

ATTACHMENT E

***METHOD COMPARABILITY STUDY SUMMARY
USEPA 1613B AND METHOD 1613-TRP/RT***

***GEOMORPH[®] SITE CHARACTERIZATION
UPPER TITTABAWASSEE RIVER***

**Low Level Method Comparability Study (<1000 ETEQ)
 Upper Tittabawassee River
 Midland, Michigan**

Transect Location/Sample Identification	Collection Date	Depth Interval (ft.bgs)	Lab ID	Lab's Sample ID	Comparability Reasoning	Moisture Content (%)	2005 TEF's					Aggregate Indicator Congener Concentration (ng/kg)	Estimated Total TEQ (ppt)	Geomorphic Setting	Physical Description	Soil Horizon
							1	0.1	0.03	0.3	0.1					
							2,3,7,8-TCDD (ng/kg)	2,3,7,8-TCDF (ng/kg)	1,2,3,7,8-PeCDF (ng/kg)	2,3,4,7,8-PeCDF (ng/kg)	1,2,3,4,7,8 + 1,2,3,6,7,8-HxCDF (ng/kg)					
RB-29+50-T-SW180	8/20/06	0.6-1.4	Alta	28014-8314-015	TCDD Profile	21.7	11	14	5	6	19	55	18	Tributary	10 YR 3/1 very dark gray and 10 YR 5/1 gray sand, wet, single grain, moist, loose, non-plastic, very few fine roots, fine and medium sand, non-cohesive, subrounded grains, somewhat well sorted	2C3
RB-30+50-SW85	8/20/06	0.4-1.6	Alta	28016-8316-010	TCDD, HxCDF Profiles	3.1	30	37	16	22	57	160	51	Low Terrace	10 YR 3/1 very dark gray, very fine sand, SP, dry, single grain, dry, loose, non-plastic, few very fine roots, non-cohesive	Bw
RF-98+00-SW30	9/25/06	4.6-5.5	Alta	28163-8415-006	TCDD, HxCDF Profiles	19.7	86	18	15	19	69	210	110	Natural Levee	10YR 4/4 dark yellowish brown loam, common 10YR 5/6 yellowish brown mottle, moist, granular, moist, friable, moderately plastic, medium mottles, trace of freshwater shells below 5.0', <1.0 mm Field Duplicate 5.5-6.6'	C3
RG-135+50-NE10	9/26/06	2.6-4.4	Alta	28172-8421-008	TCDD, HxCDF Profiles	17.4	460	680	310	520	1600	3500	930	Low Terrace	10YR 5/3 brown loamy very fine sand, common 7.5YR 3/4 dark brown mottle, wet, single grain, moist, loose, Non-plastic, noncohesive, subrounded and rounded grains, very few coarse sand, somewhat well sorted	C2
RL-246+00-SW20	8/14/06	2.0-3.0	Alta	27982-8293-012	HxCDF Profile	7.1	24	1600	580	900	2300	5300	760	Intermediate terrace	10 yr 4/2 dark grayish brown and 10YR 5/3 brown fine sand, dry, dry, loose, Non-plastic, Mixed 10YR 4/2 and 10YR 5/3 alternating bands, fine sand, non-cohesive, well sorted. Flood deposits alternate some layers of sandy loam 10 YR 4/2. Black specks noted in sand, less at bottom of profile.	C
RL-252+00-SW730	8/15/06	0.0-1.1	Alta	27975-8290-007	TCDD, HxCDF Profiles	35.3	29	31	13	22	54	150	48	Low Terrace	10 YR 2/1 black, sandy loam, dry, granular, dry slightly hard, Nonplastic, many fine roots, many very fine, fine, and medium roots.	A
RL-260+50-T-SW70	8/15/06	0.0-1.1	Alta	27974-8290-001	TCDD Profile	17.8	57	450	220	210	460	1400	240	Tributary	10YR 3/3, dark brown, fine sandy loam, common mottle, subangular blocky, slightly plastic, Common, medium, distinct mottles	1
RM-280+00-T-NE335	8/21/06	0.4-1.6	Alta	28013-8313-010	TCDD Profile	34.0	240	1500	800	760	1500	4800	870	Tributary	10YR 4/2, dark grayish brown silt loam, few mottle, moist, subangular blocky, moist, friable, slightly plastic, few fine roots, Few, fine, faint mottles	2
RM-284+00-SW125	8/31/06	0.0-1.2	Alta	28047-8340-018	PeCDF, HxCDF Profiles	24.6	37	2400	1200	980	1700	6300	850	Low Terrace	10YR 3/2 very dark grayish br loam, moist, granular, moist, slightly plastic, friable, slightly plastic, few fine roots.	A
RN-290+50-NE15	8/18/06	1.0-2.0	Alta	28015-8315-014	TCDD Profile	8.5	120	1200	550	510	970	3300	550	Intermediate Terrace	10YR 3/2 very dark grayish br loamy sand, dry, single grain, dry loose, slightly plastic, few fine roots	C1
RB-22+00-IC-SW	8/17/06	2.1-2.5	Dow	600221-060272	HxCDF Profile	26.2	<4	<4	<4	7	26	33*	<10*	In Channel	2/5 Y 4/1 dark gray very fine sand, wet, single grain, moist, loose, Non-plastic, non-cohesive, subrounded grains, trace coarse sand, well sorted	6
RC-45+00-SW65	8/20/06	1.2-1.6	Dow	600230-060394	TCDD, HxCDF Profiles	22.9	81	100	60	93	170	500	150	Low Terrace	10 YR 2/1 black loamy, very fine sand, few 5YR 2/3/2 dark reddish brown mottle, moist, single grain, Non-plastic, loose, non-cohesive, trace fine sand	2C
RI-184+00-IC-C	9/10/06	0.0-0.5	Dow	600273-060746	HxCDF Profile	3.4	<4	5	<4	4	59	68	11	In -channel	10YR 4/3 brown fine sand, wet, single grain, moist, loose, Non-plastic, noncohesive, subrounded grains, very few shell fragments, very well sorted	1
RL-235+50-SW525	8/6/06	0.0-0.6	Dow	600194-060062	TCDD Profile	8.9	9	23	13	19	32	96	23	High Terrace	10YR 3/3 dark brown loam, moist, granular, moist, friable, moderately plastic, common fine roots	A
RL-235+50-SW615	8/6/06	0.0-0.6	Dow	600197-060092	TCDD Profile	7.0	8	9	5	8	12	42*	14*	Upper High Terrace	10YR 3/3 dark brown loam, moist, granular, moist, friable, moderately plastic, common fine roots	A
RL-252+00-SW5	8/9/06	1.4-3.0	Dow	600205-060151	HxCDF Profile	25.0	56	1200	530	770	2600	5100	740	Floodplain	2.5Y 4/2, dark grayish brown, fine sandy loam, few 7.5YR 5/8 strong brown mottle, moist, moist, friable, moderately plastic few medium roots, moist to wet. Few faint medium mottles. Few medium and coarse roots	C1
RM-268+00-NE20	8/17/06	0.4-1.6	Dow	600221-060267	HxCDF, Octa Profiles	3.4	5	170	73	93	460	800	110	High Terrace	2.5 Y 5/3 light olive brown fine sand, dry, single grain, dry, loose, Non-plastic, common fine roots	C1
RM-268+00-NE35	8/17/06	1.3-1.8	Dow	600219-060246	HxCDF, Octa Profiles	1.9	8	380	210	220	500	1300	180	Intermediate Terrace	10 YR 6/4 light yellowish brown fine sand, moist, single grain, moist, loose, Non-plastic, few fine roots	2C
RM-284+00-NE360	8/28/06	2.2-4.1	Dow	600233-060426	PeCDF Profiles	58.7	<4	520	240	490	210	1400	250	Wetland	10YR 2/1 black, wet, black organic, buried peat layer, no structure, no texture.	--
RO-325+50-NE45	9/8/06	2.3-3.2	Dow	600265-060660	Overall Profile	10.1	<4	200	97	87	81	470	65	High Terrace	10YR 4/4 dark yellowish brown very fine sandy loam, moist, subangular blocky, moist, friable, slightly plastic	C1

Mid Level Method Comparability Study (1000 - 5000 ETEQ)
Upper Tittabawassee River
Midland, Michigan

2005 TEF's

1 0.1 0.03 0.3 0.1

Transect Location/Sample Identification	Collection Date	Depth Interval (ft/bgs)	Lab ID	Lab's Sample ID	Comparability Reasoning	Moisture Content (%)	2005 TEF's					Aggregate Indicator Congener Concentration (ng/kg)	Estimated Total TEQ (ppt)	Geomorphic Setting	Physical Description	Soil Horizon
							2,3,7,8-TCDD (ng/kg)	2,3,7,8-TCDF (ng/kg)	1,2,3,7,8-PeCDF (ng/kg)	2,3,4,7,8-PeCDF (ng/kg)	1,2,3,4,7,8 + 1,2,3,6,7,8-HxCDF (ng/kg)					
RE-66+00-SW430	9/20/06	0.3-0.6	Alta	28145-8399-003	Overall Profile	6.2	120	2100	1700	920	5600	10000	1300	Intermediate Terrace	10YR 5/4 yellowish brown fine sand, dry, single grain, dry, loose, Non-plastic	C1
RG-130+50-NE30	9/26/06	7.9-8.8	Alta	28172-8421-014	Overall Profile	19.6	1600	960	490	1800	4900	9700	3000	Low Terrace	10YR 4/3 brown loamy very fine sand, dry, single grain, dry loose, Non-plastic, fewmedium roots, noncohesive, subrounded grains	2C6
RM-268+00-NE190	8/17/06	0.3-1.1	Alta	28000-8303-019	PeCDF Profiles	11.4	25	14000	5900	4100	5800	30000	3800	Low Terrace	10 YR 4/4 dark yellowish brown, loamy fine sand, moist, single-grain, moist, loose, Non-plastic	Bw
RM-268+00-NE20	8/17/06	1.6-3.5	Alta	28000-8303-016	TCDD Profile	3.6	240	3800	1500	1400	1600	8500	1400	High Terrace	2.5 Y 4/3 olive brown fine sand, moist, single-grain, moist, loose, Non-plastic, many coarse roots	C2
RM-276+00-NE20	8/20/06	1.7-2.9	Alta	28013-8313-014	HxCDF Profile	4.9	13	4200	1500	1500	2600	9800	1300	Natural Levee	10YR 4/3 brown fine sand, dry, single-grain, non-plastic	C3
RM-280+00-T-NE80	8/21/06	0.3-1.4	Alta	28013-8313-008	PeCDF, HxCDF Profiles	6.6	43	3000	1800	1300	2200	8200	1100	Tributary	10YR 4/3 brown sand, dry, single-grain, dry, loose, Non-plastic, very few fine roots	2
RM-284+00-SW30	8/31/06	1.9-2.8	Alta	28048-8341-011	PeCDF, HxCDF Profiles	5.9	<8	8500	3500	3000	2800	18000	2400	Natural Levee	10yr 6/2 light brownish gray, fine sand, SP, dry single grained, nonplastic, loose.	E
RN-290+50-NE15	8/18/06	2.0-2.9	Alta	28015-8315-013	HxCDF Profile	9.0	44	3900	1400	1600	3300	10000	1400	Intermediate Terrace	10YR 3/2, very dark grayish br loamy sand, dry, single grain, dry, loose, slightly plastic few fine roots	C1
RN-316+00-NE30	9/6/06	0.0-1.2	Alta	28085-8370-009	PeCDF Profiles	6.1	28	6100	890	1200	780	9000	1200	Natural Levee	10YR 3/3, dark brown loamy sand, moist, granular, moist, very friable, slightly plastic, few fine roots, granular/single grain, plant fragments (undecomposed) throughout, <1% volume	C1
RN-316+00-NE30	9/6/06	2.5-3.7	Alta	28085-8370-007	HxCDF Profile	5.7	<24	8900	3500	3800	7400	24000	3200	Natural Levee	10YR 3/3, dark brown loamy sand, moist, granular, moist, very friable, slightly plastic, few fine roots, granular/single grain, plant fragments (undecomposed) throughout, <1% volume	C1
RL-252+00-SW5	8/9/06	3.0-4.5	Dow	600203-060135	PeCDF Profiles	34.2	150	5000	3700	2600	2900	14000	2000	Floodplain	N 3/0 very dark gray sand, wet, moist, loose, Non-plastic, Sand and loamy fine sand (tenses), non-plastic (sand) and slightly plastic (loamy fine sand), fresh clam shells	Cg2
RN-297+00-NE70	8/21/06	0.0-1.1 Field Duplicate	Dow	600226-060357	TCDF Profile	21.0	94	1800	1300	1100	2000	6200	910	Low Terrace	10YR 3/2, very dark grayish br loam, moist, granular, moist, friable, moderately plastic, common fine roots	A
RM-268+00-NE35	8/17/06	1.8-2.4	Dow	600219-060245	TCDF Profile	2.7	5	4600	1400	1700	1000	8700	1200	Intermediate Terrace	10 YR 4/4 dark yellowish brown sand, moist, single-grain, moist, loose, Non-plastic, few fine roots	2C2
RM-268+00-SW20	8/29/06	3.0-4.6	Dow	600236-060451	HxCDF Profile	5.7	16	3500	1900	2000	2900	10000	1400	Natural Levee	10YR 5/3 brown fine sand, moist, single grain, moist, loose, Non-plastic	C2
RM-276+00-NE190	8/20/06	0.0-0.6	Dow	600227-060386	PeCDF Profiles	14.3	28	12000	7100	5400	5800	30000	4000	Low Terrace, Forested, 40% groundcover	10YR 3/1 very dark gray, sandy loam, SM, moist, granular, slightly plastic, very friable, common very fine and fine roots	A
RM-276+00-NE190	8/20/06	0.6-1.4	Dow	600227-060385	HxCDF Profile	9.9	22	15000	5300	5400	4300	30000	4100	Low Terrace	2.5Y 3/2 very dark grayish br fine sandy loam, moist, subangular blocky, moist, very friable, slightly plastic, common very fine roots	A/B
RN-316+00-NE295	8/29/06	0.4-0.8	Dow	600239-060485	TCDF Profile	18.9	21	11000	3700	3800	2700	21000	2900	High Terrace	10YR 3/2 very dark grayish br loamy sand, dry, single grain, dry, loose, Non-plastic, noncohesive, subrounded grains	Bw
RN-316+00-NE30N	9/6/06	3.5-4.4	Dow	600254-060581	TCDF Profile	5.8	14	15000	2800	4000	1700	24000	3300	Intermediate Terrace	10YR 3/4 dark yellowish brown sand, moist, single grain, moist, very friable, Non-plastic, few fine roots, white shells at about 4.5-6.6', <2 mm diameter, <1% volume	C
RO-320+00-NE40	9/6/06	0.0-0.3	Dow	600254-060568	PeCDF Profiles	19.6	19	13000	11000	6500	5900	36000	4600	Historic Natural Levee	10YR 3/1 very dark gray loamy fine sand, moist, granular, moist, very friable, slightly plastic, very few fine roots	A
RO-325+50-NE10	9/8/06	0.0-0.3	Dow	600266-060682	PeCDF Profiles	6.4	29	11000	5500	9200	4100	29000	4900	Natural Levee	10YR 3/1 very dark gray sand, moist, single grain, moist, loose, Non-plastic, common very fine roots	A

**High Level Method Comparability Study (> 5000 ETEQ)
 Upper Tittabawassee River
 Midland, Michigan**

2005 TEF's

Transect Location/Sample Identification	Collection Date	Depth Interval (ft.bgs)	Lab ID	Lab's Sample ID	Comparability Reasoning	Moisture Content (%)	2005 TEF's					Aggregate Indicator Congener Concentration (ng/kg)	Estimated Total TEQ (ppt)	Geomorphic Setting	Physical Description	Soil Horizon
							1	0.1	0.03	0.3	0.1					
							2,3,7,8-TCDD (ng/kg)	2,3,7,8-TCDF (ng/kg)	1,2,3,7,8-PeCDF (ng/kg)	2,3,4,7,8-PeCDF (ng/kg)	1,2,3,4,7,8 + 1,2,3,6,7,8-HxCDF (ng/kg)					
RL-246+00-SW20	8/15/06	5.0-6.0	Alta	27975-8290-010	Overall Profile	7.4	22	110000	72000	44000	55000	280000	35000	Intermediate Terrace	10YR 4/2 dark grayish brown and 10YR 5/3 brown fine sand, dry, dry, loose, Non-plastic. Mixed 10YR 4/2 and 10YR 5/3 alternating bands, fine sand, noncohesive, well sorted. Flood deposits alternate some layers of sand loam 10YR 4/2. Black specks noted in sand, less at bottom of profile.	C
RM-276+00-NE20	8/20/06	2.9-4.6	Alta	28013-8313-013	TCDF Profile	3.1	9	45000	14000	12000	10000	81000	10000	Natural Levee	10YR 6/3 pale brown fine sand, dry, single-grain, dry, loose, Non-plastic	C4
RM-276+00-NE20	8/20/06	4.6-5.7	Alta	28013-8313-012	TCDF Profile	2.7	12	43000	15000	13000	12000	83000	11000	Natural Levee	10YR 6/3 pale brown and 10YR 5/4 yellowish brown fine sand, dry, single-grain, dry, loose, Non-plastic. Alternating layers of 10YR 6/3 fine sand and 10YR 5/4 loamy fine sand, loose	C5
RN-290+50-NE15	8/18/06	4.0-5.0	Alta	27999-8302-013	TCDF Profile	5.3	8	31000	14000	11000	11000	66000	8700	Intermediate Terrace	10YR 3/3 dark brown loamy sand, dry, single grain, dry, loose, slightly plastic	C2
RN-297+00-NE25	8/21/06	4.3-5.3	Alta	28013-8313-007	TCDF Profile	5.9	12	63000	26000	22000	21000	130000	17000	Natural Levee	10YR 3/3 dark brown sand, moist, single grain, moist, very friable, Non-plastic	C
RN-316+00-NE215	9/6/06	0.0-0.6	Alta	28085-8370-011	TCDF Profile	22.4	45	37000	15000	13000	12000	76000	10000	Intermediate Terrace	10YR 3/2 very dark grayish br sandy loam, moist, granular, moist, very friable, moderately plastic, common fine roots	A
RN-316+00-NE30	9/6/06	3.7-4.6	Alta	28085-8370-006	TCDF Profile	4.4	<24	90000	35000	32000	26000	180000	25000	Natural Levee	10YR 3/3 dark brown loamy sand, moist, granular, moist, very friable, slightly plastic, few fine roots, granular/single grain, plant fragments (undecomposed) throughout, <1% volume	C1
RO-333+00-NE10	9/13/06	6.0-6.7	Alta	28123-8391-015	TCDF Profile	12.8	20	97000	37000	31000	29000	190000	25000	Natural Levee	10YR 4/2 dark grayish brown fine sandy loam, moist, subangular blocky, moist, very friable slightly plastic	2C6
RO-333+00-NE10	9/13/06	7.1-8.4	Alta	28121-8389-016	TCDF Profile	10.8	9	41000	14000	11000	11000	77000	9800	Natural Levee	10YR 4/2 dark grayish brown fine sandy loam, moist, subangular blocky, moist, very friable slightly plastic	4C8
RO-333+00-NE10	9/13/06	8.4-8.8	Alta	28121-8389-015	TCDF Profile	4.2	11	57000	19000	17000	14000	110000	14000	Natural Levee	2.5YR 5/3 light olive brown very fine sand, moist, single grain, moist, loose, Non-plastic. THIN LAYER OF LOAMY FINE SAND	5C9
RL-239+00-SW10	8/14/06	2.4-3.4	Dow	600213-060197	TCDF Profile	3.5	27	22000	6300	7400	5800	41000	5700	Intermediate Terrace	10YR 5/3 brown sand, moist, moist, loose, Non-plastic, few fine roots	C2
RL-258+50-SW15	8/9/06	2.3-2.9	Dow	600204-060142	TCDF Profile	5.7	40	34000	11000	15000	12000	71000	10000	Intermediate Terrace	10YR 4/3 brown, sandy loam, moist, single grain, moist, very friable, slightly plastic, few roots, Single grain/granular	C1
RM-276+00-NE130	8/20/06	0.4-1.4	Dow	600222-060301	HxCDF Profile	4.7	32	18000	9000	8200	5200	41000	5600	Intermediate Terrace	10YR 4/2 dark grayish brown loamy fine sand, dry, subangular blocky, dry, soft, Non-plastic	E
RM-276+00-NE20	8/21/06	5.7-6.7	Dow	600227-060379	Overall Profile	5.3	59	53000	14000	25000	19000	110000	17000	Natural Levee	10YR 4/2 dark grayish brown loamy fine sand, dry, single-grain, dry, loose, Non-plastic, very few very coarse roots, single grained parting to subangular blocky, loose to soft.	C6
RM-276+00-NE20	8/21/06	7.7-8.8	Dow	600227-060377	Overall Profile	3.8	95	29000	7100	11000	4600	51000	7700	Natural Levee	10YR 6/3 pale brown fine and of 10YR 4/3 brown fine sand, dry, single grain, Non-plastic, narrow bands of 10YR 4/3 - loamy fine sand, and one narrow band of organic material	C8
RM-284+00-NE20	8/22/06	3.2-5.4	Dow	600225-060348	TCDF Profile	2.4	60	82000	31000	30000	24000	170000	23000	Natural levee	10YR 6/3 pale brown fine sand, moist, single-grain, moist, loose, Non-plastic	C4
RN-316+00-NE30N	9/6/06	0.0-1.0	Dow	600268-060701	PeCDF Profiles	10.1	30	35000	15000	27000	13000	89000	15000	Intermediate Terrace	10YR 3/2 very dark grayish br loamy sand, moist, granular, moist, very friable, slightly plastic, common fine roots, granular/single grain	A
RO-320+00-NE25	9/6/06	0.0-0.5	Dow	600254-060569	TCDF Profile	13.8	14	36000	13000	13000	10000	73000	10000	Natural levee	10YR 3/2 very dark grayish br loamy fine sand, moist, granular, moist, very friable, Non-plastic, common very fine roots	A
RO-320+00-NE420	9/7/06	0.2-0.6	Dow	600266-060693	PeCDF Profiles	16.0	8	14000	6300	8500	6200	35000	5200	Low Terrace	10YR 4/2 dark grayish brown very fine sandy loam, moist, subangular blocky, moist, friable, slightly plastic	A/B
RO-325+50-NE45	9/8/06	0.0-0.3	Dow	600265-060667	HxCDF Profile	9.5	17	35000	29000	20000	12000	96000	13000	High Terrace	10YR 3/1 very dark gray fine sandy loam, moist, granular, moist, friable, slightly plastic, very few fine roots	A



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Low Level Method Comparability Study (<1000 ETEQ)
Upper Tittabawassee River
Midland, Michigan

Transect Location/Sample Identification	Collection Date	Depth Interval (ft.bgs)	Lab ID	Lab's Sample ID	Comparability Reasoning	Moisture Content (%)	2005 TEF's																	TEQ
							1	1	0.1	0.1	0.1	0.01	0.0003	0.1	0.03	0.3	0.1	0.1	0.1	0.1	0.01	0.01	0.0003	
							2,3,7,8-TCDD (ng/kg)	1,2,3,7,8-PeCDD (ng/kg)	1,2,3,4,7,8-HxCDD (ng/kg)	1,2,3,6,7,8-HxCDD (ng/kg)	1,2,3,7,8,9-HxCDD (ng/kg)	1,2,3,4,6,7,8-HpCDD (ng/kg)	OCDD (ng/kg)	2,3,7,8-TCDF (ng/kg)	1,2,3,7,8-PeCDF (ng/kg)	2,3,4,7,8-PeCDF (ng/kg)	1,2,3,4,7,8-HxCDF (ng/kg)	1,2,3,6,7,8-HxCDF (ng/kg)	2,3,4,6,7,8-HxCDF (ng/kg)	1,2,3,7,8,9-HxCDF (ng/kg)	1,2,3,4,6,7,8-HpCDF (ng/kg)	1,2,3,4,7,8,9-HpCDF (ng/kg)	OCDF (ng/kg)	
RB-29+50-T-SW180	8/20/06	0.6-1.4	Alta	28014-8314-015	TCDD Profile	21.7	12	5	7	12	6	180	1300	11	7	11	14	7	6	3	110	5	170	31
RB-30+50-SW85	8/20/06	0.4-1.6	Alta	28016-8316-010	TCDD, HxCDF Profiles	3.1	35	21	20	56	32	830	6600	26	22	30	44	19	20	10	410	22	1000	110
RF-98+00-SW30	9/25/06	4.6-5.5	Alta	28163-8415-006	TCDD, HxCDF Profiles	19.7	89	43	12	39	18	270	1300	17	18	20	54	15	15	10	200	18	400	160
RG-135+50-NE10	9/26/06	2.6-4.4	Alta	28172-8421-008	TCDD, HxCDF Profiles	17.4	470	300	250	1200	490	18000	130000	620	340	600	1200	430	360	380	15000	930	34000	1900
RL-246+00-SW20	8/14/06	2.0-3.0	Alta	27982-8293-012	HxCDF Profile	7.1	18	62	53	300	97	6700	63000	1500	770	1400	2000	380	220	330	11000	760	23000	1300
RL-252+00-SW730	8/15/06	0.0-1.1	Alta	27975-8290-007	TCDD, HxCDF Profiles	35.3	28	21	17	45	34	590	4300	21	13	19	28	13	15	6	370	16	560	85
RL-260+50-T-SW70	8/15/06	0.0-1.1	Alta	27974-8290-001	TCDD Profile	17.8	65	29	18	120	43	2500	22000	390	240	250	380	91	70	69	3800	150	6900	390
RM-280+00-T-NE335	8/21/06	0.4-1.6	Alta	28013-8313-010	TCDD Profile	34.0	300	210	70	400	140	8900	79000	1500	930	960	1200	310	230	240	11000	440	23000	1500
RM-284+00-SW125	8/31/06	0.0-1.2	Alta	28047-8340-018	PeCDF, HxCDF Profiles	24.6	40	65	44	190	97	2800	27000	2300	1600	1500	1700	390	210	300	5400	350	8000	1200
RN-290+50-NE15	8/18/06	1.0-2.0	Alta	28015-8315-014	TCDD Profile	8.5	140	85	46	290	93	6500	57000	1300	620	670	850	190	140	160	6900	330	16000	950
RB-22+00-IC-SW	8/17/06	2.1-2.5	Dow	600221-060272	HxCDF Profile	26.2	4	3	1	11	4	83	720	6	6	5	14	9	4	2	75	6	160	15
RC-45+00-SW65	8/20/06	1.2-1.6	Dow	600230-060394	TCDD, HxCDF Profiles	22.9	97	47	59	110	46	1700	18000	110	78	62	130	44	31	8	1400	56	3700	260
RI-184+00-IC-C	9/10/06	0.0-0.5	Dow	600273-060746	HxCDF Profile	3.4	<1	<1	<1	2	<1	45	430	26	10	7	58	7	<1	<1	88	19	260	14
RL-235+50-SW525	8/6/06	0.0-0.6	Dow	600194-060062	TCDD Profile	8.9	11	8	6	14	10	200	1700	28	16	15	22	8	5	2	150	10	260	37
RL-235+50-SW615	8/6/06	0.0-0.6	Dow	600197-060092	TCDD Profile	7.0	9	5	5	11	7	150	1200	11	6	6	8	4	3	2	76	4	140	23
RL-252+00-SW5	8/9/06	1.4-3.0	Dow	600205-060151	HxCDF Profile	25.0	84	54	23	260	55	5300	50000	1300	640	720	2300	630	180	27	17000	1500	27000	1100
RM-268+00-NE20	8/17/06	0.4-1.6	Dow	600221-060267	HxCDF, Octa Profiles	3.4	5	5	15	830	41	24000	170000	200	87	82	450	61	<13	<8	13000	820	84000	640
RM-268+00-NE35	8/17/06	1.3-1.8	Dow	600219-060246	HxCDF, Octa Profiles	1.9	11	16	16	370	42	9200	95000	420	240	190	460	85	37	9	6400	380	25000	430
RM-284+00-NE360	8/28/06	2.2-4.1	Dow	600233-060426	PeCDF Profiles	58.7	<1	1	<1	3	2	45	450	600	280	220	190	41	16	5	98	14	150	160
RO-325+50-NE45	9/8/06	2.3-3.2	Dow	600265-060660	Overall Profile	10.1	<1	<1	<1	<1	<1	9	110	230	110	84	82	16	6	2	27	5	32	63



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Mid Level Method Comparability Study (1000 - 5000 ETEQ)
Upper Tittabawassee River
Midland, Michigan

Transect Location/Sample Identification	Collection Date	Depth Interval (ft.bgs)	Lab ID	Lab's Sample ID	Comparability Reasoning	Moisture Content (%)	2005 TEQ's															TEQ		
							1	1	0.1	0.1	0.1	0.01	0.0003	0.1	0.03	0.3	0.1	0.1	0.1	0.1	0.01		0.01	0.0003
							2,3,7,8-TCDD (ng/kg)	1,2,3,7,8-PeCDD (ng/kg)	1,2,3,4,7,8-HxCDD (ng/kg)	1,2,3,6,7,8-HxCDD (ng/kg)	1,2,3,7,8,9-HxCDD (ng/kg)	1,2,3,4,6,7,8-HpCDD (ng/kg)	OCDD (ng/kg)	2,3,7,8-TCDF (ng/kg)	1,2,3,7,8-PeCDF (ng/kg)	2,3,4,7,8-PeCDF (ng/kg)	1,2,3,4,7,8-HxCDF (ng/kg)	1,2,3,6,7,8-HxCDF (ng/kg)	2,3,4,6,7,8-HxCDF (ng/kg)	1,2,3,7,8,9-HxCDF (ng/kg)	1,2,3,4,6,7,8-HpCDF (ng/kg)		1,2,3,4,7,8,9-HpCDF (ng/kg)	OCDF (ng/kg)
RE-66+00-SW430	9/20/06	0.3-0.6	Alta	28145-8399-003	Overall Profile	6.2	140	75	54	340	130	6600	58000	2100	2200	1500	5700	920	400	700	17000	1200	21000	2100
RG-130+50-NE30	9/26/06	7.9-8.8	Alta	28172-8421-014	Overall Profile	19.6	1500	1000	240	2800	740	64000	620000	810	490	1900	3700	1300	1100	670	100000	2400	160000	6600
RM-268+00-NE190	8/17/06	0.3-1.1	Alta	28000-8303-019	PeCDF Profiles	11.4	28	68	44	280	100	5400	52000	12000	6200	6100	5200	1100	590	1100	11000	800	19000	4400
RM-268+00-NE20	8/17/06	1.6-3.5	Alta	28000-8303-016	TCDD Profile	3.6	260	63	42	290	87	6000	49000	3500	1600	1600	1300	298	200	260	7900	390	16000	1700
RM-276+00-NE20	8/20/06	1.7-2.9	Alta	28013-8313-014	HxCDF Profile	4.9	10	43	28	150	65	2700	28000	3700	1800	1900	2300	460	230	410	4700	520	9100	1500
RM-280+00-T-NE80	8/21/06	0.3-1.4	Alta	28013-8313-008	PeCDF, HxCDF Profiles	6.6	50	39	28	360	73	7600	75000	3100	2100	1700	1900	420	260	340	9800	620	22000	1600
RM-284+00-SW30	8/31/06	1.9-2.8	Alta	28048-8341-011	PeCDF, HxCDF Profiles	5.9	4	<8	4	16	10	200	1900	8400	4000	4000	2700	620	300	540	760	170	870	2600
RN-290+50-NE15	8/18/06	2.0-2.9	Alta	28015-8315-013	HxCDF Profile	9.0	42	73	52	460	130	9600	86000	3100	1600	2200	2900	570	370	510	16000	1200	40000	2000
RN-316+00-NE30	9/6/06	0.0-1.2	Alta	28085-8370-009	PeCDF Profiles	6.1	28	<8	8	220	22	9300	84000	5200	990	1500	720	160	110	130	5200	470	24000	1400
RN-316+00-NE30	9/6/06	2.5-3.7	Alta	28085-8370-007	HxCDF Profile	5.7	16	34	26	190	85	3100	29000	6600	3900	4600	6900	1100	540	1000	9700	1800	20000	3400
RL-252+00-SW5	8/9/06	3.0-4.5	Dow	600203-060135	PeCDF Profiles	34.2	53	160	73	300	160	2800	34000	5600	3100	2400	2600	550	200	55	6400	470	10000	2100
RN-297+00-NE70	8/21/06	0.0-1.1 Field Duplicate	Dow	600226-060357	TCDF Profile	21.0	190	230	140	630	280	12000	120000	1900	1100	1000	1900	400	190	40	18000	770	32000	1700
RM-268+00-NE35	8/17/06	1.8-2.4	Dow	600219-060245	TCDF Profile	2.7	3	5	3	22	7	480	7500	5000	1600	1700	1000	210	110	25	880	75	1700	1200
RM-268+00-SW20	8/29/06	3.0-4.6	Dow	600236-060451	HxCDF Profile	5.7	43	130	81	590	160	11000	120000	4800	2000	1700	2500	500	220	60	22000	840	37000	2000
RM-276+00-NE190	8/20/06	0.0-0.6	Dow	600227-060386	PeCDF Profiles	14.3	86	120	75	420	160	7400	84000	16000	7400	5800	5600	1100	450	120	16000	820	25000	4800
RM-276+00-NE190	8/20/06	0.6-1.4	Dow	600227-060385	HxCDF Profile	9.9	15	18	12	47	21	770	9400	17000	6300	5400	4200	870	340	93	2200	270	2900	4100
RN-316+00-NE295	8/29/06	0.4-0.8	Dow	600239-060485	TCDF Profile	18.9	3	<3	<1	5	2	120	1400	12000	4500	3600	2700	560	220	63	510	130	490	2800
RN-316+00-NE30N	9/6/06	3.5-4.4	Dow	600254-060581	TCDF Profile	5.8	4	<3	<1	<4	1	75	870	15000	3400	4000	1800	340	190	43	440	70	350	3000
RO-320+00-NE40	9/6/06	0.0-0.3	Dow	600254-060568	PeCDF Profiles	19.6	36	33	25	150	50	3100	36000	14000	7300	5700	5300	1100	440	120	6600	480	10000	4200
RO-325+50-NE10	9/8/06	0.0-0.3	Dow	600266-060682	PeCDF Profiles	6.4	19	38	24	170	54	3400	38000	12000	5000	4300	4200	840	340	99	11000	640	15000	3400



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High Level Method Comparability Study (> 5000 ETEQ)
Upper Tittabawassee River
Midland, Michigan

Transect Location/Sample Identification	Collection Date	Depth Interval (ft.bgs)	Lab ID	Lab's Sample ID	Comparability Reasoning	Moisture Content (%)	2005 TEQ's																	TEQ
							1	1	0.1	0.1	0.1	0.01	0.0003	0.1	0.03	0.3	0.1	0.1	0.1	0.1	0.01	0.01	0.0003	
							2,3,7,8-TCDD (ng/kg)	1,2,3,7,8-PeCDD (ng/kg)	1,2,3,4,7,8-HxCDD (ng/kg)	1,2,3,6,7,8-HxCDD (ng/kg)	1,2,3,7,8,9-HxCDD (ng/kg)	1,2,3,4,6,7,8-HpCDD (ng/kg)	OCDD (ng/kg)	2,3,7,8-TCDF (ng/kg)	1,2,3,7,8-PeCDF (ng/kg)	2,3,4,7,8-PeCDF (ng/kg)	1,2,3,4,7,8-HxCDF (ng/kg)	1,2,3,6,7,8-HxCDF (ng/kg)	2,3,4,6,7,8-HxCDF (ng/kg)	1,2,3,7,8,9-HxCDF (ng/kg)	1,2,3,4,6,7,8-HpCDF (ng/kg)	1,2,3,4,7,8,9-HpCDF (ng/kg)	OCDF (ng/kg)	
RL-246+00-SW20	8/15/06	5.0-6.0	Alta	27975-8290-010	Overall Profile	7.4	20	<13	5	27	<10	510	3600	100000	72000	55000	47000	9900	4500	11000	6100	2700	2600	36000
RM-276+00-NE20	8/20/06	2.9-4.6	Alta	28013-8313-013	TCDF Profile	3.1	10	<5	<1	4	1	73	710	45000	17000	17000	10000	2200	1200	2300	1500	480	580	12000
RM-276+00-NE20	8/20/06	4.6-5.7	Alta	28013-8313-012	TCDF Profile	2.7	14	<7	3	21	5	500	7200	42000	17000	16000	11000	2100	1200	2200	2000	540	2100	11000
RN-290+50-NE15	8/18/06	4.0-5.0	Alta	27999-8302-013	TCDF Profile	5.3	9	7	3	11	6	140	1300	35000	16000	14000	10000	2200	1100	2300	1800	570	1100	9900
RN-297+00-NE25	8/21/06	4.3-5.3	Alta	28013-8313-007	TCDF Profile	5.9	15	<8	<26	5	<7	94	1600	62000	30000	29000	21000	4400	2500	5000	3100	1100	960	19000
RN-316+00-NE215	9/6/06	0.0-0.6	Alta	28085-8370-011	TCDF Profile	22.4	42	100	61	330	140	5700	51000	32000	16000	16000	11000	2500	1300	2200	15000	1100	20000	10000
RN-316+00-NE30	9/6/06	3.7-4.6	Alta	28085-8370-006	TCDF Profile	4.4	27	<36	<18	34	<18	490	4300	93000	40000	39000	25000	5300	2700	5300	4800	1200	3100	26000
RO-333+00-NE10	9/13/06	6.0-6.7	Alta	28123-8391-015	TCDF Profile	12.8	23	<31	<5	<5	<5	12	75	100000	49000	44000	32000	6500	3300	6400	3700	1500	980	30000
RO-333+00-NE10	9/13/06	7.1-8.4	Alta	28121-8389-016	TCDF Profile	10.8	11	<19	<4	5	<4	26	120	4500	20000	19000	12000	2700	1400	2600	1800	650	950	13000
RO-333+00-NE10	9/13/06	8.4-8.8	Alta	28121-8389-015	TCDF Profile	4.2	13	<20	<3	<3	<3	9	60	58000	24000	24000	15000	3200	1700	3100	1800	640	370	16000
RL-239+00-SW10	8/14/06	2.4-3.4	Dow	600213-060197	TCDF Profile	3.5	6	<5	2	13	3	240	2100	23000	8700	7300	5500	1200	450	120	1100	320	950	5500
RL-258+50-SW15	8/9/06	2.3-2.9	Dow	600204-060142	TCDF Profile	5.7	11	<6	3	9	3	130	2100	43000	19000	15000	12000	2300	900	250	1800	550	910	11000
RM-276+00-NE130	8/20/06	0.4-1.4	Dow	600222-060301	HxCDF Profile	4.7	11	13	7	35	13	700	8400	26000	9200	8100	5700	1100	470	120	1700	290	2600	6100
RM-276+00-NE20	8/21/06	5.7-6.7	Dow	600227-060379	Overall Profile	5.3	19	<14	<4	7	<9	110	1300	81000	42000	31000	28000	5500	2000	570	3300	1200	1100	22000
RM-276+00-NE20	8/21/06	7.7-8.8	Dow	600227-060377	Overall Profile	3.8	12	<8	<4	6	<5	120	1300	37000	8700	12000	5900	1100	690	120	940	190	520	8400
RM-284+00-NE20	8/22/06	3.2-5.4	Dow	600225-060348	TCDF Profile	2.4	19	<16	3	4	<2	68	780	92000	40000	31000	25000	5100	2000	490	3200	1100	930	23000
RN-316+00-NE30N	9/6/06	0.0-1.0	Dow	600268-060701	PeCDF Profiles	10.1	34	55	44	250	110	4600	46000	39000	17000	15000	11000	2500	1000	250	10000	920	15000	11000
RO-320+00-NE25	9/6/06	0.0-0.5	Dow	600254-060569	TCDF Profile	13.8	38	38	26	200	58	4100	44000	32000	13000	11000	9100	1900	740	190	9100	860	16000	8500
RO-320+00-NE420	9/7/06	0.2-0.6	Dow	600266-060693	PeCDF Profiles	16.0	22	67	46	200	88	2800	31000	16000	7500	5800	5900	1200	450	130	8000	670	12000	4500
RO-325+50-NE45	9/8/06	0.0-0.3	Dow	600265-060667	HxCDF Profile	9.5	22	34	20	110	40	2100	25000	37000	18000	13000	12000	2500	940	260	6600	780	8000	9900