

US EPA ARCHIVE DOCUMENT

Tables

Table 1
Summary of Detected Volatile Organic Compounds at On-Site Soil Sample Locations
Former Tecumseh Products Company Site
Tecumseh, Michigan

Analyte	n-Butyl Benzene	sec-Butylbenzene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Ethylbenzene ⁽¹⁾	4-Isopropyl-toluene	2-Methyl-naphthalene	Naphthalene	n-Propyl Benzene ⁽¹⁾	Tetra-chloroethene	Toluene ⁽¹⁾	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	1,2,4-Tri-methylbenzene ⁽¹⁾	1,3,5-Tri-methylbenzene ⁽¹⁾	Vinyl Chloride	Total Xylenes ⁽¹⁾	
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
DWP Criteria	1.6	1.6	1.4	2.0	1.5	NC	57	35	1.6	0.10	16	4.0	0.10	0.10	2.1	1.8	0.040	5.6	
GSIP Criteria	NC	NC	12	30 ⁽²⁾	0.36	NC	4.2	0.73	NC	1.2 ⁽²⁾	5.4	1.8	6.6 ⁽²⁾	4.0 ⁽²⁾	0.57	1.1	0.26 ⁽²⁾	0.82	
Residential DC Criteria	2,500	2,500	640	1,400	140	NC	8,100	16,000	2,500	88	250	460	180	500	110	94	3.8	150	
Non-Residential DC Criteria	8,000	8,000	640	1,400	140	NC	26,000	52,000	8,000	88	250	460	840	500	110	94	34	150	
Residential SVIAI Criteria	NC	NC	22	23	87	NC	2,700	250	NC	11	250	250	4.6	7.1	110	94	0.27	150	
Non-Residential SVIAI Criteria	NC	NC	41	43	140	NC	4,900	470	NC	60	250	460	24	37	110	94	2.8	150	
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
GP-01 (3-5')	12/17/2008	<0.050	<0.050	<0.050	<0.050	<0.050	--	<0.33	<0.33	<0.10	<0.050	<0.050	<0.050	<0.050	<0.10	<0.10	<0.040	<0.15	
GP-03 (6-8')	12/17/2008	<0.050	<0.050	<0.050	<0.050	<0.050	--	<0.33	<0.33	<0.10	<0.050	<0.050	<0.050	<0.050	0.26	<0.10	<0.10	<0.040	<0.15
GP-04 (4-6')	12/17/2008	<0.050	<0.050	<0.050	<0.050	<0.050	--	<0.33	<0.33	<0.10	<0.050	<0.050	<0.050	<0.050	<0.10	<0.10	<0.040	<0.15	
GP-06 (3-5')	12/17/2008	<0.050	<0.050	0.15	<0.050	<0.050	--	<0.33	<0.33	<0.10	<0.050	<0.050	<0.050	<0.050	4.3	<0.10	<0.10	<0.040	<0.15
GP-07 (2-4')	12/17/2008	<0.050	<0.050	<0.050	<0.050	<0.050	--	<0.33	<0.33	<0.10	<0.050	<0.050	<0.050	<0.050	4.1	<0.10	<0.10	<0.040	<0.15
GP-09 (5-7')	12/17/2008	<0.050	<0.050	0.66	<0.050	0.092	--	<0.33	<0.33	<0.10	0.077	0.12	<0.050	<0.050	3.2	<0.10	<0.10	<0.040	0.22
GP-10 (2-4')	12/17/2008	<0.050	<0.050	<0.050	<0.050	<0.050	--	<0.33	<0.33	<0.10	<0.050	<0.050	<0.050	<0.050	0.50	<0.10	<0.10	<0.040	<0.15
GP-12 (5-7')	12/17/2008	<0.050	<0.050	<0.050	<0.050	<0.050	--	<0.33	<0.33	<0.10	<0.050	<0.050	<0.050	<0.050	0.35	<0.10	<0.10	<0.040	<0.15
GP-14 (1-3')	12/28/2008	0.16	<0.050	0.23	<0.050	0.17	--	<0.33	<0.33	0.30	5.9	0.31	3.8	<0.050	43	0.89	0.19	<0.040	1.5
GP-15 (3-5')	12/28/2008	<0.050	<0.050	1.3	<0.050	<0.050	--	1.1	1.8	<0.10	1.2	0.11	8.8	<0.050	38	0.22	<0.10	<0.040	0.93
GP-16 (1-3')	12/28/2008	<0.050	<0.050	0.41	0.067	<0.050	--	1.4	1.5	<0.10	3.3	0.078	<0.050	<0.050	7.6	<0.10	<0.10	<0.040	0.31
GP-17 (3-5')	12/28/2008	<0.050	<0.050	<0.050	<0.050	<0.050	--	<0.33	<0.33	<0.10	<0.050	<0.050	<0.050	<0.050	1.3	<0.10	<0.10	<0.040	<0.15
GP-21 (3-5')	1/19/2009	<0.050	<0.050	<0.050	<0.050	<0.050	--	<0.33	<0.33	<0.10	0.075	<0.050	4.6	<0.050	1.6	<0.10	<0.10	<0.040	<0.15
GP-22 (8-10')	1/19/2009	<0.050	<0.050	<0.050	<0.050	<0.050	--	<0.33	<0.33	<0.10	<0.050	<0.050	4.0	<0.050	5.2	<0.10	<0.10	<0.040	<0.15
GP-23 (3-5')	1/19/2009	<0.050	<0.050	<0.050	<0.050	<0.050	--	<0.33	<0.33	<0.10	<0.050	<0.050	0.26	<0.050	1.7	<0.10	<0.10	<0.040	<0.15
GP-25 (1-2')	1/19/2009	<0.050	<0.050	3.4	<0.050	<0.050	--	<0.33	<0.33	<0.10	<0.050	<0.050	<0.050	<0.050	8.6	<0.10	<0.10	<0.040	<0.15
GP-26 (3-5')	1/19/2009	<0.050	<0.050	<0.050	<0.050	<0.050	--	<0.33	<0.33	<0.10	<0.050	<0.050	<0.050	<0.050	<0.10	<0.10	<0.050	<0.15	
GP-27 (1-3')	1/19/2009	<0.050	<0.050	0.20	<0.050	0.064	--	--	--	<0.10	0.20	0.23	<0.050	4.5	<0.10	<0.10	<0.050	0.44	
GP-28 (21-23')	1/19/2009	<0.050	<0.050	<0.050	<0.050	<0.050	--	<0.33	<0.33	<0.10	0.23	<0.050	2.9	<0.050	0.94	<0.10	<0.10	<0.040	<0.15
GP-29 (3-5')	1/19/2009	<0.050	<0.050	<0.050	<0.050	<0.050	--	<0.33	<0.33	<0.10	<0.050	<0.050	<0.050	<0.050	<0.10	<0.10	<0.040	<0.15	
HB-31 (0-0.5')	2/4/2009	<0.050	<0.050	<0.050	<0.050	<0.050	--	<0.33	<0.33	<0.10	0.050	<0.050	<0.050	<0.050	<0.10	<0.10	<0.050	<0.15	
NS-01 (0-4')	4/17/2009	<0.039	--	<0.039	--	<0.039	--	0.48	<0.039	<0.039	<0.039	<0.039	<0.039	1.9	<0.039	<0.039	<0.039	--	
NS-01 (16-20')	4/17/2009	<0.025	--	<0.025	--	<0.025	--	--	<0.25	<0.025	<0.025	<0.025	<0.025	0.51	<0.025	<0.025	<0.025	--	
NS-02 (0-4')	4/16/2009	<0.027	--	<0.027	<0.027	<0.027	--	--	<0.27	<0.027	<0.027	<0.027	<0.027	0.35	<0.027	<0.027	<0.027	--	
NS-02 (8-12')	4/16/2009	<0.027	--	<0.027	<0.027	<0.027	--	--	<0.27	<0.027	<0.027	<0.027	<0.027	0.75	<0.027	<0.027	<0.027	--	
NS-04 (8-12')	4/16/2009	<0.029	--	<0.029	<0.029	<0.029	--	--	<										

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Tecumseh, Michigan

Analyte	n-Butyl Benzene	sec-Butylbenzene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Ethylbenzene ⁽¹⁾	4-Isopropyl-toluene	2-Methyl-naphthalene	Naphthalene	n-Propyl Benzene ⁽¹⁾	Tetra-chloroethene	Toluene ⁽¹⁾	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	1,2,4-Tri-methylbenzene ⁽¹⁾	1,3,5-Tri-methylbenzene ⁽¹⁾	Vinyl Chloride	Total Xylenes ⁽¹⁾		
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg			
DWP Criteria	1.6	1.6	1.4	2.0	1.5	NC	57	35	1.6	0.10	16	4.0	0.10	0.10	2.1	1.8	0.040	5.6		
GSIP Criteria	NC	NC	12	30 ⁽²⁾	0.36	NC	4.2	0.73	NC	1.2 ⁽²⁾	5.4	1.8	6.6 ⁽²⁾	4.0 ⁽²⁾	0.57	1.1	0.26 ⁽²⁾	0.82		
Residential DC Criteria	2,500	2,500	640	1,400	140	NC	8,100	16,000	2,500	88	250	460	180	500	110	94	3.8	150		
Non-Residential DC Criteria	8,000	8,000	640	1,400	140	NC	26,000	52,000	8,000	88	250	460	840	500	110	94	34	150		
Residential SVIAI Criteria	NC	NC	22	23	87	NC	2,700	250	NC	11	250	250	4.6	7.1	110	94	0.27	150		
Non-Residential SVIAI Criteria	NC	NC	41	43	140	NC	4,900	470	NC	60	250	460	24	37	110	94	2.8	150		
NS-14 (0.5-3.5')		9/17/2010	<0.058	<0.058	<0.058	<0.058	<0.12	<0.38	<0.38	<0.12	<0.12	0.063	<0.058	0.64	<0.12	<0.12	<0.047	<0.18		
NS-14 (22-23')		9/17/2010	<0.26	<0.26	<0.26	<0.26	<0.52	<1.7	<1.7	<0.52	<0.26	0.52	2.3	<0.26	18	<0.52	<0.52	<0.21	<0.78	
NS-15 (2-4')		9/17/2010	1.4	1.1	6.7	<0.57	<0.57	<1.1	<3.7	<3.7	<1.1	0.63	<1.1	<0.57	72	<1.1	<1.1	<0.45	<1.7	
NS-15 (19-20')		9/17/2010	<0.10	<0.10	0.35	<0.10	<0.10	<0.21	<0.68	<0.68	<0.21	0.13	<0.21	<0.10	18	<0.21	<0.21	<0.083	<0.31	
NS-16 (2-4')		9/17/2010	<0.057	<0.057	<0.057	<0.057	<0.11	<0.38	<0.38	<0.11	<0.057	<0.11	<0.057	<0.057	1.7	<0.11	<0.11	<0.046	<0.17	
NS-16 (19-20')		9/17/2010	<0.26	<0.26	0.47	<0.26	<0.26	<0.52	<1.7	<1.7	<0.52	<0.26	<0.26	33	<0.52	<0.52	<0.21	<0.78		
NS-17 (0.5-2.0')		9/17/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<2.1	<6.9	<6.9	<2.1	<1.0	<2.1	<1.0	100	<2.1	<2.1	<0.84	<3.1	
NS-17 (22-23')		9/17/2010	<0.052	<0.052	<0.052	<0.052	<0.10	<0.34	<0.34	<0.10	0.24	<0.10	0.23	<0.052	2.1	<0.10	<0.10	<0.041	<0.15	
NS-18 (20-25')		7/24/2012	<0.29	<0.29	0.45	<0.29	<0.29	<0.58	<1.9	<1.9	<0.58	0.45	<0.58	0.37	<0.29	30	<0.58	<0.58	<0.23	<0.87
NS-18 (30-35')		7/25/2012	<0.61	<0.61	1.9	<0.61	<0.61	<1.2	<4.1	<4.1	<1.2	<0.61	<0.61	53	<1.2	<1.2	<0.49	<1.8		
NS-18 (40-43')		7/25/2012	<0.12	<0.12	4.2	0.55	<0.12	<0.24	<0.78	<0.78	<0.24	<0.12	<0.12	11	<0.24	<0.24	<0.094	<0.36		
NS-19 (25-30')		7/26/2012	0.092	<0.060	0.17	<0.060	<0.12	<0.39	<0.39	<0.12	<0.060	<0.12	<0.060	2.6	<0.12	<0.12	0.085	<0.18		
NS-19 (35-38')		7/26/2012	<0.32	<0.32	0.62	<0.32	<0.32	<0.63	<2.1	<2.1	<0.63	<0.32	<0.63	<0.32	45	<0.63	<0.63	<0.25	<0.95	
NS-19 (45-47')		7/26/2012	<0.058	<0.058	0.068	0.14	<0.058	<0.12	<0.38	<0.38	<0.12	<0.058	<0.12	<0.058	11	<0.12	<0.12	<0.047	<0.18	
NS-20 (23-28')		7/27/2012	<0.24	<0.24	<0.24	<0.24	<0.49	<1.6	<1.6	<0.49	0.38	<0.49	5.0	<0.24	26	<0.49	<0.49	<0.19	<0.73	
NS-20 (29-30')		7/27/2012	0.11	0.13	<0.059	<0.059	<0.12	<0.39	<0.39	<0.12	0.10	<0.12	<0.059	<0.059	0.43	<0.12	<0.12	0.55	<0.18	
NS-20 (35-40')		7/30/2012	<0.056	<0.056	<0.056	0.066	<0.056	<0.11	<0.37	<0.37	<0.11	<0.056	<0.11	<0.056	8.7	<0.11	<0.11	<0.045	<0.17	
MW-32S (0.5-1.5')		9/15/2010	<0.058	<0.058	<0.058	<0.058	<0.12	<0.38	<0.38	<0.12	<0.058	<0.12	0.092	<0.058	1.2	<0.12	<0.12	<0.046	--	
MW-32S (22-24')		9/15/2010	<0.23	<0.23	<0.23	<0.23	<0.46	<1.5	<1.5	<0.46	0.49	<0.46	1.8	<0.23	26	<0.46	<0.46	<0.18	--	
MW-33S (1-3')		9/15/2010	1.8	0.49	7.5	0.59	<0.053	0.53	4.5	2.6	0.53	0.82	<0.11	<0.053	0.30	5.7	3.9	1.2	0.41	--
MW-33S (19-22')		9/15/2010	<0.24	<0.24	<0.24	<0.24	<0.49	<1.6	<1.6	<0.49	0.47	<0.49	<0.24	<0.24	19	<0.49	<0.49	<0.20	--	
MW-34S (0.5-2.5')		9/16/2010	<0.049	<0.049	<0.049	<0.049	<0.049	<0.097	<0.32	<0.32	<0.097	<0.049	<0.097	0.74	<0.049	1.2	<0.097	<0.097	<0.039	--
MW-34S (21-23')		9/16/2010	<0.13	<0.13	<0.13	<0.13	<0.13	<0.26	<0.85	<0.85	<0.26	0.33	<0.26	9.6	<0.13	14	<0.26	<0.26	<0.10	--
SS-1 (1.0-1.5')		4/15/2009	<0.032	--	<0.032	<0.032	<0.032	--	--	<0.32	<0.032	<0.032	0.84	<0.032	1.9	<0.032	<0.032	<0.032	--	
SS-2 (8-12')		4/16/2009	<0.029	--	<0.029	<0.029	<													

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DWP Criteria	1.6	1.6	1.4	2.0	1.5	NC	57	35	1.6	0.10	16	4.0	0.10	0.10	2.1	1.8	0.040	5.6	
GSIP Criteria	NC	NC	12	30 ⁽²⁾	0.36	NC	4.2	0.73	NC	1.2 ⁽²⁾	5.4	1.8	6.6 ⁽²⁾	4.0 ⁽²⁾	0.57	1.1	0.26 ⁽²⁾	0.82	
Residential DC Criteria	2,500	2,500	640	1,400	140	NC	8,100	16,000	2,500	88	250	460	180	500	110	94	3.8	150	
Non-Residential DC Criteria	8,000	8,000	640	1,400	140	NC	26,000	52,000	8,000	88	250	460	840	500	110	94	34	150	
Residential SVIAI Criteria	NC	NC	22	23	87	NC	2,700	250	NC	11	250	250	4.6	7.1	110	94	0.27	150	
Non-Residential SVIAI Criteria	NC	NC	41	43	140	NC	4,900	470	NC	60	250	460	24	37	110	94	2.8	150	
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
SS-10 (30-35')	8/1/2012	<0.14	<0.14	<0.14	<0.14	<0.14	<0.27	<0.90	<0.90	<0.27	<0.14	<0.27	0.79	<0.14	16	<0.27	<0.27	<0.11	<0.41
SS-10 (50-55')	8/1/2012	<0.052	<0.052	0.29	<0.052	<0.052	<0.10	<0.34	<0.34	<0.10	<0.052	<0.10	<0.052	<0.052	<0.052	<0.10	<0.10	<0.042	<0.15
SVE-01 (3-5')	4/4/2012	<0.054	<0.054	<0.054	<0.054	<0.054	<0.11	<0.36	<0.36	<0.11	0.063	<0.11	<0.054	<0.054	0.16	<0.11	<0.11	<0.043	<0.16
SVE-01 (16-18')	4/4/2012	<0.059	<0.059	<0.059	<0.059	<0.059	<0.12	<0.39	<0.39	<0.12	0.20	<0.12	<0.059	<0.059	0.63	<0.12	<0.12	<0.047	<0.18
SVE-02 (4-6')	4/4/2012	<0.050	<0.050	<0.050	<0.050	<0.050	<0.10	<0.33	<0.33	<0.10	0.10	<0.10	<0.050	<0.050	0.50	<0.10	<0.10	<0.040	<0.15
SVE-02 (16-18')	4/5/2012	<0.068	<0.068	<0.068	<0.068	<0.068	<0.14	<0.45	<0.45	<0.14	0.28	<0.14	<0.068	<0.068	1.5	<0.14	<0.14	<0.054	<0.21
SVE-03 (4-6')	4/3/2012	<0.057	<0.057	<0.057	<0.057	<0.057	<0.11	<0.37	<0.37	<0.11	<0.057	<0.11	<0.057	<0.057	0.62	<0.11	<0.11	<0.045	<0.17
SVE-03 (16-18')	4/4/2012	<0.052	<0.052	<0.052	<0.052	<0.052	<0.10	<0.35	<0.35	<0.10	<0.052	<0.10	<0.052	<0.052	0.96	<0.10	<0.10	<0.042	<0.15
SVE-04 (4-6')	4/3/2012	<0.10	<0.10	<0.10	<0.10	<0.10	<0.21	<0.68	<0.68	<0.21	<0.10	<0.21	<0.10	<0.10	0.58	<0.21	<0.21	<0.083	<0.31
SVE-04 (16-18')	4/3/2012	<0.061	<0.061	<0.061	<0.061	<0.061	<0.12	<0.40	<0.40	<0.12	<0.061	<0.12	<0.061	<0.061	1.7	<0.12	<0.12	<0.049	<0.18
B-58 (3-4')	4/1/2011	--	--	--	--	<0.059	--	--	--	--	<0.059	--	--	--	--	--	--	<0.18	
B-58 (6-7')	4/1/2011	--	--	--	--	<0.055	--	--	--	--	<0.055	--	--	--	--	--	--	<0.17	
B-59 (3-4')	4/1/2011	--	--	--	--	<0.057	--	--	--	--	<0.057	--	--	--	--	--	--	<0.17	
B-59 (6-7')	4/1/2011	--	--	--	--	<0.055	--	--	--	--	<0.055	--	--	--	--	--	--	<0.16	
B-60 (3-4')	4/1/2011	--	--	--	--	<0.057	--	--	--	--	<0.057	--	--	--	--	--	--	<0.17	
B-60 (6-7')	4/1/2011	--	--	--	--	<0.054	--	--	--	--	<0.054	--	--	--	--	--	--	<0.16	
B-61 (3-4')	4/1/2011	--	--	--	--	<0.056	--	--	--	--	<0.056	--	--	--	--	--	--	<0.17	
B-61 (6-7')	4/1/2011	--	--	--	--	<0.049	--	--	--	--	0.18	--	--	--	--	--	--	0.43	
B-62 (1-2')	4/1/2011	--	--	--	--	<0.049	--	--	--	--	0.14	--	--	--	--	--	--	<0.15	
B-62 (3-4')	4/1/2011	--	--	--	--	<0.055	--	--	--	--	<0.055	--	--	--	--	--	--	<0.16	
B-63 (3-4')	4/1/2011	--	--	--	--	<0.051	--	--	--	--	<0.051	--	--	--	--	--	--	<0.15	
B-63 (6-7')	4/1/2011	--	--	--	--	<0.054	--	--	--	--	<0.054	--	--	--	--	--	--	<0.16	

Notes:

Drinking Water Protection (DWP) Criteria, Groundwater to Surface Water Interface Protection (GSIP) Criteria, Residential and Non-Residential Direct Contact (DC) Criteria and Residential and Non-Residential Soil Volatilization to Indoor Air Inhalation (SVIAI) Criteria from MDEQ RRD Op Memo 1 Part 201 Generic Cleanup Criteria/Part 213 Risk Based Cleanup Levels, March 25, 2011.

mg/kg = milligrams per kilogram

NC = No Criteria

-- = Not Analyzed

Bold font denotes concentrations detected above laboratory reporting limits

Denotes concentrations above one or more criteria

1) Compound may exhibit characteristic ignitability as defined in 40 C.F.R. § 261.21

2) Criterion is not protective for surface water used as a drinking water source as described in footnote (X) of MDEQ Op Memo 1 Part 201, Attachment 1.

Table 2
 Summary of Detected Volatile Organic Compounds at Source Area Grab Groundwater Sample Locations
 Former Tecumseh Products Company Site
 Tecumseh, Michigan

Analyte	Benzene ⁽¹⁾	n-Butyl-benzene	Chloroethane	Chloroform	1,1-Dichloro-ethane	1,1-Dichloro-ethene ⁽¹⁾	cis-1,2-Dichloro-ethene	trans-1,2-Dichloro-ethene	Ethyl-benzene ⁽¹⁾	Naphthalene	n-Propyl-benzene ⁽¹⁾	Tetra-chloroethene	Toluene ⁽¹⁾	1,1,1-Tri-chloroethane	1,1,2-Tri-chloroethane	Trichloro-ethene	1,2,4-Trimethylbenzene ⁽¹⁾	1,3,5-Trimethylbenzene ⁽¹⁾	Vinyl Chloride	Total Xylenes
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
Health-Based Residential DW Criteria	5.0	80	430	80	880	7.0	70	100	700	520	80	5.0	1,000	200	5.0	5.0	1,000	1,000	2.0	10,000
Health-Based Non-Residential DW Criteria	5.0	230	1,700	80	2,500	7.0	70	100	700	1,500	230	5.0	1,000	200	5.0	5.0	2,900	2,900	2.0	10,000
Residential GWSL for Vapor Intrusion	NC	NC	NC	NC	130	390	440	330	NC	NC	11	NC	15,000	NC	9.9	NC	NC	5.0	NC	NC
Non-Residential GWSL for Vapor Intrusion	NC	NC	NC	NC	670	1,600	1,800	1,400	NC	NC	55	NC	63,000	NC	42	NC	NC	50	NC	NC
GSI Criteria	200 ⁽²⁾	NC	1,100 ⁽²⁾	350	740	130	620	1,500 ⁽²⁾	18	11	NC	60 ⁽²⁾	270	89	330 ⁽²⁾	200 ⁽²⁾	17	45	13 ⁽²⁾	41
Groundwater Contact Criteria	11,000	5,900	4.4E+05	1.5E+05	2.4E+06	11,000	2.0E+05	2.2E+05	1.7E+05	31,000	15,000	12,000	5.3E+05	1.3E+06	21,000	13,000 ⁽⁴⁾	56,000	61,000	1,000	1.90E+05
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	

Sample Location and Screen Interval	Sample Collection Date	Approx. Depth to Groundwater (ft) ⁽³⁾																				
GP-01 (26-30')	12/15/2008	25.0	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<3			
GP-02 (20-24')	12/15/2008	23.0	<1	<1	<1	<1	11	17	210	4	<1	<5	<1	2	<1	16	<1	920	<1	<1	<1	<3
GP-03 (20-24')	12/15/2008	23.0	<1	<1	43	<1	25	2	760	27	<1	<5	<1	<1	<1	<1	510	<1	<1	<1	<3	
GP-04 (25-29')	12/15/2008	23.0	<1	<1	9	<1	18	4	240	22	<1	<5	<1	<1	<1	<1	320	<1	<1	<1	<3	
GP-05 (25-29')	12/15/2008	23.0	<1	<1	23	<1	160	10	510	12	<1	<5	<1	<1	<1	<1	660	<1	<1	<1	<3	
GP-06 (25-29')	12/15/2008	23.0	3	<1	11	<1	84	70	120	1	<1	<5	<1	<1	<1	60	<1	550	<1	<1	<1	<3
GP-07 (25-29')	12/16/2008	23.0	<1	<1	5	<1	<1	3	4	<1	<5	<1	<1	<1	3	<1	300	<1	<1	<1	<3	
GP-08 (26-30')	12/16/2008	27.0	<1	<1	<1	<1	9	<1	160	11	<1	10	<1	<1	<1	<1	49	<1	<1	<1	<3	
GP-09 (25-29')	12/16/2008	27.0	<1	<1	<1	<1	89	26	9	2	<1	<5	<1	<1	<1	31	<1	540	<1	<1	<1	<3
GP-10 (20-24')	12/16/2008	19.0	<1	<1	<1	1	3	76	36	<1	<1	<5	<1	<1	34	4	370	<1	<1	<1	<3	
GP-11 (20-24')	12/16/2008	20.0	<1	3	<1	<1	<1	3	15	<1	3	<5	7	<1	<1	4	<1	100	64	35	<1	<3
GP-12 (20-24')	12/16/2008	19.0	<1	<1	<1	3	3	320	7	<1	<1	<5	<1	<1	390	<1	530	<1	<1	<1	<3	
GP-13 (25-29')	12/16/2008	25.0	<1	<1	<1	<1	<1	6	1	<1	<1	<5	<1	<1	6	<1	210	<1	<1	<1	<3	
GP-14 (25-29')	12/22/2008	24.0	<1	<1	<1	<1	8	31	<1	<1	<1	<5	<1	12	<1	260	1	190	<1	<1	<1	<3
GP-15 (20-24')	12/22/2008	23.0	<1	<1	<1	<1	31	12	120	3	<1	<5	<1	3	<1	150	<1	450	<1	<1	<1	<3
GP-16 (25-29')	12/22/2008	24.0	9	<1	<1	<1	30	2	3	1	<1	<5	<1	<1	3	16	2	8	4	1	<1	<3
GP-17 (25-29')	12/22/2008	23.5	<1	<1	<1	<1	47	18	<1	<1	<1	<5	<1	1	<1	200	<1	200	<1	<1	<1	<3
GP-18 (20-24')	12/22/2008	22.0	<1	<1	<1	<1	<1	1	<1	<1	<5	<1	1	<1	3	<1	190	<1	<1	<1	<3	
GP-19 (25-29')	12/22/2008	22.0	<1	<1	<1	<1	<1	11	<1	<1	<1	<5	<1	<1	71	<1	86	<1	<1	<1	<3	
GP-21 (20-24')	1/14/2009	23.0	<20	<20	<20	<20	47	920	<20	<20	<20	<5	<20	<20	<20	8,500	<20	1,700	<20	<20	<20	
GP-22 (22-26')	1/14/2009	22.0	<20	<20	<20	<20	160	210	160	<20	<20	<5	<20	<20	<20	3,500	<20	1,600	<20	<20	<20	
GP-22 (41-45')	1/14/2009	22.0	<1	<1	<1	<1	6	10	81	21	<1	<5	<1	<1	<1	38	<1	560	<1	<1	<1	<3
GP-23 (22-26')	1/14/2009	19.0	<1	<1	<1	<1	32	<1	430	27	<1	<5	<1	<1	<1	<1	300	<1	<1	<1	<3	
GP-23 (31-35')	1/14/2009	19.0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<3	
GP-24 (10-14')	1/14/2009	8.0*	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	48	<1</				

Table 2
 Summary of Detected Volatile Organic Compounds at Source Area Grab Groundwater Sample Locations
 Former Tecumseh Products Company Site
 Tecumseh, Michigan

Analyte	Benzene ⁽¹⁾	n-Butyl-benzene	Chloroethane	Chloroform	1,1-Dichloro-ethane	1,1-Dichloro-ethene ⁽¹⁾	cis-1,2-Dichloro-ethene	trans-1,2-Dichloro-ethene	Ethyl-benzene ⁽¹⁾	Naphthalene	n-Propyl-benzene ⁽¹⁾	Tetra-chloroethene	Toluene ⁽¹⁾	1,1,1-Tri-chloroethane	1,1,2-Tri-chloroethane	Trichloro-ethene	1,2,4-Trimethyl-benzene ⁽¹⁾	1,3,5-Trimethyl-benzene ⁽¹⁾	Vinyl Chloride	Total Xylenes
Health-Based Residential DW Criteria	5.0	80	430	80	880	7.0	70	100	700	520	80	5.0	1,000	200	5.0	5.0	1,000	1,000	2.0	10,000
Health-Based Non-Residential DW Criteria	5.0	230	1,700	80	2,500	7.0	70	100	700	1,500	230	5.0	1,000	200	5.0	5.0	2,900	2,900	2.0	10,000
Residential GWSL for Vapor Intrusion	NC	NC	NC	NC	130	390	440	330	NC	NC	11	NC	15,000	NC	9.9	NC	NC	5.0	NC	NC
Non-Residential GWSL for Vapor Intrusion	NC	NC	NC	NC	670	1,600	1,800	1,400	NC	NC	55	NC	63,000	NC	42	NC	NC	50	NC	NC
GSI Criteria	200 ⁽²⁾	NC	1,100 ⁽²⁾	350	740	130	620	1,500 ⁽²⁾	18	11	NC	60 ⁽²⁾	270	89	330 ⁽²⁾	200 ⁽²⁾	17	45	13 ⁽²⁾	41
Groundwater Contact Criteria	11,000	5,900	4.4E+05	1.5E+05	2.4E+06	11,000	2.0E+05	2.2E+05	1.7E+05	31,000	15,000	12,000	5.3E+05	1.3E+06	21,000	13,000 ⁽⁴⁾	56,000	61,000	1,000	1.90E+05
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

Sample Location and Screen Interval	Sample Collection Date	Approx. Depth to Groundwater (ft)																				
NS-01 (20-24')	4/17/2009	20.0	<20	<20	<100	<20	<20	<20	260	<20	<20	<100	<20	<20	<20	<20	<20	830	<20	<20	<20	<40
NS-02 (20-24')	4/17/2009	19.5	<50	<50	<250	<50	<50	<50	590	<50	<50	<250	<50	<50	<50	<50	<50	1,700	<50	<50	430	<100
NS-03 (16-20')	4/15/2009	16.0	<4.0	<4.0	<20	<4.0	<4.0	<4.0	23	<4.0	<4.0	<20	<4.0	<4.0	<4.0	<4.0	<4.0	45	<4.0	<4.0	41	<8.0
NS-03 (37-41')	4/15/2009	16.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	9.8	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	19	<1.0	<1.0	480	<2.0
NS-04 (14-18')	4/16/2009	14.0	<1.0	<1.0	<5.0	<1.0	1.4	<1.0	11	1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0
NS-04 (32-36')	4/16/2009	14.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	5.9	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0
NS-05 (20-24')	4/20/2009	21.0	<200	<200	<1,000	<200	<200	<200	<200	<200	<200	<1,000	<200	<200	<200	<200	<200	2,900	<200	<200	<200	<400
NS-06 (22-26')	4/20/2009	21.0	<100	<100	<500	<100	<100	<100	220	<100	<100	<500	<100	<100	<100	<100	<100	4,500	<100	<100	<100	<200
NS-07 (20-24')	4/21/2009	22.0	<20	<20	<100	<20	<20	<20	34	<20	<20	<100	<20	30	<20	<20	<20	710	<20	<20	<20	<40
NS-08 (20-24')	4/21/2009	22.0	<20	<20	<100	<20	21	<20	100	<20	<20	<100	<20	28	<20	<20	<20	960	<20	<20	27	<40
NS-08 (20-24') DUP-09	4/21/2009	22.0	<20	<20	<100	<20	22	<20	100	<20	<20	<100	<20	29	<20	<20	<20	950	<20	<20	30	<40
NS-09 (20-24')	4/21/2009	21.0	<1.0	<1.0	5.8	1.1	46	<1.0	110	5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	16	1.3	<1.0	140	<2.0
NS-10 (21-25')	4/21/2009	21.0	<10	<10	<50	<10	26	<10	380	13	<10	<50	<10	<10	<10	<10	<10	17	<10	45	<20	<20
NS-11 (23-28')	9/15/2010	23.75	<10	<10	<50	<10	<10	<10	13	<10	<10	<50	<10	<10	<10	<10	<10	1,500	<10	<10	<10	<30
NS-12 (23-28')	9/15/2010	24.0	<10	<10	<50	<10	31	14	330	<10	<10	<50	<10	<10	<10	<10	<10	720	<10	<10	120	<30
NS-13 (23-28')	9/16/2010	23.5	<10	<10	<50	<10	<10	<10	71	<10	<10	<50	<10	<10	<10	<10	<10	980	<10	<10	<10	<30
NS-13 (23-28') DUP-02	9/16/2010	23.5	<1.0	<1.0	<50	<10	<10	<10	69	<10	<1.0	<5	<1.0	<10	<1.0	<1.0	<1.0	970	<10	<1.0	<1.0	<2.0
NS-14 (23-28')	9/17/2010	23.75	<10	<10	<50	<10	28	<10	120	<10	<10	<50	<10	<10	<10	<10	<10	280	<10	1,300	<10	<10
NS-15 (22-27')	9/17/2010	22.0	<10	<10	<50	<10	57	<10	1,300	62	<10	<50	<10	<10	<10	<10	<10	87	<10	<10	660	<30
NS-16 (19-24')	9/17/2010	22.0	<5.0	<5.0	<25	<5.0	25	<5.0	150	6.2	<5.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	530	<5.0	<5.0	210	<15
NS-17 (23-28')	9/17/2010	23.75	<1.0	<1.0	7.0	<1.0	19	<1.0	2.2	<1.0	<1.0	<5.0	<1.0	1.6	<1.0	<1.0	<1.0	35	<1.0	120	<1.0	<3.0
NS-18 (20-25')	7/25/2012	20.0	<10	<10	<50	<10	19	<10	58	<10	<10	<50	<10	<10	<10	<10	<10	11	<10	900	<10	<10
NS-18 (30-35')	7/25/2012	20.0	<25	<25	<120	<25	<25	<25	600	140	&											

Table 2
 Summary of Detected Volatile Organic Compounds at Source Area Grab Groundwater Sample Locations
 Former Tecumseh Products Company Site
 Tecumseh, Michigan

Analyte	Benzene ⁽¹⁾	n-Butyl-benzene	Chloroethane	Chloroform	1,1-Dichloro-ethane	1,1-Dichloro-ethene ⁽¹⁾	cis-1,2-Dichloro-ethene	trans-1,2-Dichloro-ethene	Ethyl-benzene ⁽¹⁾	Naphthalene	n-Propyl-benzene ⁽¹⁾	Tetra-chloroethene	Toluene ⁽¹⁾	1,1,1-Tri-chloroethane	1,1,2-Tri-chloroethane	Trichloro-ethene	1,2,4-Trimethylbenzene ⁽¹⁾	1,3,5-Trimethylbenzene ⁽¹⁾	Vinyl Chloride	Total Xylenes
Health-Based Residential DW Criteria	5.0	80	430	80	880	7.0	70	100	700	520	80	5.0	1,000	200	5.0	5.0	1,000	1,000	2.0	10,000
Health-Based Non-Residential DW Criteria	5.0	230	1,700	80	2,500	7.0	70	100	700	1,500	230	5.0	1,000	200	5.0	5.0	2,900	2,900	2.0	10,000
Residential GWSL for Vapor Intrusion	NC	NC	NC	NC	130	390	440	330	NC	NC	11	NC	15,000	NC	9.9	NC	NC	5.0	NC	NC
Non-Residential GWSL for Vapor Intrusion	NC	NC	NC	NC	670	1,600	1,800	1,400	NC	NC	55	NC	63,000	NC	42	NC	NC	50	NC	NC
GSI Criteria	200 ⁽²⁾	NC	1,100 ⁽²⁾	350	740	130	620	1,500 ⁽²⁾	18	11	NC	60 ⁽²⁾	270	89	330 ⁽²⁾	200 ⁽²⁾	17	45	13 ⁽²⁾	41
Groundwater Contact Criteria	11,000	5,900	4.4E+05	1.5E+05	2.4E+06	11,000	2.0E+05	2.2E+05	1.7E+05	31,000	15,000	12,000	5.3E+05	1.3E+06	21,000	13,000 ⁽⁴⁾	56,000	61,000	1,000	1.90E+05
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

Sample Location and Screen Interval	Sample Collection Date	Approx. Depth to Groundwater (ft)																				
SS-1 (24-28')	4/15/2009	23.5	<200	<200	<1,000	<200	<200	<200	<200	<1,000	<200	<200	<200	1,500	<200	1,500	<200	<200	<200	<200	<400	
SS-1 (45-49')	4/15/2009	23.5	<1.0	<1.0	<5.0	<1.0	2.5	<1.0	9.9	<1.0	<1.0	<5.0	<1.0	<1.0	2.7	<1.0	5.8	<1.0	<1.0	<1.0	<2.0	
SS-2 (20-24')	4/16/2009	20.5	<100	<100	<500	<100	<100	<100	<100	<100	<500	<100	<100	2,200	<100	1,000	<100	<100	<100	<100	<200	
SS-2 (42-46')	4/16/2009	20.5	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	4.5	<1.0	5.3	<1.0	<1.0	<1.0	<2.0		
SS-3 (20-24')	4/16/2009	19.75	<50	<50	<250	<50	<50	<50	<50	<250	<50	120	<50	600	<50	430	<50	<50	<50	<50	<100	
SS-4 (22-24')	4/17/2009	22.0	<100	<100	<500	<100	<100	<100	<100	<100	<500	<100	<100	2,500	<100	1,100	<100	<100	<100	<100	<200	
SS-5 (22-26')	4/17/2009	22.0	<100	<100	<500	<100	<100	<100	<100	<100	<500	<100	<100	2,200	<100	1,300	<100	<100	<100	<100	<200	
SS-6 (23-27')	4/17/2009	23.5	<200	<200	<1,000	<200	<200	<200	<200	<200	<1,000	<200	<200	2,600	<200	1,100	<200	<200	<200	<200	<400	
SS-7 (22-26')	4/20/2009	22.0	<100	<100	<500	<100	<100	<100	<100	<100	<500	<100	<100	1,300	<100	1,400	<100	<100	<100	<100	<200	
SS-8 (23-27')	4/21/2009	23.5	<100	<100	<500	<100	<100	<100	<100	<100	<500	<100	<100	4,100	<100	2,300	<100	<100	<100	<100	<200	
SS-9 (23-28')	8/2/2012	24.0	<10	<10	<50	<10	<10	<10	<10	<10	<50	<10	11	<10	790	<10	560	<10	<10	<10	<30	
SS-9 (34-39')	8/2/2012	24.0	<1.0	<1.0	<5.0	<1.0	8.0	<1.0	37	5.4	<1.0	<5.0	<1.0	<1.0	2.6	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	
SS-9 (45-50')	8/2/2012	24.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	
SS-10 (22.5-27.5')	8/2/2012	23.5	<10	<10	<50	<10	<10	<10	<10	<10	<50	<10	<10	160	<10	770	<10	<10	<10	<10	<30	
SS-10 (33-38')	8/2/2012	23.5	<1.0	<1.0	<5.0	<1.0	8.2	<1.0	24	1.7	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	78	<1.0	<1.0	<1.0	<3.0
SS-10 (50-55')	8/3/2012	23.5	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	

Notes:

Health-Based Residential and Non-Residential Drinking Water (DW) Criteria, Groundwater/Surface Water Interface (GSI) Criteria and Groundwater Contact Criteria from MDEQ RRD Op Memo 1 Part 201 Generic Cleanup Criteria/Part 213 Risk Based Cleanup Levels, March 25, 2011. Groundwater Screening Levels (GWSLs) for Vapor Intrusion were calculated in accordance with the MDEQ Remediation and Redevelopment Division Program Redesign 2009 document titled Background Document: Draft Proposed Vapor Intrusion Indoor Air Criteria (IAC), Soil Gas Criteria (SGC), and Groundwater Screening Levels (GW_vSLs) for Vapor Intrusion using both residential and non-residential exposure scenarios and the most recent chemical specific toxicity values accepted and/or published by the United States Environmental Protection Agency (USEPA) as of February 1, 2012.

ug/L = micrograms per liter

NC = No criteria

-- = Not analyzed

Bold font denotes concentrations detected above laboratory reporting limits

Denotes concentrations above one or more criteria

* An asterisk indicates that the observed depth to groundwater intersects or is near an overlying clay unit that may act as a localized confining unit. The true piezometric surface may have a depth less than the recorded depth to groundwater.

1) Compound may exhibit characteristic ignitability as defined in 40 C.F.R. § 261.21

2) Criterion is not protective for surface water used as a drinking water source as described in footnote (X) of MDEQ Op Memo 1 Part 201, Attachment 1.

3) The approximate depth to groundwater is taken from soil boring logs. For sample locations with no soil boring log, approximate depth to groundwater is estimated using depth to groundwater data from nearby monitoring well and soil boring locations. Perched water, if present, is designated with a "p".

4) At the request of USEPA, a site-specific groundwater contact criteria for trichloroethene (TCE) was recalculated to reflect revised TCE toxicity data which was published by USEPA on September 28, 2011.

Table 3
 Summary of Detected Volatile Organic Compounds at Compliance Monitoring Well Locations
 Former Tecumseh Products Company Site
 Tecumseh, Michigan

Analyte	2-Butanone	Chloroethane	1,1-Dichloroethane	1,1-Dichloroethene ⁽²⁾	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride
Residential DW Criteria	13,000	430	880	7.0	70	100	5.0	200	5.0	2,600	2.0
Non-Residential DW Criteria	38,000	1,700	2,500	7.0	70	100	5.0	200	5.0	7,300	2.0
GSI Criteria	2,200	1,100	740	130	620	1,500 ⁽¹⁾	60 ⁽¹⁾	89	200 ⁽¹⁾	NC	13 ⁽¹⁾
Residential GWSLs for Vapor Intrusion	4.5E+06	NC	130	390	440	330	11	15,000	9.9	370	5.0
Non-Residential GWSLs for Vapor Intrusion	1.9E+07	NC	670	1,600	1,800	1,400	55	63,000	42	1,600	50
Groundwater Contact Criteria	2.4E+08	4.4E+05	2.4E+06	11,000	2.0E+05	2.2E+05	12,000	1.3E+06	13,000 ⁽³⁾	1.1E+06	1,000
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-01s (16-21') Depth to Groundwater Approx. 16 - 19'	3/13/2009	<100	<100	<20	<20	<20	<20	750	2,700	<20	<20
	4/20/2009	NA	<500	<100	<100	<100	<100	1,100	2,200	NA	<100
	12/9/2009	<100	<100	<20	<20	<20	<20	1,000	3,400	<20	<20
	3/17/2010	<100	<100	<20	<20	<20	<20	1,400	2,500	<20	<20
	5/18/2010	<100	<100	<20	<20	<20	<20	1,000	2,700	<20	<20
	9/10/2010	<100	<100	<20	<20	<20	<20	750	2,400	<20	<20
	12/28/2010	<100	<100	<20	<20	<20	<20	1,100	2,500	<20	<20
	2/25/2011	<50	<50	<10	<10	<10	<10	560	1,300	<10	<10
	5/11/2011 ⁽⁴⁾	<50	<50	<10	<10	<10	<10	860	1,900	<10	<10
	7/28/2011	<100	<100	<20	<20	<20	<20	500	1,900	<20	<20
	10/6/2011	<100	<100	<20	<20	<20	<20	540	2,000	<20	<20
	1/9/2012	<100	<100	<20	<20	31	<20	530	2,000	<20	<20
	4/4/2012	<100	<100	<20	<20	38	<20	480	1,900	<20	<20
	7/11/2012	<100	<100	<20	<20	<20	<20	560	2,100	<20	<20
DUP-01 (MW-01s)	3/13/2009	<20	<20	<20	<20	<20	<20	720	2,700	<20	<20
MW-02s (23-28') Depth to Groundwater Approx. 22 - 24'	3/13/2009	<10	<10	<2.0	<2.0	2.4	<2.0	2.2	2.5	280	<2.0
	4/20/2009	NA	<50	<10	<10	<10	<10	<10	<10	130	NA
	12/9/2009	<10	<10	<2.0	<2.0	3.7	<2.0	2.7	2.9	250	<2.0
	3/17/2010	13	<10	<2.0	<2.0	4.1	<2.0	2.3	3.1	290	<2.0
	5/18/2010	<10	<10	<2.0	<2.0	2.3	<2.0	2.4	2.6	210	<2.0
	9/10/2010	<10	<10	<2.0	<2.0	2.3	<2.0	2.3	2.3	220	<2.0
	12/22/2010	<10	<10	<2.0	<2.0	2.4	<2.0	2.3	3.1	240	<2.0
	2/24/2011	<10	<10	<2.0	<2.0	2.0	<2.0	<2.0	2.6	240	<2.0
	5/10/2011 ⁽⁴⁾	<10	<10	<2.0	<2.0	<2.0	<2.0	<2.0	2.3	250	<2.0
	7/28/2011 ⁽⁵⁾	<10	<10	<2.0	<2.0	2.0	<2.0	2.2	2.4	280	<2.0
	10/7/2011	<10	<10	<2.0	<2.0	<2.0	<2.0	2.5	2.5	220	<2.0
	1/10/2012	<10	<10	<2.0	<2.0	<2.0	<2.0	2.8	2.5	190	<2.0
	4/5/2012	<10	<10	<2.0	<2.0	2.7	<2.0	3.5	3.4	210	<2.0
	7/11/2012	<10	<10	<2.0	<2.0	2.2	<2.0	2.5	3.5	330	<2.0

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Denotes concentrations above one or more criteria

* An asterisk indicates that the depth to groundwater intersects or may periodically intersect an overlying clay unit. The depth to the bottom of the upper clay unit is approximately 7.0 feet below ground surface (ft bgs) at MW-09s, 8.0 ft bgs at MW-20s (based on boring log for nearby soil boring B-29), 15.0 ft bgs at MW-23, 9.0 ft bgs at MW-27s, 20.5 ft bgs at MW-29d, and 14.0 ft bgs at MW-30s and MW-30d.

1) Criterion is not protective for surface water used as a drinking water source as described in footnote (X) of MDEQ Op Memo 1 Part 201, Attachment 1.

2) Compound may exhibit characteristic ignitability as defined in 40 C.F.R. § 261.21

3) At the request of USEPA, a site-specific groundwater contact criteria for trichloroethylene (TCE) was recalculated to reflect revised TCE toxicity data which was published by USEPA on September 28, 2011.

4) The average temperature in this sample exceeded the recommended temperature range. Sample results are approximate.

5) Quality control results for trichloroethylene are outside the established control limits, the result is approximate.

6) Headspace present in the sample, results are approximate.

Table 3
Summary of Detected Volatile Organic Compounds at Compliance Monitoring Well Locations
Former Tecumseh Products Company Site
Tecumseh, Michigan

Analyte	2-Butanone	Chloroethane	1,1-Dichloroethane	1,1-Dichloroethene ⁽²⁾	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride
Residential DW Criteria	13,000	430	880	7.0	70	100	5.0	200	5.0	2,600	2.0
Non-Residential DW Criteria	38,000	1,700	2,500	7.0	70	100	5.0	200	5.0	7,300	2.0
GSI Criteria	2,200	1,100	740	130	620	1,500 ⁽¹⁾	60 ⁽¹⁾	89	200 ⁽¹⁾	NC	13 ⁽¹⁾
Residential GW _v SLs for Vapor Intrusion	4.5E+06	NC	130	390	440	330	11	15,000	9.9	370	5.0
Non-Residential GW _v SLs for Vapor Intrusion	1.9E+07	NC	670	1,600	1,800	1,400	55	63,000	42	1,600	50
Groundwater Contact Criteria	2.4E+08	4.4E+05	2.4E+06	11,000	2.0E+05	2.2E+05	12,000	1.3E+06	13,000 ⁽³⁾	1.1E+06	1,000
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-03s (9-14')											
Depth to Groundwater Approx. 8 - 10'	3/13/2009	<10	<10	9.1	<2.0	240	9.1	<2.0	<2.0	<2.0	140
	4/20/2009	NA	<50	18	<10	490	18	<10	<10	<10	210
	12/8/2009	<120	<120	46	<25	2,200	83	<25	<25	<25	130
	3/17/2010	<25	<25	11	<5.0	460	17	<5.0	<5.0	<5.0	42
	5/18/2010	<25	<25	14	<5.0	630	24	<5.0	<5.0	<5.0	34
	9/10/2010	<50	<50	29	<10	1,600	63	<10	<10	<10	83
	12/22/2010	<50	<50	32	<10	1,800	82	<10	<10	<10	70
	2/25/2011	<100	<100	33	<20	2,200	110	<20	<20	<20	75
	5/10/2011 ⁽⁴⁾	<100	<100	25	<20	1,600	77	<20	<20	<20	52
	7/28/2011	<100	<100	23	<20	1,700	78	<20	<20	<20	65
	10/6/2011	<100	<100	24	<20	2,100	100	<20	<20	<20	91
	1/10/2012	<50	<50	22	<10	1,300	81	<10	<10	<10	51
	4/4/2012	<100	<100	<20	<20	1,600	84	<20	<20	20	170
	7/11/2012	<100	<100	23	<20	2,500	120	<20	<20	25	210
DUP-01 (MW-03s)	12/8/2009	<120	<120	42	<25	2,000	73	<25	<25	<25	120
MW-04s (15-20')											
Depth to Groundwater Approx. 15 - 17'	3/13/2009	<120	<120	<25	<25	2,100	70	<25	<25	5,000	<25
	4/20/2009	NA	<500	<100	<100	1,700	<100	<100	<100	4,000	NA
	12/9/2009	<250	<250	<50	<50	2,500	90	<50	<50	7,100	<50
	3/17/2010	<250	<250	<50	<50	2,900	82	<50	<50	7,500	<50
	5/18/2010	<250	<250	<50	<50	2,100	58	<50	<50	4,700	<50
	9/17/2010	<250	<250	<50	<50	2,400	70	<50	<50	5,200	<50
	12/22/2010	<250	<250	<50	<50	2,700	91	<50	<50	6,700	<50
	2/25/2011	<250	<250	<50	<50	2,500	82	<50	<50	5,900	<50
	5/11/2011 ⁽⁴⁾	<250	<250	<50	<50	1,900	58	<50	<50	4,600	<50
	7/28/2011	<250	<250	<50	<50	1,700	50	<50	<50	4,600	<50
	10/6/2011	<250	<250	<50	<50	2,000	58	<50	<50	4,600	<50
	1/10/2012	<250	<250	<50	<50	1,800	72	<50	<50	4,800	<50
	4/4/2012	<250	<250	<50	<50	1,600	54	<50	<50	4,300	<50
	7/11/2012	<250	<250	<50	<50	2,100	65	<50	<50	5,600	<50

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4) The average temperature in this sample shipment exceeded the recommended temperature range. Sample results are approximate.

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Residential DW Criteria	13,000	430	880	7.0	70	100	5.0	200	5.0	2,600	2.0
Non-Residential DW Criteria	38,000	1,700	2,500	7.0	70	100	5.0	200	5.0	7,300	2.0
GSI Criteria	2,200	1,100	740	130	620	1,500 ⁽¹⁾	60 ⁽¹⁾	89	200 ⁽¹⁾	NC	13 ⁽¹⁾
Residential GWSLs for Vapor Intrusion	4.5E+06	NC	130	390	440	330	11	15,000	9.9	370	5.0
Non-Residential GWSLs for Vapor Intrusion	1.9E+07	NC	670	1,600	1,800	1,400	55	63,000	42	1,600	50
Groundwater Contact Criteria	2.4E+08	4.4E+05	2.4E+06	11,000	2.0E+05	2.2E+05	12,000	1.3E+06	13,000 ⁽³⁾	1.1E+06	1,000
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
<hr/>											
MW-05s (25-30') Depth to Groundwater Approx. 25 - 27'	3/13/2009	<5.0	<5.0	<1.0	<1.0	<1.0	3.5	<1.0	120	<1.0	<1.0
	4/20/2009	NA	<25	<5.0	<5.0	<5.0	<5.0	<5.0	140	NA	<5.0
	12/10/2009	<5.0	<5.0	<1.0	<1.0	<1.0	5.3	<1.0	190	<1.0	<1.0
	3/17/2010	<5.0	<5.0	<1.0	<1.0	<1.0	6.3	<1.0	160	<1.0	<1.0
	5/17/2010	<5.0	<5.0	<1.0	<1.0	<1.0	4.6	<1.0	160	<1.0	<1.0
	9/9/2010	<5.0	<5.0	<1.0	<1.0	<1.0	4.6	<1.0	140	<1.0	<1.0
	12/21/2010	<5.0	<5.0	<1.0	<1.0	<1.0	4.9	<1.0	160	<1.0	<1.0
	2/24/2011	<5.0	<5.0	<1.0	<1.0	<1.0	4.4	<1.0	130	<1.0	<1.0
	5/13/2011	<5.0	<5.0	<1.0	<1.0	<1.0	4.9	<1.0	160	<1.0	<1.0
	7/27/2011	<5.0	<5.0	<1.0	<1.0	<1.0	4.8	<1.0	150	<1.0	<1.0
	10/10/2011	<5.0	<5.0	<1.0	<1.0	<1.0	5.1	<1.0	150	<1.0	<1.0
	1/9/2012	<5.0	<5.0	<1.0	<1.0	<1.0	5.8	<1.0	150	<1.0	<1.0
	4/9/2012	<5.0	<5.0	<1.0	<1.0	<1.0	5.7	<1.0	160	<1.0	<1.0
	7/10/2012	<5.0	<5.0	<1.0	<1.0	<1.0	5.8	<1.0	160	<1.0	<1.0
MW-06s (24-29') Depth to Groundwater Approx. 23 - 26'	3/16/2009	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	21	<1.0	<1.0
	4/20/2009	NA	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	23	NA	<1.0
	12/9/2009	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	37	<1.0	<1.0
	3/18/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	31	<1.0	<1.0
	5/17/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	33	<1.0	<1.0
	9/10/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	29	<1.0	<1.0
	12/21/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	34	<1.0	<1.0
	2/18/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	35	<1.0	<1.0
	5/10/2011 ⁽⁴⁾	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	27	<1.0	<1.0
	7/27/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	27	<1.0	<1.0
	10/5/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	30	<1.0	<1.0
	1/9/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	31	<1.0	<1.0
	4/3/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	32	<1.0	<1.0
	7/10/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	32	<1.0	<1.0

Notes:

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 Former Tecumseh Products Company Site
 Tecumseh, Michigan

Analyte	2-Butanone	Chloroethane	1,1-Dichloroethane	1,1-Dichloroethene ⁽²⁾	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Residential DW Criteria	13,000	430	880	7.0	70	100	5.0	200	5.0	2,600	2.0
Non-Residential DW Criteria	38,000	1,700	2,500	7.0	70	100	5.0	200	5.0	7,300	2.0
GSI Criteria	2,200	1,100	740	130	620	1,500 ⁽¹⁾	60 ⁽¹⁾	89	200 ⁽¹⁾	NC	13 ⁽¹⁾
Residential GWSLs for Vapor Intrusion	4.5E+06	NC	130	390	440	330	11	15,000	9.9	370	5.0
Non-Residential GWSLs for Vapor Intrusion	1.9E+07	NC	670	1,600	1,800	1,400	55	63,000	42	1,600	50
Groundwater Contact Criteria	2.4E+08	4.4E+05	2.4E+06	11,000	2.0E+05	2.2E+05	12,000	1.3E+06	13,000 ⁽³⁾	1.1E+06	1,000
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-07s (23.5-28.5') Depth to Groundwater Approx. 24 - 26'	3/16/2009	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	2.1	10	<1.0	<1.0
	4/20/2009	NA	<5.0	<1.0	<1.0	<1.0	<1.0	1.6	11	NA	<1.0
	12/10/2009	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.8	14	<1.0	<1.0
	3/17/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.9	13	<1.0	<1.0
	5/17/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.9	13	<1.0	<1.0
	9/10/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.4	12	<1.0	<1.0
	12/21/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	2.1	16	<1.0	<1.0
	2/24/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.6	12	<1.0	<1.0
	5/13/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.5	12	<1.0	<1.0
	7/27/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.2	11	<1.0	<1.0
	10/10/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.4	13	<1.0	<1.0
	1/9/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.6	14	<1.0	<1.0
	4/9/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.3	12	<1.0	<1.0
	7/10/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.4	14	<1.0	<1.0
MW-08s (23.5-28.5') Depth to Groundwater 23 - 26'	3/16/2009	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.1	10	<1.0	<1.0
	4/20/2009	NA	<5.0	<1.0	<1.0	<1.0	<1.0	1.0	10	NA	<1.0
	12/10/2009	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.0	11	<1.0	<1.0
DUP-01 (MW-08s)	4/20/2009	NA	NA	<1.0	<1.0	<1.0	<1.0	1.0	10	NA	<1.0
MW-09s (7-12') Depth to Groundwater* Approx. 5 - 8'	3/16/2009	<100	<100	<20	<20	<20	<20	160	1,700	<20	<20
	4/20/2009	NA	<500	<100	<100	<100	<100	220	2,100	NA	<100
	12/9/2009	<100	<100	<20	<20	<20	<20	150	2,400	<20	<20
	3/18/2010	<100	<100	<20	<20	<20	<20	120	1,500	<20	<20
	5/18/2010	<100	<100	<20	<20	<20	<20	120	1,700	<20	<20
	9/17/2010	<100	<100	<20	<20	<20	<20	120	1,700	<20	<20
	2/25/2011	<50	<50	<10	<10	<10	<10	84	1,100	<10	<10
	5/11/2011 ⁽⁴⁾	<50	<50	<10	<10	<10	<10	83	1,200	<10	<10

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Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-10s (8-13')											
Depth to Groundwater Approx. 7 - 9'	5/15/2009	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/9/2009	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/16/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/12/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/3/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/16/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/15/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/9/2011 ⁽⁴⁾	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/20/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/4/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/4/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/2/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/5/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
DUP-02 (MW-10s)	5/15/2009	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-10d (14-19')											
Depth to Groundwater Approx. 9 - 10'	12/9/2009	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/14/2009	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-11s (29-34')											
Depth to Groundwater Approx. 29 - 32'	1/13/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/15/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/14/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/3/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/17/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/17/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/12/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/22/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/7/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/4/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/5/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/6/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
DUP-02 (MW-11s)	5/14/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
DUP-01 (MW-11s)	9/3/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

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Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
<hr/>											
MW-12s (12-17') Depth to Groundwater Approx. 13 - 15'	5/15/2009	NA	<1.0	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	<1.0
	12/30/2009	<5.0	<5.0	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	<1.0
	3/15/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/14/2010	<5.0	<5.0	<1.0	<1.0	<1.0	1.0	<1.0	<1.0	<1.0	<1.0
	9/3/2010	<5.0	<5.0	<1.0	<1.0	<1.0	1.6	<1.0	<1.0	<1.0	<1.0
	12/14/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/14/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/12/2011	<5.0	<5.0	<1.0	<1.0	<1.0	1.6	<1.0	<1.0	<1.0	<1.0
	7/20/2011	<5.0	<5.0	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	<1.0
	10/7/2011	<5.0	<5.0	<1.0	<1.0	<1.0	1.9	<1.0	<1.0	<1.0	<1.0
	1/4/2012	<5.0	<5.0	<1.0	<1.0	<1.0	2.2	<1.0	<1.0	<1.0	<1.0
	4/5/2012	<5.0	<5.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0
	7/9/2012	<5.0	<5.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0
MW-12d (33-38') Depth to Groundwater Approx. 13 - 15'	3/18/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/14/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/3/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/14/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/14/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/12/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/20/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/7/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/4/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
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Analyte	2-Butanone	Chloroethane	1,1-Dichloroethane	1,1-Dichloroethene ⁽²⁾	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride
Residential DW Criteria	13,000	430	880	7.0	70	100	5.0	200	5.0	2,600	2.0
Non-Residential DW Criteria	38,000	1,700	2,500	7.0	70	100	5.0	200	5.0	7,300	2.0
GSI Criteria	2,200	1,100	740	130	620	1,500 ⁽¹⁾	60 ⁽¹⁾	89	200 ⁽¹⁾	NC	13 ⁽¹⁾
Residential GWSLs for Vapor Intrusion	4.5E+06	NC	130	390	440	330	11	15,000	9.9	370	5.0
Non-Residential GWSLs for Vapor Intrusion	1.9E+07	NC	670	1,600	1,800	1,400	55	63,000	42	1,600	50
Groundwater Contact Criteria	2.4E+08	4.4E+05	2.4E+06	11,000	2.0E+05	2.2E+05	12,000	1.3E+06	13,000 ⁽³⁾	1.1E+06	1,000
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-13s (13-18')											
Depth to Groundwater Approx. 15 - 17'	5/15/2009	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/10/2009	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/15/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/14/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/3/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/14/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/14/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/12/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/20/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/10/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/4/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/9/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/10/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-14s (4-9')											
Depth to Perched Groundwater Approx. 3 - 7'	5/14/2009	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/8/2009	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/15/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/12/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/3/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/20/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/16/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/11/2011 ⁽⁴⁾	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/21/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/7/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/4/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/5/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/3/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:

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Denotes concentrations above one or more criteria

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1) Criterion is not protective for surface water used as a drinking water source as described in footnote (X) of MDEQ Op Memo 1 Part 201, Attachment 1.

2) Compound may exhibit characteristic ignitability as defined in 40 C.F.R. § 261.21.

3) At the request of USEPA, a site-specific groundwater contact criteria for trichloroethylene (TCE) was recalculated to reflect revised TCE toxicity data which was published by USEPA on September 28, 2011.

4) The average temperature in this sample shipment exceeded the recommended temperature range. Sample results are approximate.

5) Quality control results for trichloroethylene are outside the established control limits, the result is approximate.

6) Headspace present in the sample, results are approximate.

Table 3
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 Tecumseh, Michigan

Analyte	2-Butanone	Chloroethane	1,1-Dichloroethane	1,1-Dichloroethene ⁽²⁾	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride
Residential DW Criteria	13,000	430	880	7.0	70	100	5.0	200	5.0	2,600	2.0
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Residential GW _v SLs for Vapor Intrusion	4.5E+06	NC	130	390	440	330	11	15,000	9.9	370	5.0
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Groundwater Contact Criteria	2.4E+08	4.4E+05	2.4E+06	11,000	2.0E+05	2.2E+05	12,000	1.3E+06	13,000 ⁽³⁾	1.1E+06	1,000
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
<hr/>											
MW-14d (37.5-42.5') Depth to Groundwater Approx. 30 - 31'	3/23/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/14/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/3/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/16/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/16/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/9/2011 ⁽⁴⁾	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/21/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/5/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/4/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/2/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
DUP-01 (MW-14d)	7/3/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/16/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/9/2011 ⁽⁴⁾	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/21/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/5/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/4/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/2/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/3/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-15s (30-35') Depth to Groundwater Approx. 30 - 32'	5/15/2009	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/30/2009	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/15/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/14/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/8/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/17/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/17/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/12/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/25/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/7/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/5/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/5/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/9/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:

Health-Based Residential and Non-Residential Drinking Water (DW) Criteria, Groundwater/Surface Water Interface (GSI) Criteria and Groundwater Contact Criteria from MDEQ RRD Op Memo 1 Part 201 Generic Cleanup Criteria/Part 213 Risk Based Cleanup Levels, March 25, 2011. Groundwater Screening Levels (GW_vSLs) for Vapor Intrusion were calculated in accordance with the MDEQ Remediation and Redevelopment Division Program Redesign 2009 document titled Background Document: Draft Proposed Vapor Intrusion Indoor Air Criteria (IAC), Soil Gas Criteria (SGC), and Groundwater Screening Levels (GW_vSLs) for Vapor Intrusion using both residential and non-residential exposure scenarios and the most recent chemical specific toxicity values accepted and/or published by the United States Environmental Protection Agency (USEPA) as of February 1, 2012.

ug/L = micrograms per liter

NC = No criteria

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Bold font denotes concentrations detected above laboratory reporting limits

Denotes concentrations above one or more criteria

* An asterisk indicates that the depth to groundwater intersects or may periodically intersect an overlying clay unit. The depth to the bottom of the upper clay unit is approximately 7.0 feet below ground surface (ft bgs) at MW-09s, 8.0 ft bgs at MW-20s (based on boring log for nearby soil boring B-29), 15.0 ft bgs at MW-23, 9.0 ft bgs at MW-27s, 20.5 ft bgs at MW-29d, and 14.0 ft bgs at MW-30s and MW-30d.

1) Criterion is not protective for surface water used as a drinking water source as described in footnote (X) of MDEQ Op Memo 1 Part 201, Attachment 1.

2) Compound may exhibit characteristic ignitability as defined in 40 C.F.R. § 261.21

3) At the request of USEPA, a site-specific groundwater contact criteria for trichloroethene (TCE) was recalculated to reflect revised TCE toxicity data which was published by USEPA on September 28, 2011.

4) The average temperature in this sample shipment exceeded the recommended temperature range. Sample results are approximate.

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Table 3
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Analyte	2-Butanone	Chloroethane	1,1-Dichloroethane	1,1-Dichloroethene ⁽²⁾	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride
Residential DW Criteria	13,000	430	880	7.0	70	100	5.0	200	5.0	2,600	2.0
Non-Residential DW Criteria	38,000	1,700	2,500	7.0	70	100	5.0	200	5.0	7,300	2.0
GSI Criteria	2,200	1,100	740	130	620	1,500 ⁽¹⁾	60 ⁽¹⁾	89	200 ⁽¹⁾	NC	13 ⁽¹⁾
Residential GWSLs for Vapor Intrusion	4.5E+06	NC	130	390	440	330	11	15,000	9.9	370	5.0
Non-Residential GWSLs for Vapor Intrusion	1.9E+07	NC	670	1,600	1,800	1,400	55	63,000	42	1,600	50
Groundwater Contact Criteria	2.4E+08	4.4E+05	2.4E+06	11,000	2.0E+05	2.2E+05	12,000	1.3E+06	13,000 ⁽³⁾	1.1E+06	1,000
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
<hr/>											
MW-17s (3-8')	7/23/2009	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/7/2009	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/18/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/12/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/8/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/16/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/15/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/11/2011 ⁽⁴⁾	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/21/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/4/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/5/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/2/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/3/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-18s (26-31')	12/8/2009	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/16/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/12/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/8/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/20/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/17/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/9/2011 ⁽⁴⁾	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/22/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/5/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/5/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/3/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/6/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

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 Former Tecumseh Products Company Site
 Tecumseh, Michigan

Analyte	2-Butanone	Chloroethane	1,1-Dichloroethane	1,1-Dichloroethene ⁽²⁾	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Residential DW Criteria	13,000	430	880	7.0	70	100	5.0	200	5.0	2,600	2.0
Non-Residential DW Criteria	38,000	1,700	2,500	7.0	70	100	5.0	200	5.0	7,300	2.0
GSI Criteria	2,200	1,100	740	130	620	1,500 ⁽¹⁾	60 ⁽¹⁾	89	200 ⁽¹⁾	NC	13 ⁽¹⁾
Residential GWSLs for Vapor Intrusion	4.5E+06	NC	130	390	440	330	11	15,000	9.9	370	5.0
Non-Residential GWSLs for Vapor Intrusion	1.9E+07	NC	670	1,600	1,800	1,400	55	63,000	42	1,600	50
Groundwater Contact Criteria	2.4E+08	4.4E+05	2.4E+06	11,000	2.0E+05	2.2E+05	12,000	1.3E+06	13,000 ⁽³⁾	1.1E+06	1,000
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-19s (25-30') Depth to Groundwater Approx. 24 - 26'	12/8/2009	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.8	31	<1.0	<1.0
	1/13/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.2	2.3	<1.0	<1.0
	3/16/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.1	1.7	36	<1.0
	5/18/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.6	32	<1.0	<1.0
	9/10/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.2	1.8	33	<1.0
	12/20/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.8	37	<1.0	<1.0
	2/18/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.1	1.8	41	<1.0
	5/10/2011 ⁽⁴⁾	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.5	28	<1.0	<1.0
	7/25/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.0	1.4	27	<1.0
	10/5/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.1	1.7	28	<1.0
	1/9/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.2	1.9	34	<1.0
	4/3/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.1	1.5	32	<1.0
	7/10/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.6	2.3	32	<1.0
DUP-03 (MW-19s)	9/10/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.0	1.7	32	<1.0
DUP-02 (MW-19s)	2/18/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.1	1.8	39	<1.0
	5/10/2011 ⁽⁴⁾	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.6	29	<1.0	<1.0
	7/25/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.1	1.4	27	<1.0
	10/5/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.1	1.6	28	<1.0
	1/9/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.2	1.8	34	<1.0
	4/3/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.1	1.6	32	<1.0
	7/10/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	1.6	2.3	32	<1.0
MW-19d (40-45') Depth to Groundwater Approx. 24 - 26'	12/8/2009	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/16/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/12/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/8/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/20/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/18/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/10/2011 ⁽⁴⁾	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/25/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/5/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/5/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/3/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/10/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	DUP-01 (MW-19d)	5/12/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:

Health-Based Residential and Non-Residential Drinking Water (DW) Criteria, Groundwater/Surface Water Interface (GSI) Criteria and Groundwater Contact Criteria from MDEQ RRD Op Memo 1 Part 201 Generic Cleanup Criteria/Part 213 Risk Based Cleanup Levels, March 25, 2011. Groundwater Screening Levels (GWSLs) for Vapor Intrusion were calculated in accordance with the MDEQ Remediation and Redevelopment Division Program Redesign 2009 document titled Background Document: Draft Proposed Vapor Intrusion Indoor Air Criteria (IAC), Soil Gas Criteria (SGC), and Groundwater Screening Levels (GWSLs) for Vapor Intrusion using both residential and non-residential exposure scenarios and the most recent chemical specific toxicity values accepted and/or published by the United States Environmental Protection Agency (USEPA) as of February 1, 2012.

ug/L = micrograms per liter

NC = No criteria

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Bold font denotes concentrations detected above laboratory reporting limits

Denotes concentrations above one or more criteria

* An asterisk indicates that the depth to groundwater intersects or may periodically intersect an overlying clay unit. The depth to the bottom of the upper clay unit is approximately 7.0 feet below ground surface (ft bgs) at MW-09s, 8.0 ft bgs at MW-20s (based on boring log for nearby soil boring B-29), 15.0 ft bgs at MW-23, 9.0 ft bgs at MW-27s, 20.5 ft bgs at MW-29d, and 14.0 ft bgs at MW-30s and MW-30d.

1) Criterion is not protective for surface water used as a drinking water source as described in footnote (X) of MDEQ Op Memo 1 Part 201, Attachment 1.

2) Compound may exhibit characteristic ignitability as defined in 40 C.F.R. § 261.21

3) At the request of USEPA, a site-specific groundwater contact criteria for trichloroethene (TCE) was recalculated to reflect revised TCE toxicity data which was published by USEPA on September 28, 2011.

4) The average temperature in this sample shipment exceeded the recommended temperature range. Sample results are approximate.

5) Quality control results for trichloroethene are outside the established control limits, the result is approximate.

6) Headspace present in the sample, results are approximate.

Table 3
 Summary of Detected Volatile Organic Compounds at Compliance Monitoring Well Locations
 Former Tecumseh Products Company Site
 Tecumseh, Michigan

Analyte	2-Butanone	Chloroethane	1,1-Dichloroethane	1,1-Dichloroethene ⁽²⁾	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Residential DW Criteria	13,000	430	880	7.0	70	100	5.0	200	5.0	2,600	2.0
Non-Residential DW Criteria	38,000	1,700	2,500	7.0	70	100	5.0	200	5.0	7,300	2.0
GSI Criteria	2,200	1,100	740	130	620	1,500 ⁽¹⁾	60 ⁽¹⁾	89	200 ⁽¹⁾	NC	13 ⁽¹⁾
Residential GWSLs for Vapor Intrusion	4.5E+06	NC	130	390	440	330	11	15,000	9.9	370	5.0
Non-Residential GWSLs for Vapor Intrusion	1.9E+07	NC	670	1,600	1,800	1,400	55	63,000	42	1,600	50
Groundwater Contact Criteria	2.4E+08	4.4E+05	2.4E+06	11,000	2.0E+05	2.2E+05	12,000	1.3E+06	13,000 ⁽³⁾	1.1E+06	1,000
MW-20s (8-13')											
Depth to Groundwater*	Approx. 4 - 6'										
12/30/2009	<5.0	<5.0	48	4.0	9.6	<1.0	<1.0	150	71	2.9	<1.0
1/13/2010	<5.0	<5.0	50	3.5	9.0	<1.0	<1.0	170	70	2.8	<1.0
3/17/2010	<5.0	<5.0	51	3.8	9.4	<1.0	<1.0	160	64	3.2	<1.0
5/18/2010	<10	<10	58	5.1	12	<2.0	<2.0	210	94	3.4	<2.0
9/10/2010	<10	<10	34	4.2	9.7	<2.0	<2.0	230	110	3.8	<2.0
12/21/2010	<10	<10	24	3.6	6.1	<2.0	<2.0	200	89	3.6	<2.0
2/18/2011	<10	<10	19	3.3	5.5	<2.0	<2.0	190	93	3.5	<2.0
5/13/2011	<10	<10	14	2.8	4.1	<2.0	<2.0	190	91	2.9	<2.0
7/25/2011	<10	<10	6.5	<2.0	2.4	<2.0	<2.0	190	100	2.3	<2.0
10/10/2011	<10	<10	5.8	<2.0	<2.0	<2.0	<2.0	190	110	3.1	<2.0
1/9/2012	<5.0	<5.0	6.0	1.4	1.9	<1.0	<1.0	190	100	3.2	<1.0
4/9/2012	<5.0	<5.0	11	1.1	2.0	<1.0	<1.0	180	100	2.6	<1.0
7/10/2012	<10	<10	17	<2.0	2.5	<2.0	<2.0	190	100	2.3	<2.0
MW-20d (38.5-43.5')											
Depth to Groundwater	Approx. 12 - 16'										
12/30/2009	<5.0	<5.0	1.2	<1.0	86	<1.0	<1.0	1.9	<1.0	<1.0	3.5
1/13/2010	<5.0	<5.0	<1.0	<1.0	94	2.0	<1.0	<1.0	<1.0	<1.0	3.7
3/17/2010	<5.0	<5.0	<1.0	<1.0	85	<1.0	<1.0	<1.0	<1.0	<1.0	4.4
5/18/2010	<5.0	<5.0	<1.0	<1.0	120	<1.0	<1.0	<1.0	<1.0	<1.0	3.7
9/10/2010	<5.0	<5.0	<1.0	<1.0	95	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
12/21/2010	<5.0	<5.0	<1.0	<1.0	200	<1.0	<1.0	<1.0	<1.0	<1.0	3.5
2/18/2011	<10	<10	<2.0	<2.0	190	<2.0	<2.0	<2.0	<2.0	<2.0	3.2
5/13/2011	<10	<10	<2.0	<2.0	170	<2.0	<2.0	<2.0	<2.0	<2.0	2.6
7/25/2011	<5.0	<5.0	<1.0	<1.0	170	<1.0	<1.0	<1.0	<1.0	<1.0	2.6
10/10/2011	<10	<10	<2.0	<2.0	200	<2.0	<2.0	<2.0	<2.0	<2.0	2.5
1/9/2012	<5.0	<5.0	<1.0	<1.0	140	<1.0	<1.0	<1.0	<1.0	<1.0	6.0
4/9/2012	<5.0	<5.0	<1.0	<1.0	190	<1.0	<1.0	<1.0	1.0	<1.0	10
7/10/2012	<10	<10	<2.0	<2.0	230	<2.0	<2.0	<2.0	<2.0	<2.0	14
DUP-03 (MW-20d)	5/18/2010	<5.0	<5.0	<1.0	<1.0	120	1.0	<1.0	<1.0	<1.0	3.7

Notes:

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ug/L = micrograms per liter

NC = No criteria

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Bold font denotes concentrations detected above laboratory reporting limits

Denotes concentrations above one or more criteria

* An asterisk indicates that the depth to groundwater intersects or may periodically intersect an overlying clay unit. The depth to the bottom of the upper clay unit is approximately 7.0 feet below ground surface (ft bgs) at MW-09s, 8.0 ft bgs at MW-20s (based on boring log for nearby soil boring B-29), 15.0 ft bgs at MW-23, 9.0 ft bgs at MW-27s, 20.5 ft bgs at MW-29d, and 14.0 ft bgs at MW-30s and MW-30d.

1) Criterion is not protective for surface water used as a drinking water source as described in footnote (X) of MDEQ Op Memo 1 Part 201, Attachment 1.

2) Compound may exhibit characteristic ignitability as defined in 40 C.F.R. § 261.21

3) At the request of USEPA, a site-specific groundwater contact criteria for trichloroethene (TCE) was recalculated to reflect revised TCE toxicity data which was published by USEPA on September 28, 2011.

4) The average temperature in this sample shipment exceeded the recommended temperature range. Sample results are approximate.

5) Quality control results for trichloroethene are outside the established control limits, the result is approximate.

6) Headspace present in the sample, results are approximate.

Table 3
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Analyte	2-Butanone	Chloroethane	1,1-Dichloroethane	1,1-Dichloroethene ⁽²⁾	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride
Residential DW Criteria	13,000	430	880	7.0	70	100	5.0	200	5.0	2,600	2.0
Non-Residential DW Criteria	38,000	1,700	2,500	7.0	70	100	5.0	200	5.0	7,300	2.0
GSI Criteria	2,200	1,100	740	130	620	1,500 ⁽¹⁾	60 ⁽¹⁾	89	200 ⁽¹⁾	NC	13 ⁽¹⁾
Residential GW _v SLs for Vapor Intrusion	4.5E+06	NC	130	390	440	330	11	15,000	9.9	370	5.0
Non-Residential GW _v SLs for Vapor Intrusion	1.9E+07	NC	670	1,600	1,800	1,400	55	63,000	42	1,600	50
Groundwater Contact Criteria	2.4E+08	4.4E+05	2.4E+06	11,000	2.0E+05	2.2E+05	12,000	1.3E+06	13,000 ⁽³⁾	1.1E+06	1,000
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
<hr/>											
MW-21 (28.5-33.5') Depth to Groundwater Approx. 29 - 30'	12/8/2009	<50	<50	31	<10	59	<10	54	840	<10	<10
	1/13/2010	<50	<50	28	<10	62	<10	56	730	<10	<10
	3/23/2010	<5.0	<5.0	33	2.2	81	7.5	<1.0	62	850	<1.0
	5/18/2010	<50	<50	35	<10	89	<10	<10	63	830	<10
	10/15/2010	<50	<50	26	<10	80	<10	<10	59	810	<10
	12/22/2010	<50	<50	25	<10	69	<10	<10	55	730	<10
	2/24/2011	<50	<50	25	<10	66	<10	<10	52	730	<10
	5/11/2011 ⁽⁴⁾	<50	<50	24	<10	65	<10	<10	49	740	<10
	7/28/2011	<50	<50	22	<10	77	<10	<10	54	1,000	<10
	10/6/2011	<50	<50	22	<10	74	<10	<10	55	960	<10
	1/10/2012	<50	<50	27	<10	79	<10	<10	64	990	<10
	4/4/2012	<50	<50	25	<10	81	<10	<10	55	980	<10
	7/11/2012	58	<50	25	<10	85	<10	<10	63	1,000	<10
DUP-02 (MW-21)	3/23/2010	<5.0	<5.0	33	2.2	79	7.8	<1.0	61	810	<1.0
DUP-03 (MW-21)	2/24/2011	<50	<50	24	<10	66	<10	<10	50	740	<10
	5/11/2011 ⁽⁴⁾	<50	<50	24	<10	66	<10	<10	49	750	<10
	7/28/2011	<50	<50	23	<10	78	<10	<10	57	1,000	<10
	10/6/2011	<50	<50	21	<10	73	<10	<10	52	910	<10
	1/10/2012	<50	<50	27	<10	85	<10	<10	66	1,000	<10
	4/4/2012	<50	<50	24	<10	81	<10	<10	61	970	<10
	7/11/2012	<50	<50	25	<10	80	<10	<10	59	1,000	<10
MW-22 (25-30') Depth to Groundwater Approx. 25 - 26'	12/7/2009	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	10
	3/18/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.5
	5/18/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.0
	9/10/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.3
	12/22/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.0
	2/24/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.3
	5/11/2011 ⁽⁴⁾	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.4
	7/21/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.8
	10/4/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.2
	1/9/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.4
	4/5/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	12
	7/3/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	13

Notes:

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 Former Tecumseh Products Company Site
 Tecumseh, Michigan

Analyte	2-Butanone	Chloroethane	1,1-Dichloroethane	1,1-Dichloroethene ⁽²⁾	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Residential DW Criteria	13,000	430	880	7.0	70	100	5.0	200	5.0	2,600	2.0
Non-Residential DW Criteria	38,000	1,700	2,500	7.0	70	100	5.0	200	5.0	7,300	2.0
GSI Criteria	2,200	1,100	740	130	620	1,500 ⁽¹⁾	60 ⁽¹⁾	89	200 ⁽¹⁾	NC	13 ⁽¹⁾
Residential GWSLs for Vapor Intrusion	4.5E+06	NC	130	390	440	330	11	15,000	9.9	370	5.0
Non-Residential GWSLs for Vapor Intrusion	1.9E+07	NC	670	1,600	1,800	1,400	55	63,000	42	1,600	50
Groundwater Contact Criteria	2.4E+08	4.4E+05	2.4E+06	11,000	2.0E+05	2.2E+05	12,000	1.3E+06	13,000 ⁽³⁾	1.1E+06	1,000
MW-23 (17-22')	12/8/2009 1/13/2010 3/16/2010 5/18/2010 9/10/2010 12/21/2010 2/18/2011 5/10/2011 ⁽⁴⁾ 7/25/2011 10/5/2011 11/4/2011 1/9/2012 4/3/2012 7/10/2012	<5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0	<5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0	<1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	3.2 7.6 4.0 6.1 9.0 17 18 25 23 56 11 48 85 63						
MW-24s (18.5'-23.5')	12/8/2009 3/15/2010 5/12/2010 9/8/2010 12/14/2010 2/14/2011 5/9/2011 ⁽⁴⁾ 7/19/2011 10/4/2011 1/5/2012 4/2/2012 7/5/2012	<5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0	<5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0	<1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0							

Notes:

Health-Based Residential and Non-Residential Drinking Water (DW) Criteria, Groundwater/Surface Water Interface (GSI) Criteria and Groundwater Contact Criteria from MDEQ RRD Op Memo 1 Part 201 Generic Cleanup Criteria/Part 213 Risk Based Cleanup Levels, March 25, 2011. Groundwater Screening Levels (GWSLs) for Vapor Intrusion were calculated in accordance with the MDEQ Remediation and Redevelopment Division Program Redesign 2009 document titled Background Document: Draft Proposed Vapor Intrusion Indoor Air Criteria (IAC), Soil Gas Criteria (SGC), and Groundwater Screening Levels (GW_vSLs) for Vapor Intrusion using both residential and non-residential exposure scenarios and the most recent chemical specific toxicity values accepted and/or published by the United States Environmental Protection Agency (USEPA) as of February 1, 2012.

ug/L = micrograms per liter

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NA = Not analyzed

Bold font denotes concentrations detected above laboratory reporting limits

Denotes concentrations above one or more criteria

* An asterisk indicates that the depth to groundwater intersects or may periodically intersect an overlying clay unit. The depth to the bottom of the upper clay unit is approximately 7.0 feet below ground surface (ft bgs) at MW-09s, 8.0 ft bgs at MW-20s (based on boring log for nearby soil boring B-29), 15.0 ft bgs at MW-23, 9.0 ft bgs at MW-27s, 20.5 ft bgs at MW-29d, and 14.0 ft bgs at MW-30s and MW-30d.

1) Criterion is not protective for surface water used as a drinking water source as described in footnote (X) of MDEQ Op Memo 1 Part 201, Attachment 1.

2) Compound may exhibit characteristic ignitability as defined in 40 C.F.R. § 261.21.

3) At the request of USEPA, a site-specific groundwater contact criteria for trichloroethene (TCE) was recalculated to reflect revised TCE toxicity data which was published by USEPA on September 28, 2011.

4) The average temperature in this sample shipment exceeded the recommended temperature range. Sample results are approximate.

5) Quality control results for trichloroethene are outside the established control limits, the result is approximate.

6) Headspace present in the sample, results are approximate.

Table 3
 Summary of Detected Volatile Organic Compounds at Compliance Monitoring Well Locations
 Former Tecumseh Products Company Site
 Tecumseh, Michigan

Analyte	2-Butanone	Chloroethane	1,1-Dichloroethane	1,1-Dichloroethene ⁽²⁾	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Residential DW Criteria	13,000	430	880	7.0	70	100	5.0	200	5.0	2,600	2.0
Non-Residential DW Criteria	38,000	1,700	2,500	7.0	70	100	5.0	200	5.0	7,300	2.0
GSI Criteria	2,200	1,100	740	130	620	1,500 ⁽¹⁾	60 ⁽¹⁾	89	200 ⁽¹⁾	NC	13 ⁽¹⁾
Residential GWSLs for Vapor Intrusion	4.5E+06	NC	130	390	440	330	11	15,000	9.9	370	5.0
Non-Residential GWSLs for Vapor Intrusion	1.9E+07	NC	670	1,600	1,800	1,400	55	63,000	42	1,600	50
Groundwater Contact Criteria	2.4E+08	4.4E+05	2.4E+06	11,000	2.0E+05	2.2E+05	12,000	1.3E+06	13,000 ⁽³⁾	1.1E+06	1,000
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-24d (39-44') Depth to Groundwater Approx. 19 - 21'	12/8/2009	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/15/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/12/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/8/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/14/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/14/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/9/2011 ⁽⁴⁾	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/19/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/4/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/5/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/2/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/5/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-25s (20-25') Depth to Groundwater Approx. 18 - 20'	12/10/2009	<5.0	<5.0	1.7	<1.0	8.8	<1.0	<1.0	4.8	<1.0	<1.0
	3/16/2010	<5.0	<5.0	1.2	<1.0	<1.0	<1.0	<1.0	17	1.1	<1.0
	5/14/2010	<5.0	<5.0	1.2	<1.0	<1.0	<1.0	<1.0	18	1.0	<1.0
	9/8/2010	<5.0	<5.0	1.0	<1.0	<1.0	<1.0	<1.0	19	1.4	<1.0
	12/22/2010	<5.0	<5.0	1.2	<1.0	<1.0	<1.0	<1.0	26	2.4	<1.0
	2/24/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	19	2.2	<1.0
	5/13/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	21	2.2	<1.0
	7/28/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	19	2.5	<1.0
	10/10/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	20	2.8	<1.0
	1/5/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	20	3.0	<1.0
	4/9/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	20	3.6	<1.0
	7/11/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	21	4.2	<1.0
DUP-01 (MW-25s)	3/16/2010	<5.0	<5.0	1.3	<1.0	<1.0	<1.0	<1.0	18	1.0	<1.0

Notes:

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GSI Criteria	2,200	1,100	740	130	620	1,500 ⁽¹⁾	60 ⁽¹⁾	89	200 ⁽¹⁾	NC	13 ⁽¹⁾
Residential GWSLs for Vapor Intrusion	4.5E+06	NC	130	390	440	330	11	15,000	9.9	370	5.0
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Groundwater Contact Criteria	2.4E+08	4.4E+05	2.4E+06	11,000	2.0E+05	2.2E+05	12,000	1.3E+06	13,000 ⁽³⁾	1.1E+06	1,000
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
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MW-26s (28-33 ⁽¹⁾) Depth to Groundwater Approx. 26 - 28'	4/6/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/14/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/8/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/17/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/17/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/12/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/25/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/7/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/5/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/5/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-27s (7-12 ⁽¹⁾) Depth to Groundwater* Approx. 3 - 4'	7/9/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/23/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/17/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.0	<1.0	<1.0
	9/9/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/20/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/16/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.4	<1.0	<1.0
	5/9/2011 ⁽⁴⁾	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0
	7/21/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/5/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/6/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/3/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/5/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	DUP-02 (MW-27s)	9/9/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-27d (37.5-42.5 ⁽¹⁾) Depth to Groundwater Approx. 24 - 25'	3/23/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/17/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/9/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/20/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/16/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/9/2011 ⁽⁴⁾	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/22/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/5/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/6/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/3/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/5/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

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Residential DW Criteria	13,000	430	880	7.0	70	100	5.0	200	5.0	2,600	2.0
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Groundwater Contact Criteria	2.4E+08	4.4E+05	2.4E+06	11,000	2.0E+05	2.2E+05	12,000	1.3E+06	13,000 ⁽³⁾	1.1E+06	1,000
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
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MW-28s (25-30')	3/23/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/17/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/9/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/17/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/16/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/12/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/22/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/7/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/6/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0
	4/5/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-28d (49-54')	3/23/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/17/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/9/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/17/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/16/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/12/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/22/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/7/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/6/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/5/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-29s (13-18')	3/18/2010	<5.0	<5.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0
	5/17/2010	<5.0	<5.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0
	9/9/2010	<5.0	<5.0	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	<1.0	<1.0
	12/15/2010	<5.0	<5.0	<1.0	<1.0	1.5	<1.0	<1.0	<1.0	<1.0	<1.0
	2/15/2011	<5.0	<5.0	<1.0	<1.0	1.7	<1.0	<1.0	<1.0	<1.0	<1.0
	5/12/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/20/2011	<5.0	<5.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0
	10/10/2011	<5.0	<5.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0
	1/6/2012	<5.0	<5.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0
	4/5/2012	<5.0	<5.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0
	7/9/2012	<5.0	<5.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:

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2) Compound may exhibit characteristic ignitability as defined in 40 C.F.R. § 261.21

3) At the request of USEPA, a site-specific groundwater contact criteria for trichloroethylene (TCE) was recalculated to reflect revised TCE toxicity data which was published by USEPA on September 28, 2011.

4) The average temperature in this sample shipment exceeded the recommended temperature range. Sample results are approximate.

5) Quality control results for trichloroethylene are outside the established control limits, the result is approximate.

6) Headspace present in the sample, results are approximate.

Table 3
 Summary of Detected Volatile Organic Compounds at Compliance Monitoring Well Locations
 Former Tecumseh Products Company Site
 Tecumseh, Michigan

Analyte	2-Butanone	Chloroethane	1,1-Dichloroethane	1,1-Dichloroethene ⁽²⁾	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Residential DW Criteria	13,000	430	880	7.0	70	100	5.0	200	5.0	2,600	2.0
Non-Residential DW Criteria	38,000	1,700	2,500	7.0	70	100	5.0	200	5.0	7,300	2.0
GSI Criteria	2,200	1,100	740	130	620	1,500 ⁽¹⁾	60 ⁽¹⁾	89	200 ⁽¹⁾	NC	13 ⁽¹⁾
Residential GW _v SLs for Vapor Intrusion	4.5E+06	NC	130	390	440	330	11	15,000	9.9	370	5.0
Non-Residential GW _v SLs for Vapor Intrusion	1.9E+07	NC	670	1,600	1,800	1,400	55	63,000	42	1,600	50
Groundwater Contact Criteria	2.4E+08	4.4E+05	2.4E+06	11,000	2.0E+05	2.2E+05	12,000	1.3E+06	13,000 ⁽³⁾	1.1E+06	1,000
MW-29d (58.5-63.5')	3/18/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Depth to Groundwater*	Approx. 18 - 19'	5/17/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
9/9/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
12/15/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2/15/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
5/12/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
7/20/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
10/10/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1/6/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4/5/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
7/9/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-30s (11-16')	3/23/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Depth to Groundwater*	Approx. 9 - 11'	5/17/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
9/9/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
12/16/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2/15/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
5/13/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
7/20/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
10/10/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1/6/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4/9/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
7/9/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-30d (25.5-30.5')	3/23/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Depth to Groundwater*	Approx. 9 - 11'	5/17/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
9/9/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
12/16/2010	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2/15/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
5/13/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
7/20/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
10/10/2011	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1/6/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4/9/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
7/9/2012	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:

Health-Based Residential and Non-Residential Drinking Water (DW) Criteria, Groundwater/Surface Water Interface (GSI) Criteria and Groundwater Contact Criteria from MDEQ RRD Op Memo 1 Part 201 Generic Cleanup Criteria/Part 213 Risk Based Cleanup Levels, March 25, 2011. Groundwater Screening Levels (GW_vSLs) for Vapor Intrusion were calculated in accordance with the MDEQ Remediation and Redevelopment Division Program Redesign 2009 document titled Background Document: Draft Proposed Vapor Intrusion Indoor Air Criteria (IAC), Soil Gas Criteria (SGC), and Groundwater Screening Levels (GW_vSLs) for Vapor Intrusion using both residential and non-residential exposure scenarios and the most recent chemical specific toxicity values accepted and/or published by the United States Environmental Protection Agency (USEPA) as of February 1, 2012.

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Bold font denotes concentrations detected above laboratory reporting limits

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* An asterisk indicates that the depth to groundwater intersects or may periodically intersect an overlying clay unit. The depth to the bottom of the upper clay unit is approximately 7.0 feet below ground surface (ft bgs) at MW-09s, 8.0 ft bgs at MW-20s (based on boring log for nearby soil boring B-29), 15.0 ft bgs at MW-23, 9.0 ft bgs at MW-27s, 20.5 ft bgs at MW-29d, and 14.0 ft bgs at MW-30s and MW-30d.

1) Criterion is not protective for surface water used as a drinking water source as described in footnote (X) of MDEQ Op Memo 1 Part 201, Attachment 1.

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3) At the request of USEPA, a site-specific groundwater contact criteria for trichloroethylene (TCE) was recalculated to reflect revised TCE toxicity data which was published by USEPA on September 28, 2011.

4) The average temperature in this sample shipment exceeded the recommended temperature range. Sample results are approximate.

5) Quality control results for trichloroethylene are outside the established control limits, the result is approximate.

6) Headspace present in the sample, results are approximate.

Table 3
 Summary of Detected Volatile Organic Compounds at Compliance Monitoring Well Locations
 Former Tecumseh Products Company Site
 Tecumseh, Michigan

Analyte	2-Butanone	Chloroethane	1,1-Dichloroethane	1,1-Dichloroethene ⁽²⁾	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride
Residential DW Criteria	13,000	430	880	7.0	70	100	5.0	200	5.0	2,600	2.0
Non-Residential DW Criteria	38,000	1,700	2,500	7.0	70	100	5.0	200	5.0	7,300	2.0
GSI Criteria	2,200	1,100	740	130	620	1,500 ⁽¹⁾	60 ⁽¹⁾	89	200 ⁽¹⁾	NC	13 ⁽¹⁾
Residential GW _v SLs for Vapor Intrusion	4.5E+06	NC	130	390	440	330	11	15,000	9.9	370	5.0
Non-Residential GW _v SLs for Vapor Intrusion	1.9E+07	NC	670	1,600	1,800	1,400	55	63,000	42	1,600	50
Groundwater Contact Criteria	2.4E+08	4.4E+05	2.4E+06	11,000	2.0E+05	2.2E+05	12,000	1.3E+06	13,000 ⁽³⁾	1.1E+06	1,000
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
<hr/>											
MW-31 (33.3-38.3') Depth to Groundwater Approx. 32 - 33'	6/18/2010	<5.0	<5.0	14	<1.0	19	2.2	<1.0	20	180	<1.0
	9/17/2010	<10	<10	<2.0	<2.0	15	<2.0	<2.0	48	220	<2.0
	12/22/2010 ⁽⁵⁾	<10	<10	16	<2.0	29	2.9	<2.0	27	260	<2.0
	2/24/2011	<10	<10	16	<2.0	31	3.1	<2.0	26	300	<2.0
	5/11/2011 ⁽⁴⁾	<10	<10	15	<2.0	24	3.0	<2.0	22	250	<2.0
	7/21/2011	<5.0	<5.0	7.4	<1.0	14	1.2	<1.0	11	130	<1.0
	10/4/2011	<5.0	<5.0	18	<1.0	40	3.4	<1.0	28	340	<1.0
	1/10/2012	<10	<10	17	<2.0	35	3.1	<2.0	24	290	<2.0
	4/5/2012	<10	<10	16	<2.0	36	3.1	<2.0	24	290	<2.0
	7/17/2012	<20	<20	16	<4.0	34	<4.0	<4.0	23	310	<4.0
DUP-01 (MW-31)	6/18/2010	<5.0	<5.0	12	<1.0	19	2.3	<1.0	21	170	<1.0
MW-32s (23-28') Depth to Groundwater Approx. 23 - 25'	9/17/2010	<100	<100	150	<20	270	26	<20	220	2,400	<20
	11/18/2010	<100	<100	<20	<20	190	<20	<20	560	2,800	<20
	12/28/2010	<100	<100	<20	<20	200	<20	<20	510	2,300	<20
	2/25/2011	<100	<100	<20	<20	190	<20	<20	420	2,300	<20
	5/10/2011 ⁽⁴⁾	<100	<100	<20	<20	170	<20	<20	380	2,300	<20
	7/28/2011	<100	<100	<20	<20	140	<20	<20	380	2,400	<20
	10/6/2011	<100	<100	<20	<20	160	<20	<20	350	2,200	<20
	1/10/2012	<100	<100	<20	<20	170	<20	<20	400	2,300	<20
	4/4/2012	<100	<100	<20	<20	130	<20	<20	340	2,200	<20
	7/11/2012	<100	<100	<20	<20	85	<20	<20	370	2,200	<20
MW-33s (21-26') Depth to Groundwater Approx. 20 - 22'	9/17/2010	<5.0	<5.0	12	<1.0	13	<1.0	<1.0	76	<1.0	64
	11/18/2010	<5.0	<5.0	14	<1.0	22	<1.0	<1.0	11	<1.0	56
	12/22/2010	<5.0	<5.0	14	<1.0	22	1.2	<1.0	1.0	130	<1.0
	2/24/2011	<5.0	<5.0	12	<1.0	20	1.0	<1.0	<1.0	110	<1.0
	5/10/2011 ⁽⁴⁾	<10	<10	11	<2.0	21	<2.0	<2.0	220	<2.0	55
	7/28/2011	<10	<10	8.9	<2.0	18	<2.0	<2.0	260	<2.0	22
	10/6/2011	<10	<10	11	<2.0	19	<2.0	<2.0	220	<2.0	48
	1/9/2012 ⁽⁶⁾	<5.0	8.9	15	<1.0	20	1.0	<1.0	1.3	170	<1.0
	4/4/2012	<5.0	5.6	17	<1.0	21	<1.0	<1.0	1.2	170	<1.0
	7/11/2012	<5.0	13	25	<1.0	32	1.3	<1.0	<1.0	130	<1.0

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Residential DW Criteria	13,000	430	880	7.0	70	100	5.0	200	5.0	2,600	2.0
Non-Residential DW Criteria	38,000	1,700	2,500	7.0	70	100	5.0	200	5.0	7,300	2.0
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Residential GWSLs for Vapor Intrusion	4.5E+06	NC	130	390	440	330	11	15,000	9.9	370	5.0
Non-Residential GWSLs for Vapor Intrusion	1.9E+07	NC	670	1,600	1,800	1,400	55	63,000	42	1,600	50
Groundwater Contact Criteria	2.4E+08	4.4E+05	2.4E+06	11,000	2.0E+05	2.2E+05	12,000	1.3E+06	13,000 ⁽³⁾	1.1E+06	1,000
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
DUP-01 (MW-33s)	11/18/2010	<5.0	<5.0	14	<1.0	23	<1.0	<1.0	1.2	150	<1.0
MW-34s (23-28') Depth to Groundwater Approx. 23' - 25'	9/17/2010	<100	<100	<20	<20	<20	<20	<20	1,600	1,100	<20
	11/18/2010	<100	<100	<20	<20	<20	<20	<20	1,600	1,200	<20
	12/28/2010	<50	<50	<10	13	<10	<10	<10	1,400	1,000	<10
	2/25/2011	<50	<50	<10	<10	<10	<10	<10	1,100	900	<10
	5/10/2011 ⁽⁴⁾	<50	<50	<10	<10	<10	<10	<10	1,200	970	<10
	7/28/2011	<50	<50	<10	<10	<10	<10	<10	1,300	1,100	<10
	10/6/2011	<50	<50	<10	<10	<10	<10	<10	1,200	1,000	<10
	1/10/2012	<50	<50	<10	14	<10	<10	<10	1,500	1,100	<10
	4/4/2012	<50	<50	<10	<10	<10	<10	<10	1,400	1,200	<10
	7/11/2012	<50	<50	<10	<10	<10	<10	<10	1,400	1,100	<10
MW-35d (42.5-44.5') Depth to Groundwater Approx. 15'	7/24/2012	<5.0	<5.0	<1.0	<1.0	180	53	<1.0	1.5	20	<1.0

Notes:

Health-Based Residential and Non-Residential Drinking Water (DW) Criteria, Groundwater/Surface Water Interface (GSI) Criteria and Groundwater Contact Criteria from MDEQ RRD Op Memo 1 Part 201 Generic Cleanup Criteria/Part 213 Risk Based Cleanup Levels, March 25, 2011. Groundwater Screening Levels (GWSLs) for Vapor Intrusion were calculated in accordance with the MDEQ Remediation and Redevelopment Division Program Redesign 2009 document titled Background Document: Draft Proposed Vapor Intrusion Indoor Air Criteria (IAC), Soil Gas Criteria (SGC), and Groundwater Screening Levels (GW_vSLs) for Vapor Intrusion using both residential and non-residential exposure scenarios and the most recent chemical specific toxicity values accepted and/or published by the United States Environmental Protection Agency (USEPA) as of February 1, 2012.

ug/L = micrograms per liter

NC = No criteria

NA = Not analyzed

Bold font denotes concentrations detected above laboratory reporting limits

 Denotes concentrations above one or more criteria

* An asterisk indicates that the depth to groundwater intersects or may periodically intersect an overlying clay unit. The depth to the bottom of the upper clay unit is approximately 7.0 feet below ground surface (ft bgs) at MW-09s, 8.0 ft bgs at MW-20s (based on boring log for nearby soil boring B-29), 15.0 ft bgs at MW-23, 9.0 ft bgs at MW-27s, 20.5 ft bgs at MW-29d, and 14.0 ft bgs at MW-30s and MW-30d.

1) Criterion is not protective for surface water used as a drinking water source as described in footnote (X) of MDEQ Op Memo 1 Part 201, Attachment 1.

2) Compound may exhibit characteristic ignitability as defined in 40 C.F.R. § 261.21

3) At the request of USEPA, a site-specific groundwater contact criteria for trichloroethene (TCE) was recalculated to reflect revised TCE toxicity data which was published by USEPA on September 28, 2011.

4) The average temperature in this sample shipment exceeded the recommended temperature range. Sample results are approximate.

5) Quality control results for trichloroethene are outside the established control limits, the result is approximate.

6) Headspace present in the sample, results are approximate.

Table 4
 Summary of Detected Volatile Organic Compounds at Perimeter and Off-Site Grab Groundwater Sample Locations
 Former Tecumseh Products Company Site
 Tecumseh, Michigan

Analyte	Carbon Disulfide	Dichloro-difluoromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene ⁽¹⁾	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Ethylbenzene ⁽¹⁾	Tetra-chloroethene	Toluene ⁽¹⁾	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl Chloride	Total Xylenes ⁽¹⁾
Residential DW Criteria	800	1,700	880	5.0	7.0	70	100	700	5.0	1,000	200	5.0	5.0	2.0	10,000
Non-Residential DW Criteria	2,300	4,800	2,500	5.0	7.0	70	100	700	5.0	1,000	200	5.0	5.0	2.0	10,000
Residential GWSL for Vapor Intrusion	NC	NC	130	47	390	440	330	NC	11	NC	15,000	NC	9.9	5.0	NC
Non-Residential GWSL for Vapor Intrusion	NC	NC	670	240	1,600	1,800	1,400	NC	55	NC	63,000	NC	42	50	NC
GSI Criteria	NC	NC	740	360 ⁽²⁾	130	620	1,500 ⁽²⁾	18	60 ⁽²⁾	270	89	330 ⁽²⁾	200 ⁽²⁾	13 ⁽²⁾	41
Groundwater Contact Criteria	1.2E+06	3.0E+05	2.4E+06	19,000	11,000	2.0E+05	2.2E+05	1.7E+05	12,000	5.3E+05	1.3E+06	21,000	13,000 ⁽⁴⁾	1,000	1.9E+05
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

Sample Location and Screen Interval	Sample Collection Date	Approx. Depth to Groundwater (ft) ⁽³⁾	<1.0	<1.0	26	1.0	5.9	120	12	<1.0	5.3	<1.0	<1.0	200	<1.0	<3.0
B-01 (26-30')	3/9/2009	16.5	<1.0	<1.0	26	1.0	5.9	120	12	<1.0	5.3	<1.0	<1.0	200	<1.0	<3.0
B-01 (46-50')	3/9/2009	16.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.2	<1.0	<1.0	6.8	5.0	<3.0
B-02 (22-26')	3/10/2009	7.0*	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.8	27	<3.0
B-02 (33-37')	3/10/2009	7.0*	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.0	16	<3.0
B-03 (26-30')	3/9/2009	7.0*	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.6	<1.0	<1.0	<1.0	1.4	<3.0
B-03 (38-42')	3/9/2009	7.0*	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.2	<1.0	<1.0	<1.0	<1.0	<3.0
B-04 (19-23')	3/10/2009	7.0*	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	12	<3.0	
B-04 (19-23') DUP-01	3/10/2009	7.0*	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	12	<3.0	
B-04 (29-33')	3/10/2009	7.0*	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	
B-05 (14-18')	3/10/2009	7.0*	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	11	<3.0	
B-05 (22-26')	3/10/2009	7.0*	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.7	<3.0	
B-06 (44-48')	3/13/2009	23.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.5	<1.0	<1.0	<1.0	<1.0	<3.0
B-07 (44-48')	3/16/2009	24.0	3.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	
B-08 (44-48')	3/13/2009	24.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	
B-10 (24-28')	4/16/2009	26.0	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	57	<2.0	
B-11 (29-33')	4/16/2009	26.0	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	
B-12 (24-28') DUP-05	4/16/2009	26.0	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.2	<2.0	
B-13 (29-33')	4/17/2009	28.0	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	
B-13 (46-50')	4/16/2009	28.0	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	
B-14 (16-20')	4/14/2009	16.0	--	--	<100	<100	<100	<100	<100	<100	<100	<100	<100	1,100	<200	
B-14 (36-40')	4/14/2009	16.0	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.4	<2.0	
B-15 (24-28')	4/20/2009	24.0	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.5	<1.0	9.9	<1.0	2.8	<2.0
B-15 (44-48')	4/20/2009	24.0	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.7	<1.0	<2.0
B-17 (24-28')	4/20/2009	26.0	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	
B-18 (22-26')	4/14/2009	21.5	--	--	<1.0	<1.0	<1.0	<1.0	2.3	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	<2.0
B-18 (32-36')	4/14/2009	21.5	--	--	<1.0	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	<2.0
B-19 (12-16')	4/15/2009	5.5 p, 12.0*	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	11	<2.0	
B-19 (29-33')	4/15/2009	5.5 p, 12.0*	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	<1.0	<1.0	10	<2.0	
B-20 (8-12')	4/15/2009	5.0 p, 9.5*	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	
B-20 (18-22')	4/15/2009	5.0 p, 9.5*	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	
B-21 (6-10')	4/15/2009	6.0	--	--	3.3	<1.0	<1.0	3.6	<1.0	<1.0	<1.0	<1.0	<1.0	6.9	1.0	<2.0

Notes:

Health-Based Residential and Non-Residential Drinking Water (DW) Criteria, Groundwater/Surface Water Interface (GSI) Criteria and Groundwater Contact Criteria from MDEQ RRD Op Memo 1 Part 201 Generic Cleanup Criteria/Part 213 Risk Based Cleanup Levels, March 25, 2011. Groundwater Screening Levels (GWSLs) for Vapor Intrusion were calculated in accordance with the MDEQ Remediation and Redevelopment Division Program Redesign 2009 document titled Background Document: Draft Proposed Vapor Intrusion Indoor Air Criteria (IAC), Soil Gas Criteria (SGC), and Ground

Table 4

Notes:

Health-Based Residential and Non-Residential Drinking Water (DW) Criteria, Groundwater/Surface Water Interface (GSI) Criteria and Groundwater Contact Criteria from MDEQ RRD Op Memo 1 Part 201 Generic Cleanup Criteria/Part 213 Risk Based Cleanup Levels, March 25, 2011. Groundwater Screening Levels (GWSLs) for Vapor Intrusion were calculated in accordance with the MDEQ Remediation and Redevelopment Division Program Redesign 2009 document titled Background Document: Draft Proposed Vapor Intrusion Indoor Air Criteria (IAC), Soil Gas Criteria (SGC), and Groundwater Screening Levels (GW_vSLs) for Vapor Intrusion using both residential and non-residential exposure scenarios and the most recent chemical specific toxicity values accepted and/or published by the United States Environmental Protection Agency (USEPA) as of February 1, 2012.

$\mu\text{g/l}$ = micrograms per liter

NC = No criteria

-- = Not analyzed/Not recorded

Bold font denotes concentrations detected above laboratory reporting limits

Bold font denotes concentrations detected above laboratory reporting limits
Denotes concentrations above one or more criteria

* An asterisk indicates that the observed depth to groundwater intersects or is near an overlying clay unit that may act as a localized confining unit. The true piezometric surface may have a depth less than the recorded depth to groundwater.

1) Compound may exhibit characteristic ignitability as defined in 40 C.F.R. § 261.2.

2) Criterion is not protective for surface water used as a drinking water source as described in footnote {X} of MDEQ Op Memo 1 Part 201 Attachment 1.

3) The approximate depth to groundwater is taken from soil boring logs. For sample locations with no soil boring log, approximate depth to groundwater is estimated using depth to groundwater data from nearby monitoring well and soil boring locations. Perched water, if present, is designated with a "n".

5) The approximate depth to groundwater is taken from soil boring logs. For sample locations with no soil boring log, approximate depth to groundwater is estimated using depth to groundwater data from recent monitoring wells.

4) At the request of USEPA, a site-specific groundwater contact criteria for trichloroethylene (TCE) was recalculated to reflect revised TCE toxicity data which was published by USEPA on September 26, 2011.

3) Sample locations designated with a "b" following the boring location number, for example B-27b, were collected from the utility corridor.

Table 4
 Summary of Detected Volatile Organic Compounds at Perimeter and Off-Site Grab Groundwater Sample Locations
 Former Tecumseh Products Company Site
 Tecumseh, Michigan

Analyte	Carbon Disulfide	Dichloro-difluoromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene ⁽¹⁾	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Ethylbenzene ⁽¹⁾	Tetra-chloroethene	Toluene ⁽¹⁾	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl Chloride	Total Xylenes ⁽¹⁾
Residential DW Criteria	800	1,700	880	5.0	7.0	70	100	700	5.0	1,000	200	5.0	5.0	2.0	10,000
Non-Residential DW Criteria	2,300	4,800	2,500	5.0	7.0	70	100	700	5.0	1,000	200	5.0	5.0	2.0	10,000
Residential GWSL for Vapor Intrusion	NC	NC	130	47	390	440	330	NC	11	NC	15,000	NC	9.9	5.0	NC
Non-Residential GWSL for Vapor Intrusion	NC	NC	670	240	1,600	1,800	1,400	NC	55	NC	63,000	NC	42	50	NC
GSI Criteria	NC	NC	740	360 ⁽²⁾	130	620	1,500 ⁽²⁾	18	60 ⁽²⁾	270	89	330 ⁽²⁾	200 ⁽²⁾	13 ⁽²⁾	41
Groundwater Contact Criteria	1.2E+06	3.0E+05	2.4E+06	19,000	11,000	2.0E+05	2.2E+05	1.7E+05	12,000	5.3E+05	1.3E+06	21,000	13,000 ⁽⁴⁾	1,000	1.9E+05
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

Sample Location and Screen Interval	Sample Collection Date	Approx. Depth to Groundwater (ft) ⁽³⁾	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B-33b ⁽⁵⁾	11/24/2009	3.5 p, 7.0*	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.7	<1.0
B-34 (14-18')	4/20/2009	12.5	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0
B-34 (41-45')	4/20/2009	12.5	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0
B-35 (5-9')	4/20/2009	6.0 p, 13.0	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<2.0
B-35 (5-9') DUP-07	4/20/2009	6.0 p, 13.0	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<2.0
B-35 (11-16')	9/17/2010	6.0 p, 13.0	<1.0	<5.0	1.1	<1.0	<1.0	69	5.9	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
B-35 (30-34')	4/20/2009	6.0 p, 13.0	--	--	<10	<10	<10	<10	<10	<10	<10	<10	<10	450	<20
B-36 (12-16')	5/13/2009	6.0 p, 12.0*	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
B-36 (16-20')	5/13/2009	6.0 p, 12.0*	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
B-36 (16-20') DUP-01	5/13/2009	6.0 p, 12.0*	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
B-37 (38.5-42.5')	5/12/2009	6.0 p, 12.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<3.0
B-38 (15-19')	5/13/2009	6.0 p, 16.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<3.0
B-38 (36-40')	5/13/2009	6.0 p, 16.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
B-39 (15-19')	5/13/2009	6.0 p, 16.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
B-40 (16-20')	5/15/2009	5.5 p, 16.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
B-40 (42-46')	5/15/2009	5.5 p, 16.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
B-45 (10-12')	2/22/2011	10.0*	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
B-45 (14-16')	2/22/2011	10.0*	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	33	<3.0
B-45 (22-24')	2/22/2011	10.0*	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.1	<3.0
B-46 (8-10')	2/22/2011	8.0*	<1.0	<5.0	<1.0	<1.0	<1.0	8.2	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
B-46 (14-16')	2/22/2011	8.0*	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.1	<3.0
B-46 (21-23')	2/22/2011	8.0*	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.9	<3.0
B-47 (7.75-9.75')	2/22/2011	7.75*	<1.0	<5.0	15	<1.0	1.1	73	6.7	<1.0	<1.0	<1.0	<1.0	100	<1.0
B-47 (7.75-9.75') DUP-01	2/22/2011	7.75*	<1.0	<5.0	14	<1.0	<1.0	71	6.9	<1.0	<1.0	<1.0	<1.0	97	<1.0
B-47 (14-16')	2/22/2011	7.75*	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	23	<3.0
B-47 (21-23')	2/22/2011	7.75*	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	28	<3.0
B-48 (7-9')	2/22/2011	7.0*	<1.0	<5.0	6.2	<1.0	<1.0	34	2.9	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
B-48 (13-15')	2/22/2011	7.0*	<1.0	<5.0	16	<1.0	2.1	110	11	<1.0	<1.0	<1.0	<1.0	32	<3.0
B-48 (19.5-21.5')	2/22/2011	7.0*	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	47	<3.0
B-49 (13-15')	2/22/2011	7.0*	<5.0	<25	8.2	<5.0	<5.0	33	<5.0	<5.0	<5.0	9.0	<5.0	760	<5.0
B-49 (19.5-21.5')	2/22/2011	7.0*	<10	<50	<10	<10	<10	31	<10	<10	<10	49	<10	1,600	<10
B-50 (7-9')	2/23/2011	7.0*	<5.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	33			

Table 4
 Summary of Detected Volatile Organic Compounds at Perimeter and Off-Site Grab Groundwater Sample Locations
 Former Tecumseh Products Company Site
 Tecumseh, Michigan

Analyte	Carbon Disulfide	Dichloro-difluoromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene ⁽¹⁾	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Ethylbenzene ⁽¹⁾	Tetra-chloroethene	Toluene ⁽¹⁾	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl Chloride	Total Xylenes ⁽¹⁾
Residential DW Criteria	800	1,700	880	5.0	7.0	70	100	700	5.0	1,000	200	5.0	5.0	2.0	10,000
Non-Residential DW Criteria	2,300	4,800	2,500	5.0	7.0	70	100	700	5.0	1,000	200	5.0	5.0	2.0	10,000
Residential GWSL for Vapor Intrusion	NC	NC	130	47	390	440	330	NC	11	NC	15,000	NC	9.9	5.0	NC
Non-Residential GWSL for Vapor Intrusion	NC	NC	670	240	1,600	1,800	1,400	NC	55	NC	63,000	NC	42	50	NC
GSI Criteria	NC	NC	740	360 ⁽²⁾	130	620	1,500 ⁽²⁾	18	60 ⁽²⁾	270	89	330 ⁽²⁾	200 ⁽²⁾	13 ⁽²⁾	41
Groundwater Contact Criteria	1.2E+06	3.0E+05	2.4E+06	19,000	11,000	2.0E+05	2.2E+05	1.7E+05	12,000	5.3E+05	1.3E+06	21,000	13,000 ⁽⁴⁾	1,000	1.9E+05
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

Sample Location and Screen Interval	Sample Collection Date	Approx. Depth to Groundwater (ft) ⁽³⁾																
B-50 (13-15')	2/23/2011	7.0*	<50	<250	<50	<50	<50	<50	<50	<50	<50	<50	100	5,400	<50	<150		
B-50 (20-22')	2/23/2011	7.0*	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	6.5	<3.0			
B-50 (20-22') DUP-02	2/23/2011	7.0*	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	7.0	<3.0			
B-51 (7-9')	2/23/2011	7.0*	<5.0	<25	<5.0	<5.0	13	<5.0	<5.0	<5.0	<5.0	<5.0	25	<5.0	580	<5.0	<15	
B-51 (13-15')	2/23/2011	7.0*	<10	<50	36	<10	140	87	<10	<10	<10	<10	260	<10	1,600	<10	<30	
B-51 (20-22')	2/23/2011	7.0*	<10	<50	<10	<10	23	24	<10	<10	<10	<10	970	62	<30			
B-52 (7-9')	2/23/2011	7.0*	<500	<2,500	930	<500	<500	520	<500	4,400	<500	85,000	2,900	<500	2,900	<500	43,000	
B-52 (13-15')	2/23/2011	7.0*	<10	<50	57	<10	<10	71	<10	430	<10	120	<10	<10	30	270	1,326	
B-52 (20-22')	2/23/2011	7.0*	<5.0	<25	<5.0	<5.0	<5.0	140	16	<5.0	<5.0	<5.0	<5.0	440	<5.0	<15		
B-53 (18-20')	2/23/2011	17.5	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	120	<1.0	<3.0			
B-53 (24-26')	2/23/2011	17.5	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0		
B-54 (18-20')	2/23/2011	18.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<3.0		
B-54 (26-28')	2/23/2011	18.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0		
B-58 (7-12')	4/1/2011	7.0*	--	--	--	--	--	--	--	620	--	16	--	--	--	--	5,300	
B-59 (7-12')	4/1/2011	7.25*	--	--	--	--	--	--	--	2,500	--	41,000	--	--	--	--	24,000	
B-60 (7-12')	4/1/2011	7.25*	--	--	--	--	--	--	--	4,700	--	55,000	--	--	--	--	48,000	
B-61 (7-12')	4/1/2011	7.0*	--	--	--	--	--	--	--	5,200	--	61,000	--	--	--	--	41,000	
B-62 (7-12')	4/1/2011	7.0*	--	--	--	--	--	--	--	1.4	--	<1.0	--	--	--	--	<3.0	
B-63 (7-12')	4/1/2011	7.0*	--	--	--	--	--	--	--	3,800	--	21,000	--	--	--	--	30,000	
B-63 (7-12') DUP-01	4/1/2011	7.0*	--	--	--	--	--	--	--	3,800	--	21,000	--	--	--	--	31,000	
B-64 (7-12')	4/1/2011	7.25*	--	--	--	--	--	--	--	9,300	--	18,000	--	--	--	--	59,000	
B-65 (7-12')	4/1/2011	7.0*	--	--	--	--	--	--	--	3,200	--	90	--	--	--	--	23,000	
B-66 (7-12')	4/1/2011	7.0*	--	--	--	--	--	--	--	2,500	--	<50	--	--	--	--	28,000	
B-67 (7-12')	4/1/2011	7.0*	--	--	--	--	--	--	--	140	--	<5.0	--	--	--	--	1,300	
B-68 (14.5-16.5')	7/24/2012	15.0	<20	<100	<20	<20	<20	28	<20	<20	<20	1,200	<20	1,900	<20	<60		
B-68 (20.7-22.7')	7/24/2012	15.0	<50	<250	<50	<50	130	<50	<50	<50	<50	5,300	<50	4,200	<50	<150		
B-68 (27.7-29.7')	7/24/2012	15.0	<25	<125	<25	<25	<25	51	89	<25	<25	<25	<25	2,800	<25	<75		
MW-25 (46-51')	12/1/2009	19.0	<1.0	<5.0	<1.0	<1.0	<1.0	37	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0		

Notes:

Health-Based Residential and Non-Residential Drinking Water (DW) Criteria, Groundwater/Surface Water Interface (GSI) Criteria and Groundwater Contact Criteria from MDEQ RRD Op Memo 1 Part 201 Generic Cleanup Criteria/Part 213 Risk Based Cleanup Levels, March 25, 2011. Groundwater Screening Levels (GWSLs) for Vapor Intrusion were calculated in accordance with the MDEQ Remediation and Redevelopment Division Program Redesign 2009 document titled Background Document: Draft Proposed Vapor Intrusion Indoor Air Criteria (IAC), Soil Gas Criteria (SGC), and Groundwater Screening Levels (GW_vSLs) for Vapor Intrusion using both residential and non-residential exposure scenarios and the most recent chemical specific toxicity values accepted and/or published by the United States Environmental Protection Agency (USEPA) as of February 1, 2012.

ug/L = micrograms per liter

NC = No criteria

-- = Not analyzed

Bold font denotes concentrations detected above laboratory reporting limits

* An asterisk indicates that the observed depth to groundwater intersects or is near an overlying clay unit that may act as a localized confining unit. The true piezometric surface may have a depth less than the recorded depth to groundwater.

Denotes concentrations above one or more criteria

1) Compound may exhibit characteristic ignitability as defined in 40 C.F.R. § 261.21

2) Criterion is not protective for surface water used as a drinking water source as described in footnote {X} of MDEQ Op Memo 1 Part 201, Attachment 1.

3) The approximate depth to groundwater is taken from soil boring logs. For sample locations with no soil boring log, approximate depth to groundwater is estimated using depth to groundwater data from nearby monitoring well and soil boring locations. Perched water, if present, is designated with a "p".

4) At the request of USEPA, a site-specific groundwater contact criteria for trichloroethylene (TCE

Table 5
Summary of Detected Volatile Organic Compounds at Permeable Reactive Barrier Performance Monitoring Locations
Former Tecumseh Products Company Site
Tecumseh, Michigan

Analyte	Acetone ⁽²⁾	2-Butanone	Benzene ⁽²⁾	Chloroethane	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene ⁽²⁾	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Ethylbenzene ⁽²⁾	Isopropylbenzene	n-Propyl Benzene ⁽²⁾	Tetrachloroethene	Toluene ⁽²⁾	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	1,2,4-Tri-methylbenzene	Vinyl Chloride	Total Xylenes ⁽²⁾
Residential Health-Based DW Criteria	730	13,000	5.0	430	80	880	5.0	7.0	70	100	700	800	80	5.0	1,000	200	5.0	5.0	1,000	2.0	10,000
Non-Residential Health-Based DW Criteria	2,100	38,000	5.0	1,700	80	2,500	5.0	7.0	70	100	700	2,300	230	5.0	1,000	200	5.0	5.0	2,900	2.0	10,000
GSI Criteria	1,700	2,200	200 ⁽¹⁾	1,100 ⁽¹⁾	350	740	360 ⁽¹⁾	130	620	1,500 ⁽¹⁾	18	28	NC	60 ⁽¹⁾	270	89	330 ⁽¹⁾	200 ⁽¹⁾	17	13 ⁽¹⁾	41
Residential GWSLs for Vapor Intrusion	NC	4.5E+06	NC	NC	NC	130	NC	390	440	330	NC	NC	NC	11	NC	15,000	NC	9.9	NC	5.0	NC
Non-Residential GWSLs for Vapor Intrusion	NC	1.9E+07	NC	NC	NC	670	NC	1,600	1,800	1,400	NC	NC	NC	55	NC	63,000	NC	42	NC	50	NC
Groundwater Contact Criteria	3.1E+07	2.4E+08	11,000	4.4E+05	1.5E+05	2.4E+06	19,000	11,000	2.0E+05	2.2E+05	1.7E+05	56,000	15,000	12,000	5.3E+05	1.3E+06	21,000	13,000 ⁽³⁾	56,000	1,000	1.9E+05
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

PRB-01s (6-11') Depth to Groundwater* Approx. 5.5 - 6.5'	8/10/2011	<1,000	<250	<50	<250	<50	<50	170	<50	<50	<50	<50	<50	<50	<50	3,700	<50	3,900	<50	<50	<150
	10/7/2011	<500	<120	<25	<120	<25	<25	42	<25	<25	<25	<25	<25	<25	<25	2,900	<25	3,300	<25	<25	<75
	1/11/2012	<200	<50	<10	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	960	<10	2,000	<10	<10	<30
	4/10/2012	<400	<100	<20	<100	<20	<20	50	<20	31	230	<20	<20	<20	<20	670	<20	1,800	<20	22	<30
	7/16/2012	<200	<50	<10	<50	10	41	<10	120	750	<10	<10	<10	<10	<10	600	<10	1,600	<10	20	<30
PRB-02s (6-11') Depth to Groundwater* Approx. 5.5 - 6.5'	8/10/2011	<500	<120	<25	<120	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	110	<25	3,100	<25	<25	<75
	10/7/2011	<500	<120	<25	<120	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	80	<25	2,300	<25	<25	<75
	1/11/2012	<400	<100	<20	<100	<20	<20	<20	1,200	<20	<20	<20	<20	<20	<20	64	<20	1,900	<20	<20	<60
	4/10/2012	<400	<100	<20	<100	<20	<20	<20	1,800	23	<20	<20	<20	<20	<20	36	<20	1,300	<20	<20	<60
	7/13/2012	<200	<50	<10	<50	<10	<10	<10	1,000	19	<10	<10	<10	<10	<10	29	<10	1,200	<10	<10	<30
PRB-03s (6-11') Depth to Groundwater* Approx. 5.5 - 6.5'	8/10/2011	<200	<50	<10	<50	<10	19	<10	<10	<10	560	<10	<10	<10	<10	<10	14	<10	<10	3,400	<10
	10/6/2011	<200	<50	<10	<50	<10	17	<10	<10	<10	510	<10	<10	<10	<10	<10	10	<10	<10	2,990	<10
	1/11/2012	<100	<25	<5.0	<25	<5.0	13	<5.0	<5.0	<5.0	320	<5.0	<5.0	<5.0	<5.0	<5.0	24	<5.0	<5.0	1,920	<5.0
	4/10/2012	<40	<10	<2.0	<10	<2.0	11	<2.0	<2.0	<2.0	170	2.3	2.2	<2.0	<2.0	3.6	<2.0	25	<2.0	890	<2.0
	7/16/2012	<100	<25	<5.0	34	<5.0	26	<5.0	<5.0	<5.0	410	17	<5.0	<5.0	<5.0	<5.0	11	14	<5.0	2,090	<5.0
PRB-04s (6-11') Depth to Groundwater* Approx. 6.0 - 7.0'	8/10/2011	<200	110	<10	<50	<10	<10	590	<10	<10	<10	<10	<10	<10	<10	100	<10	1,100	<10	<10	<30
	10/7/2011	<500	900	<25	<120	<25	<25	3,400	<25	<25	<25	<25	<25	<25	<25	62	<25	25	<25	67	<75
	1/11/2012	<500	440	<25	<120	<25	110	<25	3,600	36	<25	<25	<25	<25	<25	34	<25	25	<25	26	<75
	4/10/2012	<500	360	<25	130	<25	200	<25	2,400	37	<25	<25	<25	<25	<25	25	<25	26	<25	190	<75
	7/16/2012	<500	660	<25	120	<25	490	29	2,500	67	<25	<25	<25	<25	<25	25	<25	25	<25	610	108
PRB-04d (25-30') Depth to Groundwater* Approx. 6.0 - 7.0'	8/10/2011	<20	10	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	9.8	<1.0	12	<3.0		
	10/7/2011	<20	<5.0	<1.0	<5.																

Table 5
 Summary of Detected Volatile Organic Compounds at Permeable Reactive Barrier Performance Monitoring Locations
 Former Tecumseh Products Company Site
 Tecumseh, Michigan

Notes

Health-Based Residential and Non-Residential Drinking Water (DW) Criteria, Groundwater/Surface Water Interface (GSI) Criteria and Groundwater Contact Criteria from MDEQ RRD Op Memo 1 Part 201 Generic Cleanup Criteria/Part 213 Risk Based Cleanup Levels, March 25, 2011. Groundwater Screening Levels (GWSLs) for Vapor Intrusion were calculated in accordance with the MDEQ Remediation and Redevelopment Division Program Redesign 2009 document titled Background Document: Draft Proposed Vapor Intrusion Indoor Air Criteria (IAC), Soil Gas Criteria (SGC), and Groundwater Screening Levels (GW_vSLs) for Vapor Intrusion using both residential and non-residential exposure scenarios and the most recent chemical specific toxicity values accepted and/or published by the United States Environmental Protection Agency (USEPA) as of February 1, 2012.

ug/L = micrograms per liter

NC = No criteria

Bold font denotes concentrations detected above laboratory reporting limits

Denotes concentrations above one or more criteria

* An asterisk indicates that the depth to groundwater intersects or may periodically intersect an overlying clay unit. The depth to the bottom of the upper clay unit is approximately 3.5 feet below ground surface (ft bgs) at PRB-09s; 4.0 ft bgs at PRB-06s; 5.0 ft bgs at PRB-08s, PRB-08d, and PRB-10s; 6.5 ft bgs at PRB-01s, PRB-02s, PRB-04s, and PRB-04d; 7.0 ft bgs at PRB-05s and PRB-07s; and 8.0 ft bgs at PRB-03s.

1) Criterion is not protective for surface water used as a drinking water source as described in footnote (X) of MDEQ Op Memo 1 Part 201, Attachment 1.

2) Compound may exhibit characteristic ignitability as defined in 40 C.F.R. § 261.21

3) At the request of USEPA, a site-specific groundwater contact criteria for trichloroethene (TCE) was recalculated to reflect revised TCE toxicity data which was published by USEPA on September 28, 2011.

Table 5
Summary of Detected Volatile Organic Compounds at Permeable Reactive Barrier Performance Monitoring Locations
Former Tecumseh Products Company Site
Tecumseh, Michigan

Analyte	Acetone ⁽²⁾	2-Butanone	Benzene ⁽²⁾	Chloroethane	Chloroform	1,1-Dichloro-ethane	1,2-Dichloro-ethane	1,1-Dichloro-ethene ⁽²⁾	cis-1,2-Dichloro-ethene	trans-1,2-Dichloro-ethene	Ethyl-benzene ⁽²⁾	Isopropyl-benzene	n-Propyl Benzene ⁽²⁾	Tetrachloro-ethene	Toluene ⁽²⁾	1,1,1-Tri-chloroethane	1,1,2-Tri-chloroethane	Trichloro-ethene	1,2,4-Tri-methyl-benzene	Vinyl Chloride	Total Xylenes ⁽²⁾	
Residential Health-Based DW Criteria	730	13,000	5.0	430	80	880	5.0	7.0	70	100	700	800	80	5.0	1,000	200	5.0	5.0	1,000	2.0	10,000	
Non-Residential Health-Based DW Criteria	2,100	38,000	5.0	1,700	80	2,500	5.0	7.0	70	100	700	2,300	230	5.0	1,000	200	5.0	5.0	2,900	2.0	10,000	
GSI Criteria	1,700	2,200	200 ⁽¹⁾	1,100 ⁽¹⁾	350	740	360 ⁽¹⁾	130	620	1,500 ⁽¹⁾	18	28	NC	60 ⁽¹⁾	270	89	330 ⁽¹⁾	200 ⁽¹⁾	17	13 ⁽¹⁾	41	
Residential GWSLs for Vapor Intrusion	NC	4.5E+06	NC	NC	NC	130	NC	390	440	330	NC	NC	11	NC	15,000	NC	9.9	NC	5.0	NC	NC	
Non-Residential GWSLs for Vapor Intrusion	NC	1.9E+07	NC	NC	NC	670	NC	1,600	1,800	1,400	NC	NC	55	NC	63,000	NC	42	NC	50	NC	NC	
Groundwater Contact Criteria	3.1E+07	2.4E+08	11,000	4.4E+05	1.5E+05	2.4E+06	19,000	11,000	2.0E+05	2.2E+05	1.7E+05	56,000	15,000	12,000	5.3E+05	1.3E+06	21,000	13,000 ⁽³⁾	56,000	1,000	1.9E+05	
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
PRB-11s (15-20') Depth to Groundwater Approx. 15.5 - 16.5'	8/10/2011	<20	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.4	<1.0	<1.0	<3.0	
	10/6/2011	<20	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.5	<1.0	<1.0	<3.0	
	1/11/2012	<20	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.7	<1.0	<1.0	<3.0	
	4/9/2012	<20	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	<3.0	
	7/16/2012	<20	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	<3.0	
PRB-12s (15-20') Depth to Groundwater Approx. 15.5 - 16.5'	8/11/2011	<200	<50	<10	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10	17	<10	33	<10	1,100	<10	<10	<30
	10/7/2011	<200	<50	<10	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10	17	<10	35	<10	1,300	<10	<10	<30
	1/12/2012	<200	<50	<10	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10	14	<10	26	<10	950	<10	<10	<30
	4/9/2012	<200	<50	<10	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10	12	<10	25	<10	850	<10	<10	<30
	7/12/2012	<200	<50	<10	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10	14	<10	27	10	1,200	<10	<10	<30
PRB-13s (19-24') Depth to Groundwater Approx. 18.0 - 19.0'	8/11/2011	<200	<50	<10	<50	<10	<10	12	<10	<10	<10	<10	<10	<10	380	<10	550	<10	550	<10	14	<30
	10/6/2011	<500	<120	<25	<120	<25	<25	<25	<25	<25	<25	<25	<25	<25	25	<25	25	<25	1,100	<25	2,700	<25
	1/12/2012	<500	<120	<25	<120	<25	<25	<25	<25	<25	<25	<25	<25	<25	25	<25	25	<25	1,200	<25	2,800	<25
	4/3/2012	<500	<120	<25	<120	<25	<25	<25	<25	<25	<25	<25	<25	<25	25	<25	25	<25	1,100	<25	2,500	<25
	7/12/2012	<400	<100	<20	<100	<20	<20	<20	23	<20	<20	<20	<20	<20	20	<20	20	<20	1,200	<20	2,900	<20
PRB-14s (19.5-24.5') Depth to Groundwater 17.0 - 18.0'	8/11/2011	<400	<100	<20	<100	<20	<20	<20	65	<20	<20	<20	<20	<20	910	<20	3,000	<20	62	<20	<60	
	10/6/2011	<400	<100	<20	<100	<20	<20	<20	48	<20	<20	<20	<20	<20	1,100	<20	3,300	<20	65	<20	<60	
	1/12/2012	<400	<100	<20	<100	<20	<20	<20	53	<20	<20	<20	<20	<20	1,000	<20	3,200	<20	57	<20	<60	
	4/3/2012	<400	<100	<20	<100	<20	<20	<20	29	<20	<20	<20	<20	<20	990	<20	2,700	<20	32	<20	<60	
	7/12/2012	<400	<100	<20	<100	<20	<20	<20	33	<20	<20	<20	<20	<20	1,200	<20	3,100	<20	43	<20	<60	
PRB-15s (15-20') Depth to Groundwater 16.0 - 17.0'	8/11/2011	<400	<100	<20	<100	<20	<20	<20	<20	<20	<20	<20	<20	<20	1,200	<20	2,500	<20	2,500	<20	<60	
	10/6/2011	<400	<100	<20	<100	<20	<20	<20	20	<20	<20	<20	<20	<20	1,200	<20	2,700	<20	2,700	<20	<60	
	1/12/2012	<400	<100	<20	<100	<20	<20	<20	21	<20	<20	<20	<20	<20	850	<20	1,900	<20	1,900	<20	<60	
	4/9/2012	<																				

Table 6
 Summary of Chlorinated Volatile Organic Compounds at Storm Water and Surface Water Sample Locations
 Tecumseh Products Company
 Tecumseh, Michigan

Analyte	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene ⁽¹⁾	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Vinyl Chloride
GSI Criteria	740	360 ⁽²⁾	130	620	1,500 ⁽²⁾	60 ⁽²⁾	89	200 ⁽²⁾	13 ⁽²⁾
Human Non-Cancer Value (Non-Drink)	400,000	420,000	33,000	36,000	19,000	1,800	1,300,000	550	4,400
Human Cancer Value (Non-Drink)	NC	360	NC	NC	NC	60	NC	370	13
Final Chronic Value	740	2,000	130	620	1,500	190	89	200	930
Aquatic Maximum Value	6,600	8,200	1,200	5,500	14,000	1,400	800	1,800	8,400
Final Acute Value	13,000	16,000	2,300	11,000	28,000	2,900	1,600	3,500	17,000
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
STW-1	4/13/2009	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.85
	12/9/2009	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/16/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/14/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/2/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/10/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
STW-2	4/13/2009	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	23
	12/9/2009	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/16/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	5/14/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/2/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/10/2010 ⁽³⁾	--	--	--	--	--	--	--	--
STW-3	4/13/2009	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STW-4	4/13/2009	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STW-5	4/13/2009	<0.5	<0.5	<0.5	1.6	<0.5	<0.5	<0.5	0.55
STW-6	4/13/2009	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
STW-7	4/13/2009	<0.5	<0.5	<0.5	0.64	<0.5	0.63	<0.5	2.7
STW-8	4/13/2009	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Surface Water ⁽⁴⁾	5/26/2011	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SEEP	4/3/2012	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/10/2012	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
WL-01	4/6/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	6/18/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/8/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/10/2010 ⁽⁵⁾	--	--	--	--	--	--	--	--
	2/25/2011 ⁽⁵⁾	--	--	--	--	--	--	--	--
	5/11/2011	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/5/2012	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/2/2012	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/3/2012	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:

Groundwater/Surface Water Interface (GSI) Criteria from MDEQ RRD Op Memo 1 Part 201 Generic Cleanup Criteria/Part 213 Risk Based Cleanup Levels, March 25, 2011. Human Non-Cancer Values (HNV), Human Cancer Values (HCV), Final Chronic

Values (FCV), Aquatic Maximum Values (AMV) and Final Acute Values (FAV) from MDEQ Surface Water Assessment Rule 57 Water Quality Values, September 7, 2012.

ug/L = micrograms per liter

NC = No criteria

-- = No data

Bold font denotes concentrations detected above laboratory reporting limits

 Denotes concentrations above one or more criteria

1) Compound may exhibit characteristic ignitability as defined in 40 C.F.R. § 261.21

2) Criterion is not protective for surface water used as a drinking water source as described in footnote (X) of MDEQ Op Memo 1 Part 201, Attachment 1.

3) Insufficient flow to collect sample.

4) Sample collected from surface water that accumulated adjacent to the permeable reactive barrier (PRB) trench during construction. Surface water was managed by pumping it to the city storm sewer in the Maumee Street right of way.

5) Frozen, no sample collected.

Table 7
Summary of Chlorinated Volatile Organic Compounds at On-Site Sub-Slab Soil Gas Locations
Tecumseh Products Company
Tecumseh, Michigan

Analyte		1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Vinyl chloride	2-Propanol
Non-Residential Sub-Slab SGSLs ⁽¹⁾		960	59	11,000	1,900	3,300	160	200,000	84	540	NC
Units		ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	%
SV-01	10/29/2009	30.8	<0.94	<0.94	450	6.4	9.1	554	17,100	<0.92	0.010
SV-01	1/5/2010	178	41.6	<29.4	456	<56.4	128	482	13,000	<28.8	2.2E-05
SV-02	10/29/2009	39.8	<1.0	<1.0	137	18.3	8.4	6,180	11,800	<0.98	0.025
SV-02	1/5/2010	39.3	<17.5	<17.5	187	56.7	115	1,940	3,390	<17.1	9.8E-04
SV-02	3/26/2010	<261	<261	<261	326	<502	<261	5,570	16,700	<256	<2.5E-5
SV-03 ⁽²⁾	10/29/2009	--	--	--	--	--	--	--	--	--	24
SV-03	1/5/2010	87.9	<17.5	<17.5	874	<33.6	162	532	9,500	<17.1	2.8E-04
SV-04	10/29/2009	2.3	<0.97	<0.97	<0.97	<1.9	14.9	410	2,430	<0.95	0.004
SV-04	1/5/2010	<29.4	<29.4	<29.4	<29.4	<56.4	<29.4	289	1,330	<28.8	4.2E-06
SV-05	10/29/2009	2.6	<0.87	<0.87	<0.87	<1.7	<0.87	13.0	25.9	<0.86	0.055
SV-05	1/5/2010	<29.4	<29.4	<29.4	<29.4	<56.4	<29.4	<29.4	<29.4	<28.8	1.6E-03
SV-06	10/29/2009	467	<280	<280	<280	<538	<280	8,400	12,800	<274	1.3
SV-06	1/5/2010	416	<17.5	29.9	261	<33.6	38.3	7,200	15,200	<17.1	5.4E-05
SV-06	3/26/2010	371	474	<290	<290	<557	<290	5,840	6,580	<284	<2.8E-5
SV-07	10/29/2009	<321	<321	<321	1,030	<618	<321	<321	4,120	<315	0.002
SV-07	1/5/2010	119	<17.5	<17.5	806	327	<17.5	152	1,720	<17.1	2.1E-06
SV-08	10/29/2009	<280	<280	<280	<280	<538	<280	<280	13,400	<274	0.016
SV-08	1/5/2010	33.5	<17.5	<17.5	225	256	<17.5	185	2,370	<17.1	2.0E-06
SV-09	10/29/2009	<321	<321	<321	<321	<618	<321	<321	510	<315	1.4E-04
SV-09	1/5/2010	<17.5	17.8	<17.5	<17.5	<33.6	<17.5	59.8	453	<17.1	8.4E-05
SV-10	10/29/2009	<290	<290	<290	<290	<557	<290	<290	<290	<284	0.52
SV-10	1/5/2010	<29.4	<29.4	<29.4	<29.4	<56.4	<29.4	<29.4	644	<28.8	3.7E-06
SV-11	10/29/2009	<4,470	<4,470	<4,470	<4,470	<8,600	<4,470	6,490	118,000	<4,390	8.1E-04
SV-11	1/5/2010	87.5	183	<47.0	1,010	<90.3	53.0	2,190	20,200	<46.1	7.4E-05
SV-11	3/26/2010	95.3	<18.1	<18.1	743	<34.8	<18.1	1,200	9,670	<17.7	8.60E-06
SV-12	10/29/2009	<321	<321	<321	<321	<618	<321	13,200	13,300	<315	0.002
SV-12	1/5/2010	61.1	<17.5	88.3	30.6	<33.6	<17.5	9,270	10,500	<17.1	3.9E-05
SV-12	3/26/2010	<579	<579	<579	<579	<1,110	<579	14,900	8,230	<568	<5.6E-5
SV-13	10/29/2009	<321	<321	1,160	<321	<618	<321	19,200	6,660	<315	8.4E-05
SV-13	1/5/2010	46.1	363	242	71.0	<33.6	93.8	10,900	4,840	<17.1	4.4E-06
SV-13 (DUP-01)	1/5/2010	62.5	<17.5	356	92.4	<33.6	44.2	4,810	2,810	<17.1	6.3E-04
SV-14 ⁽²⁾	10/30/2009	--	--	--	--	--	--	--	--	--	16
SV-14	1/5/2010	<29.4	<29.4	<29.4	<29.4	<56.4	<29.4	118	219	<28.8	3.2E-06
DUP-01 (SV-14)	10/30/2009	<223	<223	<223	<223	<429	<223	261	555	<219	0.39
SV-15	10/29/2009	<290	<290	4,360	<290	<557	<290	208,000	45,400	<284	1.5
SV-15	1/5/2010	468	<29.4	3,850	537	<56.4	344	436,000	103,000	<28.8	2.3E-05
SV-15	3/26/2010	<16,700	<16,700	<16,700	<16,700	<32,200	<16,700	186,000	43,600	<16,400	<1.6E-3
SV-15 (DUP-02)	3/26/2010	<16,700	<16,700	<16,700	<16,700	<32,200	<16,700	191,000	45,700	<16,400	<1.6E-3
SV-16 ⁽²⁾	10/29/2009	--	--	--	--	--	--	--	--	--	9.7
SV-16	1/5/2010	222	<17.5	93.0	551	<33.6	<17.5	3,930	5,670	<17.1	<1.7E-06
SV-16	3/26/2010	313	<280	<280	707	<538	<280	6,200	4,650	<274	<2.7E-5
SV-17	10/29/2009	<321	<321	<321	<321	<618	<321	9,320	14,700	<315	7.5E-04
SV-17	1/5/2010	<29.4	<29.4	44.9	49.3	<56.4	<29.4	7,360	7,160	<28.8	7.1E-05
SV-18	10/29/2009	2,910	<310	<310	313	1,730	<310	324	11,100	<304	1.0
SV-18	1/5/2010	762	<17.5	36.4	138	552	<17.5	91.3	6,820	<17.1	<1.7E-06

Notes:

1) Non-Residential Soil Gas Screening Levels (SGSLs) were calculated in accordance with the MDEQ Remediation and Redevelopment Division Program Redesign 2009 document titled Background Document: Draft Proposed Vapor Intrusion Indoor Air Criteria (IAC), Soil Gas Criteria (SGC), and Groundwater Screening Levels (GW_vSLs) and the most recent chemical specific toxicity values accepted and/or published by the USEPA as of February 1, 2012.

2) Elevated concentrations of 2-propanol (tracer) detected. Analytical data for other analytes are presumed to be invalid (-).

Table 8
 Summary of Chlorinated Volatile Organic Compounds at On-Site Indoor Air Sample Locations
 Tecumseh Products Company
 Tecumseh, Michigan

Analyte		1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Vinyl Chloride
95th Percentile Background Indoor Air Concentration ⁽¹⁾		<0.06	0.05	0.18	0.30	NA	1.4	5.0	0.63	0.04
Residential Indoor Air Criteria ⁽²⁾		3.8	0.24	52	9.3	16	0.62	940	0.40	1.1
Non-Residential Indoor Air Criteria ⁽²⁾		19	1.2	220	38	65	3.1	4,000	1.7	11
OHSA PELs ⁽³⁾		100,000	50,000	NC	200,000	200,000	100,000	350,000	100,000	1,000
Units		ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
IA-01 (SV-07)	1/4/2010	<0.70	<0.70	<0.70	<0.70	<1.3	<0.70	<0.70	16.0	<0.68
	2/2/2010 ⁽⁴⁾	<0.70	<0.70	<0.70	<0.70	<1.3	<0.70	<0.70	<0.70	<0.68
IA-02 (SV-08)	1/4/2010	<0.70	<0.70	<0.70	<0.70	<1.3	<0.70	<0.70	19.8	<0.68
	2/2/2010 ⁽⁴⁾	<0.77	<0.77	<0.77	<0.77	<1.5	<0.77	<0.77	4.3	<0.75
IA-03 (SV-09)	1/4/2010	<0.74	<0.74	<0.74	<0.74	<1.4	<0.74	<0.74	15.6	<0.73
	2/2/2010 ⁽⁴⁾	<0.80	<0.80	<0.80	<0.80	<1.5	<0.80	<0.80	2.6	<0.79
IA-04 (SV-10)	1/4/2010	<0.70	<0.70	<0.70	<0.70	<1.3	<0.70	<0.70	8.7	<0.68
	2/2/2010 ⁽⁴⁾	<0.77	<0.77	<0.77	<0.77	<1.5	<0.77	<0.77	2.7	<0.75
IA-05 (SV-18)	1/4/2010	<0.74	<0.74	<0.74	<0.74	<1.4	<0.74	<0.74	10.8	<0.73
	2/2/2010 ⁽⁴⁾	<0.80	<0.80	<0.80	<0.80	<1.5	<0.80	<0.80	3.0	<0.79
IA-06	2/2/2010 ⁽⁴⁾	<0.77	<0.77	<0.77	<0.77	<1.5	<0.77	<0.77	<0.77	<0.75
IA-07	2/2/2010 ⁽⁴⁾	<0.80	<0.80	<0.80	<0.80	<1.5	<0.80	<0.80	4.0	<0.79
IA-08	2/2/2010 ⁽⁴⁾	<0.96	<0.96	<0.96	<0.96	<1.8	<0.96	<0.96	<0.96	<0.94
IA-09 (SV-06)	3/25/2010	<0.65	<0.65	<0.65	<0.65	<1.2	<0.65	2.5	13.5	<0.64
IA-10 (SV-03)	3/25/2010	<0.65	<0.65	<0.65	<0.65	<1.2	<0.65	5.3	10.4	<0.64
IA-11 (SV-11)	3/25/2010	<0.65	<0.65	<0.65	<0.65	<1.2	<0.65	4.8	19.1	<0.64
IA-12 (SV-12)	3/25/2010	<0.72	<0.72	<0.72	<0.72	<1.4	<0.72	7.0	9.8	<0.70
IA-13 (SV-13)	3/25/2010	<0.70	0.83	<0.70	<0.70	<1.3	<0.70	10.8	8.5	<0.68
IA-14 (SV-14)	3/25/2010	<0.70	<0.70	<0.70	<0.70	<1.3	<0.70	6.3	8.0	<0.68
IA-15 (SV-15)	3/25/2010	<0.65	1.5	<0.65	<0.65	<1.2	<0.65	19.2	14.4	<0.64
IA-16 (SV-16)	3/25/2010	<0.70	0.83	<0.70	<0.70	<1.3	<0.70	10.1	10.0	<0.68
IA-17 (SV-17)	3/25/2010	<0.65	0.65	<0.65	<0.65	<1.2	<0.65	8.4	17.4	<0.64
IA-18 (SV-02)	3/25/2010	<0.70	<0.70	<0.70	<0.70	<1.3	<0.70	3.1	17.1	<0.68
IA-18 (SV-02) DUP-01	3/25/2010	<0.65	<0.65	<0.65	<0.65	<1.2	<0.65	3.0	18.6	<0.64
IA-19 (SV-01)	3/25/2010	<0.70	<0.70	<0.70	<0.70	<1.3	<0.70	<0.70	2.2	<0.68

Notes:

- Background indoor air concentrations taken from the USEPA Report titled Background Indoor Air Concentrations of Volatile Organic Compounds in North American Residences (1990-2005): A Compilation of Statistics for Assessing Vapor Intrusion, EPA 530-R-10-001, dated June 2011.
- Residential and Non-Residential Indoor Air Criteria were calculated according the methods described in the USEPA OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils, dated November 2002, using the most recent chemical specific toxicity values accepted and/or published by the USEPA as of February 1, 2012.
- United States Department of Labor, Occupational Safety and Health Administration (OSHA) permissible exposure limits (PELs) over an 8-hour period (time weighted average).
- Samples dated February 2, 2010 were collected during a ventilation test. Sample results are not representative of current, stagnant indoor air conditions.

Bold font denotes concentrations detected above laboratory reporting limits.

Denotes concentrations above one or more applicable non-residential indoor air criterion.
 ppbv = parts per billion by volume
 NC = No Criteria

Table 9
 Summary of Chlorinated Volatile Organic Compounds at Off-Site Soil Gas Sample Locations
 Tecumseh Products Company
 Tecumseh, Michigan

Analyte	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Vinyl Chloride
Residential SGSLs where $\alpha = 0.1$ ⁽¹⁾	38	2.4	520	93	160	6.2	9,400	4.0	11
Residential SGSLs where $\alpha = 0.01$ ⁽²⁾	380	24	5,200	930	1,600	62	94,000	40	110
Site Specific Residential SGSLs where $\alpha = 0.003$ ⁽³⁾	1,300	79	17,000	3,100	5,300	210	310,000	130	360
Site Specific Non-Residential SGSLs where $\alpha = 0.003$ ⁽³⁾	6,400	400	72,000	13,000	22,000	1,000	1,300,000	560	3,600
Units	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
SG-01 (8-8.5')	4/5/2010 5/20/2010 ⁽⁴⁾ 10/21/2010 12/9/2010 4/13/2011 6/27/2011 9/28/2011 11/21/2011 1/30/2012 6/27/2012	5.7 52.4 74.7 <709 32.8 <180 <100 <5.0 10 53	<2.3 <4.4 <16.8 <709 166 <90 <100 <5.0 <4.0 <5.0	4.4 21.6 272 <709 21.0 <180 110 7.4 6.2 13	17.0 184 25.8 <709 7.79 <180 84.6 39 17 170	<4.4 <4.4 <2.3 <709 22 <180 8.300 22 19	279 52.1 222 <709 6.440 98.0 150 24 610 190	396 1,690 8,300 6,440 2,630 1,420 4,300 1,300 7,900 4,700	<2.3 <4.4 <16.8 <709 10,500 7,340 19,000 7,900 23,000 <5.0
SG-01 (DUP-01)	4/5/2010 5/20/2010 ⁽⁴⁾ 9/28/2011 11/21/2011 1/30/2012	<2.2 63.2 <100 22 ⁽⁸⁾ 15	<2.2 <4.4 <100 <5.0 <4.0	<2.2 31.0 <100 9.9 9.3	<2.2 245 270 48 26	<2.2 22.6 <200 <10 <8.0	256 200 25 4.0	2,120 5,800 1,700 920	3,770 28,000 8,500 1,000
SG-02 (5.5-6')	4/5/2010 10/21/2010 12/9/2010 ⁽⁵⁾ 3/31/2011 ⁽⁵⁾ 6/27/2011 9/28/2011 11/21/2011 1/30/2012 6/27/2012	<4.0 <12.5 NS NS 8.5 <5.0 2.3 <1.0 18	<4.0 <12.5 NS NS <3.5 <5.0 <1.0 <1.0 <1.0	<4.0 <12.5 NS NS <7.0 <5.0 <1.0 4.2	<4.0 <12.5 NS NS 28.0 6.1 2.6 2.1 1,300	<4.0 <12.5 NS NS 8.6 1,240 2.5 52	<4.0 532 NS NS 943 1,100 400 780	19.6 328 NS NS 3,970 230 120 430	<4.0 <12.5 NS NS <3.5 550 310 2,200 3.3
SG-03 (5-5.5')	4/5/2010 10/21/2010 12/9/2010 3/31/2011 6/27/2011 9/28/2011 11/21/2011 1/30/2012 6/27/2012	<2.6 91.0 47.7 <0.56 8.5 <0.36 3.0 3.5 <2.0	<2.6 <15.7 <11.9 <11.9 193 <0.57 <0.37 <2.0 <1.0 <2.0	<2.6 <15.7 <11.9 <11.9 90.3 48.5 <0.57 <0.37 4.0 2.0 1.0 2.0 2.0	<5.1 <15.7 <11.9 <11.9 NS <0.57 <0.37 NS NS NS	<2.6 <15.7 <11.9 <11.9 NS NS NS NS NS	<2.6 <15.7 <11.9 <11.9 4.8 22.3 <0.57 <0.37 8.6 2.3 1.0 1.8 12	<2.6 <15.7 <11.9 <11.9 <0.18 <2.0 <2.0 <2.0 <2.0	

Notes:

- 1) Soil gas screening levels (SGSLs) calculated using an attenuation factor of 0.1 as specified in a comment letter from USEPA dated August 24, 2010.
- 2) SGSLs calculated using an attenuation factor of 0.01, as recommended in the Draft USEPA 2002 OSWER Vapor Intrusion Guidance.
- 3) Site Specific SGSLs calculated using an attenuation factor (0.003). This attenuation factor was determined using the USEPA Johnson and Ettinger Model calculation spreadsheet, Version 3.1. The site specific model used the spreadsheet default parameters conservatively assuming a sand substrate, a depth to foundation of 200 cm (basement), and a sample depth of 200 cm.
- 4) Elevated concentrations of 2-propanol (tracer) detected: DUP-01 results from 5/20/10 reflect true soil gas concentrations. Tracer concentration from SG-01 and analytical data from DUP-01 suggests that sample was diluted with approximately 30-percent ambient air.
- 5) Water in sample point prevented sample collection.
- 6) Analyte was evaluated for detection to the method detection limit.
- 7) Elevated concentrations of 2-propanol (tracer) detected. Analytical data for other analytes are presumed to be invalid (-).
- 8) Quality control results are outside the established control limits, the result is approximate.

Bold font denotes concentrations detected above laboratory reporting limits.

Denotes concentrations above one or more soil gas screening level

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Site Specific Non-Residential SGSLs where $\alpha = 0.003$ ⁽³⁾	6,400	400	72,000	13,000	22,000	1,000	1,300,000	560	3,600
Units	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
SG-04 (5-5.5')	4/5/2010	<2.6	<1.3 ⁽⁶⁾	<2.6	<2.6	<2.6	<2.6	<2.6	<2.5
	9/23/2010	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
	12/9/2010	<0.78	<0.78	<0.78	<0.78	<0.78	<0.78	<0.78	<0.78
	3/31/2011	<1.6	<1.6	<1.6	<1.6	2.0	<1.6	<1.6	<1.6
	6/7/2011	<1.0	<0.53	<1.1	<1.1	<1.1	<0.52	<1.0	<0.53
	9/28/2011	<1.0	<1.0	<1.0	<1.0	1.7	<1.0	<1.0	<1.0
	11/21/2011	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	2.4
	1/30/2012	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	6/27/2012	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	1.0	<1.0
SG-05 (7.5-8')	4/5/2010	<2.6	<2.6	<2.6	<2.6	<4.9	<2.6	28.7	26.6
	10/21/2010	<16.8	<16.8	<16.8	<16.8	<16.8	708	1,320	<16.8
	12/9/2010	<15.7	<15.7	<15.7	<15.7	<15.7	357	538	<15.7
	3/31/2011 ⁽⁵⁾	NS	NS	NS	NS	NS	NS	NS	NS
	6/27/2011	<0.34	<0.17	<0.35	<0.35	<0.35	<0.17	2.2	0.20
	9/28/2011	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	2.1	1.1
	11/21/2011	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	1/30/2012 ⁽⁵⁾	NS	NS	NS	NS	NS	NS	NS	NS
	6/26/2012	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	1.1	<1.0
SG-05 (DUP-01)	10/21/2010	<16.8	<16.8	<16.8	<16.8	<16.8	<16.8	581	1,020
	12/9/2010	<211	<211	<211	<211	<211	<211	772	849
SG-06 (8-8.5')	4/5/2010	<2.6	<2.6	<2.6	<2.6	<4.9	<2.6	7.2	<2.5
	5/20/2010	<4.6	<4.6	<4.6	<4.6	<4.6	9.5	6.0	104
	9/21/2010	<29.2	<29.2	<29.2	<29.2	<29.2	62.2	<29.2	263
	12/9/2010	<3.9	<3.9	<3.9	6.1	<3.9	4.3	7.4	64.9
	3/31/2011	0.73	<0.17	<0.35	<0.35	1.3	<0.17	1.7	14.1
	6/7/2011	0.88	<0.18	<0.37	5.6	2.5	7.5	2.5	50.2
	9/28/2011	3.6	<2.0	<2.0	35	6.4	16	7.7	150
	11/21/2011	2.2	<1.0	<1.0	9.2	2.6	<1.0	5.1	29
	1/30/2012	1.4	<1.0	<1.0	5.4	<2.0	<1.0	1.3	9.7
	6/27/2012	<1.0	<1.0	<1.0	7.7	<2.0	9.1	3.4	68

Notes:

- 1) Soil gas screening levels (SGSLs) calculated using an attenuation factor of 0.1 as specified in a comment letter from USEPA dated August 24, 2010.
- 2) SGSLs calculated using an attenuation factor of 0.01, as recommended in the Draft USEPA 2002 OSWER Vapor Intrusion Guidance.
- 3) Site Specific SGSLs calculated used an attenuation factor (0.003). This attenuation factor was determined using the USEPA Johnson and Ettinger Model calculation spreadsheet, Version 3.1. The site specific model used the spreadsheet default parameters conservatively assuming a sand substrate, a depth to foundation of 200 cm (basement), and a sample depth of 200 cm.
- 4) Elevated concentrations of 2-propanol (tracer) detected; DUP-01 results from 5/20/10 reflect true soil gas concentrations. Tracer concentration from SG-01 and analytical data from DUP-01 suggests that sample was diluted with approximately 30-percent ambient air.
- 5) Water in sample point prevented sample collection.
- 6) Analyte was evaluated for detection to the method detection limit.
- 7) Elevated concentrations of 2-propanol (tracer) detected. Analytical data for other analytes are presumed to be invalid (-).
- 8) Quality control results are outside the established control limits, the result is approximate.

Bold font denotes concentrations detected above laboratory reporting limits.

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Table 9
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 Tecumseh Products Company
 Tecumseh, Michigan

Analyte	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Vinyl Chloride
Residential SGSLs where $\alpha = 0.1$ ⁽¹⁾	38	2.4	520	93	160	6.2	9,400	4.0	11
Residential SGSLs where $\alpha = 0.01$ ⁽²⁾	380	24	5,200	930	1,600	62	94,000	40	110
Site Specific Residential SGSLs where $\alpha = 0.003$ ⁽³⁾	1,300	79	17,000	3,100	5,300	210	310,000	130	360
Site Specific Non-Residential SGSLs where $\alpha = 0.003$ ⁽³⁾	6,400	400	72,000	13,000	22,000	1,000	1,300,000	560	3,600
Units	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
SG-07 (8-8.5')	4/5/2010	<75.2	<75.2	<75.2	<75.2	<75.2	<75.2	<75.2	<75.2
	5/20/2010	<5.0	<5.0	<5.0	<5.0	13.8	6.8	145	<5.0
	9/21/2010	<69.6	<69.6	<69.6	<69.6	140	<69.6	403	<69.6
	12/9/2010	<22.2	<22.2	<22.2	<22.2	24.4	<22.2	139	<22.2
	3/31/2011	<0.34	<0.17	<0.35	<0.35	5.9	4.3	47.2 ⁽⁸⁾	<0.17
	6/7/2011	<0.36	<0.18	<0.37	<0.37	23.6	4.4 ⁽⁸⁾	171 ⁽⁸⁾	<0.18
	9/28/2011	<1.0	<1.0	<1.0	<1.0	76	16	260	<1.0
	11/21/2011	<1.0	<1.0	<1.0	<1.0	2.0	<1.0	2.7	3.1
	1/30/2012	<1.0	<1.0	<1.0	<1.0	2.0	<1.0	2.4	<1.0
	6/26/2012	<1.0	<1.0	<1.0	<1.0	67	9.0	250	<1.0
SG-07 (DUP-01)	3/31/2011	<0.56	<0.56	<0.57	<0.57	7.9	5.0	90.6 ⁽⁸⁾	<0.58
	6/7/2011	<0.36	<0.18	<0.37	<0.37	28.4 ⁽⁸⁾	9.5 ⁽⁸⁾	97.2 ⁽⁸⁾	<0.18
	6/26/2012	<1.0	<1.0	<1.0	<1.0	66	9.3	250	<1.0
SG-08 (6.5-7')	4/5/2010	<2.6	<1.3 ⁽⁶⁾	<2.6	<2.6	5.1	<2.6	<2.6	<2.6
	9/23/2010	<2.0	<2.0	<2.0	<2.0	2.0	<2.0	4.5	3.5
	12/9/2010 ⁽⁵⁾	NS	NS	NS	NS	NS	NS	NS	NS
	3/31/2011	<0.34	<0.17	<0.35	<0.35	0.35	0.29	3.4	<0.17
	6/27/2011	<0.34	<0.17	<0.35	<0.35	0.35	<0.17	0.97	<0.18
	9/28/2011	<1.0	<1.0	<1.0	<1.0	2.0	<1.0	1.9	<1.0
	11/21/2011	<1.0	<1.0	<1.0	<1.0	2.0	<1.0	6.9	1.3
	1/30/2012	<1.0	<1.0	<1.0	<1.0	2.0	<1.0	1.0	<1.0
	6/29/2012	<1.0	<1.0	<1.0	<1.0	2.0	<1.0	1.8	2.0
SG-09 (5.5-6')	4/5/2010 ⁽⁷⁾	--	--	--	--	--	--	--	--
	5/20/2010	10.6	<4.4	<4.4	<4.4	<4.4	123	176	<4.4
	9/23/2010	<23.4	<23.4	<23.4	<23.4	<23.4	142	436	<23.4
	12/9/2010	<13.2	<13.2	<13.2	<13.2	<13.2	61.8	51.7	<13.2
	3/31/2011	4.3	<0.17	<0.35	1.3	<0.35	<0.17	52.5	13.9
	6/27/2011	5.4	<0.17	<0.35	1.4	<0.35	<0.17	52.8	45.8
	9/28/2011	1.7	<1.0	<1.0	<1.0	2.0	<1.0	13	7.9
	11/21/2011	3.8	<1.0	<1.0	<1.0	2.0	<1.0	32	9.1
	1/30/2012	<1.0	<1.0	<1.0	<1.0	2.0	<1.0	7.2	1.3
	6/29/2012	<1.0	<1.0	<1.0	1.0	2.0	<1.0	89	190
SG-09 (DUP-02)	6/29/2012	<1.0	<1.0	<1.0	1.2	<2.0	<1.0	93	200

Notes:

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Units	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
SG-10 (5-5.5')	4/5/2010	<40.3 ⁽⁶⁾	<40.3 ⁽⁶⁾	<80.6	<80.6	<40.3 ⁽⁶⁾	<80.6	<40.3 ⁽⁶⁾	<40.3 ⁽⁶⁾
	9/21/2010	<4.4	<2.2 ⁽⁶⁾	<4.4	<4.4	<4.4	<4.4	11.5	<4.4
	12/9/2010	<8.7	<4.4 ⁽⁶⁾	<8.7	<8.7	<4.4 ⁽⁶⁾	<8.7	<8.7	<8.7
	3/31/2011	<0.61	<0.61	<0.62	<0.62	<0.61	<0.59	<0.60	<0.62
	6/27/2011 ⁽⁵⁾	NS	NS	NS	NS	NS	NS	NS	NS
	9/28/2011	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	1.4	19
	11/21/2011	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	19	56
	1/30/2012	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	6/27/2012	<1.0	<1.0	<1.0	4.8	<2.0	1.9	46	210
SG-11 (7.5-6')	4/5/2010	<2.8	<1.4 ⁽⁶⁾	<2.8	<2.8	<5.4	<2.8	<2.8	<2.8
	9/23/2010	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4
	12/9/2010	<0.84	<0.84	<0.84	<0.84	<0.84	<0.84	<0.84	<0.84
	3/31/2011	<0.56	<0.56	<0.57	<0.57	<0.57	<0.57	<0.56	<0.57
	6/7/2011	<0.39	<0.19	<0.40	<0.40	<0.40	0.89	0.54	1.2
	9/28/2011	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	11/21/2011	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	6.8	18
	1/30/2012	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	6/27/2012	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
SG-12 (5-5.5')	4/5/2010 ⁽⁵⁾	NS	NS	NS	NS	NS	NS	NS	NS
	5/20/2020 ⁽⁵⁾	NS	NS	NS	NS	NS	NS	NS	NS
	9/21/2010 ⁽⁵⁾	NS	NS	NS	NS	NS	NS	NS	NS
	12/9/2010	<2.5	<1.3 ⁽⁶⁾	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
	3/31/2011 ⁽⁵⁾	NS	NS	NS	NS	NS	NS	NS	NS
	6/27/2011 ⁽⁵⁾	NS	NS	NS	NS	NS	NS	NS	NS
	9/28/2011 ⁽⁵⁾	NS	NS	NS	NS	NS	NS	NS	NS
	11/21/2011	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	1/30/2012 ⁽⁵⁾	NS	NS	NS	NS	NS	NS	NS	NS
SG-12R	6/26/2012	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0

Notes:

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Table 9
 Summary of Chlorinated Volatile Organic Compounds at Off-Site Soil Gas Sample Locations
 Tecumseh Products Company
 Tecumseh, Michigan

Analyte	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Vinyl Chloride
Residential SGSLs where $\alpha = 0.1$ ⁽¹⁾	38	2.4	520	93	160	6.2	9,400	4.0	11
Residential SGSLs where $\alpha = 0.01$ ⁽²⁾	380	24	5,200	930	1,600	62	94,000	40	110
Site Specific Residential SGSLs where $\alpha = 0.003$ ⁽³⁾	1,300	79	17,000	3,100	5,300	210	310,000	130	360
Site Specific Non-Residential SGSLs where $\alpha = 0.003$ ⁽³⁾	6,400	400	72,000	13,000	22,000	1,000	1,300,000	560	3,600
Units	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
SG-13 (5.5-6')	4/5/2010	<2.5	<1.3 ⁽⁶⁾	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
	5/20/2010	<4.5	<2.2 ⁽⁶⁾	<4.5	<4.5	<4.5	<4.5	6.1	<4.5
	9/23/2010	<1.5	<1.5	<1.5	2.5	5.6	<1.5	<1.5	<1.5
	12/9/2010	<1.6	<1.6	<1.6	<1.6	2.9	<1.6	<1.6	<1.6
	3/31/2011	<0.56	<0.56	<0.57	<0.57	<0.57	<0.57	<0.56	<0.58
	6/7/2011	1.5	<0.19	<0.40	4.8	10.8	0.77	0.81	1.6
	9/28/2011	1.1	<1.0	<1.0	6.2	10	<1.0	<1.0	<1.0
	11/21/2011	1.9	<1.0	<1.0	2.0	4.0	<1.0	<1.0	<1.0
	1/30/2012	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	6/26/2012	<1.0	<1.0	<1.0	4.9	7.7	<1.0	<1.0	<1.0
SG-14 (6.5-7') ⁽⁵⁾	4/5/2010	NS	NS	NS	NS	NS	NS	NS	NS
	5/20/2010	NS	NS	NS	NS	NS	NS	NS	NS
	9/21/2010	NS	NS	NS	NS	NS	NS	NS	NS
	12/9/2010	NS	NS	NS	NS	NS	NS	NS	NS
	3/31/2011	NS	NS	NS	NS	NS	NS	NS	NS
	6/27/2011	NS	NS	NS	NS	NS	NS	NS	NS
	9/28/2011	NS	NS	NS	NS	NS	NS	NS	NS
	11/21/2011	NS	NS	NS	NS	NS	NS	NS	NS
	1/30/2012 ⁽⁵⁾	NS	NS	NS	NS	NS	NS	NS	NS
SG-14R	6/26/2012	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	1.3
SG-15 (11-11.5')	9/23/2010 ⁽⁵⁾	NS	NS	NS	NS	NS	NS	NS	NS
	12/15/2010 ⁽⁵⁾	NS	NS	NS	NS	NS	NS	NS	NS
	3/31/2011 ⁽⁵⁾	NS	NS	NS	NS	NS	NS	NS	NS
	6/27/2011 ⁽⁵⁾	NS	NS	NS	NS	NS	NS	NS	NS
	9/28/2011 ⁽⁵⁾	NS	NS	NS	NS	NS	NS	NS	NS
	11/21/2011	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	10	30
	1/30/2012 ⁽⁵⁾	NS	NS	NS	NS	NS	NS	NS	NS
SG-15R	6/26/2012	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0

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Units	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
SG-16 (7.5'-8')	9/23/2010	<2.5	<2.5	<2.5	<2.5	2.6	<2.5	<2.5	<2.5
	12/9/2010	<15.7	<7.8 ⁽⁶⁾	<15.7	<15.7	<7.8 ⁽⁶⁾	<15.7	<15.7	<7.8 ⁽⁶⁾
	3/31/2011	<0.61	<0.61	<0.60	<0.60	<0.60	<0.59	<0.60	<0.62
	6/7/2011	<1.1	<0.53	<1.1	<1.1	<1.1	<1.1	0.62	<0.54
	9/28/2011	<1.0	<1.0	<1.0	3.3	<2.0	7.4	<1.0	28
	11/21/2011	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	1.1
	1/30/2012	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	6/27/2012	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
SG-17	6/27/2012	<1.0	<1.0	<1.0	<1.0	<2.0	1.8	330	5.7
SG-18	6/27/2012	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	1.1	2.3
SG-19	6/26/2012	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
SG-20	6/27/2012	<1.0	<1.0	<1.0	<1.0	<2.0	5.4	1.5	17
SG-21	6/27/2012	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
TVP-02s	6/27/2012	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	1.2	8.8

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