

TABLE 1
SOIL ANALYTICAL SUMMARY AND CLEANUP CRITERIA COMPARISON
Wood 5-11 (P/N 40134)
NW/NE/SE Section 11, T28N-R04W, Frederic Township, Crawford County, Michigan
ECT Project #13-0685-0800

Sample Location	SW-1-4'	SW-2-4'	SW-3-3.5'	SW-4-3.5'	FLR-1-5'	Part 201 Residential Generic Cleanup Criteria & Screening Levels		
Sample Date	8-Jul-14					Drinking Water Protection	Volatilization to Indoor Air Inhalation	Direct Contact
Sample Depth (ft bgs)	4	4	3.5	3.5	5			
Collection Method	Grab							
Volatile Organic Compounds (VOCs) by EPA Method 5035A/8260B (µg/Kg)								
Benzene	82	119	239	<55	<50	100	1,600	180,000
Toluene	646	1,290	1,480	634	325	16,000	330,000	50,000,000
Ethylbenzene	358	578	445	211	304	1,500	87,000	22,000,000
Total Xylenes	2,005	3,360	2,030	1,160	1,640	5,600	6,300,000	410,000,000
Sample Location	FLR-2-5'	FLR-2A	SW-2A	SW-3A		Part 201 Residential Generic Cleanup Criteria & Screening Levels		
Sample Date	8-Jul-14	14-Jul-14				Drinking Water Protection	Volatilization to Indoor Air Inhalation	Direct Contact
Sample Depth (ft bgs)	5	10	4	3.5				
Collection Method	Grab							
Volatile Organic Compounds (VOCs) by EPA Method 5035A/8260B (µg/Kg)								
Benzene	977	255	152	317		100	1,600	180,000
Toluene	5,140	2,460	1,100	2,180		16,000	330,000	50,000,000
Ethylbenzene	1,290	902	396	1,230		1,500	87,000	22,000,000
Total Xylenes	5,940	4,803	2,440	4,803		5,600	6,300,000	410,000,000

Notes

- 1) Collection method: Grab, Hand Auger (HA), Direct Push (DP), Split Spoon (SP).
- 2) µg/Kg - Micrograms per kilogram, equivalent to parts per billion (ppb).
- 3) ft bgs - Feet below ground surface.
- 4) Part 201 Residential Generic Cleanup Criteria and Screening Levels (Part 201 Residential GCCSLs) dated December 30, 2013 per R299.46 (Table 2) of the Michigan Administrative Code.
- 5) Concentrations that are shaded and bold exceed one or more applicable Part 201 Residential GCCSLs.
- 6) Personnel from MEC collected soil samples on 08 July 2014. Personnel from ECT collected subsequent soil samples.

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Sample Location	B-4-13'-15'	B-4-33'-35'	B-5-23'-25'	B-5-33'-35'	B-6-33'-35'	Part 201 Residential Generic Cleanup Criteria & Screening Levels		
						Drinking Water Protection	Volatilization to Indoor Air Inhalation	Direct Contact
Sample Date	13-Aug-14							
Sample Depth (ft bgs)	13 - 15	33 - 35	23 - 25	33 - 35	33 - 35			
Collection Method	SS							
Volatile Organic Compounds (VOCs) by EPA Method 5035A/8260B (µg/Kg)								
Benzene	<50	<50	<50	<50	<50	100	1,600	180,000
Toluene	<50	<50	<50	<50	<50	16,000	330,000	50,000,000
Ethylbenzene	<50	<50	<50	<50	<50	1,500	87,000	22,000,000
Total Xylenes	<150	<150	<150	<150	<150	5,600	6,300,000	410,000,000
Volatile Organic Compounds (VOCs) by EPA Method 5035A/8260B (µg/Kg)								
Sample Location	B-7-33'-35'	B-8-18'-20'	B-8-33'-35'	MW-1-12'-14'	MW-1-34'-36'	Part 201 Residential Generic Cleanup Criteria & Screening Levels		
						Drinking Water Protection	Volatilization to Indoor Air Inhalation	Direct Contact
Sample Date	13-Aug-14							
Sample Depth (ft bgs)	33 - 35	18 - 20	33 - 35	12 - 14	34 - 36			
Collection Method	SS							
Volatile Organic Compounds (VOCs) by EPA Method 5035A/8260B (µg/Kg)								
Benzene	<50	<50	<50	61	<50	100	1,600	180,000
Toluene	<50	<50	<50	592	<50	16,000	330,000	50,000,000
Ethylbenzene	<50	<50	<50	330	<50	1,500	87,000	22,000,000
Total Xylenes	<150	<150	<150	2,770	<150	5,600	6,300,000	410,000,000

Notes

- 1) Collection method: Grab, Hand Auger (HA), Direct Push (DP), Split Spoon (SP).
- 2) µg/Kg - Micrograms per kilogram, equivalent to parts per billion (ppb).
- 3) ft bgs - Feet below ground surface.
- 4) Part 201 Residential Generic Cleanup Criteria and Screening Levels (Part 201 Residential GCCSLs) dated December 30, 2013 per R299.46 (Table 2) of the Michigan Administrative Code.
- 5) Concentrations that are shaded and bold exceed one or more applicable Part 201 Residential GCCSLs.
- 6) Personnel from MEC collected soil samples on 08 July 2014. Personnel from ECT collected subsequent soil samples.

TABLE 2
GROUNDWATER ANALYTICAL SUMMARY AND CLEANUP CRITERIA COMPARISON
Wood 5-11 (P/N 40134)
NW/NE/SE Section 11, T28N-R04W, Frederic Township, Crawford County, Michigan
ECT Project #13-0685-0800

Sample Location	MW-1			MW-2			MW-3			Part 201 Residential Generic Cleanup Criteria & Screening Levels			
	Sample Date	18-Aug-14	1-Oct-14	12-Nov-14	8-Sep-14	1-Oct-14	12-Nov-14	8-Sep-14	1-Oct-14	12-Nov-14	Drinking Water	GSI	Volatilization to Indoor Air Inhalation
Screened Interval (ft bgs)	37.1 - 42.1			37.0 - 42.0			36.9 - 41.9						
Collection Method	Bailer			Bailer			Bailer						
BTEX by EPA Method 8260B (µg/L)													
Benzene	62	37	28	127	106	395	153	65	304	5.0	200	5,600	
Toluene	93	28	20	12	41	77	18	9	125	790	270	530,000	
Ethylbenzene	4	<1	<1	<1	<1	4	<1	<1	1	74	18	110,000	
Total Xylenes	9	<3	<3	<3	<3	<12	<3	7	<3	280	41	190,000	
Additional Data													
% Increase/Decrease Benzene	---	40.32%	54.84%	---	16.54%	272.64%	---	57.52%	367.69%	---	---	---	
Groundwater Elevation (ft)	60.40	60.40	60.51	60.08	60.06	60.17	60.05	60.02	60.14	---	---	---	
Sample Location	MW-4	MW-5	MW-6	MW-7S		MW-7D	MW-8		MW-9		Part 201 Residential Generic Cleanup Criteria & Screening Levels		
	Sample Date	1-Oct-14	1-Oct-14	1-Oct-14	1-Oct-14	12-Nov-14	1-Oct-14	1-Oct-14	12-Nov-14	1-Oct-14	12-Nov-14	Drinking Water	GSI
Screened Interval (ft bgs)	36.2 - 41.2	32.8 - 37.8	31.9 - 36.9	36.8 - 41.8		56.9 - 61.9	30.4 - 35.4		24.2 - 29.2				
Collection Method	Bailer	Bailer	Bailer	Bailer		Bailer	Bailer		Bailer				
BTEX by EPA Method 8260B (µg/L)													
Benzene	<1	<1	<1	133	514	<1	112	179	<1	<1	5.0	200	5,600
Toluene	<1	<1	<1	37	78	<1	4	39	<1	<1	790	270	530,000
Ethylbenzene	<1	<1	<1	<1	3	<1	<1	<4	<1	<1	74	18	110,000
Total Xylenes	<3	<3	<3	<3	5	<3	<3	<12	<3	<3	280	41	190,000
Additional Data													
% Increase/Decrease Benzene	---	---	---	---	286.47%	---	---	59.82%	---	---	---	---	---
Groundwater Elevation (ft)	60.74	59.76	59.74	59.88	59.99	59.86	59.37	59.48	58.60	58.71	---	---	---

Notes

- 1) µg/L - Micrograms per liter, equivalent to parts per billion (ppb).
- 2) ft bgs - Feet below ground surface.
- 3) Part 201 Residential Generic Cleanup Criteria and Screening Levels (Part 201 Residential GCCSLs) dated December 30, 2013 per R299.44 (Table 1) of the Michigan Administrative Code.
- 4) Concentrations that are shaded and bold exceed one or more applicable Part 201 Residential GCCSLs.
- 5) GSI - Groundwater-surface water interface.