.03E-02	8.87E-02
Volumetric Flow (scfh)	24900			
Total TIC (tons/year)	0.67			

D4. VOC HAP Calculations – Run 4

VOC HAP Emission Summary - Global South Portland Asphalt Tank #9					
Page 1 of 2	Tank #9 - Run 4 SUMMA #2811				
Date	10-Aug-12				
Start	18:10				
Stop	18:40				
Compounds		ppb	ug/M3	lb/hr	ton/yr
Dichlorodifluoromethane (FREON 12)	<	8.4	41.5	6.76E-05	2.96E-04
1,2-Dichlorotetrafluoroethane	<	7.1	49.9	8.13E-05	3.56E-04
Chloromethane	<	13	26	4.24E-05	1.86E-04
Vinyl Chloride	<	7.6	19.3	3.14E-05	1.38E-04
Chloroethane	<	13	33.2	5.41E-05	2.37E-04
1,3-Butadiene	<	21	46.5	7.58E-05	3.32E-04
Trichlorofluoromethane (FREON 11)	<	8.4	47.2	7.69E-05	3.37E-04
Ethanol (ethyl alcohol)	<	930	1750	2.85E-03	1.25E-02
Trichlorotrifluoroethane	<	6.3	48.3	7.87E-05	3.45E-04
2-propanol	<	130	310	5.05E-04	2.21E-03
2-Propanone		2010	4780	7.79E-03	3.41E-02
Methyl Ethyl Ketone (2-Butanone)	<	130	372	6.06E-04	2.65E-03
Methyl Isobutyl Ketone	<	130	551	8.98E-04	3.93E-03
Methyl Butyl Ketone (2-Hexanone)	<	84	344	5.60E-04	2.45E-03
Methyl t-butyl ether (MTBE)	<	8.4	30.3	4.94E-05	2.16E-04
Ethyl Acetate	<	92	333	5.42E-04	2.38E-03
1,1-Dichloroethylene	<	11	41.6	6.78E-05	2.97E-04
cis-1,2-Dichloroethylene	<	8	31.6	5.15E-05	2.25E-04
trans-1,2-Dichloroethylene	<	8.4	33.3	5.42E-05	2.38E-04
Methylene Chloride(Dichloromethane)	<	34	117	1.91E-04	8.35E-04
Chloroform	<	6.3	30.8	5.02E-05	2.20E-04
Carbon Tetrachloride	<	13	79.3	1.29E-04	5.66E-04
1,1-Dichloroethane	<	8.4	34	5.54E-05	2.43E-04
1,2-Dichloroethane	<	8.4	34	5.54E-05	2.43E-04
Ethylene Dibromide	<	7.1	54.9	8.94E-05	3.92E-04
1,1,1-Trichloroethane	<	13	68.7	1.12E-04	4.90E-04
1,1,2-Trichloroethane	<	6.3	34.4	5.60E-05	2.45E-04
1,1,2,2-Tetrachloroethane	<	8.4	57.7	9.40E-05	4.12E-04
cis-1,3-Dichloropropene	<	7.6	34.3	5.59E-05	2.45E-04
trans-1,3-Dichloropropene	<	7.1	32.4	5.28E-05	2.31E-04
1,2-Dichloropropane	<	17	77.6	1.26E-04	5.54E-04
Bromomethane	<	7.6	29.4	4.79E-05	2.10E-04
Bromoform	<	8.4	86.8	1.41E-04	6.19E-04
Bromodichloromethane	<	8.4	56.3	9.17E-05	4.02E-04
Dibromochloromethane	<	8.4	71.6	1.17E-04	5.11E-04
Trichloroethylene	<	13	67.7	1.10E-04	4.83E-04
Volumetric Flow (scfh)	26040				

VOC HAP Emission Summary - Global South Portland Asphalt Tank #9					
Page 2 of 2	Tank #9 - Run 4 SUMMA #2811				
Date	10-Aug-12				
Start	18:10				
Stop	18:40				
Compounds		ppb	ug/M3	lb/hr	ton/yr
Tetrachloroethylene	<	8.4	57	9.29E-05	4.07E-04
Benzene		193	617	1.01E-03	4.40E-03
Toluene		994	3740	6.09E-03	2.67E-02
Ethylbenzene		899	3900	6.35E-03	2.78E-02
p+m-Xylene		1700	7380	1.20E-02	5.27E-02
o-Xylene		811	3520	5.73E-03	2.51E-02
Styrene	<	42	179	2.92E-04	1.28E-03
4-ethyltoluene		503	2470	4.02E-03	1.76E-02
1,3,5-Trimethylbenzene		451	2210	3.60E-03	1.58E-02
1,2,4-Trimethylbenzene		1710	8430	1.37E-02	6.01E-02
Chlorobenzene	<	8.4	38.7	6.30E-05	2.76E-04
Benzyl chloride	<	42	217	3.54E-04	1.55E-03
1,3-Dichlorobenzene	<	17	101	1.65E-04	7.21E-04
1,4-Dichlorobenzene	<	17	101	1.65E-04	7.21E-04
1,2-Dichlorobenzene	<	17	101	1.65E-04	7.21E-04
1,2,4-Trichlorobenzene	<	84	623	1.01E-03	4.45E-03
Hexachlorobutadiene	<	130	1340	2.18E-03	9.56E-03
Hexane		2310	8150	1.33E-02	5.82E-02
Heptane		2220	9100	1.48E-02	6.49E-02
Cyclohexane		530	1820	2.96E-03	1.30E-02
Tetrahydrofuran	<	17	49.5	8.06E-05	3.53E-04
1,4-Dioxane	<	84	303	4.94E-04	2.16E-03
Xylene (Total)		2510	10900	1.78E-02	7.78E-02
Vinyl Bromide	<	8.4	36.7	5.98E-05	2.62E-04
Propene	<	5600	9600	1.56E-02	6.85E-02
2,2,4-Trimethylpentane	<	8.4	39.2	6.39E-05	2.80E-04
Carbon Disulfide	<	180	561	9.14E-04	4.00E-03
Vinyl Acetate	<	8.4	29.6	4.82E-05	2.11E-04
Surrogate Recovery (%)					
Bromochloromethane	100				
D5-Chlorobenzene	93				
Difluorobenzene	107				
Volumetric Flow (scfh)	26040				
Max Detected Compound (tons/year):	**Xylene (Total)**		**7.78E-02**		
Total Detected HAP (tons/year):	**4.78E-01**				
Total Detected/Nondetected HAP (tons/year):	**6.10E-01**				

VOC Tentitively Identified Compounds - Global South Portland Asphalt Tank #9				
Page 1 of 1	Tank #9 - Run 4 SUMMA #2811			
Date	10-Aug-12			
Start	18:10			
Stop	18:40			
Tentitively Identified Compounds	ppb	ug/M3	lb/hr	ton/yr
Isobutane	1200	2800	4.56E-03	2.00E-02
1-Propene, 2-methyl-	2400	5500	8.96E-03	3.92E-02
Butane, 2-methyl-	1300	3800	6.19E-03	2.71E-02
Cyclopropane, ethyl-	680	1900	3.10E-03	1.36E-02
cis or trans 1,2-dimethylcyclopropane	760	2200	3.58E-03	1.57E-02
Pentane	3200	9400	1.53E-02	6.71E-02
Unknown hydrocarbon C5H8 Mol. Wt. 68	650	1800	2.93E-03	1.28E-02
Unknown hydrocarbon C6H14 Mol. Wt. 86	1800	5000	8.15E-03	3.57E-02
Pentane, 3-methyl-	740	2600	4.24E-03	1.86E-02
1-Hexene	710	2400	3.91E-03	1.71E-02
Cyclopentane, methyl-	830	2900	4.72E-03	2.07E-02
Hexane, 3-methyl-	740	3000	4.89E-03	2.14E-02
Heptane, 2-methyl-	1600	7500	1.22E-02	5.35E-02
Octane	1800	8400	1.37E-02	5.99E-02
Nonane	1900	9900	1.61E-02	7.06E-02
Unknown hydrocarbon C10H22 Mol. Wt. 142	580	3400	5.54E-03	2.43E-02
Unknown aromatic hydrocarbon C9H12 Mol. Wt. 120	790	3900	6.35E-03	2.78E-02
Decane, 4-methyl-	730	4700	7.66E-03	3.35E-02
Decane, 3-methyl-	610	3900	6.35E-03	2.78E-02
Undecane	1900	12000	1.95E-02	8.56E-02
Volumetric Flow (scfh)	**26040**			
Total TIC (tons/year)	**0.69**			

D5. VOC HAP Calculations – Run 5

VOC HAP Emission Summary - Global South Portland Asphalt Tank #9					
Page 1 of 2	Tank #9 - Run 5 SUMMA #T21644				
Date	16-Aug-12				
Start	17:25				
Stop	17:55				
Compounds		ppb	ug/M3	lb/hr	ton/yr
Dichlorodifluoromethane (FREON 12)	<	8.4	41.5	6.73E-05	2.95E-04
1,2-Dichlorotetrafluoroethane	<	7.1	49.9	8.09E-05	3.54E-04
Chloromethane	<	13	26	4.22E-05	1.85E-04
Vinyl Chloride	<	7.6	19.3	3.13E-05	1.37E-04
Chloroethane	<	13	33.2	5.38E-05	2.36E-04
1,3-Butadiene	<	21	46.5	7.54E-05	3.30E-04
Trichlorofluoromethane (FREON 11)		10	56.1	9.10E-05	3.98E-04
Ethanol (ethyl alcohol)	<	990	1870	3.03E-03	1.33E-02
Trichlorotrifluoroethane	<	6.3	48.3	7.83E-05	3.43E-04
2-propanol	<	130	310	5.03E-04	2.20E-03
2-Propanone		1930	4580	7.43E-03	3.25E-02
Methyl Ethyl Ketone (2-Butanone)	<	130	372	6.03E-04	2.64E-03
Methyl Isobutyl Ketone	<	130	551	8.93E-04	3.91E-03
Methyl Butyl Ketone (2-Hexanone)	<	84	344	5.58E-04	2.44E-03
Methyl t-butyl ether (MTBE)	<	8.4	30.3	4.91E-05	2.15E-04
Ethyl Acetate	<	92	333	5.40E-04	2.37E-03
1,1-Dichloroethylene	<	11	41.6	6.75E-05	2.95E-04
cis-1,2-Dichloroethylene	<	8	31.6	5.12E-05	2.24E-04
trans-1,2-Dichloroethylene	<	8.4	33.3	5.40E-05	2.37E-04
Methylene Chloride(Dichloromethane)	<	34	117	1.90E-04	8.31E-04
Chloroform	<	6.3	30.8	4.99E-05	2.19E-04
Carbon Tetrachloride	<	13	79.3	1.29E-04	5.63E-04
1,1-Dichloroethane	<	8.4	34	5.51E-05	2.41E-04
1,2-Dichloroethane	<	8.4	34	5.51E-05	2.41E-04
Ethylene Dibromide	<	7.1	54.9	8.90E-05	3.90E-04
1,1,1-Trichloroethane	<	13	68.7	1.11E-04	4.88E-04
1,1,2-Trichloroethane	<	6.3	34.4	5.58E-05	2.44E-04
1,1,2,2-Tetrachloroethane	<	8.4	57.7	9.36E-05	4.10E-04
cis-1,3-Dichloropropene	<	7.6	34.3	5.56E-05	2.44E-04
trans-1,3-Dichloropropene	<	7.1	32.4	5.25E-05	2.30E-04
1,2-Dichloropropane	<	17	77.6	1.26E-04	5.51E-04
Bromomethane	<	7.6	29.4	4.77E-05	2.09E-04
Bromoform	<	8.4	86.8	1.41E-04	6.16E-04
Bromodichloromethane	<	8.4	56.3	9.13E-05	4.00E-04
Dibromochloromethane	<	8.4	71.6	1.16E-04	5.09E-04
Trichloroethylene	<	13	67.7	1.10E-04	4.81E-04
Volumetric Flow (scfh)	25920				

VOC HAP Emission Summary - Global South Portland Asphalt Tank #9					
Page 2 of 2	Tank #9 - Run 5 SUMMA #T21644				
Date	16-Aug-12				
Start	17:25				
Stop	17:55				
Compounds		ppb	ug/M3	lb/hr	ton/yr
Tetrachloroethylene	<	8.4	57	9.24E-05	4.05E-04
Benzene		176	564	9.15E-04	4.01E-03
Toluene		925	3480	5.64E-03	2.47E-02
Ethylbenzene		817	3550	5.76E-03	2.52E-02
p+m-Xylene		1530	6650	1.08E-02	4.72E-02
o-Xylene		729	3170	5.14E-03	2.25E-02
Styrene	<	40	170	2.76E-04	1.21E-03
4-ethyltoluene		460	2260	3.66E-03	1.61E-02
1,3,5-Trimethylbenzene		419	2060	3.34E-03	1.46E-02
1,2,4-Trimethylbenzene		1560	7650	1.24E-02	5.43E-02
Chlorobenzene	<	8.4	38.7	6.28E-05	2.75E-04
Benzyl chloride	<	42	217	3.52E-04	1.54E-03
1,3-Dichlorobenzene	<	17	101	1.64E-04	7.17E-04
1,4-Dichlorobenzene	<	17	101	1.64E-04	7.17E-04
1,2-Dichlorobenzene	<	17	101	1.64E-04	7.17E-04
1,2,4-Trichlorobenzene	<	84	623	1.01E-03	4.42E-03
Hexachlorobutadiene	<	130	1340	2.17E-03	9.52E-03
Hexane		2070	7280	1.18E-02	5.17E-02
Heptane		1990	8150	1.32E-02	5.79E-02
Cyclohexane		484	1670	2.71E-03	1.19E-02
Tetrahydrofuran	<	17	49.5	8.03E-05	3.52E-04
1,4-Dioxane	<	84	303	4.91E-04	2.15E-03
Xylene (Total)		2260	9820	1.59E-02	6.97E-02
Vinyl Bromide	<	8.4	36.7	5.95E-05	2.61E-04
Propene	<	4700	8170	1.32E-02	5.80E-02
2,2,4-Trimethylpentane	<	8.4	39.2	6.36E-05	2.78E-04
Carbon Disulfide	<	130	405	6.57E-04	2.88E-03
Vinyl Acetate	<	8.4	29.6	4.80E-05	2.10E-04
Surrogate Recovery (%)					
Bromochloromethane	108				
D5-Chlorobenzene	100				
Difluorobenzene	114				
Volumetric Flow (scfh)	25920				
Max Detected Compound (tons/year):	**Xylene (Total)**		**6.97E-02**		
Total Detected HAP (tons/year):	**4.33E-01**				
Total Detected/Nondetected HAP (tons/year):	**5.53E-01**				

VOC Tentitively Identified Compounds - Global South Portland Asphalt Tank #9				
Page 1 of 1	Tank #9 - Run 5 SUMMA #T21644			
Date	16-Aug-12			
Start	17:25			
Stop	17:55			
Tentitively Identified Compounds	ppb	ug/M3	lb/hr	ton/yr
Isobutane	1030	2400	3.89E-03	1.70E-02
1-Propene, 2-methyl-	2100	4800	7.78E-03	3.41E-02
Butane, 2-methyl-	1200	3500	5.68E-03	2.49E-02
Cyclopropane, ethyl-	610	1700	2.76E-03	1.21E-02
Pentane	2900	8500	1.38E-02	6.04E-02
Unknown hydrocarbon C5H8 Mol. Wt. 68	600	1700	2.76E-03	1.21E-02
Pentane, 2-methyl-	1600	5600	9.08E-03	3.98E-02
Pentane, 3-methyl-	680	2400	3.89E-03	1.70E-02
1-Heptene	650	2600	4.22E-03	1.85E-02
Cyclopentane, methyl-	760	2600	4.22E-03	1.85E-02
Hexane, 3-methyl-	670	2700	4.38E-03	1.92E-02
Unknown hydrocarbon C7H14 Mol. Wt. 98	520	2100	3.41E-03	1.49E-02
Heptane, 2-methyl-	1500	7000	1.14E-02	4.97E-02
Octane	1700	7900	1.28E-02	5.61E-02
Nonane	1800	9400	1.52E-02	6.68E-02
Unknown aromatic hydrocarbon C9H12 Mol. Wt. 120	880	4300	6.97E-03	3.05E-02
Unknown aromatic hydrocarbon C9H12 Mol. Wt. 120	570	2800	4.54E-03	1.99E-02
Decane, 4-methyl-	690	4400	7.13E-03	3.13E-02
Decane, 3-methyl-	560	3600	5.84E-03	2.56E-02
Undecane	1700	11000	1.78E-02	7.81E-02
Volumetric Flow (scfh)	**25920**			
Total TIC (tons/year)	**0.65**			

D6. VOC HAP Calculations – Run 6 (Truck Loading)

VOC HAP Emission Summary - Global South Portland Asphalt Tank #9					
Page 1 of 2	Tank #9 - Run 6 (Truck Loading) SUMMA #2832				
Date	20-Sep-12				
Start	11:50				
Stop	12:08				
Compounds		ppb	ug/M3	lb/hr	ton/transfer
Dichlorodifluoromethane (FREON 12)		4.5	22	4.39E-06	9.52E-10
1,2-Dichlorotetrafluoroethane	<	2.7	19	3.79E-06	8.22E-10
Chloromethane	<	4.8	9.91	1.98E-06	4.29E-10
Vinyl Chloride	<	2.9	7.36	1.47E-06	3.18E-10
Chloroethane	<	4.8	12.7	2.54E-06	5.49E-10
1,3-Butadiene	<	41	90.7	1.81E-05	3.92E-09
Trichlorofluoromethane (FREON 11)	<	3.2	18	3.59E-06	7.79E-10
Ethanol (ethyl alcohol)		734	1380	2.76E-04	5.97E-08
Trichlorotrifluoroethane	<	2.4	18.4	3.67E-06	7.96E-10
2-propanol		371	912	1.82E-04	3.95E-08
2-Propanone		3740	8880	1.77E-03	3.84E-07
Methyl Ethyl Ketone (2-Butanone)		4110	12100	2.42E-03	5.24E-07
Methyl Isobutyl Ketone		58	238	4.75E-05	1.03E-08
Methyl Butyl Ketone (2-Hexanone)		167	685	1.37E-04	2.96E-08
Methyl t-butyl ether (MTBE)	<	3.2	11.5	2.30E-06	4.98E-10
Ethyl Acetate	<	35	127	2.54E-05	5.49E-09
1,1-Dichloroethylene	<	4	15.9	3.18E-06	6.88E-10
cis-1,2-Dichloroethylene	<	3	12.1	2.42E-06	5.24E-10
trans-1,2-Dichloroethylene	<	3.2	12.7	2.54E-06	5.49E-10
Methylene Chloride(Dichloromethane)	<	13	44.5	8.89E-06	1.93E-09
Chloroform	<	2.4	11.7	2.34E-06	5.06E-10
Carbon Tetrachloride	<	4.8	30.2	6.03E-06	1.31E-09
1,1-Dichloroethane	<	3.2	13	2.60E-06	5.62E-10
1,2-Dichloroethane	<	3.2	13	2.60E-06	5.62E-10
Ethylene Dibromide	<	2.7	20.9	4.17E-06	9.04E-10
1,1,1-Trichloroethane	<	4.8	26.2	5.23E-06	1.13E-09
1,1,2-Trichloroethane	<	2.4	13.1	2.62E-06	5.67E-10
1,1,2,2-Tetrachloroethane	<	3.2	22	4.39E-06	9.52E-10
cis-1,3-Dichloropropene	<	2.9	13.1	2.62E-06	5.67E-10
trans-1,3-Dichloropropene	<	2.7	12.3	2.46E-06	5.32E-10
1,2-Dichloropropane	<	6.4	29.6	5.91E-06	1.28E-09
Bromomethane	<	2.9	11.2	2.24E-06	4.85E-10
Bromoform	<	3.2	33.1	6.61E-06	1.43E-09
Bromodichloromethane	<	3.2	21.4	4.27E-06	9.26E-10
Dibromochloromethane	<	3.2	27.3	5.45E-06	1.18E-09
Trichloroethylene	<	4.8	25.8	5.15E-06	1.12E-09
Volumetric Flow (scfh)	3192				

VOC HAP Emission Summary - Global South Portland Asphalt Tank #9					
Page 2 of 2	Tank #9 - Run 6 (Truck Loading) SUMMA #2832				
Date	20-Sep-12				
Start	11:50				
Stop	12:08				
Compounds		ppb	ug/M3	lb/hr	ton/transfer
Tetrachloroethylene	<	3.2	21.7	4.33E-06	9.39E-10
Benzene		200	640	1.28E-04	2.77E-08
Toluene		824	3100	6.19E-04	1.34E-07
Ethylbenzene		598	2600	5.19E-04	1.12E-07
p+m-Xylene		1090	4720	9.43E-04	2.04E-07
o-Xylene		552	2400	4.79E-04	1.04E-07
Styrene	<	17	72.4	1.45E-05	3.13E-09
4-ethyltoluene		290	1420	2.84E-04	6.14E-08
1,3,5-Trimethylbenzene		256	1260	2.52E-04	5.45E-08
1,2,4-Trimethylbenzene		910	4470	8.93E-04	1.93E-07
Chlorobenzene	<	3.2	14.7	2.94E-06	6.36E-10
Benzyl chloride	<	16	82.8	1.65E-05	3.58E-09
1,3-Dichlorobenzene	<	6.4	38.5	7.69E-06	1.67E-09
1,4-Dichlorobenzene	<	6.4	38.5	7.69E-06	1.67E-09
1,2-Dichlorobenzene	<	6.4	38.5	7.69E-06	1.67E-09
1,2,4-Trichlorobenzene	<	32	237	4.73E-05	1.03E-08
Hexachlorobutadiene	<	48	512	1.02E-04	2.22E-08
Hexane		3410	12000	2.40E-03	5.19E-07
Heptane		3040	12500	2.50E-03	5.41E-07
Cyclohexane		755	2600	5.19E-04	1.12E-07
Tetrahydrofuran	<	6.4	18.9	3.77E-06	8.18E-10
1,4-Dioxane		439	1580	3.16E-04	6.84E-08
Xylene (Total)		1640	7120	1.42E-03	3.08E-07
Vinyl Bromide	<	3.2	14	2.80E-06	6.06E-10
Propene		8690	15000	3.00E-03	6.49E-07
2,2,4-Trimethylpentane	<	3.2	15	3.00E-06	6.49E-10
Carbon Disulfide	<	55	171	3.41E-05	7.40E-09
Vinyl Acetate	<	3.2	11.3	2.26E-06	4.89E-10
Surrogate Recovery (%)					
Bromochloromethane	87				
D5-Chlorobenzene	93				
Difluorobenzene	90				
Volumetric Flow (scfh)	3192				
Max Detected Compound (tons/transfer):	**Propene**		**6.49E-07**		
Total Detected HAP (tons/transfer):	**4.14E-06**				
Total Detected/Nondetected HAP (tons/transfer):	**4.22E-06**				

VOC Tentitively Identified Compounds - Global South Portland Asphalt Tank #9				
Page 1 of 1	Tank #9 - Run 6 (Truck Loading) SUMMA #2832			
Date	20-Sep-12			
Start	11:50			
Stop	12:08			
Tentitively Identified Compounds	ppb	ug/M3	lb/hr	ton/transfer
Isobutane	1300	3050	6.09E-04	1.32E-07
1-Propene, 2-methyl-	1600	3600	7.19E-04	1.56E-07
1-Butene	560	1300	2.60E-04	5.62E-08
Butane, 2-methyl-	1700	4900	9.78E-04	2.12E-07
1-Pentene	510	1500	3.00E-04	6.49E-08
Pentane	3500	10300	2.06E-03	4.46E-07
Unknown hydrocarbon C5H10 Mol. Wt. 70	730	2100	4.19E-04	9.09E-08
Unknown hydrocarbon C5H10 Mol. Wt. 70	1000	2900	5.79E-04	1.25E-07
Cyclopentene	680	1900	3.79E-04	8.22E-08
Pentane, 2-methyl-	2500	8600	1.72E-03	3.72E-07
Pentane, 3-methyl-	860	3040	6.07E-04	1.32E-07
1-Hexene	430	1500	3.00E-04	6.49E-08
3-Hexene, (E)-	500	1700	3.39E-04	7.36E-08
Cyclopentane, methyl-	810	2800	5.59E-04	1.21E-07
Cyclopentene, 1-methyl- or 3-methyl	530	1800	3.59E-04	7.79E-08
Hexane, 3-methyl-	810	3300	6.59E-04	1.43E-07
2-Heptene, (E)-	470	1900	3.79E-04	8.22E-08
Heptane, 2-methyl-	1590	7400	1.48E-03	3.20E-07
Octane	1100	5200	1.04E-03	2.25E-07
Nonane	640	3400	6.79E-04	1.47E-07
Volumetric Flow (scfh)	**3192**			
Total TIC (tons/transfer)	**3.12E-06**			

D7. VOC HAP Analytical Report – Runs 1 and 2

Maxxam

Success Through Science®

Your Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9
Your C.O.C. #: na

Attention: Anthony Stratton
Eastmount Environmental Services
2 New Pasture Road
Unit 5
Newburyport, MA
USA 1950

Report Date: 2012/08/31

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2B9009
Received: 2012/08/07, 14:00

Sample Matrix: AIR
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure (TO-15)	2	N/A	2012/08/16	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) (1)	2	N/A	2012/08/16	BRL SOP-00304	EPA TO-15

(1) Air sampling canisters have been cleaned in accordance with U.S. EPA Method TO14A. At the end of the cleaning, evacuation, and pressurization cycles, one canister was selected and was pressurized with Zero Air. This canister was then analyzed via TO14A on a GC/MS. The canister must have been found to contain <0.2 ppbv concentration of all target analytes in order for the batch to have been considered clean. Each canister also underwent a leak check prior to shipment.

Please Note: SUMMA® canister samples will be retained by Maxxam for a period of 5 calendar days from the date of this report, after which time they will be cleaned for reuse. If you require a longer sample storage period, please contact your service representative.

Encryption Key

Mike Challis
31 Aug 2012 13:07:20 -04:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Mike Challis, CET, B.Sc, C.Chem, Customer Service Manager, US Air Toxics
Email: MChallis@maxxam.ca
Phone# (905) 817-5790

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B2B9009
Report Date: 2012/08/31

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

RESULTS OF ANALYSES OF AIR

Maxxam ID		OK2111	OK2112	
Sampling Date		2012/07/27 14:28	2012/07/29 09:20	
COC Number		na	na	
	Units	**GLOBAL TANK #9-RUN1 / 7871**	**GLOBAL TANK #9-RUN2 (VESSEL) / 7820**	**QC Batch**
Pressure on Receipt	psig	(-3.9)	(-1.9)	2941721

QC Batch = Quality Control Batch

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Maxxam Job #: B2B9009
Report Date: 2012/08/31

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		OK2111				
Sampling Date		2012/07/27 14:28				
COC Number		na				
	Units	**GLOBAL TANK #9-RUN1 / 7871**	**RDL**	**ug/m3**	**DL (ug/m3)**	**QC Batch**
Dichlorodifluoromethane (FREON 12)	ppbv	<4.8	4.8	<23.7	23.7	2941848
1,2-Dichlorotetrafluoroethane	ppbv	<4.1	4.1	<28.5	28.5	2941848
Chloromethane	ppbv	<7.2	7.2	<14.9	14.9	2941848
Vinyl Chloride	ppbv	<4.3	4.3	<11.0	11.0	2941848
Chloroethane	ppbv	<7.2	7.2	<19.0	19.0	2941848
1,3-Butadiene	ppbv	<12	12	<26.5	26.5	2941848
Trichlorofluoromethane (FREON 11)	ppbv	11.3	4.8	63.8	27.0	2941848
Ethanol (ethyl alcohol)	ppbv	564	55	1060	104	2941848
Trichlorotrifluoroethane	ppbv	<3.6	3.6	<27.6	27.6	2941848
2-propanol	ppbv	365	72	897	177	2941848
2-Propanone	ppbv	2330	19	5540	45.6	2941848
Methyl Ethyl Ketone (2-Butanone)	ppbv	1430	72	4230	212	2941848
Methyl Isobutyl Ketone	ppbv	<77	77	<315	315	2941848
Methyl Butyl Ketone (2-Hexanone)	ppbv	225	48	922	197	2941848
Methyl t-butyl ether (MTBE)	ppbv	<4.8	4.8	<17.3	17.3	2941848
Ethyl Acetate	ppbv	<53	53	<190	190	2941848
1,1-Dichloroethylene	ppbv	<6.0	6.0	<23.8	23.8	2941848
cis-1,2-Dichloroethylene	ppbv	<4.6	4.6	<18.1	18.1	2941848
trans-1,2-Dichloroethylene	ppbv	<4.8	4.8	<19.0	19.0	2941848
Methylene Chloride(Dichloromethane)	ppbv	<19	19	<66.7	66.7	2941848
Chloroform	ppbv	5.4	3.6	26.2	17.6	2941848
Carbon Tetrachloride	ppbv	<7.2	7.2	<45.3	45.3	2941848
1,1-Dichloroethane	ppbv	<4.8	4.8	<19.4	19.4	2941848
1,2-Dichloroethane	ppbv	<4.8	4.8	<19.4	19.4	2941848
Ethylene Dibromide	ppbv	<4.1	4.1	<31.3	31.3	2941848
1,1,1-Trichloroethane	ppbv	<7.2	7.2	<39.3	39.3	2941848
1,1,2-Trichloroethane	ppbv	<3.6	3.6	<19.6	19.6	2941848
1,1,2,2-Tetrachloroethane	ppbv	<4.8	4.8	<33.0	33.0	2941848
cis-1,3-Dichloropropene	ppbv	<4.3	4.3	<19.6	19.6	2941848
trans-1,3-Dichloropropene	ppbv	<4.1	4.1	<18.5	18.5	2941848
1,2-Dichloropropane	ppbv	<9.6	9.6	<44.4	44.4	2941848
Bromomethane	ppbv	<4.3	4.3	<16.8	16.8	2941848

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B2B9009
Report Date: 2012/08/31

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		OK2111				
Sampling Date		2012/07/27 14:28				
COC Number		na				
	Units	**GLOBAL TANK #9-RUN1 / 7871**	**RDL**	**ug/m3**	**DL (ug/m3)**	**QC Batch**
Bromoform	ppbv	<4.8	4.8	<49.6	49.6	2941848
Bromodichloromethane	ppbv	<4.8	4.8	<32.2	32.2	2941848
Dibromochloromethane	ppbv	<4.8	4.8	<40.9	40.9	2941848
Trichloroethylene	ppbv	<7.2	7.2	<38.7	38.7	2941848
Tetrachloroethylene	ppbv	<4.8	4.8	<32.6	32.6	2941848
Benzene	ppbv	27.1	4.3	86.6	13.8	2941848
Toluene	ppbv	150	4.8	566	18.1	2941848
Ethylbenzene	ppbv	97.0	4.8	421	20.8	2941848
p+m-Xylene	ppbv	316	8.9	1370	38.6	2941848
o-Xylene	ppbv	190	4.8	825	20.8	2941848
Styrene	ppbv	<13	13	<55.4	55.4	2941848
4-ethyltoluene	ppbv	111	53	546	260	2941848
1,3,5-Trimethylbenzene	ppbv	108	12	532	59.0	2941848
1,2,4-Trimethylbenzene	ppbv	507	12	2490	59.0	2941848
Chlorobenzene	ppbv	<4.8	4.8	<22.1	22.1	2941848
Benzyl chloride	ppbv	<24	24	<124	124	2941848
1,3-Dichlorobenzene	ppbv	<9.6	9.6	<57.7	57.7	2941848
1,4-Dichlorobenzene	ppbv	13.5	9.6	80.9	57.7	2941848
1,2-Dichlorobenzene	ppbv	<9.6	9.6	<57.7	57.7	2941848
1,2,4-Trichlorobenzene	ppbv	<48	48	<356	356	2941848
Hexachlorobutadiene	ppbv	<72	72	<768	768	2941848
Hexane	ppbv	574	7.2	2020	25.4	2941848
Heptane	ppbv	685	7.2	2810	29.5	2941848
Cyclohexane	ppbv	169	4.8	581	16.5	2941848
Tetrahydrofuran	ppbv	<9.6	9.6	<28.3	28.3	2941848
1,4-Dioxane	ppbv	<48	48	<173	173	2941848
Xylene (Total)	ppbv	506	14	2200	62.5	2941848
Vinyl Bromide	ppbv	<4.8	4.8	<21.0	21.0	2941848
Propene	ppbv	797	7.2	1370	12.4	2941848
2,2,4-Trimethylpentane	ppbv	<4.8	4.8	<22.4	22.4	2941848
Carbon Disulfide	ppbv	<39	39	<121	121	2941848
Vinyl Acetate	ppbv	<4.8	4.8	<16.9	16.9	2941848
Surrogate Recovery (%)						
Bromochloromethane	%	82	N/A	N/A	N/A	2941848

N/A = Not Applicable
QC Batch = Quality Control Batch

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Maxxam Job #: B2B9009
Report Date: 2012/08/31

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		OK2111				
Sampling Date		2012/07/27 14:28				
COC Number		na				
	Units	**GLOBAL TANK #9-RUN1 / 7871**	**RDL**	**ug/m3**	**DL (ug/m3)**	**QC Batch**
D5-Chlorobenzene	%	78	N/A	N/A	N/A	2941848
Difluorobenzene	%	82	N/A	N/A	N/A	2941848

N/A = Not Applicable
QC Batch = Quality Control Batch

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Maxxam Job #: B2B9009
Report Date: 2012/08/31

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		OK2112				
Sampling Date		2012/07/29 09:20				
COC Number		na				
	Units	**GLOBAL TANK #9-RUN2 (VESSEL) / 7820**	**RDL**	**ug/m3**	**DL (ug/m3)**	**QC Batch**
Dichlorodifluoromethane (FREON 12)	ppbv	<21	21	<104	104	2941848
1,2-Dichlorotetrafluoroethane	ppbv	<18	18	<125	125	2941848
Chloromethane	ppbv	<32	32	<65.0	65.0	2941848
Vinyl Chloride	ppbv	<19	19	<48.3	48.3	2941848
Chloroethane	ppbv	<32	32	<83.1	83.1	2941848
1,3-Butadiene	ppbv	<53	53	<116	116	2941848
Trichlorofluoromethane (FREON 11)	ppbv	<21	21	<118	118	2941848
Ethanol (ethyl alcohol)	ppbv	1010	240	1900	455	2941848
Trichlorotrifluoroethane	ppbv	<16	16	<121	121	2941848
2-propanol	ppbv	543	320	1330	774	2941848
2-Propanone	ppbv	4030	84	9570	200	2941848
Methyl Ethyl Ketone (2-Butanone)	ppbv	<5200	5200	<15300	15300	2941848
Methyl Isobutyl Ketone	ppbv	<340	340	<1380	1380	2941848
Methyl Butyl Ketone (2-Hexanone)	ppbv	<210	210	<860	860	2941848
Methyl t-butyl ether (MTBE)	ppbv	<21	21	<75.7	75.7	2941848
Ethyl Acetate	ppbv	<230	230	<832	832	2941848
1,1-Dichloroethylene	ppbv	<26	26	<104	104	2941848
cis-1,2-Dichloroethylene	ppbv	<20	20	<79.1	79.1	2941848
trans-1,2-Dichloroethylene	ppbv	<21	21	<83.3	83.3	2941848
Methylene Chloride(Dichloromethane)	ppbv	<84	84	<292	292	2941848
Chloroform	ppbv	<16	16	<76.9	76.9	2941848
Carbon Tetrachloride	ppbv	<32	32	<198	198	2941848
1,1-Dichloroethane	ppbv	<21	21	<85.0	85.0	2941848
1,2-Dichloroethane	ppbv	<21	21	<85.0	85.0	2941848
Ethylene Dibromide	ppbv	<18	18	<137	137	2941848
1,1,1-Trichloroethane	ppbv	<32	32	<172	172	2941848
1,1,2-Trichloroethane	ppbv	<16	16	<85.9	85.9	2941848
1,1,2,2-Tetrachloroethane	ppbv	<21	21	<144	144	2941848
cis-1,3-Dichloropropene	ppbv	<19	19	<85.8	85.8	2941848
trans-1,3-Dichloropropene	ppbv	<18	18	<81.0	81.0	2941848
1,2-Dichloropropane	ppbv	<42	42	<194	194	2941848

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B2B9009
Report Date: 2012/08/31

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		OK2112				
Sampling Date		2012/07/29 09:20				
COC Number		na				
	Units	**GLOBAL TANK #9-RUN2 (VESSEL) / 7820**	**RDL**	**ug/m3**	**DL (ug/m3)**	**QC Batch**
Bromomethane	ppbv	<19	19	<73.4	73.4	2941848
Bromoform	ppbv	<21	21	<217	217	2941848
Bromodichloromethane	ppbv	<21	21	<141	141	2941848
Dibromochloromethane	ppbv	<21	21	<179	179	2941848
Trichloroethylene	ppbv	<32	32	<169	169	2941848
Tetrachloroethylene	ppbv	<21	21	<142	142	2941848
Benzene	ppbv	396	19	1260	60.4	2941848
Toluene	ppbv	1770	21	6650	79.0	2941848
Ethylbenzene	ppbv	1250	21	5420	91.2	2941848
p+m-Xylene	ppbv	2530	39	11000	169	2941848
o-Xylene	ppbv	1160	21	5030	91.2	2941848
Styrene	ppbv	<77	77	<328	328	2941848
4-ethyltoluene	ppbv	632	230	3110	1140	2941848
1,3,5-Trimethylbenzene	ppbv	578	53	2840	258	2941848
1,2,4-Trimethylbenzene	ppbv	2020	53	9910	258	2941848
Chlorobenzene	ppbv	<21	21	<96.7	96.7	2941848
Benzyl chloride	ppbv	<110	110	<544	544	2941848
1,3-Dichlorobenzene	ppbv	<42	42	<253	253	2941848
1,4-Dichlorobenzene	ppbv	<42	42	<253	253	2941848
1,2-Dichlorobenzene	ppbv	<42	42	<253	253	2941848
1,2,4-Trichlorobenzene	ppbv	<210	210	<1560	1560	2941848
Hexachlorobutadiene	ppbv	<320	320	<3360	3360	2941848
Hexane	ppbv	4680	32	16500	111	2941848
Heptane	ppbv	4480	32	18400	129	2941848
Cyclohexane	ppbv	1150	21	3950	72.3	2941848
Tetrahydrofuran	ppbv	<42	42	<124	124	2941848
1,4-Dioxane	ppbv	<210	210	<757	757	2941848
Xylene (Total)	ppbv	3690	63	16000	274	2941848
Vinyl Bromide	ppbv	<21	21	<91.9	91.9	2941848
Propene	ppbv	13700	32	23600	54.2	2941848
2,2,4-Trimethylpentane	ppbv	<21	21	<98.1	98.1	2941848
Carbon Disulfide	ppbv	285	53	888	163	2941848

QC Batch = Quality Control Batch

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Maxxam Job #: B2B9009
Report Date: 2012/08/31

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		OK2112				
Sampling Date		2012/07/29 09:20				
COC Number		na				
	Units	**GLOBAL TANK #9-RUN2 (VESSEL) / 7820**	**RDL**	**ug/m3**	**DL (ug/m3)**	**QC Batch**
Vinyl Acetate	ppbv	<21	21	<73.9	73.9	2941848
Surrogate Recovery (%)						
Bromochloromethane	%	83	N/A	N/A	N/A	2941848
D5-Chlorobenzene	%	78	N/A	N/A	N/A	2941848
Difluorobenzene	%	85	N/A	N/A	N/A	2941848

N/A = Not Applicable
QC Batch = Quality Control Batch

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Maxxam Job #: B2B9009
Report Date: 2012/08/31

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		OK2112				
Sampling Date		2012/07/29 09:20				
COC Number		na				
	Units	**GLOBAL TANK #9-RUN2 (VESSEL) / 7820 Lab-Dup**	**RDL**	**ug/m3**	**DL (ug/m3)**	**QC Batch**
Dichlorodifluoromethane (FREON 12)	ppbv	<21	21	<104	104	2941848
1,2-Dichlorotetrafluoroethane	ppbv	<18	18	<125	125	2941848
Chloromethane	ppbv	<32	32	<65.0	65.0	2941848
Vinyl Chloride	ppbv	<19	19	<48.3	48.3	2941848
Chloroethane	ppbv	<32	32	<83.1	83.1	2941848
1,3-Butadiene	ppbv	<53	53	<116	116	2941848
Trichlorofluoromethane (FREON 11)	ppbv	<21	21	<118	118	2941848
Ethanol (ethyl alcohol)	ppbv	1010	240	1900	455	2941848
Trichlorotrifluoroethane	ppbv	<16	16	<121	121	2941848
2-propanol	ppbv	541	320	1330	774	2941848
2-Propanone	ppbv	4030	84	9580	200	2941848
Methyl Ethyl Ketone (2-Butanone)	ppbv	<5200	5200	<15300	15300	2941848
Methyl Isobutyl Ketone	ppbv	<340	340	<1380	1380	2941848
Methyl Butyl Ketone (2-Hexanone)	ppbv	<210	210	<860	860	2941848
Methyl t-butyl ether (MTBE)	ppbv	<21	21	<75.7	75.7	2941848
Ethyl Acetate	ppbv	<230	230	<832	832	2941848
1,1-Dichloroethylene	ppbv	<26	26	<104	104	2941848
cis-1,2-Dichloroethylene	ppbv	<20	20	<79.1	79.1	2941848
trans-1,2-Dichloroethylene	ppbv	<21	21	<83.3	83.3	2941848
Methylene Chloride(Dichloromethane)	ppbv	<84	84	<292	292	2941848
Chloroform	ppbv	<16	16	<76.9	76.9	2941848
Carbon Tetrachloride	ppbv	<32	32	<198	198	2941848
1,1-Dichloroethane	ppbv	<21	21	<85.0	85.0	2941848
1,2-Dichloroethane	ppbv	<21	21	<85.0	85.0	2941848
Ethylene Dibromide	ppbv	<18	18	<137	137	2941848
1,1,1-Trichloroethane	ppbv	<32	32	<172	172	2941848
1,1,2-Trichloroethane	ppbv	<16	16	<85.9	85.9	2941848
1,1,2,2-Tetrachloroethane	ppbv	<21	21	<144	144	2941848
cis-1,3-Dichloropropene	ppbv	<19	19	<85.8	85.8	2941848
trans-1,3-Dichloropropene	ppbv	<18	18	<81.0	81.0	2941848
1,2-Dichloropropane	ppbv	<42	42	<194	194	2941848

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B2B9009
Report Date: 2012/08/31

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		OK2112				
Sampling Date		2012/07/29 09:20				
COC Number		na				
	Units	**GLOBAL TANK #9-RUN2 (VESSEL) / 7820 Lab-Dup**	**RDL**	**ug/m3**	**DL (ug/m3)**	**QC Batch**
Bromomethane	ppbv	<19	19	<73.4	73.4	2941848
Bromoform	ppbv	<21	21	<217	217	2941848
Bromodichloromethane	ppbv	<21	21	<141	141	2941848
Dibromochloromethane	ppbv	<21	21	<179	179	2941848
Trichloroethylene	ppbv	<32	32	<169	169	2941848
Tetrachloroethylene	ppbv	<21	21	<142	142	2941848
Benzene	ppbv	402	19	1280	60.4	2941848
Toluene	ppbv	1780	21	6700	79.0	2941848
Ethylbenzene	ppbv	1240	21	5380	91.2	2941848
p+m-Xylene	ppbv	2530	39	11000	169	2941848
o-Xylene	ppbv	1150	21	4990	91.2	2941848
Styrene	ppbv	<77	77	<328	328	2941848
4-ethyltoluene	ppbv	622	230	3060	1140	2941848
1,3,5-Trimethylbenzene	ppbv	573	53	2820	258	2941848
1,2,4-Trimethylbenzene	ppbv	1990	53	9760	258	2941848
Chlorobenzene	ppbv	<21	21	<96.7	96.7	2941848
Benzyl chloride	ppbv	<110	110	<544	544	2941848
1,3-Dichlorobenzene	ppbv	<42	42	<253	253	2941848
1,4-Dichlorobenzene	ppbv	<42	42	<253	253	2941848
1,2-Dichlorobenzene	ppbv	<42	42	<253	253	2941848
1,2,4-Trichlorobenzene	ppbv	<210	210	<1560	1560	2941848
Hexachlorobutadiene	ppbv	<320	320	<3360	3360	2941848
Hexane	ppbv	4700	32	16500	111	2941848
Heptane	ppbv	4530	32	18500	129	2941848
Cyclohexane	ppbv	1240	21	4260	72.3	2941848
Tetrahydrofuran	ppbv	<42	42	<124	124	2941848
1,4-Dioxane	ppbv	<210	210	<757	757	2941848
Xylene (Total)	ppbv	3680	63	16000	274	2941848
Vinyl Bromide	ppbv	<21	21	<91.9	91.9	2941848
Propene	ppbv	13800	32	23700	54.2	2941848
2,2,4-Trimethylpentane	ppbv	<21	21	<98.1	98.1	2941848

QC Batch = Quality Control Batch

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Maxxam Job #: B2B9009
Report Date: 2012/08/31

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		OK2112				
Sampling Date		2012/07/29 09:20				
COC Number		na				
	Units	**GLOBAL TANK #9-RUN2 (VESSEL) / 7820 Lab-Dup**	**RDL**	**ug/m3**	**DL (ug/m3)**	**QC Batch**
Carbon Disulfide	ppbv	290	53	903	163	2941848
Vinyl Acetate	ppbv	<21	21	<73.9	73.9	2941848
Surrogate Recovery (%)						
Bromochloromethane	%	83	N/A	N/A	N/A	2941848
D5-Chlorobenzene	%	79	N/A	N/A	N/A	2941848
Difluorobenzene	%	84	N/A	N/A	N/A	2941848

N/A = Not Applicable
QC Batch = Quality Control Batch

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Maxxam Job #: B2B9009
Report Date: 2012/08/31

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

Test Summary

Maxxam ID OK2111
Sample ID GLOBAL TANK #9-RUN1 / 7871
Matrix AIR

Collected 2012/07/27
Shipped
Received 2012/08/07

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2941721	N/A	2012/08/16	Yao Liang Sun
Volatile Organics in Air (TO-15)	GC/MS	2941848	N/A	2012/08/16	Yao Liang Sun

Maxxam ID OK2112
Sample ID GLOBAL TANK #9-RUN2 (VESSEL) / 7820
Matrix AIR

Collected 2012/07/29
Shipped
Received 2012/08/07

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2941721	N/A	2012/08/16	Yao Liang Sun
Volatile Organics in Air (TO-15)	GC/MS	2941848	N/A	2012/08/16	Yao Liang Sun

Maxxam ID OK2112 Dup
Sample ID GLOBAL TANK #9-RUN2 (VESSEL) / 7820
Matrix AIR

Collected 2012/07/29
Shipped
Received 2012/08/07

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Volatile Organics in Air (TO-15)	GC/MS	2941848	N/A	2012/08/16	Yao Liang Sun

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Maxxam Job #: B2B9009
Report Date: 2012/08/31

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

GENERAL COMMENTS

Sample OK2111-01: TO15
Canister received at -3.9 psig and was pressurized to 11.8 psig, for a 2.4X pressure dilution. A further dilution was prepared resulting in a 24X final dilution. The DL's were adjusted accordingly.

The result of propene included propane.

Increased DL for carbon disulfide and styrene due to possible background.

Sample OK2112-01: TO15
Canister received at -1.9 psig and was pressurized to 11.7 psig, for a 2.1X pressure dilution. A further dilution was prepared resulting in a 105X final dilution. The DL's were adjusted accordingly.

The result of propene included propane.

Increased DL for styrene due to possible background.

Increased DL for methyl ethyl ketone due to interference.

Results relate only to the items tested.

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Eastmount Environmental Services
Attention: Anthony Stratton
Client Project #: 12-009
P.O. #:
Site Location: GLOBAL - ASPHALT TANK #9

Quality Assurance Report

Maxxam Job Number: GB2B9009

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2941848 LSY	Spiked Blank	Bromochloromethane	2012/08/16		99	%	60 - 140
		D5-Chlorobenzene	2012/08/16		101	%	60 - 140
		Difluorobenzene	2012/08/16		102	%	60 - 140
		Dichlorodifluoromethane (FREON 12)	2012/08/16		78	%	70 - 130
		1,2-Dichlorotetrafluoroethane	2012/08/16		96	%	70 - 130
		Chloromethane	2012/08/16		83	%	70 - 130
		Vinyl Chloride	2012/08/16		84	%	70 - 130
		Chloroethane	2012/08/16		82	%	70 - 130
		1,3-Butadiene	2012/08/16		88	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2012/08/16		84	%	70 - 130
		Ethanol (ethyl alcohol)	2012/08/16		62 (1)	%	70 - 130
		Trichlorotrifluoroethane	2012/08/16		85	%	70 - 130
		2-propanol	2012/08/16		83	%	70 - 130
		2-Propanone	2012/08/16		85	%	70 - 130
		Methyl Ethyl Ketone (2-Butanone)	2012/08/16		81	%	70 - 130
		Methyl Isobutyl Ketone	2012/08/16		83	%	70 - 130
		Methyl Butyl Ketone (2-Hexanone)	2012/08/16		82	%	70 - 130
		Methyl t-butyl ether (MTBE)	2012/08/16		87	%	70 - 130
		Ethyl Acetate	2012/08/16		89	%	70 - 130
		1,1-Dichloroethylene	2012/08/16		85	%	70 - 130
		cis-1,2-Dichloroethylene	2012/08/16		86	%	70 - 130
		trans-1,2-Dichloroethylene	2012/08/16		88	%	70 - 130
		Methylene Chloride(Dichloromethane)	2012/08/16		77	%	70 - 130
		Chloroform	2012/08/16		85	%	70 - 130
		Carbon Tetrachloride	2012/08/16		84	%	70 - 130
		1,1-Dichloroethane	2012/08/16		84	%	70 - 130
		1,2-Dichloroethane	2012/08/16		85	%	70 - 130
		Ethylene Dibromide	2012/08/16		82	%	70 - 130
		1,1,1-Trichloroethane	2012/08/16		85	%	70 - 130
		1,1,2-Trichloroethane	2012/08/16		83	%	70 - 130
		1,1,2,2-Tetrachloroethane	2012/08/16		78	%	70 - 130
		cis-1,3-Dichloropropene	2012/08/16		83	%	70 - 130
		trans-1,3-Dichloropropene	2012/08/16		84	%	70 - 130
		1,2-Dichloropropane	2012/08/16		82	%	70 - 130
		Bromomethane	2012/08/16		84	%	70 - 130
		Bromoform	2012/08/16		90	%	70 - 130
		Bromodichloromethane	2012/08/16		89	%	70 - 130
		Dibromochloromethane	2012/08/16		88	%	70 - 130
		Trichloroethylene	2012/08/16		83	%	70 - 130
		Tetrachloroethylene	2012/08/16		84	%	70 - 130
		Benzene	2012/08/16		84	%	70 - 130
		Toluene	2012/08/16		83	%	70 - 130
		Ethylbenzene	2012/08/16		83	%	70 - 130
		p+m-Xylene	2012/08/16		81	%	70 - 130
		o-Xylene	2012/08/16		81	%	70 - 130
		Styrene	2012/08/16		67 (1)	%	70 - 130
		4-ethyltoluene	2012/08/16		83	%	70 - 130
		1,3,5-Trimethylbenzene	2012/08/16		76	%	70 - 130
		1,2,4-Trimethylbenzene	2012/08/16		74	%	70 - 130
		Chlorobenzene	2012/08/16		82	%	70 - 130
		Benzyl chloride	2012/08/16		75	%	70 - 130
		1,3-Dichlorobenzene	2012/08/16		73	%	70 - 130
		1,4-Dichlorobenzene	2012/08/16		72	%	70 - 130
		1,2-Dichlorobenzene	2012/08/16		70	%	70 - 130
		1,2,4-Trichlorobenzene	2012/08/16		74	%	70 - 130

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Eastmount Environmental Services
Attention: Anthony Stratton
Client Project #: 12-009
P.O. #:
Site Location: GLOBAL - ASPHALT TANK #9

Quality Assurance Report (Continued)

Maxxam Job Number: GB2B9009

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2941848 LSY	Spiked Blank	Hexachlorobutadiene	2012/08/16		74	%	70 - 130
		Hexane	2012/08/16		88	%	70 - 130
		Heptane	2012/08/16		86	%	70 - 130
		Cyclohexane	2012/08/16		87	%	70 - 130
		Tetrahydrofuran	2012/08/16		87	%	70 - 130
		1,4-Dioxane	2012/08/16		82	%	70 - 130
		Xylene (Total)	2012/08/16		81	%	70 - 130
		Vinyl Bromide	2012/08/16		92	%	70 - 130
		Propene	2012/08/16		83	%	70 - 130
		2,2,4-Trimethylpentane	2012/08/16		91	%	70 - 130
		Carbon Disulfide	2012/08/16		88	%	70 - 130
		Vinyl Acetate	2012/08/16		88	%	70 - 130
	Method Blank	Bromochloromethane	2012/08/16		83	%	60 - 140
		D5-Chlorobenzene	2012/08/16		82	%	60 - 140
		Difluorobenzene	2012/08/16		85	%	60 - 140
		Dichlorodifluoromethane (FREON 12)	2012/08/16	<0.20		ppbv	
		1,2-Dichlorotetrafluoroethane	2012/08/16	<0.17		ppbv	
		Chloromethane	2012/08/16	<0.30		ppbv	
		Vinyl Chloride	2012/08/16	<0.18		ppbv	
		Chloroethane	2012/08/16	<0.30		ppbv	
		1,3-Butadiene	2012/08/16	<0.50		ppbv	
		Trichlorofluoromethane (FREON 11)	2012/08/16	<0.20		ppbv	
		Ethanol (ethyl alcohol)	2012/08/16	<2.3		ppbv	
		Trichlorotrifluoroethane	2012/08/16	<0.15		ppbv	
		2-propanol	2012/08/16	<3.0		ppbv	
		2-Propanone	2012/08/16	<0.80		ppbv	
		Methyl Ethyl Ketone (2-Butanone)	2012/08/16	<3.0		ppbv	
		Methyl Isobutyl Ketone	2012/08/16	<3.2		ppbv	
		Methyl Butyl Ketone (2-Hexanone)	2012/08/16	<2.0		ppbv	
		Methyl t-butyl ether (MTBE)	2012/08/16	<0.20		ppbv	
		Ethyl Acetate	2012/08/16	<2.2		ppbv	
		1,1-Dichloroethylene	2012/08/16	<0.25		ppbv	
		cis-1,2-Dichloroethylene	2012/08/16	<0.19		ppbv	
		trans-1,2-Dichloroethylene	2012/08/16	<0.20		ppbv	
		Methylene Chloride(Dichloromethane)	2012/08/16	<0.80		ppbv	
		Chloroform	2012/08/16	<0.15		ppbv	
		Carbon Tetrachloride	2012/08/16	<0.30		ppbv	
		1,1-Dichloroethane	2012/08/16	<0.20		ppbv	
		1,2-Dichloroethane	2012/08/16	<0.20		ppbv	
		Ethylene Dibromide	2012/08/16	<0.17		ppbv	
		1,1,1-Trichloroethane	2012/08/16	<0.30		ppbv	
		1,1,2-Trichloroethane	2012/08/16	<0.15		ppbv	
		1,1,2,2-Tetrachloroethane	2012/08/16	<0.20		ppbv	
		cis-1,3-Dichloropropene	2012/08/16	<0.18		ppbv	
		trans-1,3-Dichloropropene	2012/08/16	<0.17		ppbv	
		1,2-Dichloropropane	2012/08/16	<0.40		ppbv	
		Bromomethane	2012/08/16	<0.18		ppbv	
		Bromoform	2012/08/16	<0.20		ppbv	
		Bromodichloromethane	2012/08/16	<0.20		ppbv	
		Dibromochloromethane	2012/08/16	<0.20		ppbv	
		Trichloroethylene	2012/08/16	<0.30		ppbv	
		Tetrachloroethylene	2012/08/16	<0.20		ppbv	
		Benzene	2012/08/16	<0.18		ppbv	
		Toluene	2012/08/16	<0.20		ppbv	
		Ethylbenzene	2012/08/16	<0.20		ppbv	

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Eastmount Environmental Services
Attention: Anthony Stratton
Client Project #: 12-009
P.O. #:
Site Location: GLOBAL - ASPHALT TANK #9

Quality Assurance Report (Continued)

Maxxam Job Number: GB2B9009

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2941848 LSY	Method Blank	p+m-Xylene	2012/08/16	<0.37		ppbv	
		o-Xylene	2012/08/16	<0.20		ppbv	
		Styrene	2012/08/16	<0.20		ppbv	
		4-ethyltoluene	2012/08/16	<2.2		ppbv	
		1,3,5-Trimethylbenzene	2012/08/16	<0.50		ppbv	
		1,2,4-Trimethylbenzene	2012/08/16	<0.50		ppbv	
		Chlorobenzene	2012/08/16	<0.20		ppbv	
		Benzyl chloride	2012/08/16	<1.0		ppbv	
		1,3-Dichlorobenzene	2012/08/16	<0.40		ppbv	
		1,4-Dichlorobenzene	2012/08/16	<0.40		ppbv	
		1,2-Dichlorobenzene	2012/08/16	<0.40		ppbv	
		1,2,4-Trichlorobenzene	2012/08/16	<2.0		ppbv	
		Hexachlorobutadiene	2012/08/16	<3.0		ppbv	
		Hexane	2012/08/16	<0.30		ppbv	
		Heptane	2012/08/16	<0.30		ppbv	
		Cyclohexane	2012/08/16	<0.20		ppbv	
		Tetrahydrofuran	2012/08/16	<0.40		ppbv	
		1,4-Dioxane	2012/08/16	<2.0		ppbv	
		Xylene (Total)	2012/08/16	<0.60		ppbv	
		Vinyl Bromide	2012/08/16	<0.20		ppbv	
		Propene	2012/08/16	<0.30		ppbv	
		2,2,4-Trimethylpentane	2012/08/16	<0.20		ppbv	
		Carbon Disulfide	2012/08/16	<0.50		ppbv	
		Vinyl Acetate	2012/08/16	<0.20		ppbv	
	RPD - Sample/Sample Dup	Dichlorodifluoromethane (FREON 12)	2012/08/16	NC		%	25
		1,2-Dichlorotetrafluoroethane	2012/08/16	NC		%	25
		Chloromethane	2012/08/16	NC		%	25
		Vinyl Chloride	2012/08/16	NC		%	25
		Chloroethane	2012/08/16	NC		%	25
		1,3-Butadiene	2012/08/16	NC		%	25
		Trichlorofluoromethane (FREON 11)	2012/08/16	NC		%	25
		Ethanol (ethyl alcohol)	2012/08/16	NC		%	25
		Trichlorotrifluoroethane	2012/08/16	NC		%	25
		2-propanol	2012/08/16	NC		%	25
		2-Propanone	2012/08/16	0.04		%	25
		Methyl Ethyl Ketone (2-Butanone)	2012/08/16	NC		%	25
		Methyl Isobutyl Ketone	2012/08/16	NC		%	25
		Methyl Butyl Ketone (2-Hexanone)	2012/08/16	NC		%	25
		Methyl t-butyl ether (MTBE)	2012/08/16	NC		%	25
		Ethyl Acetate	2012/08/16	NC		%	25
		1,1-Dichloroethylene	2012/08/16	NC		%	25
		cis-1,2-Dichloroethylene	2012/08/16	NC		%	25
		trans-1,2-Dichloroethylene	2012/08/16	NC		%	25
		Methylene Chloride(Dichloromethane)	2012/08/16	NC		%	25
		Chloroform	2012/08/16	NC		%	25
		Carbon Tetrachloride	2012/08/16	NC		%	25
		1,1-Dichloroethane	2012/08/16	NC		%	25
		1,2-Dichloroethane	2012/08/16	NC		%	25
		Ethylene Dibromide	2012/08/16	NC		%	25
		1,1,1-Trichloroethane	2012/08/16	NC		%	25
		1,1,2-Trichloroethane	2012/08/16	NC		%	25
		1,1,2,2-Tetrachloroethane	2012/08/16	NC		%	25
		cis-1,3-Dichloropropene	2012/08/16	NC		%	25

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Eastmount Environmental Services
Attention: Anthony Stratton
Client Project #: 12-009
P.O. #:
Site Location: GLOBAL - ASPHALT TANK #9

Quality Assurance Report (Continued)

Maxxam Job Number: GB2B9009

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2941848 LSY	RPD - Sample/Sample Dup	trans-1,3-Dichloropropene	2012/08/16	NC		%	25
		1,2-Dichloropropane	2012/08/16	NC		%	25
		Bromomethane	2012/08/16	NC		%	25
		Bromoform	2012/08/16	NC		%	25
		Bromodichloromethane	2012/08/16	NC		%	25
		Dibromochloromethane	2012/08/16	NC		%	25
		Trichloroethylene	2012/08/16	NC		%	25
		Tetrachloroethylene	2012/08/16	NC		%	25
		Benzene	2012/08/16	1.5		%	25
		Toluene	2012/08/16	0.7		%	25
		Ethylbenzene	2012/08/16	0.8		%	25
		p+m-Xylene	2012/08/16	0.2		%	25
		o-Xylene	2012/08/16	0.6		%	25
		Styrene	2012/08/16	NC		%	25
		4-ethyltoluene	2012/08/16	NC		%	25
		1,3,5-Trimethylbenzene	2012/08/16	0.9		%	25
		1,2,4-Trimethylbenzene	2012/08/16	1.5		%	25
		Chlorobenzene	2012/08/16	NC		%	25
		Benzyl chloride	2012/08/16	NC		%	25
		1,3-Dichlorobenzene	2012/08/16	NC		%	25
		1,4-Dichlorobenzene	2012/08/16	NC		%	25
		1,2-Dichlorobenzene	2012/08/16	NC		%	25
		1,2,4-Trichlorobenzene	2012/08/16	NC		%	25
		Hexachlorobutadiene	2012/08/16	NC		%	25
		Hexane	2012/08/16	0.4		%	25
		Heptane	2012/08/16	1.0		%	25
		Cyclohexane	2012/08/16	7.4		%	25
		Tetrahydrofuran	2012/08/16	NC		%	25
		1,4-Dioxane	2012/08/16	NC		%	25
		Xylene (Total)	2012/08/16	0.3		%	25
		Vinyl Bromide	2012/08/16	NC		%	25
		Propene	2012/08/16	0.3		%	25
		2,2,4-Trimethylpentane	2012/08/16	NC		%	25
		Carbon Disulfide	2012/08/16	1.7		%	25
		Vinyl Acetate	2012/08/16	NC		%	25

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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Volatile Organics Analysis Data Sheets
Tentatively Identified Compounds

SAMPLE#: Method Blank

Field ID#: Method Blank

Number of TICs found: 0

	CAS #	Compound Name	RT	Est. Conc. ppbv	Est. Conc. ug/m3	Match %
1.		No compounds found				

Maxxam Analytical

Volatile Organics Analysis Data Sheets
Tentatively Identified Compounds

SAMPLE#: OK2111

Field ID#: Global Tank #9 - Run 1 / 7871

Number of TICs found: 20

	CAS #	Compound Name	RT	Est. Conc. ppbv	Est. Conc. ug/m3	Match %
1.	000075-07-0	Acetaldehyde	6.183	980	1800	83
2.	000078-78-4	Butane, 2-methyl-	7.741	270	805	94
3.	000109-66-0	Pentane	8.334	610	1800	72
4.	000107-83-5	Pentane, 2-methyl-	10.252	480	1700	91
5.	000123-72-8	Butanal	11.068	320	930	91
6.	000592-27-8	Heptane, 2-methyl-	16.238	450	2100	95
7.	000111-65-9	Octane	17.224	550	2500	94
8.	003726-46-3	Unknown hydrocarbon C8H16 Mol. Wt. 112	18.601	240	1100	
9.	001193-22-2	Cyclohexane, 1,1,3-trimethyl	18.686	270	1400	97
10.	000111-84-2	Nonane	19.957	605	3200	95
11.		Unknown aromatic hydrocarbon C9H12 Mol. Wt. 120	21.918	290	1400	
12.	002847-72-5	Decane, 4-methyl-	23.136	320	2030	91
13.	000637-50-3	Benzene, 1-propenyl-	24.111	280	1300	90
14.		Unknown aromatic hydrocarbon C10H14 Mol. Wt. 134	24.302	290	1600	
15.		Unknown aromatic hydrocarbon C10H14 Mol. Wt. 134	24.799	310	1700	
16.		Unknown aromatic hydrocarbon C10H14 Mol. Wt. 134	24.884	270	1500	
17.	001120-21-4	Undecane	24.948	590	3700	97
18.		Unknown aromatic hydrocarbon C10H14 Mol. Wt. 134	25.022	370	2040	
19.		Unknown aromatic hydrocarbon C10H14 Mol. Wt. 134	25.859	305	1700	
20.		Unknown aromatic hydrocarbon C10H14 Mol. Wt. 134	26.611	360	1900	

Maxxam Analytical

Volatile Organics Analysis Data Sheets
Tentatively Identified Compounds

SAMPLE#: OK2112

Field ID#: Global Tank #9 - Run 2 (Vessel) / 7820

Number of TICs found: 23

	CAS #	Compound Name	RT	Est. Conc. ppbv	Est. Conc. ug/m3	Match %
1.	000075-28-5	Isobutane	5.929	2100	5000	86
2.	000115-11-7	1-Propene, 2-methyl-	6.247	3600	8300	87
3.	000078-78-4	Butane, 2-methyl-	7.741	2400	7200	94
4.	000109-67-1	1-Pentene	8.122	1300	3800	91
5.	000109-66-0	Pentane	8.334	6000	18000	90
6.	000109-68-2	2-Pentene	8.556	880	2500	91
7.		Unknown hydrocarbon C5H10 Mol. Wt. 70	8.895	1100	3200	
8.	000142-29-0	Cyclopentene	9.955	1300	3600	81
9.	000107-83-5	Pentane, 2-methyl-	10.252	4200	15000	86
10.	000096-14-0	Pentane, 3-methyl-	10.707	1500	5100	91
11.	013269-52-8	3-Hexene, (E)-	11.375	1100	3800	90
12.	000096-37-7	Cyclopentane, methyl-	12.233	1600	5600	94
13.	000589-34-4	Hexane, 3-methyl-	13.547	1300	5200	95
14.	000592-27-8	Heptane, 2-methyl-	16.238	3100	15000	97
15.	000589-81-1	Heptane, 3-methyl-	16.471	890	4200	83
16.		Unknown hydrocarbon C8H16 Mol. Wt.112	16.969	1000	4600	
17.	000111-65-9	Octane	17.224	3400	16000	94
18.	001678-91-7	Cyclohexane, ethyl-	18.59	930	4300	93
19.	000111-84-2	Nonane	19.957	2500	13000	95
20.	014676-29-0	Heptane, 3-ethyl-2-methyl-	21.07	1400	7900	91
21.	000620-14-4	Unknown aromatic hydrocarbon C9H12 Mol. Wt. 120	21.918	1100	5300	
22.	002847-72-5	Decane, 4-methyl-	23.136	1000	6500	91
23.	001120-21-4	Undecane	24.948	1800	11000	97

Maxxam Analytical

Volatile Organics Analysis Data Sheets
Tentatively Identified Compounds

SAMPLE#: OK2112 Duplicate

Field ID#: Global Tank #9 - Run 2 (Vessel) / 7820

Number of TICs found: 24

	CAS #	Compound Name	RT	Est. Conc. ppbv	Est. Conc. ug/m3	Match %
1.	000075-28-5	Isobutane	5.929	2050	4900	86
2.	000115-11-7	1-Propene, 2-methyl-	6.247	3600	8100	81
3.	000078-78-4	Butane, 2-methyl-	7.741	2400	7010	94
4.	000109-67-1	1-Pentene	8.122	1300	3800	91
5.	000109-66-0	Pentane	8.334	5800	17000	90
6.		Unknown hydrocarbon C5H10 Mol. Wt. 70	8.556	1040	2900	
7.		Unknown hydrocarbon C5H10 Mol. Wt. 70	8.895	1080	3090	
8.	000142-29-0	Cyclopentene	9.955	1300	3500	81
9.	000107-83-5	Pentane, 2-methyl-	10.252	3800	13000	86
10.	000096-14-0	Pentane, 3-methyl-	10.707	1400	5000	91
11.	000592-41-6	1-Hexene	10.93	1300	4600	76
12.	013269-52-8	3-Hexene, (E)-	11.375	1200	4000	90
13.	000096-37-7	Cyclopentane, methyl-	12.233	1600	5500	94
14.	000589-34-4	Hexane, 3-methyl-	13.547	1300	5200	94
15.	000592-27-8	Heptane, 2-methyl-	16.238	3200	15000	97
16.	000589-81-1	Heptane, 3-methyl-	16.471	900	4200	83
17.		Unknown hydrocarbon C8H16 Mol. Wt.112	16.969	990	4500	
18.	000111-65-9	Octane	17.224	3400	16000	94
19.	001678-91-7	Cyclohexane, ethyl-	18.59	950	4400	93
20.	000111-84-2	Nonane	19.957	2500	13000	95
21.	014676-29-0	Heptane, 3-ethyl-2-methyl-	21.07	1300	7800	91
22.		Unknown aromatic hydrocarbon C9H12 Mol. Wt. 120	21.917	1200	5600	
23.	002847-72-5	Decane, 4-methyl-	23.136	1000	6400	91
24.	001120-21-4	Undecane	24.948	1800	11000	97

Maxxam Analytical

Volatile Organics Analysis Data Sheets
Tentatively Identified Compounds

SAMPLE#: Method Blank

Field ID#: Method Blank

Number of TICs found: 0

	CAS #	Compound Name	RT	Est. Conc. ppbv	Est. Conc. ug/m3	Match %
1.		No compounds found				

Maxxam Analytical

Volatile Organics Analysis Data Sheets
Tentatively Identified Compounds

SAMPLE#: OK2111

Field ID#: Global Tank #9 - Run 1 / 7871

Number of TICs found: 20

	CAS #	Compound Name	RT	Est. Conc. ppbv	Est. Conc. ug/m3	Match %
1.	000075-07-0	Acetaldehyde	6.183	980	1800	83
2.	000078-78-4	Butane, 2-methyl-	7.741	270	805	94
3.	000109-66-0	Pentane	8.334	610	1800	72
4.	000107-83-5	Pentane, 2-methyl-	10.252	480	1700	91
5.	000123-72-8	Butanal	11.068	320	930	91
6.	000592-27-8	Heptane, 2-methyl-	16.238	450	2100	95
7.	000111-65-9	Octane	17.224	550	2500	94
8.	003726-46-3	Unknown hydrocarbon C8H16 Mol. Wt. 112	18.601	240	1100	
9.	001193-22-2	Cyclohexane, 1,1,3-trimethyl	18.686	270	1400	97
10.	000111-84-2	Nonane	19.957	605	3200	95
11.		Unknown aromatic hydrocarbon C9H12 Mol. Wt. 120	21.918	290	1400	
12.	002847-72-5	Decane, 4-methyl-	23.136	320	2030	91
13.	000637-50-3	Benzene, 1-propenyl-	24.111	280	1300	90
14.		Unknown aromatic hydrocarbon C10H14 Mol. Wt. 134	24.302	290	1600	
15.		Unknown aromatic hydrocarbon C10H14 Mol. Wt. 134	24.799	310	1700	
16.		Unknown aromatic hydrocarbon C10H14 Mol. Wt. 134	24.884	270	1500	
17.	001120-21-4	Undecane	24.948	590	3700	97
18.		Unknown aromatic hydrocarbon C10H14 Mol. Wt. 134	25.022	370	2040	
19.		Unknown aromatic hydrocarbon C10H14 Mol. Wt. 134	25.859	305	1700	
20.		Unknown aromatic hydrocarbon C10H14 Mol. Wt. 134	26.611	360	1900	

Maxxam Analytical

Volatile Organics Analysis Data Sheets
Tentatively Identified Compounds

SAMPLE#: OK2112

Field ID#: Global Tank #9 - Run 2 (Vessel) / 7820

Number of TICs found: 23

	CAS #	Compound Name	RT	Est. Conc. ppbv	Est. Conc. ug/m3	Match %
1.	000075-28-5	Isobutane	5.929	2100	5000	86
2.	000115-11-7	1-Propene, 2-methyl-	6.247	3600	8300	87
3.	000078-78-4	Butane, 2-methyl-	7.741	2400	7200	94
4.	000109-67-1	1-Pentene	8.122	1300	3800	91
5.	000109-66-0	Pentane	8.334	6000	18000	90
6.	000109-68-2	2-Pentene	8.556	880	2500	91
7.		Unknown hydrocarbon C5H10 Mol. Wt. 70	8.895	1100	3200	
8.	000142-29-0	Cyclopentene	9.955	1300	3600	81
9.	000107-83-5	Pentane, 2-methyl-	10.252	4200	15000	86
10.	000096-14-0	Pentane, 3-methyl-	10.707	1500	5100	91
11.	013269-52-8	3-Hexene, (E)-	11.375	1100	3800	90
12.	000096-37-7	Cyclopentane, methyl-	12.233	1600	5600	94
13.	000589-34-4	Hexane, 3-methyl-	13.547	1300	5200	95
14.	000592-27-8	Heptane, 2-methyl-	16.238	3100	15000	97
15.	000589-81-1	Heptane, 3-methyl-	16.471	890	4200	83
16.		Unknown hydrocarbon C8H16 Mol. Wt.112	16.969	1000	4600	
17.	000111-65-9	Octane	17.224	3400	16000	94
18.	001678-91-7	Cyclohexane, ethyl-	18.59	930	4300	93
19.	000111-84-2	Nonane	19.957	2500	13000	95
20.	014676-29-0	Heptane, 3-ethyl-2-methyl-	21.07	1400	7900	91
21.	000620-14-4	Unknown aromatic hydrocarbon C9H12 Mol. Wt. 120	21.918	1100	5300	
22.	002847-72-5	Decane, 4-methyl-	23.136	1000	6500	91
23.	001120-21-4	Undecane	24.948	1800	11000	97

Maxxam Analytical

Volatile Organics Analysis Data Sheets
Tentatively Identified Compounds

SAMPLE#: OK2112 Duplicate

Field ID#: Global Tank #9 - Run 2 (Vessel) / 7820

Number of TICs found: 24

	CAS #	Compound Name	RT	Est. Conc. ppbv	Est. Conc. ug/m3	Match %
1.	000075-28-5	Isobutane	5.929	2050	4900	86
2.	000115-11-7	1-Propene, 2-methyl-	6.247	3600	8100	81
3.	000078-78-4	Butane, 2-methyl-	7.741	2400	7010	94
4.	000109-67-1	1-Pentene	8.122	1300	3800	91
5.	000109-66-0	Pentane	8.334	5800	17000	90
6.		Unknown hydrocarbon C5H10 Mol. Wt. 70	8.556	1040	2900	
7.		Unknown hydrocarbon C5H10 Mol. Wt. 70	8.895	1080	3090	
8.	000142-29-0	Cyclopentene	9.955	1300	3500	81
9.	000107-83-5	Pentane, 2-methyl-	10.252	3800	13000	86
10.	000096-14-0	Pentane, 3-methyl-	10.707	1400	5000	91
11.	000592-41-6	1-Hexene	10.93	1300	4600	76
12.	013269-52-8	3-Hexene, (E)-	11.375	1200	4000	90
13.	000096-37-7	Cyclopentane, methyl-	12.233	1600	5500	94
14.	000589-34-4	Hexane, 3-methyl-	13.547	1300	5200	94
15.	000592-27-8	Heptane, 2-methyl-	16.238	3200	15000	97
16.	000589-81-1	Heptane, 3-methyl-	16.471	900	4200	83
17.		Unknown hydrocarbon C8H16 Mol. Wt.112	16.969	990	4500	
18.	000111-65-9	Octane	17.224	3400	16000	94
19.	001678-91-7	Cyclohexane, ethyl-	18.59	950	4400	93
20.	000111-84-2	Nonane	19.957	2500	13000	95
21.	014676-29-0	Heptane, 3-ethyl-2-methyl-	21.07	1300	7800	91
22.		Unknown aromatic hydrocarbon C9H12 Mol. Wt. 120	21.917	1200	5600	
23.	002847-72-5	Decane, 4-methyl-	23.136	1000	6400	91
24.	001120-21-4	Undecane	24.948	1800	11000	97

Maxxam Analytical

D8. VOC HAP Analytical Report – Runs 3, 4 and 5

Maxxam

Success Through Science®

Your Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9
Your C.O.C. #: na

Attention: Anthony Stratton
Eastmount Environmental Services
2 New Pasture Road
Unit 5
Newburyport, MA
USA 1950

Report Date: 2012/09/24

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2D7620
Received: 2012/09/07, 12:25

Sample Matrix: AIR
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure (TO-15)	3	N/A	2012/09/12	BRL SOP-00304	EPA TO-15
VOC Open Char. in Air (TO-15)	3	N/A	2012/09/19	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) (1)	1	N/A	2012/09/12	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) (1)	2	N/A	2012/09/20	BRL SOP-00304	EPA TO-15

(1) Air sampling canisters have been cleaned in accordance with U.S. EPA Method TO14A. At the end of the cleaning, evacuation, and pressurization cycles, one canister was selected and was pressurized with Zero Air. This canister was then analyzed via TO14A on a GC/MS. The canister must have been found to contain <0.2 ppbv concentration of all target analytes in order for the batch to have been considered clean. Each canister also underwent a leak check prior to shipment.

Please Note: SUMMA® canister samples will be retained by Maxxam for a period of 5 calendar days from the date of this report, after which time they will be cleaned for reuse. If you require a longer sample storage period, please contact your service representative.

Encryption Key

Mike Challis
24 Sep 2012 15:50:42 -04:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Mike Challis, CET, B.Sc, C.Chem, Customer Service Manager, US Air Toxics
Email: MChallis@maxxam.ca
Phone# (905) 817-5790

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Job #: B2D7620
Report Date: 2012/09/24

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

RESULTS OF ANALYSES OF AIR

Maxxam ID		OT5467	OT5468	OT5469	
Sampling Date		2012/08/08 11:15	2012/08/10 18:10	2012/08/16 17:25	
COC Number		na	na	na	
	Units	**GLOBAL TANK #9 - RUN 3 / 322**	**GLOBAL TANK #9 - RUN 4 / 2811**	**GLOBAL TANK #9 - RUN 5 / T21644**	**QC Batch**
Pressure on Receipt	psig	(-2)	(-1.6)	(-1)	2976665

QC Batch = Quality Control Batch

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Maxxam Job #: B2D7620
Report Date: 2012/09/24

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		OT5467	OT5468	OT5469	
Sampling Date		2012/08/08 11:15	2012/08/10 18:10	2012/08/16 17:25	
COC Number		na	na	na	
	Units	**GLOBAL TANK #9 - RUN 3 / 322**	**GLOBAL TANK #9 - RUN 4 / 2811**	**GLOBAL TANK #9 - RUN 5 / T21644**	**QC Batch**
Characterisation by MS	ppbv	0	0	0	2976667

QC Batch = Quality Control Batch

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Maxxam Job #: B2D7620
Report Date: 2012/09/24

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		OT5467				
Sampling Date		2012/08/08 11:15				
COC Number		na				
	Units	GLOBAL TANK #9 - RUN 3 / 322	RDL	ug/m3	DL (ug/m3)	QC Batch
Dichlorodifluoromethane (FREON 12)	ppbv	<8.4	8.4	<41.5	41.5	2976664
1,2-Dichlorotetrafluoroethane	ppbv	<7.1	7.1	<49.9	49.9	2976664
Chloromethane	ppbv	<13	13	<26.0	26.0	2976664
Vinyl Chloride	ppbv	<7.6	7.6	<19.3	19.3	2976664
Chloroethane	ppbv	<13	13	<33.2	33.2	2976664
1,3-Butadiene	ppbv	<21	21	<46.5	46.5	2976664
Trichlorofluoromethane (FREON 11)	ppbv	15.2	8.4	85.3	47.2	2976664
Ethanol (ethyl alcohol)	ppbv	<860	860	<1620	1620	2976664
Trichlorotrifluoroethane	ppbv	<6.3	6.3	<48.3	48.3	2976664
2-propanol	ppbv	<130	130	<310	310	2976664
2-Propanone	ppbv	2220	34	5270	79.8	2976664
Methyl Ethyl Ketone (2-Butanone)	ppbv	<130	130	<372	372	2976664
Methyl Isobutyl Ketone	ppbv	<130	130	<551	551	2976664
Methyl Butyl Ketone (2-Hexanone)	ppbv	<84	84	<344	344	2976664
Methyl t-butyl ether (MTBE)	ppbv	<8.4	8.4	<30.3	30.3	2976664
Ethyl Acetate	ppbv	<92	92	<333	333	2976664
1,1-Dichloroethylene	ppbv	<11	11	<41.6	41.6	2976664
cis-1,2-Dichloroethylene	ppbv	<8.0	8.0	<31.6	31.6	2976664
trans-1,2-Dichloroethylene	ppbv	<8.4	8.4	<33.3	33.3	2976664
Methylene Chloride(Dichloromethane)	ppbv	<34	34	<117	117	2976664
Chloroform	ppbv	<6.3	6.3	<30.8	30.8	2976664
Carbon Tetrachloride	ppbv	<13	13	<79.3	79.3	2976664
1,1-Dichloroethane	ppbv	<8.4	8.4	<34.0	34.0	2976664
1,2-Dichloroethane	ppbv	<8.4	8.4	<34.0	34.0	2976664
Ethylene Dibromide	ppbv	<7.1	7.1	<54.9	54.9	2976664
1,1,1-Trichloroethane	ppbv	<13	13	<68.7	68.7	2976664
1,1,2-Trichloroethane	ppbv	<6.3	6.3	<34.4	34.4	2976664
1,1,2,2-Tetrachloroethane	ppbv	<8.4	8.4	<57.7	57.7	2976664
cis-1,3-Dichloropropene	ppbv	<7.6	7.6	<34.3	34.3	2976664
trans-1,3-Dichloropropene	ppbv	<7.1	7.1	<32.4	32.4	2976664
1,2-Dichloropropane	ppbv	<17	17	<77.6	77.6	2976664
Bromomethane	ppbv	<7.6	7.6	<29.4	29.4	2976664

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B2D7620
Report Date: 2012/09/24

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		OT5467				
Sampling Date		2012/08/08 11:15				
COC Number		na				
	Units	**GLOBAL TANK #9 - RUN 3 / 322**	**RDL**	**ug/m3**	**DL (ug/m3)**	**QC Batch**
Bromoform	ppbv	<8.4	8.4	<86.8	86.8	2976664
Bromodichloromethane	ppbv	<8.4	8.4	<56.3	56.3	2976664
Dibromochloromethane	ppbv	<8.4	8.4	<71.6	71.6	2976664
Trichloroethylene	ppbv	<13	13	<67.7	67.7	2976664
Tetrachloroethylene	ppbv	<8.4	8.4	<57.0	57.0	2976664
Benzene	ppbv	207	7.6	660	24.2	2976664
Toluene	ppbv	1060	8.4	3980	31.6	2976664
Ethylbenzene	ppbv	876	8.4	3800	36.5	2976664
p+m-Xylene	ppbv	1700	16	7390	67.5	2976664
o-Xylene	ppbv	814	8.4	3540	36.5	2976664
Styrene	ppbv	<40	40	<170	170	2976664
4-ethyltoluene	ppbv	514	92	2530	454	2976664
1,3,5-Trimethylbenzene	ppbv	465	21	2290	103	2976664
1,2,4-Trimethylbenzene	ppbv	1770	21	8680	103	2976664
Chlorobenzene	ppbv	<8.4	8.4	<38.7	38.7	2976664
Benzyl chloride	ppbv	<42	42	<217	217	2976664
1,3-Dichlorobenzene	ppbv	<17	17	<101	101	2976664
1,4-Dichlorobenzene	ppbv	<17	17	<101	101	2976664
1,2-Dichlorobenzene	ppbv	<17	17	<101	101	2976664
1,2,4-Trichlorobenzene	ppbv	<84	84	<623	623	2976664
Hexachlorobutadiene	ppbv	<130	130	<1340	1340	2976664
Hexane	ppbv	2370	13	8350	44.4	2976664
Heptane	ppbv	2430	13	9950	51.6	2976664
Cyclohexane	ppbv	568	8.4	1960	28.9	2976664
Tetrahydrofuran	ppbv	<17	17	<49.5	49.5	2976664
1,4-Dioxane	ppbv	<84	84	<303	303	2976664
Xylene (Total)	ppbv	2520	25	10900	109	2976664
Vinyl Bromide	ppbv	<8.4	8.4	<36.7	36.7	2976664
Propene	ppbv	<6100	6100	<10600	10600	2976664
2,2,4-Trimethylpentane	ppbv	<8.4	8.4	<39.2	39.2	2976664
Carbon Disulfide	ppbv	<120	120	<374	374	2976664
Vinyl Acetate	ppbv	<8.4	8.4	<29.6	29.6	2976664
Surrogate Recovery (%)						
Bromochloromethane	%	81	N/A	N/A	N/A	2976664

N/A = Not Applicable
QC Batch = Quality Control Batch

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Maxxam Job #: B2D7620
Report Date: 2012/09/24

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		OT5467				
Sampling Date		2012/08/08 11:15				
COC Number		na				
	Units	**GLOBAL TANK #9 - RUN 3 / 322**	**RDL**	**ug/m3**	**DL (ug/m3)**	**QC Batch**
D5-Chlorobenzene	%	79	N/A	N/A	N/A	2976664
Difluorobenzene	%	85	N/A	N/A	N/A	2976664

N/A = Not Applicable
QC Batch = Quality Control Batch

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Maxxam Job #: B2D7620
Report Date: 2012/09/24

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		OT5468				
Sampling Date		2012/08/10 18:10				
COC Number		na				
	Units	**GLOBAL TANK #9 - RUN 4 / 2811**	**RDL**	**ug/m3**	**DL (ug/m3)**	**QC Batch**
Dichlorodifluoromethane (FREON 12)	ppbv	<8.4	8.4	<41.5	41.5	2976664
1,2-Dichlorotetrafluoroethane	ppbv	<7.1	7.1	<49.9	49.9	2976664
Chloromethane	ppbv	<13	13	<26.0	26.0	2976664
Vinyl Chloride	ppbv	<7.6	7.6	<19.3	19.3	2976664
Chloroethane	ppbv	<13	13	<33.2	33.2	2976664
1,3-Butadiene	ppbv	<21	21	<46.5	46.5	2976664
Trichlorofluoromethane (FREON 11)	ppbv	<8.4	8.4	<47.2	47.2	2976664
Ethanol (ethyl alcohol)	ppbv	<930	930	<1750	1750	2976664
Trichlorotrifluoroethane	ppbv	<6.3	6.3	<48.3	48.3	2976664
2-propanol	ppbv	<130	130	<310	310	2976664
2-Propanone	ppbv	2010	34	4780	79.8	2976664
Methyl Ethyl Ketone (2-Butanone)	ppbv	<130	130	<372	372	2976664
Methyl Isobutyl Ketone	ppbv	<130	130	<551	551	2976664
Methyl Butyl Ketone (2-Hexanone)	ppbv	<84	84	<344	344	2976664
Methyl t-butyl ether (MTBE)	ppbv	<8.4	8.4	<30.3	30.3	2976664
Ethyl Acetate	ppbv	<92	92	<333	333	2976664
1,1-Dichloroethylene	ppbv	<11	11	<41.6	41.6	2976664
cis-1,2-Dichloroethylene	ppbv	<8.0	8.0	<31.6	31.6	2976664
trans-1,2-Dichloroethylene	ppbv	<8.4	8.4	<33.3	33.3	2976664
Methylene Chloride(Dichloromethane)	ppbv	<34	34	<117	117	2976664
Chloroform	ppbv	<6.3	6.3	<30.8	30.8	2976664
Carbon Tetrachloride	ppbv	<13	13	<79.3	79.3	2976664
1,1-Dichloroethane	ppbv	<8.4	8.4	<34.0	34.0	2976664
1,2-Dichloroethane	ppbv	<8.4	8.4	<34.0	34.0	2976664
Ethylene Dibromide	ppbv	<7.1	7.1	<54.9	54.9	2976664
1,1,1-Trichloroethane	ppbv	<13	13	<68.7	68.7	2976664
1,1,2-Trichloroethane	ppbv	<6.3	6.3	<34.4	34.4	2976664
1,1,2,2-Tetrachloroethane	ppbv	<8.4	8.4	<57.7	57.7	2976664
cis-1,3-Dichloropropene	ppbv	<7.6	7.6	<34.3	34.3	2976664
trans-1,3-Dichloropropene	ppbv	<7.1	7.1	<32.4	32.4	2976664
1,2-Dichloropropane	ppbv	<17	17	<77.6	77.6	2976664

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B2D7620
Report Date: 2012/09/24

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		OT5468				
Sampling Date		2012/08/10 18:10				
COC Number		na				
	Units	**GLOBAL TANK #9 - RUN 4 / 2811**	**RDL**	**ug/m3**	**DL (ug/m3)**	**QC Batch**
Bromomethane	ppbv	<7.6	7.6	<29.4	29.4	2976664
Bromoform	ppbv	<8.4	8.4	<86.8	86.8	2976664
Bromodichloromethane	ppbv	<8.4	8.4	<56.3	56.3	2976664
Dibromochloromethane	ppbv	<8.4	8.4	<71.6	71.6	2976664
Trichloroethylene	ppbv	<13	13	<67.7	67.7	2976664
Tetrachloroethylene	ppbv	<8.4	8.4	<57.0	57.0	2976664
Benzene	ppbv	193	7.6	617	24.2	2976664
Toluene	ppbv	994	8.4	3740	31.6	2976664
Ethylbenzene	ppbv	899	8.4	3900	36.5	2976664
p+m-Xylene	ppbv	1700	16	7380	67.5	2976664
o-Xylene	ppbv	811	8.4	3520	36.5	2976664
Styrene	ppbv	<42	42	<179	179	2976664
4-ethyltoluene	ppbv	503	92	2470	454	2976664
1,3,5-Trimethylbenzene	ppbv	451	21	2210	103	2976664
1,2,4-Trimethylbenzene	ppbv	1710	21	8430	103	2976664
Chlorobenzene	ppbv	<8.4	8.4	<38.7	38.7	2976664
Benzyl chloride	ppbv	<42	42	<217	217	2976664
1,3-Dichlorobenzene	ppbv	<17	17	<101	101	2976664
1,4-Dichlorobenzene	ppbv	<17	17	<101	101	2976664
1,2-Dichlorobenzene	ppbv	<17	17	<101	101	2976664
1,2,4-Trichlorobenzene	ppbv	<84	84	<623	623	2976664
Hexachlorobutadiene	ppbv	<130	130	<1340	1340	2976664
Hexane	ppbv	2310	13	8150	44.4	2976664
Heptane	ppbv	2220	13	9100	51.6	2976664
Cyclohexane	ppbv	530	8.4	1820	28.9	2976664
Tetrahydrofuran	ppbv	<17	17	<49.5	49.5	2976664
1,4-Dioxane	ppbv	<84	84	<303	303	2976664
Xylene (Total)	ppbv	2510	25	10900	109	2976664
Vinyl Bromide	ppbv	<8.4	8.4	<36.7	36.7	2976664
Propene	ppbv	<5600	5600	<9600	9600	2976664
2,2,4-Trimethylpentane	ppbv	<8.4	8.4	<39.2	39.2	2976664
Carbon Disulfide	ppbv	<180	180	<561	561	2976664

QC Batch = Quality Control Batch

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Maxxam Job #: B2D7620
Report Date: 2012/09/24

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		OT5468				
Sampling Date		2012/08/10 18:10				
COC Number		na				
	Units	**GLOBAL TANK #9 - RUN 4 / 2811**	**RDL**	**ug/m3**	**DL (ug/m3)**	**QC Batch**
Vinyl Acetate	ppbv	<8.4	8.4	<29.6	29.6	2976664
Surrogate Recovery (%)						
Bromochloromethane	%	100	N/A	N/A	N/A	2976664
D5-Chlorobenzene	%	93	N/A	N/A	N/A	2976664
Difluorobenzene	%	107	N/A	N/A	N/A	2976664

N/A = Not Applicable
QC Batch = Quality Control Batch

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Maxxam Job #: B2D7620
Report Date: 2012/09/24

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		OT5469				
Sampling Date		2012/08/16 17:25				
COC Number		na				
	Units	**GLOBAL TANK #9 - RUN 5 / T21644**	**RDL**	**ug/m3**	**DL (ug/m3)**	**QC Batch**
Dichlorodifluoromethane (FREON 12)	ppbv	<8.4	8.4	<41.5	41.5	2976664
1,2-Dichlorotetrafluoroethane	ppbv	<7.1	7.1	<49.9	49.9	2976664
Chloromethane	ppbv	<13	13	<26.0	26.0	2976664
Vinyl Chloride	ppbv	<7.6	7.6	<19.3	19.3	2976664
Chloroethane	ppbv	<13	13	<33.2	33.2	2976664
1,3-Butadiene	ppbv	<21	21	<46.5	46.5	2976664
Trichlorofluoromethane (FREON 11)	ppbv	10.0	8.4	56.1	47.2	2976664
Ethanol (ethyl alcohol)	ppbv	<990	990	<1870	1870	2976664
Trichlorotrifluoroethane	ppbv	<6.3	6.3	<48.3	48.3	2976664
2-propanol	ppbv	<130	130	<310	310	2976664
2-Propanone	ppbv	1930	34	4580	79.8	2976664
Methyl Ethyl Ketone (2-Butanone)	ppbv	<130	130	<372	372	2976664
Methyl Isobutyl Ketone	ppbv	<130	130	<551	551	2976664
Methyl Butyl Ketone (2-Hexanone)	ppbv	<84	84	<344	344	2976664
Methyl t-butyl ether (MTBE)	ppbv	<8.4	8.4	<30.3	30.3	2976664
Ethyl Acetate	ppbv	<92	92	<333	333	2976664
1,1-Dichloroethylene	ppbv	<11	11	<41.6	41.6	2976664
cis-1,2-Dichloroethylene	ppbv	<8.0	8.0	<31.6	31.6	2976664
trans-1,2-Dichloroethylene	ppbv	<8.4	8.4	<33.3	33.3	2976664
Methylene Chloride(Dichloromethane)	ppbv	<34	34	<117	117	2976664
Chloroform	ppbv	<6.3	6.3	<30.8	30.8	2976664
Carbon Tetrachloride	ppbv	<13	13	<79.3	79.3	2976664
1,1-Dichloroethane	ppbv	<8.4	8.4	<34.0	34.0	2976664
1,2-Dichloroethane	ppbv	<8.4	8.4	<34.0	34.0	2976664
Ethylene Dibromide	ppbv	<7.1	7.1	<54.9	54.9	2976664
1,1,1-Trichloroethane	ppbv	<13	13	<68.7	68.7	2976664
1,1,2-Trichloroethane	ppbv	<6.3	6.3	<34.4	34.4	2976664
1,1,2,2-Tetrachloroethane	ppbv	<8.4	8.4	<57.7	57.7	2976664
cis-1,3-Dichloropropene	ppbv	<7.6	7.6	<34.3	34.3	2976664
trans-1,3-Dichloropropene	ppbv	<7.1	7.1	<32.4	32.4	2976664
1,2-Dichloropropane	ppbv	<17	17	<77.6	77.6	2976664

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B2D7620
Report Date: 2012/09/24

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		OT5469				
Sampling Date		2012/08/16 17:25				
COC Number		na				
	Units	**GLOBAL TANK #9 - RUN 5 / T21644**	**RDL**	**ug/m3**	**DL (ug/m3)**	**QC Batch**
Bromomethane	ppbv	<7.6	7.6	<29.4	29.4	2976664
Bromoform	ppbv	<8.4	8.4	<86.8	86.8	2976664
Bromodichloromethane	ppbv	<8.4	8.4	<56.3	56.3	2976664
Dibromochloromethane	ppbv	<8.4	8.4	<71.6	71.6	2976664
Trichloroethylene	ppbv	<13	13	<67.7	67.7	2976664
Tetrachloroethylene	ppbv	<8.4	8.4	<57.0	57.0	2976664
Benzene	ppbv	176	7.6	564	24.2	2976664
Toluene	ppbv	925	8.4	3480	31.6	2976664
Ethylbenzene	ppbv	817	8.4	3550	36.5	2976664
p+m-Xylene	ppbv	1530	16	6650	67.5	2976664
o-Xylene	ppbv	729	8.4	3170	36.5	2976664
Styrene	ppbv	<40	40	<170	170	2976664
4-ethyltoluene	ppbv	460	92	2260	454	2976664
1,3,5-Trimethylbenzene	ppbv	419	21	2060	103	2976664
1,2,4-Trimethylbenzene	ppbv	1560	21	7650	103	2976664
Chlorobenzene	ppbv	<8.4	8.4	<38.7	38.7	2976664
Benzyl chloride	ppbv	<42	42	<217	217	2976664
1,3-Dichlorobenzene	ppbv	<17	17	<101	101	2976664
1,4-Dichlorobenzene	ppbv	<17	17	<101	101	2976664
1,2-Dichlorobenzene	ppbv	<17	17	<101	101	2976664
1,2,4-Trichlorobenzene	ppbv	<84	84	<623	623	2976664
Hexachlorobutadiene	ppbv	<130	130	<1340	1340	2976664
Hexane	ppbv	2070	13	7280	44.4	2976664
Heptane	ppbv	1990	13	8150	51.6	2976664
Cyclohexane	ppbv	484	8.4	1670	28.9	2976664
Tetrahydrofuran	ppbv	<17	17	<49.5	49.5	2976664
1,4-Dioxane	ppbv	<84	84	<303	303	2976664
Xylene (Total)	ppbv	2260	25	9820	109	2976664
Vinyl Bromide	ppbv	<8.4	8.4	<36.7	36.7	2976664
Propene	ppbv	<4700	4700	<8170	8170	2976664
2,2,4-Trimethylpentane	ppbv	<8.4	8.4	<39.2	39.2	2976664
Carbon Disulfide	ppbv	<130	130	<405	405	2976664

QC Batch = Quality Control Batch

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Maxxam Job #: B2D7620
Report Date: 2012/09/24

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		OT5469				
Sampling Date		2012/08/16 17:25				
COC Number		na				
	Units	**GLOBAL TANK #9 - RUN 5 / T21644**	**RDL**	**ug/m3**	**DL (ug/m3)**	**QC Batch**
Vinyl Acetate	ppbv	<8.4	8.4	<29.6	29.6	2976664
Surrogate Recovery (%)						
Bromochloromethane	%	108	N/A	N/A	N/A	2976664
D5-Chlorobenzene	%	100	N/A	N/A	N/A	2976664
Difluorobenzene	%	114	N/A	N/A	N/A	2976664

N/A = Not Applicable
QC Batch = Quality Control Batch

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Maxxam Job #: B2D7620
Report Date: 2012/09/24

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

Test Summary

Maxxam ID OT5467
Sample ID GLOBAL TANK #9 - RUN 3 / 322
Matrix AIR

Collected 2012/08/08
Shipped
Received 2012/09/07

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2976665	N/A	2012/09/12	Melanie Mabini
VOC Open Char. in Air (TO-15)	GC/MS	2976667	N/A	2012/09/19	Melanie Mabini
Volatile Organics in Air (TO-15)	GC/MS	2976664	N/A	2012/09/12	Melanie Mabini

Maxxam ID OT5468
Sample ID GLOBAL TANK #9 - RUN 4 / 2811
Matrix AIR

Collected 2012/08/10
Shipped
Received 2012/09/07

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2976665	N/A	2012/09/12	Melanie Mabini
VOC Open Char. in Air (TO-15)	GC/MS	2976667	N/A	2012/09/19	Melanie Mabini
Volatile Organics in Air (TO-15)	GC/MS	2976664	N/A	2012/09/20	Melanie Mabini

Maxxam ID OT5469
Sample ID GLOBAL TANK #9 - RUN 5 / T21644
Matrix AIR

Collected 2012/08/16
Shipped
Received 2012/09/07

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2976665	N/A	2012/09/12	Melanie Mabini
VOC Open Char. in Air (TO-15)	GC/MS	2976667	N/A	2012/09/19	Melanie Mabini
Volatile Organics in Air (TO-15)	GC/MS	2976664	N/A	2012/09/20	Melanie Mabini

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Maxxam Job #: B2D7620
Report Date: 2012/09/24

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

GENERAL COMMENTS

All samples were analyzed after the 30 day hold time.

Sample OT5467-01: Canister received at -2psig and was pressurized to 12.4psig, for a 2.1x pressure dilution.
A 20x dilution was prepared, resulting in a 42x final dilution. The DLs were adjusted accordingly.

Increase MDL for propene due to matrix interference on a possible positive.

Increased DL for ethanol, carbon disulfide and Styrene due to possible background.

Sample OT5468-01: Canister received at -1.6psig and was pressurized to 12.7psig, for a 2.1x pressure dilution.
A 20x dilution was prepared, resulting in a 42x final dilution. The DLs were adjusted accordingly.

Increase MDL for propene due to matrix interference on a possible positive.

Increased DL for ethanol, carbon disulfide and Styrene due to possible background.

Sample OT5469-01: Canister received at -1sig and was pressurized to 13.6psig, for a 2.1x pressure dilution.
A 20x dilution was prepared, resulting in a 42x final dilution. The DLs were adjusted accordingly.

Increase MDL for propene due to matrix interference on a possible positive.

Increased DL for ethanol, carbon disulfide and Styrene due to possible background.

Results relate only to the items tested.

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Eastmount Environmental Services
Attention: Anthony Stratton
Client Project #: 12-009
P.O. #:
Site Location: GLOBAL - ASPHALT TANK #9

Quality Assurance Report

Maxxam Job Number: GB2D7620

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2976664 MM2	Spiked Blank	Bromochloromethane	2012/09/20		98	%	60 - 140
		D5-Chlorobenzene	2012/09/20		100	%	60 - 140
		Difluorobenzene	2012/09/20		101	%	60 - 140
		Dichlorodifluoromethane (FREON 12)	2012/09/20		117	%	70 - 130
		1,2-Dichlorotetrafluoroethane	2012/09/20		136 (1)	%	70 - 130
		Chloromethane	2012/09/20		119	%	70 - 130
		Vinyl Chloride	2012/09/20		117	%	70 - 130
		Chloroethane	2012/09/20		123	%	70 - 130
		1,3-Butadiene	2012/09/20		120	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2012/09/20		117	%	70 - 130
		Ethanol (ethyl alcohol)	2012/09/20		99	%	70 - 130
		Trichlorotrifluoroethane	2012/09/20		112	%	70 - 130
		2-propanol	2012/09/20		116	%	70 - 130
		2-Propanone	2012/09/20		108	%	70 - 130
		Methyl Ethyl Ketone (2-Butanone)	2012/09/20		104	%	70 - 130
		Methyl Isobutyl Ketone	2012/09/20		121	%	70 - 130
		Methyl Butyl Ketone (2-Hexanone)	2012/09/20		124	%	70 - 130
		Methyl t-butyl ether (MTBE)	2012/09/20		111	%	70 - 130
		Ethyl Acetate	2012/09/20		118	%	70 - 130
		1,1-Dichloroethylene	2012/09/20		114	%	70 - 130
		cis-1,2-Dichloroethylene	2012/09/20		111	%	70 - 130
		trans-1,2-Dichloroethylene	2012/09/20		114	%	70 - 130
		Methylene Chloride(Dichloromethane)	2012/09/20		104	%	70 - 130
		Chloroform	2012/09/20		111	%	70 - 130
		Carbon Tetrachloride	2012/09/20		120	%	70 - 130
		1,1-Dichloroethane	2012/09/20		112	%	70 - 130
		1,2-Dichloroethane	2012/09/20		118	%	70 - 130
		Ethylene Dibromide	2012/09/20		109	%	70 - 130
		1,1,1-Trichloroethane	2012/09/20		117	%	70 - 130
		1,1,2-Trichloroethane	2012/09/20		108	%	70 - 130
		1,1,2,2-Tetrachloroethane	2012/09/20		112	%	70 - 130
		cis-1,3-Dichloropropene	2012/09/20		109	%	70 - 130
		trans-1,3-Dichloropropene	2012/09/20		114	%	70 - 130
		1,2-Dichloropropane	2012/09/20		109	%	70 - 130
		Bromomethane	2012/09/20		120	%	70 - 130
		Bromoform	2012/09/20		134 (1)	%	70 - 130
		Bromodichloromethane	2012/09/20		124	%	70 - 130
		Dibromochloromethane	2012/09/20		126	%	70 - 130
		Trichloroethylene	2012/09/20		108	%	70 - 130
		Tetrachloroethylene	2012/09/20		112	%	70 - 130
		Benzene	2012/09/20		107	%	70 - 130
		Toluene	2012/09/20		107	%	70 - 130
		Ethylbenzene	2012/09/20		110	%	70 - 130
		p+m-Xylene	2012/09/20		106	%	70 - 130
		o-Xylene	2012/09/20		109	%	70 - 130
		Styrene	2012/09/20		90	%	70 - 130
		4-ethyltoluene	2012/09/20		123	%	70 - 130
		1,3,5-Trimethylbenzene	2012/09/20		110	%	70 - 130
		1,2,4-Trimethylbenzene	2012/09/20		108	%	70 - 130
		Chlorobenzene	2012/09/20		106	%	70 - 130
		Benzyl chloride	2012/09/20		114	%	70 - 130
		1,3-Dichlorobenzene	2012/09/20		106	%	70 - 130
		1,4-Dichlorobenzene	2012/09/20		106	%	70 - 130
		1,2-Dichlorobenzene	2012/09/20		106	%	70 - 130
		1,2,4-Trichlorobenzene	2012/09/20		90	%	70 - 130

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Eastmount Environmental Services
Attention: Anthony Stratton
Client Project #: 12-009
P.O. #:
Site Location: GLOBAL - ASPHALT TANK #9

Quality Assurance Report (Continued)

Maxxam Job Number: GB2D7620

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2976664 MM2	Spiked Blank	Hexachlorobutadiene	2012/09/20		112	%	70 - 130
		Hexane	2012/09/20		112	%	70 - 130
		Heptane	2012/09/20		112	%	70 - 130
		Cyclohexane	2012/09/20		110	%	70 - 130
		Tetrahydrofuran	2012/09/20		110	%	70 - 130
		1,4-Dioxane	2012/09/20		109	%	70 - 130
		Vinyl Bromide	2012/09/20		126	%	70 - 130
		Propene	2012/09/20		95	%	70 - 130
		2,2,4-Trimethylpentane	2012/09/20		114	%	70 - 130
		Carbon Disulfide	2012/09/20		104	%	70 - 130
		Vinyl Acetate	2012/09/20		118	%	70 - 130
	Method Blank	Bromochloromethane	2012/09/20		84	%	60 - 140
		D5-Chlorobenzene	2012/09/20		82	%	60 - 140
		Difluorobenzene	2012/09/20		88	%	60 - 140
		Dichlorodifluoromethane (FREON 12)	2012/09/20	<0.20		ppbv	
		1,2-Dichlorotetrafluoroethane	2012/09/20	<0.17		ppbv	
		Chloromethane	2012/09/20	<0.30		ppbv	
		Vinyl Chloride	2012/09/20	<0.18		ppbv	
		Chloroethane	2012/09/20	<0.30		ppbv	
		1,3-Butadiene	2012/09/20	<0.50		ppbv	
		Trichlorofluoromethane (FREON 11)	2012/09/20	<0.20		ppbv	
		Ethanol (ethyl alcohol)	2012/09/20	<2.3		ppbv	
		Trichlorotrifluoroethane	2012/09/20	<0.15		ppbv	
		2-propanol	2012/09/20	<3.0		ppbv	
		2-Propanone	2012/09/20	<0.80		ppbv	
		Methyl Ethyl Ketone (2-Butanone)	2012/09/20	<3.0		ppbv	
		Methyl Isobutyl Ketone	2012/09/20	<3.2		ppbv	
		Methyl Butyl Ketone (2-Hexanone)	2012/09/20	<2.0		ppbv	
		Methyl t-butyl ether (MTBE)	2012/09/20	<0.20		ppbv	
		Ethyl Acetate	2012/09/20	<2.2		ppbv	
		1,1-Dichloroethylene	2012/09/20	<0.25		ppbv	
		cis-1,2-Dichloroethylene	2012/09/20	<0.19		ppbv	
		trans-1,2-Dichloroethylene	2012/09/20	<0.20		ppbv	
		Methylene Chloride(Dichloromethane)	2012/09/20	<0.80		ppbv	
		Chloroform	2012/09/20	<0.15		ppbv	
		Carbon Tetrachloride	2012/09/20	<0.30		ppbv	
		1,1-Dichloroethane	2012/09/20	<0.20		ppbv	
		1,2-Dichloroethane	2012/09/20	<0.20		ppbv	
		Ethylene Dibromide	2012/09/20	<0.17		ppbv	
		1,1,1-Trichloroethane	2012/09/20	<0.30		ppbv	
		1,1,2-Trichloroethane	2012/09/20	<0.15		ppbv	
		1,1,2,2-Tetrachloroethane	2012/09/20	<0.20		ppbv	
		cis-1,3-Dichloropropene	2012/09/20	<0.18		ppbv	
		trans-1,3-Dichloropropene	2012/09/20	<0.17		ppbv	
		1,2-Dichloropropane	2012/09/20	<0.40		ppbv	
		Bromomethane	2012/09/20	<0.18		ppbv	
		Bromoform	2012/09/20	<0.20		ppbv	
		Bromodichloromethane	2012/09/20	<0.20		ppbv	
		Dibromochloromethane	2012/09/20	<0.20		ppbv	
		Trichloroethylene	2012/09/20	<0.30		ppbv	
		Tetrachloroethylene	2012/09/20	<0.20		ppbv	
		Benzene	2012/09/20	<0.18		ppbv	
		Toluene	2012/09/20	<0.20		ppbv	
		Ethylbenzene	2012/09/20	<0.20		ppbv	
		p+m-Xylene	2012/09/20	<0.37		ppbv	

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Eastmount Environmental Services
Attention: Anthony Stratton
Client Project #: 12-009
P.O. #:
Site Location: GLOBAL - ASPHALT TANK #9

Quality Assurance Report (Continued)

Maxxam Job Number: GB2D7620

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2976664 MM2	Method Blank	o-Xylene	2012/09/20	<0.20		ppbv	
		Styrene	2012/09/20	<0.20		ppbv	
		4-ethyltoluene	2012/09/20	<2.2		ppbv	
		1,3,5-Trimethylbenzene	2012/09/20	<0.50		ppbv	
		1,2,4-Trimethylbenzene	2012/09/20	<0.50		ppbv	
		Chlorobenzene	2012/09/20	<0.20		ppbv	
		Benzyl chloride	2012/09/20	<1.0		ppbv	
		1,3-Dichlorobenzene	2012/09/20	<0.40		ppbv	
		1,4-Dichlorobenzene	2012/09/20	<0.40		ppbv	
		1,2-Dichlorobenzene	2012/09/20	<0.40		ppbv	
		1,2,4-Trichlorobenzene	2012/09/20	<2.0		ppbv	
		Hexachlorobutadiene	2012/09/20	<3.0		ppbv	
		Hexane	2012/09/20	<0.30		ppbv	
		Heptane	2012/09/20	<0.30		ppbv	
		Cyclohexane	2012/09/20	<0.20		ppbv	
		Tetrahydrofuran	2012/09/20	<0.40		ppbv	
		1,4-Dioxane	2012/09/20	<2.0		ppbv	
		Xylene (Total)	2012/09/20	<0.60		ppbv	
		Vinyl Bromide	2012/09/20	<0.20		ppbv	
		Propene	2012/09/20	<0.30		ppbv	
		2,2,4-Trimethylpentane	2012/09/20	<0.20		ppbv	
		Carbon Disulfide	2012/09/20	<0.50		ppbv	
		Vinyl Acetate	2012/09/20	<0.20		ppbv	
2976667 MM2	Method Blank	Characterisation by MS	2012/09/19	0		ppbv	

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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Volatile Organics Analysis Data Sheets
Tentatively Identified Compounds

SAMPLE#: Method Blank

Field ID#: Method Blank

Number of TICs found: 0

	CAS #	Compound Name	RT	Est. Conc. ppbv	Est. Conc. ug/m3	Match %
1.		No compounds found				

Maxxam Analytical

Volatile Organics Analysis Data Sheets
Tentatively Identified Compounds

SAMPLE#: OT5467

Field ID#: Global Tank #9 - Run 3 / 322

Number of TICs found: 20

	CAS #	Compound Name	RT	Est. Conc. ppbv	Est. Conc. ug/m3	Match %
1.	007783-06-4	Hydrogen sulfide	4.78	2600	3600	78
2.	000075-28-5	Isobutane	5.49	1200	2800	80
3.	000075-07-0	Acetaldehyde	5.77	1400	2500	59
4.	000078-78-4	Butane, 2-methyl-	7.45	1400	4100	90
5.	001191-96-4	Cyclopropane, ethyl-	7.89	700	2000	90
6.		Unknown hydrocarbon C5H10 Mol. Wt. 70	8.06	770	2200	
7.	000109-66-0	Pentane	8.12	3200	9400	86
8.	000185-94-4	Bicyclo[2.1.0]pentane	9.89	650	1800	87
9.	000079-29-8	Butane, 2,3-dimethyl-	10.22	1800	6300	59
10.	000096-14-0	Pentane, 3-methyl-	10.72	740	2600	91
11.	000592-41-6	1-Hexene	10.97	710	2400	83
12.	000096-37-7	Cyclopentane, methyl-	12.34	830	2900	91
13.	000589-34-4	Hexane, 3-methyl-	13.74	770	3100	95
14.	000592-27-8	Heptane, 2-methyl-	16.51	1700	7900	90
15.	000111-65-9	Octane	17.52	1800	8300	87
16.	000111-84-2	Nonane	20.26	1900	9900	93
17.		Unknown aromatic hydrocarbon C9H12 Mol. Wt. 120	22.17	770	3800	
18.		Unknown hydrocarbon C11H24 Mol. Wt. 156	23.41	790	5040	
19.	013151-34-3	Decane, 3-methyl-	24.63	700	4500	93
20.	001120-21-4	Undecane	25.27	2100	13000	94

Volatile Organics Analysis Data Sheets
Tentatively Identified Compounds

SAMPLE#: OT5468

Field ID#: Global Tank #9 - Run 4 / 2811

Number of TICs found: 20

	CAS #	Compound Name	RT	Est. Conc. ppbv	Est. Conc. ug/m3	Match %
1.	000075-28-5	Isobutane	5.49	1200	2800	86
2.	000115-11-7	1-Propene, 2-methyl-	5.83	2400	5500	81
3.	000078-78-4	Butane, 2-methyl-	7.46	1300	3800	90
4.	001191-96-4	Cyclopropane, ethyl-	7.88	680	1900	87
5.	930-18-7/2402-06-4	cis or trans 1,2-dimethylcyclopropane	8.05	760	2200	72
6.	000109-66-0	Pentane	8.12	3200	9400	86
7.		Unknown hydrocarbon C5H8 Mol. Wt. 68	9.90	650	1800	
8.		Unknown hydrocarbon C6H14 Mol. Wt. 86	10.22	1800	5000	
9.	000096-14-0	Pentane, 3-methyl-	10.71	740	2600	91
10.	000592-41-6	1-Hexene	10.97	710	2400	83
11.	000096-37-7	Cyclopentane, methyl-	12.33	830	2900	91
12.	000589-34-4	Hexane, 3-methyl-	13.74	740	3000	95
13.	000592-27-8	Heptane, 2-methyl-	16.51	1600	7500	90
14.	000111-65-9	Octane	17.51	1800	8400	87
15.	000111-84-2	Nonane	20.27	1900	9900	81
16.	052896-87-4	Unknown hydrocarbon C10H22 Mol. Wt. 142	21.37	580	3400	
17.		Unknown aromatic hydrocarbon C9H12 Mol. Wt. 120	22.17	790	3900	
18.	002847-72-5	Decane, 4-methyl-	23.42	730	4700	94
19.	013151-34-3	Decane, 3-methyl-	25.28	610	3900	94
20.	001120-21-4	Undecane	25.28	1900	12000	94

Volatile Organics Analysis Data Sheets
Tentatively Identified Compounds

SAMPLE#: OT5469

Field ID#: Global Tank #9 - Run 5 / T21644

Number of TICs found: 24

	CAS #	Compound Name	RT	Est. Conc. ppbv	Est. Conc. ug/m3	Match %
1.	000075-28-5	Isobutane	5.49	1030	2400	86
2.	000115-11-7	1-Propene, 2-methyl-	5.83	2100	4800	76
3.	000078-78-4	Butane, 2-methyl-	7.45	1200	3500	94
4.	001191-96-4	Cyclopropane, ethyl-	7.88	610	1700	86
5.	000109-66-0	Pentane	8.12	2900	8500	86
6.		Unknown hydrocarbon C5H8 Mol. Wt. 68	9.90	600	1700	
7.	000107-83-5	Pentane, 2-methyl-	10.22	1600	5600	78
8.	000096-14-0	Pentane, 3-methyl-	10.71	680	2400	74
9.	000592-76-7	1-Heptene	10.97	650	2600	78
10.	000096-37-7	Cyclopentane, methyl-	12.33	760	2600	91
11.	000589-34-4	Hexane, 3-methyl-	13.74	670	2700	95
12.		Unknown hydrocarbon C7H14 Mol. Wt. 98	14.23	520	2100	
13.	000592-27-8	Heptane, 2-methyl-	16.51	1500	7000	90
14.	000111-65-9	Octane	17.51	1700	7900	87
15.		Nonane	20.27	1800	9400	81
16.		Unknown aromatic hydrocarbon C9H12 Mol. Wt. 120	22.17	880	4300	
17.		Unknown aromatic hydrocarbon C9H12 Mol. Wt. 120	22.71	570	2800	
18.	002847-72-5	Decane, 4-methyl-	23.42	690	4400	94
19.	013151-34-3	Decane, 3-methyl-	24.62	560	3600	76
20.	001120-21-4	Undecane	25.28	1700	11000	95

D9. VOC HAP Analytical Report – Run 6

Maxxam

Success Through Science®

Your Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9
Your C.O.C. #: NA

Attention: Anthony Stratton

Eastmount Environmental Services
2 New Pasture Road
Unit 5
Newburyport, MA
USA 1950

Report Date: 2012/10/16

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2E8736
Received: 2012/09/26, 11:25

Sample Matrix: AIR
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure (TO-15)	1	N/A	2012/10/12	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) (1)	1	N/A	2012/10/12	BRL SOP-00304	EPA TO-15

(1) Air sampling canisters have been cleaned in accordance with U.S. EPA Method TO14A. At the end of the cleaning, evacuation, and pressurization cycles, one canister was selected and was pressurized with Zero Air. This canister was then analyzed via TO14A on a GC/MS. The canister must have been found to contain <0.2 ppbv concentration of all target analytes in order for the batch to have been considered clean. Each canister also underwent a leak check prior to shipment.

Please Note: SUMMA® canister samples will be retained by Maxxam for a period of 5 calendar days from the date of this report, after which time they will be cleaned for reuse. If you require a longer sample storage period, please contact your service representative.

Encryption Key

Mike Challis
16 Oct 2012 14:31:17 -04:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Mike Challis, CET, B.Sc, C.Chem, Customer Service Manager, US Air Toxics
Email: MChallis@maxxam.ca
Phone# (905) 817-5790

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

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Maxxam Job #: B2E8736
Report Date: 2012/10/16

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

RESULTS OF ANALYSES OF AIR

Maxxam ID		OZ1154	
Sampling Date		2012/09/20 11:50	
COC Number		NA	
	Units	**GLOBAL TANK #9-RUN 6 /TRUCKS / 2832**	**QC Batch**
Pressure on Receipt	psig	(-1.1)	3000917

QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B2E8736
Report Date: 2012/10/16

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		OZ1154				
Sampling Date		2012/09/20 11:50				
COC Number		NA				
	Units	**GLOBAL TANK #9-RUN 6 /TRUCKS / 2832**	**RDL**	**ug/m3**	**DL (ug/m3)**	**QC Batch**
Dichlorodifluoromethane (FREON 12)	ppbv	4.5	3.2	22.0	15.8	3001698
1,2-Dichlorotetrafluoroethane	ppbv	<2.7	2.7	<19.0	19.0	3001698
Chloromethane	ppbv	<4.8	4.8	<9.91	9.91	3001698
Vinyl Chloride	ppbv	<2.9	2.9	<7.36	7.36	3001698
Chloroethane	ppbv	<4.8	4.8	<12.7	12.7	3001698
1,3-Butadiene	ppbv	<41	41	<90.7	90.7	3001698
Trichlorofluoromethane (FREON 11)	ppbv	<3.2	3.2	<18.0	18.0	3001698
Ethanol (ethyl alcohol)	ppbv	734	37	1380	69.3	3001698
Trichlorotrifluoroethane	ppbv	<2.4	2.4	<18.4	18.4	3001698
2-propanol	ppbv	371	48	912	118	3001698
2-Propanone	ppbv	3740	64	8880	152	3001698
Methyl Ethyl Ketone (2-Butanone)	ppbv	4110	48	12100	142	3001698
Methyl Isobutyl Ketone	ppbv	58	51	238	210	3001698
Methyl Butyl Ketone (2-Hexanone)	ppbv	167	32	685	131	3001698
Methyl t-butyl ether (MTBE)	ppbv	<3.2	3.2	<11.5	11.5	3001698
Ethyl Acetate	ppbv	<35	35	<127	127	3001698
1,1-Dichloroethylene	ppbv	<4.0	4.0	<15.9	15.9	3001698
cis-1,2-Dichloroethylene	ppbv	<3.0	3.0	<12.1	12.1	3001698
trans-1,2-Dichloroethylene	ppbv	<3.2	3.2	<12.7	12.7	3001698
Methylene Chloride(Dichloromethane)	ppbv	<13	13	<44.5	44.5	3001698
Chloroform	ppbv	<2.4	2.4	<11.7	11.7	3001698
Carbon Tetrachloride	ppbv	<4.8	4.8	<30.2	30.2	3001698
1,1-Dichloroethane	ppbv	<3.2	3.2	<13.0	13.0	3001698
1,2-Dichloroethane	ppbv	<3.2	3.2	<13.0	13.0	3001698
Ethylene Dibromide	ppbv	<2.7	2.7	<20.9	20.9	3001698
1,1,1-Trichloroethane	ppbv	<4.8	4.8	<26.2	26.2	3001698
1,1,2-Trichloroethane	ppbv	<2.4	2.4	<13.1	13.1	3001698
1,1,2,2-Tetrachloroethane	ppbv	<3.2	3.2	<22.0	22.0	3001698
cis-1,3-Dichloropropene	ppbv	<2.9	2.9	<13.1	13.1	3001698
trans-1,3-Dichloropropene	ppbv	<2.7	2.7	<12.3	12.3	3001698
1,2-Dichloropropane	ppbv	<6.4	6.4	<29.6	29.6	3001698

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B2E8736
Report Date: 2012/10/16

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		OZ1154				
Sampling Date		2012/09/20 11:50				
COC Number		NA				
	Units	**GLOBAL TANK #9-RUN 6 /TRUCKS / 2832**	**RDL**	**ug/m3**	**DL (ug/m3)**	**QC Batch**
Bromomethane	ppbv	<2.9	2.9	<11.2	11.2	3001698
Bromoform	ppbv	<3.2	3.2	<33.1	33.1	3001698
Bromodichloromethane	ppbv	<3.2	3.2	<21.4	21.4	3001698
Dibromochloromethane	ppbv	<3.2	3.2	<27.3	27.3	3001698
Trichloroethylene	ppbv	<4.8	4.8	<25.8	25.8	3001698
Tetrachloroethylene	ppbv	<3.2	3.2	<21.7	21.7	3001698
Benzene	ppbv	200	2.9	640	9.20	3001698
Toluene	ppbv	824	3.2	3100	12.0	3001698
Ethylbenzene	ppbv	598	3.2	2600	13.9	3001698
p+m-Xylene	ppbv	1090	5.9	4720	25.7	3001698
o-Xylene	ppbv	552	3.2	2400	13.9	3001698
Styrene	ppbv	<17	17	<72.4	72.4	3001698
4-ethyltoluene	ppbv	290	35	1420	173	3001698
1,3,5-Trimethylbenzene	ppbv	256	8.0	1260	39.3	3001698
1,2,4-Trimethylbenzene	ppbv	910	8.0	4470	39.3	3001698
Chlorobenzene	ppbv	<3.2	3.2	<14.7	14.7	3001698
Benzyl chloride	ppbv	<16	16	<82.8	82.8	3001698
1,3-Dichlorobenzene	ppbv	<6.4	6.4	<38.5	38.5	3001698
1,4-Dichlorobenzene	ppbv	<6.4	6.4	<38.5	38.5	3001698
1,2-Dichlorobenzene	ppbv	<6.4	6.4	<38.5	38.5	3001698
1,2,4-Trichlorobenzene	ppbv	<32	32	<237	237	3001698
Hexachlorobutadiene	ppbv	<48	48	<512	512	3001698
Hexane	ppbv	3410	24	12000	84.6	3001698
Heptane	ppbv	3040	24	12500	98.4	3001698
Cyclohexane	ppbv	755	3.2	2600	11.0	3001698
Tetrahydrofuran	ppbv	<6.4	6.4	<18.9	18.9	3001698
1,4-Dioxane	ppbv	439	32	1580	115	3001698
Xylene (Total)	ppbv	1640	9.6	7120	41.7	3001698
Vinyl Bromide	ppbv	<3.2	3.2	<14.0	14.0	3001698
Propene	ppbv	8690	24	15000	41.3	3001698
2,2,4-Trimethylpentane	ppbv	<3.2	3.2	<15.0	15.0	3001698
Carbon Disulfide	ppbv	<55	55	<171	171	3001698

QC Batch = Quality Control Batch

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Maxxam Job #: B2E8736
Report Date: 2012/10/16

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		OZ1154				
Sampling Date		2012/09/20 11:50				
COC Number		NA				
	Units	**GLOBAL TANK #9-RUN 6 /TRUCKS / 2832**	**RDL**	**ug/m3**	**DL (ug/m3)**	**QC Batch**
Vinyl Acetate	ppbv	<3.2	3.2	<11.3	11.3	3001698
Surrogate Recovery (%)						
Bromochloromethane	%	87	N/A	N/A	N/A	3001698
D5-Chlorobenzene	%	93	N/A	N/A	N/A	3001698
Difluorobenzene	%	90	N/A	N/A	N/A	3001698

N/A = Not Applicable
QC Batch = Quality Control Batch

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Maxxam Job #: B2E8736
Report Date: 2012/10/16

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

Test Summary

Maxxam ID OZ1154
Sample ID GLOBAL TANK #9-RUN 6 /TRUCKS / 2832
Matrix AIR

Collected 2012/09/20
Shipped
Received 2012/09/26

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	3000917	N/A	2012/10/12	Yao Liang Sun
Volatile Organics in Air (TO-15)	GC/MS	3001698	N/A	2012/10/12	Yao Liang Sun

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Maxxam Job #: B2E8736
Report Date: 2012/10/16

Eastmount Environmental Services
Client Project #: 12-009
Site Location: GLOBAL - ASPHALT TANK #9

GENERAL COMMENTS

Sample OZ1154-01: TO15
A 16X dilution was analyzed. Propene, acetone, hexane and heptane were analyzed at a 80X dilution. The DL's were adjusted accordingly.

The result of propene included propane.

Increased DL for carbone disulfide and styrene due to possible background.

Increased DL for 1,3-butadiene due to interference.

Results relate only to the items tested.

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Eastmount Environmental Services
Attention: Anthony Stratton
Client Project #: 12-009
P.O. #:
Site Location: GLOBAL - ASPHALT TANK #9

Quality Assurance Report

Maxxam Job Number: GB2E8736

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3001698 LSY	Spiked Blank	Bromochloromethane	2012/10/12		107	%	60 - 140
		D5-Chlorobenzene	2012/10/12		113	%	60 - 140
		Difluorobenzene	2012/10/12		110	%	60 - 140
		Dichlorodifluoromethane (FREON 12)	2012/10/12		105	%	70 - 130
		1,2-Dichlorotetrafluoroethane	2012/10/12		126	%	70 - 130
		Chloromethane	2012/10/12		112	%	70 - 130
		Vinyl Chloride	2012/10/12		109	%	70 - 130
		Chloroethane	2012/10/12		105	%	70 - 130
		1,3-Butadiene	2012/10/12		112	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2012/10/12		111	%	70 - 130
		Ethanol (ethyl alcohol)	2012/10/12		98	%	70 - 130
		Trichlorotrifluoroethane	2012/10/12		101	%	70 - 130
		2-propanol	2012/10/12		108	%	70 - 130
		2-Propanone	2012/10/12		106	%	70 - 130
		Methyl Ethyl Ketone (2-Butanone)	2012/10/12		98	%	70 - 130
		Methyl Isobutyl Ketone	2012/10/12		104	%	70 - 130
		Methyl Butyl Ketone (2-Hexanone)	2012/10/12		106	%	70 - 130
		Methyl t-butyl ether (MTBE)	2012/10/12		103	%	70 - 130
		Ethyl Acetate	2012/10/12		103	%	70 - 130
		1,1-Dichloroethylene	2012/10/12		102	%	70 - 130
		cis-1,2-Dichloroethylene	2012/10/12		103	%	70 - 130
		trans-1,2-Dichloroethylene	2012/10/12		105	%	70 - 130
		Methylene Chloride(Dichloromethane)	2012/10/12		99	%	70 - 130
		Chloroform	2012/10/12		106	%	70 - 130
		Carbon Tetrachloride	2012/10/12		108	%	70 - 130
		1,1-Dichloroethane	2012/10/12		105	%	70 - 130
		1,2-Dichloroethane	2012/10/12		102	%	70 - 130
		Ethylene Dibromide	2012/10/12		104	%	70 - 130
		1,1,1-Trichloroethane	2012/10/12		107	%	70 - 130
		1,1,2-Trichloroethane	2012/10/12		106	%	70 - 130
		1,1,2,2-Tetrachloroethane	2012/10/12		100	%	70 - 130
		cis-1,3-Dichloropropene	2012/10/12		104	%	70 - 130
		trans-1,3-Dichloropropene	2012/10/12		107	%	70 - 130
		1,2-Dichloropropane	2012/10/12		104	%	70 - 130
		Bromomethane	2012/10/12		107	%	70 - 130
		Bromoform	2012/10/12		101	%	70 - 130
		Bromodichloromethane	2012/10/12		107	%	70 - 130
		Dibromochloromethane	2012/10/12		107	%	70 - 130
		Trichloroethylene	2012/10/12		99	%	70 - 130
		Tetrachloroethylene	2012/10/12		101	%	70 - 130
		Benzene	2012/10/12		104	%	70 - 130
		Toluene	2012/10/12		105	%	70 - 130
		Ethylbenzene	2012/10/12		105	%	70 - 130
		p+m-Xylene	2012/10/12		102	%	70 - 130
		o-Xylene	2012/10/12		103	%	70 - 130
		Styrene	2012/10/12		101	%	70 - 130
		4-ethyltoluene	2012/10/12		105	%	70 - 130
		1,3,5-Trimethylbenzene	2012/10/12		104	%	70 - 130
		1,2,4-Trimethylbenzene	2012/10/12		102	%	70 - 130
		Chlorobenzene	2012/10/12		103	%	70 - 130
		Benzyl chloride	2012/10/12		94	%	70 - 130
		1,3-Dichlorobenzene	2012/10/12		103	%	70 - 130
		1,4-Dichlorobenzene	2012/10/12		99	%	70 - 130
		1,2-Dichlorobenzene	2012/10/12		94	%	70 - 130
		1,2,4-Trichlorobenzene	2012/10/12		98	%	70 - 130

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Eastmount Environmental Services
Attention: Anthony Stratton
Client Project #: 12-009
P.O. #:
Site Location: GLOBAL - ASPHALT TANK #9

Quality Assurance Report (Continued)

Maxxam Job Number: GB2E8736

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3001698 LSY	Spiked Blank	Hexachlorobutadiene	2012/10/12		86	%	70 - 130
		Hexane	2012/10/12		103	%	70 - 130
		Heptane	2012/10/12		99	%	70 - 130
		Cyclohexane	2012/10/12		102	%	70 - 130
		Tetrahydrofuran	2012/10/12		102	%	70 - 130
		1,4-Dioxane	2012/10/12		100	%	70 - 130
		Xylene (Total)	2012/10/12		103	%	70 - 130
		Vinyl Bromide	2012/10/12		104	%	70 - 130
		Propene	2012/10/12		100	%	70 - 130
		2,2,4-Trimethylpentane	2012/10/12		102	%	70 - 130
		Carbon Disulfide	2012/10/12		107	%	70 - 130
		Vinyl Acetate	2012/10/12		104	%	70 - 130
	Method Blank	Bromochloromethane	2012/10/12		96	%	60 - 140
		D5-Chlorobenzene	2012/10/12		97	%	60 - 140
		Difluorobenzene	2012/10/12		99	%	60 - 140
		Dichlorodifluoromethane (FREON 12)	2012/10/12	<0.20		ppbv	
		1,2-Dichlorotetrafluoroethane	2012/10/12	<0.17		ppbv	
		Chloromethane	2012/10/12	<0.30		ppbv	
		Vinyl Chloride	2012/10/12	<0.18		ppbv	
		Chloroethane	2012/10/12	<0.30		ppbv	
		1,3-Butadiene	2012/10/12	<0.50		ppbv	
		Trichlorofluoromethane (FREON 11)	2012/10/12	<0.20		ppbv	
		Ethanol (ethyl alcohol)	2012/10/12	<2.3		ppbv	
		Trichlorotrifluoroethane	2012/10/12	<0.15		ppbv	
		2-propanol	2012/10/12	<3.0		ppbv	
		2-Propanone	2012/10/12	<0.80		ppbv	
		Methyl Ethyl Ketone (2-Butanone)	2012/10/12	<3.0		ppbv	
		Methyl Isobutyl Ketone	2012/10/12	<3.2		ppbv	
		Methyl Butyl Ketone (2-Hexanone)	2012/10/12	<2.0		ppbv	
		Methyl t-butyl ether (MTBE)	2012/10/12	<0.20		ppbv	
		Ethyl Acetate	2012/10/12	<2.2		ppbv	
		1,1-Dichloroethylene	2012/10/12	<0.25		ppbv	
		cis-1,2-Dichloroethylene	2012/10/12	<0.19		ppbv	
		trans-1,2-Dichloroethylene	2012/10/12	<0.20		ppbv	
		Methylene Chloride(Dichloromethane)	2012/10/12	<0.80		ppbv	
		Chloroform	2012/10/12	<0.15		ppbv	
		Carbon Tetrachloride	2012/10/12	<0.30		ppbv	
		1,1-Dichloroethane	2012/10/12	<0.20		ppbv	
		1,2-Dichloroethane	2012/10/12	<0.20		ppbv	
		Ethylene Dibromide	2012/10/12	<0.17		ppbv	
		1,1,1-Trichloroethane	2012/10/12	<0.30		ppbv	
		1,1,2-Trichloroethane	2012/10/12	<0.15		ppbv	
		1,1,2,2-Tetrachloroethane	2012/10/12	<0.20		ppbv	
		cis-1,3-Dichloropropene	2012/10/12	<0.18		ppbv	
		trans-1,3-Dichloropropene	2012/10/12	<0.17		ppbv	
		1,2-Dichloropropane	2012/10/12	<0.40		ppbv	
		Bromomethane	2012/10/12	<0.18		ppbv	
		Bromoform	2012/10/12	<0.20		ppbv	
		Bromodichloromethane	2012/10/12	<0.20		ppbv	
		Dibromochloromethane	2012/10/12	<0.20		ppbv	
		Trichloroethylene	2012/10/12	<0.30		ppbv	
		Tetrachloroethylene	2012/10/12	<0.20		ppbv	
		Benzene	2012/10/12	<0.18		ppbv	
		Toluene	2012/10/12	<0.20		ppbv	
		Ethylbenzene	2012/10/12	<0.20		ppbv	

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Eastmount Environmental Services
Attention: Anthony Stratton
Client Project #: 12-009
P.O. #:
Site Location: GLOBAL - ASPHALT TANK #9

Quality Assurance Report (Continued)

Maxxam Job Number: GB2E8736

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3001698 LSY	Method Blank	p+m-Xylene	2012/10/12	<0.37		ppbv	
		o-Xylene	2012/10/12	<0.20		ppbv	
		Styrene	2012/10/12	<0.20		ppbv	
		4-ethyltoluene	2012/10/12	<2.2		ppbv	
		1,3,5-Trimethylbenzene	2012/10/12	<0.50		ppbv	
		1,2,4-Trimethylbenzene	2012/10/12	<0.50		ppbv	
		Chlorobenzene	2012/10/12	<0.20		ppbv	
		Benzyl chloride	2012/10/12	<1.0		ppbv	
		1,3-Dichlorobenzene	2012/10/12	<0.40		ppbv	
		1,4-Dichlorobenzene	2012/10/12	<0.40		ppbv	
		1,2-Dichlorobenzene	2012/10/12	<0.40		ppbv	
		1,2,4-Trichlorobenzene	2012/10/12	<2.0		ppbv	
		Hexachlorobutadiene	2012/10/12	<3.0		ppbv	
		Hexane	2012/10/12	<0.30		ppbv	
		Heptane	2012/10/12	<0.30		ppbv	
		Cyclohexane	2012/10/12	<0.20		ppbv	
		Tetrahydrofuran	2012/10/12	<0.40		ppbv	
		1,4-Dioxane	2012/10/12	<2.0		ppbv	
		Xylene (Total)	2012/10/12	<0.60		ppbv	
		Vinyl Bromide	2012/10/12	<0.20		ppbv	
		Propene	2012/10/12	<0.30		ppbv	
		2,2,4-Trimethylpentane	2012/10/12	<0.20		ppbv	
		Carbon Disulfide	2012/10/12	<0.50		ppbv	
		Vinyl Acetate	2012/10/12	<0.20		ppbv	
	RPD - Sample/Sample Dup	Dichlorodifluoromethane (FREON 12)	2012/10/12	NC		%	25
		1,2-Dichlorotetrafluoroethane	2012/10/12	NC		%	25
		Chloromethane	2012/10/12	5.6		%	25
		Vinyl Chloride	2012/10/12	NC		%	25
		Chloroethane	2012/10/12	NC		%	25
		1,3-Butadiene	2012/10/12	NC		%	25
		Trichlorofluoromethane (FREON 11)	2012/10/12	NC		%	25
		Ethanol (ethyl alcohol)	2012/10/12	NC		%	25
		Trichlorotrifluoroethane	2012/10/12	NC		%	25
		2-propanol	2012/10/12	NC		%	25
		2-Propanone	2012/10/12	NC		%	25
		Methyl Ethyl Ketone (2-Butanone)	2012/10/12	NC		%	25
		Methyl Isobutyl Ketone	2012/10/12	NC		%	25
		Methyl Butyl Ketone (2-Hexanone)	2012/10/12	NC		%	25
		Methyl t-butyl ether (MTBE)	2012/10/12	NC		%	25
		Ethyl Acetate	2012/10/12	NC		%	25
		1,1-Dichloroethylene	2012/10/12	NC		%	25
		cis-1,2-Dichloroethylene	2012/10/12	NC		%	25
		trans-1,2-Dichloroethylene	2012/10/12	NC		%	25
		Methylene Chloride(Dichloromethane)	2012/10/12	NC		%	25
		Chloroform	2012/10/12	NC		%	25
		Carbon Tetrachloride	2012/10/12	NC		%	25
		1,1-Dichloroethane	2012/10/12	NC		%	25
		1,2-Dichloroethane	2012/10/12	NC		%	25
		Ethylene Dibromide	2012/10/12	NC		%	25
		1,1,1-Trichloroethane	2012/10/12	NC		%	25
		1,1,2-Trichloroethane	2012/10/12	NC		%	25
		1,1,2,2-Tetrachloroethane	2012/10/12	NC		%	25
		cis-1,3-Dichloropropene	2012/10/12	NC		%	25

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Eastmount Environmental Services
Attention: Anthony Stratton
Client Project #: 12-009
P.O. #:
Site Location: GLOBAL - ASPHALT TANK #9

Quality Assurance Report (Continued)

Maxxam Job Number: GB2E8736

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3001698 LSY	RPD - Sample/Sample Dup	trans-1,3-Dichloropropene	2012/10/12	NC		%	25
		1,2-Dichloropropane	2012/10/12	NC		%	25
		Bromomethane	2012/10/12	NC		%	25
		Bromoform	2012/10/12	NC		%	25
		Bromodichloromethane	2012/10/12	NC		%	25
		Dibromochloromethane	2012/10/12	NC		%	25
		Trichloroethylene	2012/10/12	NC		%	25
		Tetrachloroethylene	2012/10/12	NC		%	25
		Benzene	2012/10/12	2.8		%	25
		Toluene	2012/10/12	1.1		%	25
		Ethylbenzene	2012/10/12	NC		%	25
		p+m-Xylene	2012/10/12	NC		%	25
		o-Xylene	2012/10/12	NC		%	25
		Styrene	2012/10/12	NC		%	25
		4-ethyltoluene	2012/10/12	NC		%	25
		1,3,5-Trimethylbenzene	2012/10/12	NC		%	25
		1,2,4-Trimethylbenzene	2012/10/12	NC		%	25
		Chlorobenzene	2012/10/12	NC		%	25
		Benzyl chloride	2012/10/12	NC		%	25
		1,3-Dichlorobenzene	2012/10/12	NC		%	25
		1,4-Dichlorobenzene	2012/10/12	NC		%	25
		1,2-Dichlorobenzene	2012/10/12	NC		%	25
		1,2,4-Trichlorobenzene	2012/10/12	NC		%	25
		Hexachlorobutadiene	2012/10/12	NC		%	25
		Hexane	2012/10/12	NC		%	25
		Heptane	2012/10/12	NC		%	25
		Cyclohexane	2012/10/12	NC		%	25
		Tetrahydrofuran	2012/10/12	NC		%	25
		1,4-Dioxane	2012/10/12	NC		%	25
		Xylene (Total)	2012/10/12	NC		%	25
		Vinyl Bromide	2012/10/12	NC		%	25
		Propene	2012/10/12	3.9		%	25
		2,2,4-Trimethylpentane	2012/10/12	NC		%	25
		Carbon Disulfide	2012/10/12	NC		%	25
		Vinyl Acetate	2012/10/12	NC		%	25

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

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Volatile Organics Analysis Data Sheets
Tentatively Identified Compounds

SAMPLE#: Method Blank

Field ID#: Method Blank

Number of TICs found: 0

	CAS #	Compound Name	RT	Est. Conc. ppbv	Est. Conc. ug/m3
1.		No compounds found			

Volatile Organics Analysis Data Sheets
Tentatively Identified Compounds

SAMPLE#: OZ1154

Field ID#: Global Tank #9 - Run 6 / Trucks

Number of TICs found: 20

	CAS #	Compound Name	RT	Est. Conc. ppbv	Est. Conc. ug/m3	Match %
1.	000075-28-5	Isobutane	5.918	1300	3050	86
2.	000115-11-7	1-Propene, 2-methyl-	6.236	1600	3600	90
3.	000106-98-9	1-Butene	6.533	560	1300	90
4.	000078-78-4	Butane, 2-methyl-	7.73	1700	4900	94
5.	000109-67-1	1-Pentene	8.111	510	1500	91
6.	000109-66-0	Pentane	8.323	3500	10300	90
7.		Unknown hydrocarbon C5H10 Mol. Wt. 70	8.56	730	2100	
8.		Unknown hydrocarbon C5H10 Mol. Wt. 70	8.8	1000	2900	
9.	000142-29-0	Cyclopentene	9.944	680	1900	87
10.	000107-83-5	Pentane, 2-methyl-	10.241	2500	8600	90
11.	000096-14-0	Pentane, 3-methyl-	10.697	860	3040	91
12.	000592-41-6	1-Hexene	10.919	430	1500	90
13.	013269-52-8	3-Hexene, (E)-	11.364	500	1700	91
14.	000096-37-7	Cyclopentane, methyl-	12.223	810	2800	94
15.	693-89-0/1120-62-3	Cyclopentene, 1-methyl- or 3-methyl	12.901	530	1800	90
16.	000589-34-4	Hexane, 3-methyl-	13.536	810	3300	91
17.	014686-13-6	2-Heptene, (E)-	14.469	470	1900	95
18.	000592-27-8	Heptane, 2-methyl-	16.228	1590	7400	97
19.	000111-65-9	Octane	17.213	1100	5200	94
20.	000111-84-2	Nonane	19.947	640	3400	95