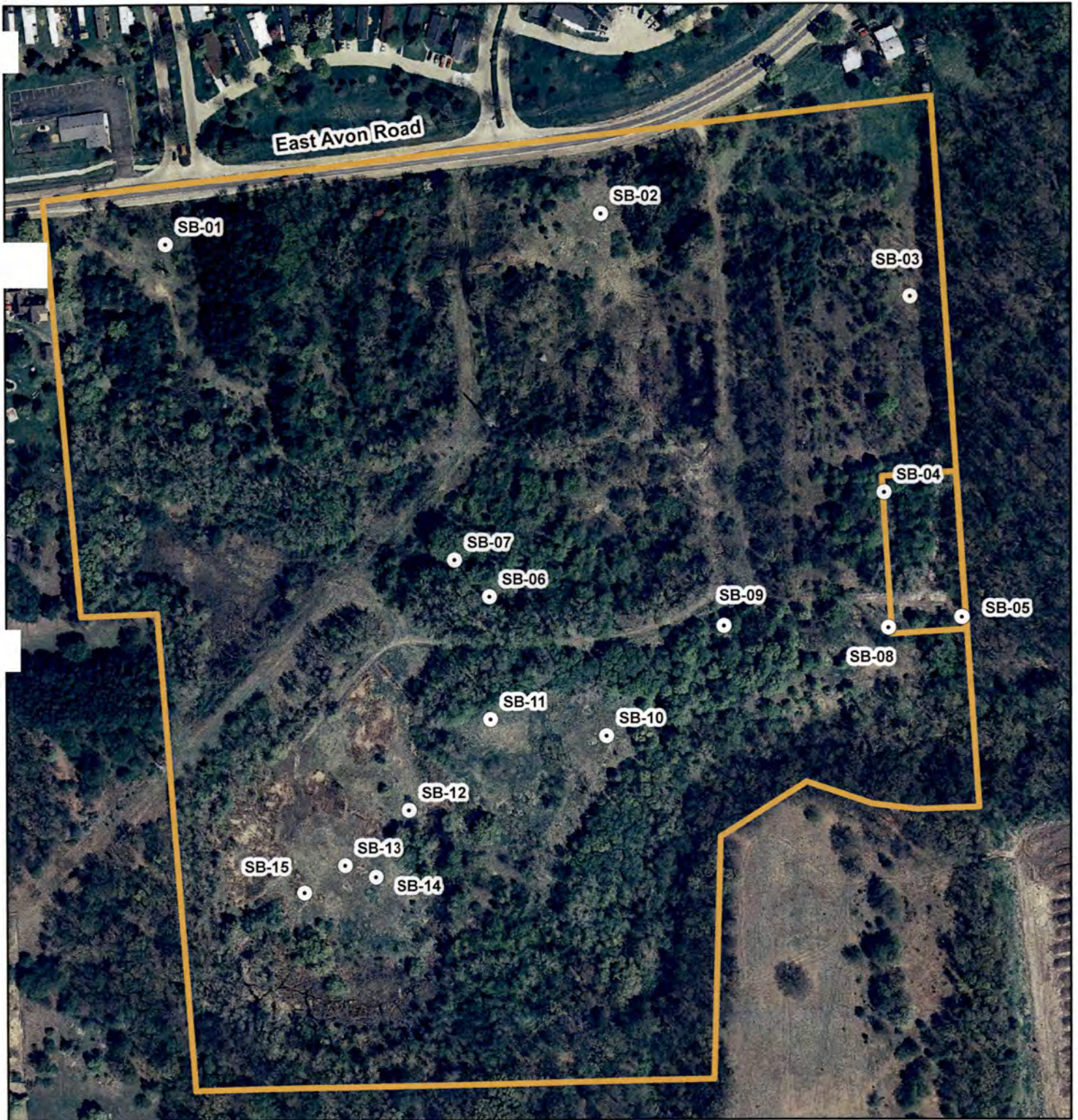


FIGURE 4
SOIL BORING SAMPLE LOCATIONS



Tree Farm
1406 East Avon Road
Rochester Hills, MI 48307
T3N R11E Section 24
Oakland County
MIB000000166

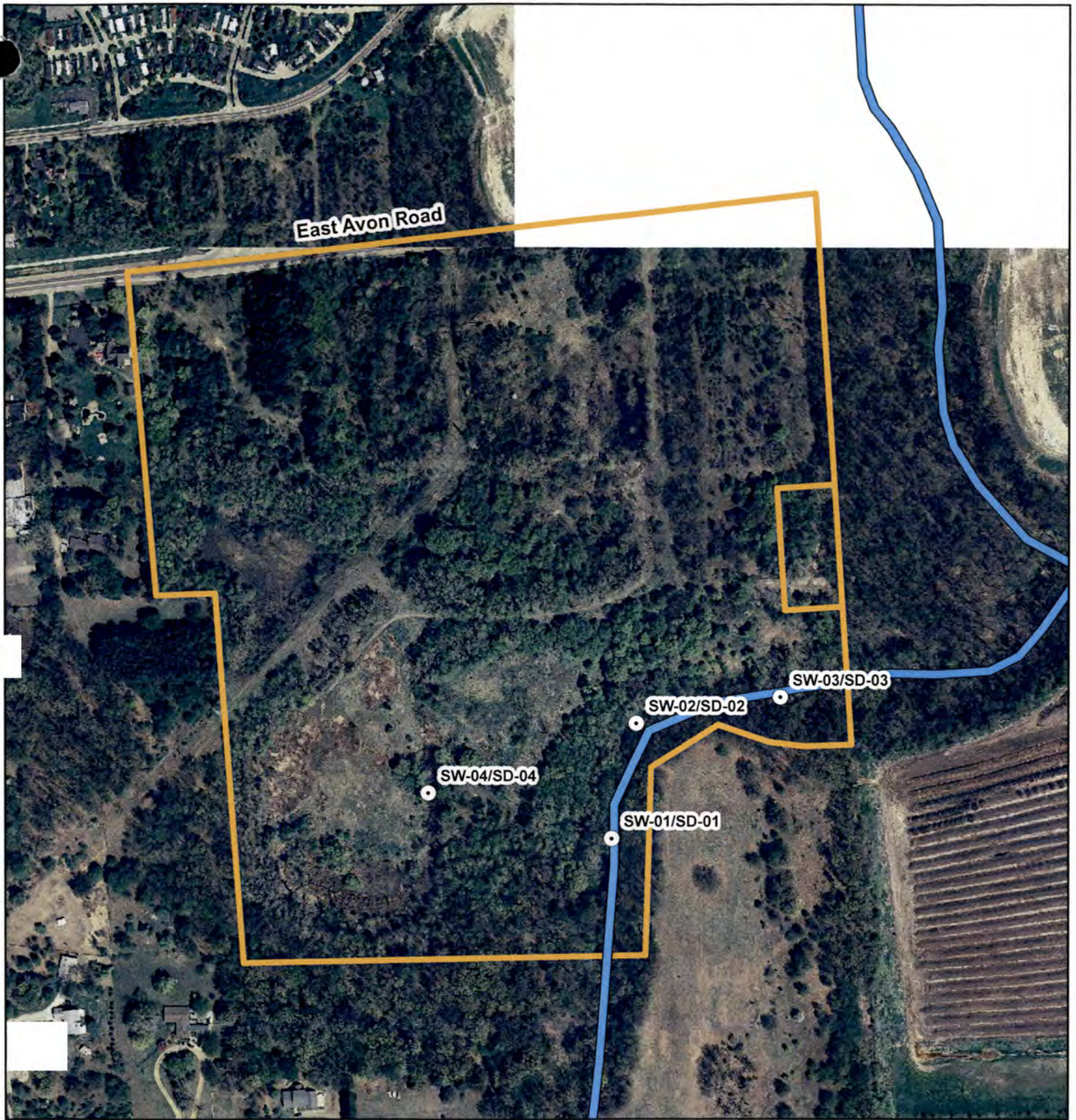
Legend

- SB-01 - Soil Boring 01
- ▭ Property Boundary



Compiled by: Teresa Ducsay - June 2011
Sources: Michigan Geographic Data Library
and Global Positioning System Data

FIGURE 5
SURFACE WATER/SEDIMENT SAMPLE LOCATIONS



Legend

○ SW-01/SD-01 - Surface Water 01/
Sediment 01

— Honeywell Ditch

□ Property Boundary

Tree Farm
1406 East Avon Road
Rochester Hills, MI 48307
T3N R11E Section 24
Oakland County
MIB000000166

0 150 300 600 Feet



Compiled by: Teresa Ducsay - June 2011
Sources: Michigan Geographic Data Library
and Global Positioning System Data

TABLES

TABLE 1
SURFICIAL SOIL SAMPLE DESCRIPTIONS

SAMPLE NUMBER	LOCATION COORDINATES		DEPTH	DESCRIPTION	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting			
SS-01	239255.33	736836.63	0-10 in.	Moist, tannish-brown, fine sand with roots.	Shallow grab sample. VOA portion of sample collected at 5-6 in. Remaining sample portion taken from 0-10 in.
SS-02 / SS-02 DUP	239281.79	737157.81	0-4 in. 4 in.+	Very moist, fine sand, some silt, roots, glass. Wet plastic; refusal; difficult to go deeper.	Shallow grab sample. VOA portion of sample collected at 3-4 in. Remaining sample portion taken from 0-4 in. Duplicate sample taken at this location.
SS-03	239225.69	737198.66	0-1 in. 1-8 in.	Root zone. Wet, brown, clayey, fine sand with some fine gravel and roots.	Shallow grab sample. VOA portion of sample collected at 3-4 in. Remaining sample portion taken from 1-8 in. Matrix spike/matrix spike duplicate taken at this sample location.
SS-04	239131.36	737214.42	0-10 in.	Moist, dark brown, silty, fine to medium sand, some fine gravel, some fine roots.	Shallow grab sample. VOA portion of sample collected at 5-6 in. Remaining sample portion taken from 0-10 in.

TABLE 1
SURFICIAL SOIL SAMPLE DESCRIPTIONS

SAMPLE NUMBER	LOCATION COORDINATES		DEPTH	DESCRIPTION	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting			
SS-05	239089.16	737194.76	0-4 in. 4 in. + (refusal)	Moist, brown, fine to coarse sand, some silt and gravel, some roots, scrap metal, and wire. Moist, brown, fine to coarse gravel and fine to coarse sand; refusal.	Shallow grab sample. VOA portion of sample collected at 2-3 in. Remaining sample portion taken from 0-4 in. Collected near a 55-gallon oil drum located on the east side of the property.
SS-06	239077.86	737000.18	0-8 in.	Dry, dark brown, silty, fine sand; lots of fine gravel, broken clay tile and glass, bones (stained reddish), slag; strong odor.	Shallow grab sample. VOA portion of sample collected at 6-7 in. Remaining sample portion taken from 0-8 in.
SS-07	239096.55	736976.99	0-8 in.	Moist, dark brown, silty, fine sand with broken glass, scrap metal, wire, and concrete. Note: slag in area of fallen tree and odor.	Shallow grab sample. VOA portion of sample collected at 6-8 in. Remaining sample portion taken from 0-8 in.
SS-08	239033.71	737169.55	0-3 in. 3-8 in.	Moist, brown, clayey, fine sand, fine roots. Moist, light brown silt and fine sand.	Shallow grab sample. VOA portion of sample collected at 3-5 in. Remaining sample portion taken from 0-8 in.

TABLE 1
SURFICIAL SOIL SAMPLE DESCRIPTIONS

SAMPLE NUMBER	LOCATION COORDINATES		DEPTH	DESCRIPTION	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting			
SS-09	239055.44	737119.74	0-1 in. 1-10 in.	Topsoil. Moist, dark brown, sandy loam lots of organics roots, occasional ¼ to ½ in. gravel, wood chips.	Shallow grab sample. VOA portion of sample collected at 5-6 in. Remaining sample portion taken from 1-10 in.
SS-10	239008.26	737056.70	0-1 in. 1-4 in. 4-8 in.	Sod, root zone. Moist, brown, clayey, silty, fine sand, trace fine to coarse gravel. Moist, light brown, clayey, fine sand.	Shallow grab sample. VOA portion of sample collected at 3-4 in. Remaining sample portion taken from 1-8 in.
SS-11	239013.48	736995.26	0-1 in. 1-3 in. 3-6 in.	Root zone. Moist, brown, silty clay with some fine sand and coarse gravel. Moist, light brown, silty clay with fine sand, at 5+inches hard packed gravel and scrap metal.	Shallow grab sample. VOA portion of sample collected at 3-4 in. Remaining sample portion taken from 1-6 in.
SS-12	238966.12	736960.57	0-10 in.	Moist, brown, fine sand, some gravel, some roots.	Shallow grab sample. VOA portion of sample collected at 6-7 in. Remaining sample portion taken from 0-10 in.

TABLE 1
SURFICIAL SOIL SAMPLE DESCRIPTIONS

SAMPLE NUMBER	LOCATION COORDINATES		DEPTH	DESCRIPTION	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting			
SS-13	238942.47	736924.39	0-1 in. 1-4 in. 4-6 in.	Root zone, some soil. Very moist, brown, clayey, fine sand with some silt, fine gravel, roots, and trace coarse gravel. Very moist, brown, clayey, fine sand lots of fine gravel.	Shallow grab sample. VOA portion of sample collected at 3-4 in. Remaining sample portion taken from 1-6 in.
SS-14	238945.56	736964.27	0-10 in.	Moist, brown, fine sand, some silt and fine gravel.	Shallow grab sample. VOA portion of sample collected at 5-6 in. Remaining sample portion taken from 0-10 in.
SS-15	238914.36	736895.69	0-8 in.	Moist, brown, clayey, fine sand, some fine gravel and roots.	Shallow grab sample. VOA portion of sample collected at 4-5 in. Remaining sample portion taken from 0-8 in.

Location Coordinates: Michigan GeoRef, North American Datum 1983, Meters

TABLE 2

SURFICIAL SOIL SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Groundwater Protection					Ambient Air (Y)					Direct Contact				
				Statewide Default Background Levels	Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Particulate Soil Inhalation Criteria	Footnotes	Nonresidential Particulate Soil Inhalation Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SS-01	VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	No volatile organic compounds detected above reporting limits.																	
	SEMI-VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	No semi-volatile organic compounds detected above reporting limits.																	
	PESTICIDES/PCBS	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	No pesticide/PCB compounds detected above reporting limits.																	
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Arsenic	1.8		5.8	4.6		4.6		4.6		720		910		7.6		37	
	Barium (B)	27		75	1,300		1,300		440	G	330,000		150,000		37,000		130,000	
	Cadmium (B)	0.35		1.2	6.0		6.0		3.6	G,X	1,700		2,200		550		2,100	
	Chromium [Total] (H)	9.1																
	Chromium [VI]				30		30		3.3		260		240		2,500		9,200	
	Cobalt	1.9		6.8	0.8		2.0		2.0		13,000		5,900		2,600		9,000	
	Copper (B)	5.4		32	5,800		5,800		75	G	130,000		59,000		20,000		73,000	
	Cyanide (P,R)	0.2		0.39	4.0		4.0		0.1		250		250		12		250	
	Iron (B)	4,900		12,000	6.0		6.0		NA		ID		ID		160,000		580,000	
	Lead (B)	21		21	700		700		2,800	G,X	100,000		44,000		400		900	DD
	Manganese (B)	200		440	1.0		1.0		56	G,X	3,300		1,500		25,000		90,000	
	Mercury [Total] (B,Z)	0.08		0.13	1.7		1.7		0.05	M	20,000		8,800		160		580	
	Nickel (B)	5.3		20	100		100		76	G	13,000		16,000		40,000		150,000	
Silver (B)	0.13		1.0	4.5		13		0.1	M	6,700		2,900		2,500		9,000		
Vanadium	6.2			72		990		190		ID		ID		750	DD	5,500	DD	
Zinc (B)	33		47	2,400		5,000		170	G	ID		ID		170,000		630,000		

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
Qualifier definitions in Appendix D. Footnote definitions in Appendix E.
Shaded Criteria indicate an exceedance.
A blank Default Background column means that value has not been determined.

TABLE 2

SURFICIAL SOIL SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Groundwater Protection			Ambient Air (Y)			Direct Contact				
				Statewide Default Background Levels	Residential Drinking Water Protection Criteria	Nonresidential Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Residential Particulate Soil Inhalation Criteria	Nonresidential Particulate Soil Inhalation Criteria	Residential Direct Contact Criteria	Nonresidential Direct Contact Criteria			
SS-02	VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)		
	No volatile organic compounds detected above reporting limits.													
	SEMI-VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)		
	No semi-volatile organic compounds detected above reporting limits.													
	PESTICIDES/PCBS	(µg/kg)		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)		
	4-4'-DDD	13			NLL	NLL	NLL	44,000,000	56,000,000	95,000	400,000			
	4-4'-DDE	18			NLL	NLL	NLL	32,000,000	40,000,000	45,000	190,000			
	4-4'-DDT	150			NLL	NLL	NLL	32,000,000	40,000,000	57,000	280,000			
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)		
	Antimony	0.60			4.3	4.3	94	X	13,000	5,900	180	670		
	Arsenic	4.2		5.8	4.6	4.6	4.6		720	910	7.6	37		
	Barium (B)	34		75	1,300	1,300	440	G	330,000	150,000	37,000	130,000		
	Beryllium	0.30			51	51	85	G	1,300	590	410	1,600		
	Cadmium (B)	0.57		1.2	6.0	6.0	3.6	G,X	1,700	2,200	550	2,100		
	Chromium [Total] (H)	13												
	Chromium [VI]				30	30	3.3		260	240	2,500	9,200		
	Cobalt	3.9		6.8	0.8	2.0	2.0		13,000	5,900	2,600	9,000		
	Copper (B)	12		32	5,800	5,800	75	G	130,000	59,000	20,000	73,000		
	Cyanide (P,R)	0.2		0.39	4.0	4.0	0.1		250	250	12	250		
	Iron (B)	16,000		12,000	6.0	6.0	NA		ID	ID	160,000	580,000		
	Lead (B)	35		21	700	700	2,800	G,X	100,000	44,000	400	900	DD	
	Manganese (B)	280		440	1.0	1.0	56	G,X	3,300	1,500	25,000	90,000		
	Nickel (B)	8.5		20	100	100	76	G	13,000	16,000	40,000	150,000		
	Selenium (B)	0.35		0.41	4.0	4.0	0.4		130,000	59,000	2,600	9,600		
	Silver (B)	0.33		1.0	4.5	13	0.1	M	6,700	2,900	2,500	9,000		
	Vanadium	17			72	990	190		ID	ID	750	DD	5,500	DD
	Zinc (B)	74		47	2,400	5,000	170	G	ID	ID	170,000	630,000		

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TABLE 2

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Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Groundwater Protection				Ambient Air (Y)				Direct Contact						
				Statewide Default Background Levels	Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Particulate Soil Inhalation Criteria	Footnotes	Nonresidential Particulate Soil Inhalation Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SS-02-DUP	VOLATILES	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	No volatile organic compounds detected above reporting limits.																	
	SEMI-VOLATILES	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	No semi-volatile organic compounds detected above reporting limits.																	
	PESTICIDES/PCBS	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	4-4'-DDE	7.9			NLL		NLL		NLL		32,000,000		40,000,000		45,000		190,000	
	4-4'-DDT	8.8			NLL		NLL		NLL		32,000,000		40,000,000		57,000		280,000	
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Antimony	0.39			4.3		4.3		94	X	13,000		5,900		180		670	
	Arsenic	3.8		5.8	4.6		4.6		4.6		720		910		7.6		37	
	Barium (B)	34		75	1,300		1,300		440	G	330,000		150,000		37,000		130,000	
	Beryllium	0.31			51		51		85	G	1,300		590		410		1,600	
	Cadmium (B)	0.54		1.2	6.0		6.0		3.6	G,X	1,700		2,200		550		2,100	
	Chromium [Total] (H)	14																
	Chromium [VI]				30		30		3.3		260		240		2,500		9,200	
	Cobalt	3.3		6.8	0.8		2.0		2.0		13,000		5,900		2,600		9,000	
	Copper (B)	13		32	5,800		5,800		75	G	130,000		59,000		20,000		73,000	
	Cyanide (P,R)	0.2		0.39	4.0		4.0		0.1		250		250		12		250	
	Iron (B)	16,000		12,000	6.0		6.0		NA		ID		ID		160,000		580,000	
	Lead (B)	42		21	700		700		2,800	G,X	100,000		44,000		400		900	DD
	Manganese (B)	210		440	1.0		1.0		56	G,X	3,300		1,500		25,000		90,000	
Nickel (B)	8.9		20	100		100		76	G	13,000		16,000		40,000		150,000		
Selenium (B)	0.36		0.41	4.0		4.0		0.4		130,000		59,000		2,600		9,600		
Silver (B)	0.39		1.0	4.5		13		0.1	M	6,700		2,900		2,500		9,000		
Vanadium	15			72		990		190		ID		ID		750	DD	5,500	DD	
Zinc (B)	75		47	2,400		5,000		170	G	ID		ID		170,000		630,000		

$\mu\text{g/kg}$ = microgram/kilogram mg/kg = milligram/kilogram
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TABLE 2

SURFICIAL SOIL SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Groundwater Protection				Ambient Air (Y)				Direct Contact			
				Statewide Default Background Levels	Residential Drinking Water Protection Criteria	Nonresidential Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Residential Particulate Soil Inhalation Criteria	Nonresidential Particulate Soil Inhalation Criteria	Residential Direct Contact Criteria	Nonresidential Direct Contact Criteria				
SS-03	VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)		
	No volatile organic compounds detected above reporting limits.														
	SEMI-VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)		
	No semi-volatile organic compounds detected above reporting limits.														
	PESTICIDES/PCBS	(µg/kg)		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)		
	No pesticide/PCB compounds detected above reporting limits.														
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)		
	Arsenic	3.0		5.8	4.6	4.6	4.6	720	910	7.6	37				
	Barium (B)	31		75	1,300	1,300	440	330,000	150,000	37,000	130,000				
	Beryllium	0.31			51	51	85	1,300	590	410	1,600				
	Chromium [Total] (H)	11													
	Chromium [VI]				30	30	3.3	260	240	2,500	9,200				
	Cobalt	3.2		6.8	0.8	2.0	2.0	13,000	5,900	2,600	9,000				
	Copper (B)	6.8		32	5,800	5,800	75	130,000	59,000	20,000	73,000				
	Iron (B)	11,000		12,000	6.0	6.0	NA	ID	ID	160,000	580,000				
	Lead (B)	12		21	700	700	2,800	100,000	44,000	400	900			DD	
	Manganese (B)	270		440	1.0	1.0	56	3,300	1,500	25,000	90,000				
	Nickel (B)	6.7		20	100	100	76	13,000	16,000	40,000	150,000				
	Selenium (B)	0.34		0.41	4.0	4.0	0.4	130,000	59,000	2,600	9,600				
	Vanadium	14			72	990	190	ID	ID	750	5,500	DD		DD	
	Zinc (B)	26		47	2,400	5,000	170	ID	ID	170,000	630,000				

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
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TABLE 2

SURFICIAL SOIL SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Groundwater Protection				Ambient Air (Y)				Direct Contact			
				Statewide Default Background Levels	Residential Drinking Water Protection Criteria	Nonresidential Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Residential Particulate Soil Inhalation Criteria	Nonresidential Particulate Soil Inhalation Criteria	Residential Direct Contact Criteria	Nonresidential Direct Contact Criteria				
SS-04	VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	
	No volatile organic compounds detected above reporting limits.														
	SEMI-VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	
	Benzo(a)anthracene (Q)	830			NLL	NLL	NLL	ID	ID	ID	ID	20,000	80,000		
	Benzo(b)fluoranthene (Q)	1,700			NLL	NLL	NLL	ID	ID	ID	ID	20,000	80,000		
	Benzo(k)fluoranthene (Q)	560			NLL	NLL	NLL	ID	ID	ID	ID	200,000	800,000		
	Benzo(a)pyrene (Q)	1,100			NLL	NLL	NLL	1,500,000	1,900,000	1,900,000	1,900,000	2,000	8,000		
	Chrysene (Q)	1,100			NLL	NLL	NLL	ID	ID	ID	ID	2,000,000	8,000,000		
	Phenanthrene	270			56,000	160,000	2,100	6,700,000	2,900,000	2,900,000	2,900,000	1,600,000	5,200,000		
	Pyrene	1,100			480,000	480,000	ID	6,700,000,000	2,900,000,000	2,900,000,000	29,000,000	84,000,000			
	PESTICIDES/PCBS	(µg/kg)		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	
	4-4'-DDD	150			NLL	NLL	NLL	44,000,000	56,000,000	56,000,000	56,000,000	95,000	400,000		
	4-4'-DDE	1,600			NLL	NLL	NLL	32,000,000	40,000,000	40,000,000	40,000,000	45,000	190,000		
	4-4'-DDT	640			NLL	NLL	NLL	32,000,000	40,000,000	40,000,000	40,000,000	57,000	280,000		
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
	Antimony	1.1			4.3	4.3	94	13,000	5,900	5,900	5,900	180	670		
	Arsenic	12		5.8	4.6	4.6	4.6	720	910	910	910	7.6	37		
	Barium (B)	64		75	1,300	1,300	440	330,000	150,000	150,000	150,000	37,000	130,000		
	Beryllium	0.45			51	51	85	1,300	590	590	590	410	1,600		
	Cadmium (B)	0.67		1.2	6.0	6.0	3.6	1,700	2,200	2,200	2,200	550	2,100		
	Chromium [Total] (H)	17													
	Chromium [VI]				30	30	3.3	260	240	240	240	2,500	9,200		
	Cobalt	4.2		6.8	0.8	2.0	2.0	13,000	5,900	5,900	5,900	2,600	9,000		
	Copper (B)	28		32	5,800	5,800	75	130,000	59,000	59,000	59,000	20,000	73,000		
	Cyanide (P,R)	0.2		0.39	4.0	4.0	0.1	250	250	250	250	12	250		
	Iron (B)	13,000		12,000	6.0	6.0	NA	ID	ID	ID	ID	160,000	580,000		
	Lead (B)	180		21	700	700	2,800	100,000	44,000	44,000	44,000	400	900		DD
	Manganese (B)	250		440	1.0	1.0	56	3,300	1,500	1,500	1,500	25,000	90,000		
	Mercury [Total] (B,Z)	0.11		0.13	1.7	1.7	0.05	20,000	8,800	8,800	8,800	160	580		
	Molybdenum (B)	1.2			1.5	4.2	64	ID	ID	ID	ID	2,600	9,600		
	Nickel (B)	13		20	100	100	76	13,000	16,000	16,000	16,000	40,000	150,000		
	Selenium (B)	0.75		0.41	4.0	4.0	0.4	130,000	59,000	59,000	59,000	2,600	9,600		
	Silver (B)	0.14		1.0	4.5	13	0.1	6,700	2,900	2,900	2,900	2,500	9,000		
	Vanadium	16			72	990	190	ID	ID	ID	ID	750	5,500		DD
	Zinc (B)	130		47	2,400	5,000	170	ID	ID	ID	ID	170,000	630,000		

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
 Qualifier definitions in Appendix D. Footnote definitions in Appendix E.
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 A blank Default Background column means that value has not been determined.

TABLE 2

SURFICIAL SOIL SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Groundwater Protection				Ambient Air (Y)				Direct Contact						
				Statewide Default Background Levels	Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Particulate Soil Inhalation Criteria	Footnotes	Nonresidential Particulate Soil Inhalation Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SS-05	VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	No volatile organic compounds detected above reporting limits.																	
	SEMI-VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	Pyrene	370			480,000		480,000		ID		6,700,000,000		2,900,000,000		29,000,000		84,000,000	
	PESTICIDES/PCBS	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	No pesticide/PCB compounds detected above reporting limits.																	
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Antimony	0.83			4.3		4.3		94	X	13,000		5,900		180		670	
	Arsenic	3.4		5.8	4.6		4.6		4.6		720		910		7.6		37	
	Barium (B)	86		75	1,300		1,300		440	G	330,000		150,000		37,000		130,000	
	Beryllium	0.45			51		51		85	G	1,300		590		410		1,600	
	Cadmium (B)	0.60		1.2	6.0		6.0		3.6	G,X	1,700		2,200		550		2,100	
	Chromium [Total] (H)	14																
	Chromium [VI]				30		30		3.3		260		240		2,500		9,200	
	Cobalt	3.4		6.8	0.8		2.0		2.0		13,000		5,900		2,600		9,000	
	Copper (B)	56		32	5,800		5,800		75	G	130,000		59,000		20,000		73,000	
	Cyanide (P,R)	0.3		0.39	4.0		4.0		0.1		250		250		12		250	
	Iron (B)	17,000		12,000	6.0		6.0		NA		ID		ID		160,000		580,000	
	Lead (B)	220		21	700		700		2,800	G,X	100,000		44,000		400		900	DD
	Manganese (B)	230		440	1.0		1.0		56	G,X	3,300		1,500		25,000		90,000	
	Nickel (B)	10		20	100		100		76	G	13,000		16,000		40,000		150,000	
	Selenium (B)	0.36		0.41	4.0		4.0		0.4		130,000		59,000		2,600		9,600	
	Silver (B)	0.14		1.0	4.5		13		0.1	M	6,700		2,900		2,500		9,000	
	Vanadium	11			72		990		190		ID		ID		750	DD	5,500	DD
	Zinc (B)	210		47	2,400		5,000		170	G	ID		ID		170,000		630,000	

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TABLE 2

SURFICIAL SOIL SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Groundwater Protection				Ambient Air (Y)				Direct Contact						
				Statewide Default Background Levels	Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Particulate Soil Inhalation Criteria	Footnotes	Nonresidential Particulate Soil Inhalation Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SS-06	VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	No volatile organic compounds detected above reporting limits.																	
	SEMI-VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	Benzo(a)anthracene (Q)	15,000			NLL		NLL		NLL		ID		ID		20,000		80,000	
	Benzo(b)fluoranthene (Q)	18,000			NLL		NLL		NLL		ID		ID		20,000		80,000	
	Chrysene (Q)	16,000			NLL		NLL		NLL		ID		ID		2,000,000		8,000,000	
	Fluoranthene	26,000			730,000		730,000		5,500		9,300,000,000		4,100,000,000		46,000,000		130,000,000	
	Phenanthrene	21,000			56,000		160,000		2,100		6,700,000		2,900,000		1,600,000		5,200,000	
	Pyrene	36,000			480,000		480,000		ID		6,700,000,000		2,900,000,000		29,000,000		84,000,000	
	PESTICIDES/PCBS	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	4-4'-DDD	2,800			NLL		NLL		NLL		44,000,000		56,000,000		95,000		400,000	
	4-4'-DDE	1,500			NLL		NLL		NLL		32,000,000		40,000,000		45,000		190,000	
	4-4'-DDT	14,000			NLL		NLL		NLL		32,000,000		40,000,000		57,000		280,000	
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Antimony	8.1			4.3		4.3		94	X	13,000		5,900		180		670	
	Arsenic	15		5.8	4.6		4.6		4.6		720		910		7.6		37	
	Barium (B)	790		75	1,300		1,300		440	G	330,000		150,000		37,000		130,000	
	Beryllium	1.1			51		51		85	G	1,300		590		410		1,600	
	Cadmium (B)	3.2		1.2	6.0		6.0		3.6	G,X	1,700		2,200		550		2,100	
	Chromium [Total] (H)	31																
	Chromium [VI]				30		30		3.3		260		240		2,500		9,200	
	Cobalt	8.1		6.8	0.8		2.0		2.0		13,000		5,900		2,600		9,000	
	Copper (B)	120		32	5,800		5,800		75	G	130,000		59,000		20,000		73,000	
	Cyanide (P,R)	1.0		0.39	4.0		4.0		0.1		250		250		12		250	
	Iron (B)	27,000		12,000	6.0		6.0		NA		ID		ID		160,000		580,000	
	Lead (B)	900		21	700		700		2,800	G,X	100,000		44,000		400		900	DD
	Manganese (B)	380		440	1.0		1.0		56	G,X	3,300		1,500		25,000		90,000	
	Mercury [Total] (B,Z)	0.37		0.13	1.7		1.7		0.05	M	20,000		8,800		160		580	
	Molybdenum (B)	6.9			1.5		4.2		64	X	ID		ID		2,600		9,600	
	Nickel (B)	38		20	100		100		76	G	13,000		16,000		40,000		150,000	
	Selenium (B)	0.36		0.41	4.0		4.0		0.4		130,000		59,000		2,600		9,600	
	Silver (B)	0.14		1.0	4.5		13		0.1	M	6,700		2,900		2,500		9,000	
	Vanadium	17			72		990		190		ID		ID		750	DD	5,500	DD
	Zinc (B)	1,400		47	2,400		5,000		170	G	ID		ID		170,000		630,000	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
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TABLE 2

SURFICIAL SOIL SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Groundwater Protection			Ambient Air (Y)			Direct Contact		
				Statewide Default Background Levels	Residential Drinking Water Protection Criteria	Nonresidential Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Residential Particulate Soil Inhalation Criteria	Nonresidential Particulate Soil Inhalation Criteria	Residential Direct Contact Criteria	Nonresidential Direct Contact Criteria	
SS-07	VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	
	No volatile organic compounds detected above reporting limits.											
	SEMI-VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	
	Anthracene	3,100		41,000	41,000	ID	67,000,000,000	29,000,000,000	230,000,000	730,000,000		
	Benzo(a)anthracene (Q)	17,000		NLL	NLL	NLL	ID	ID	20,000	80,000		
	Benzo(b)fluoranthene (Q)	25,000		NLL	NLL	NLL	ID	ID	20,000	80,000		
	Benzo(k)fluoranthene (Q)	8,200		NLL	NLL	NLL	ID	ID	200,000	800,000		
	Benzo(a)pyrene (Q)	17,000		NLL	NLL	NLL	1,500,000	1,900,000	2,000	8,000		
	Chrysene (Q)	19,000		NLL	NLL	NLL	ID	ID	2,000,000	8,000,000		
	Fluoranthene	32,000		730,000	730,000	5,500	9,300,000,000	4,100,000,000	46,000,000	130,000,000		
	Indeno(1,2,3-cd)pyrene (Q)	8,300		NLL	NLL	NLL	ID	ID	20,000	80,000		
	Phenanthrene	15,000		56,000	160,000	2,100	6,700,000	2,900,000	1,600,000	5,200,000		
	Pyrene	30,000		480,000	480,000	ID	6,700,000,000	2,900,000,000	29,000,000	84,000,000		
	PESTICIDES/PCBS	(µg/kg)		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	
	4-4'-DDD	1,800		NLL	NLL	NLL	44,000,000	56,000,000	95,000	400,000		
	4-4'-DDE	1,800		NLL	NLL	NLL	32,000,000	40,000,000	45,000	190,000		
	4-4'-DDT	7,800		NLL	NLL	NLL	32,000,000	40,000,000	57,000	280,000		
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
	Antimony	8.6		4.3	4.3	94	13,000	5,900	180	670		
	Arsenic	15		5.8	4.6	4.6	720	910	7.6	37		
	Barium (B)	830		75	1,300	1,300	440	330,000	150,000	37,000	130,000	
	Beryllium	0.69		51	51	85	1,300	590	410	1,600		
	Cadmium (B)	4.6		1.2	6.0	6.0	3.6	1,700	2,200	550	2,100	
	Chromium [Total] (H)	390										
	Chromium [VI]			30	30	3.3	260	240	2,500	9,200		
	Cobalt	65		6.8	0.8	2.0	13,000	5,900	2,600	9,000		
	Copper (B)	160		32	5,800	5,800	75	130,000	59,000	20,000	73,000	
	Cyanide (P,R)	4.0		0.39	4.0	4.0	0.1	250	250	12	250	
	Iron (B)	56,000		12,000	6.0	6.0	NA	ID	ID	160,000	580,000	
	Lead (B)	1,400		21	700	700	2,800	100,000	44,000	400	900	DD
	Manganese (B)	510		440	1.0	1.0	56	3,300	1,500	25,000	90,000	
	Mercury [Total] (B,Z)	0.50		0.13	1.7	1.7	0.05	20,000	8,800	160	580	
	Molybdenum (B)	33			1.5	4.2	64	ID	ID	2,600	9,600	
	Nickel (B)	50		20	100	100	76	13,000	16,000	40,000	150,000	
	Selenium (B)	1.7		0.41	4.0	4.0	0.4	130,000	59,000	2,600	9,600	
	Silver (B)	1.9		1.0	4.5	13	0.1	6,700	2,900	2,500	9,000	
	Vanadium	15		72	990	190		ID	ID	750	5,500	DD
	Zinc (B)	760		47	2,400	5,000	170	ID	ID	170,000	630,000	

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TABLE 2

SURFICIAL SOIL SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Groundwater Protection						Ambient Air (Y)				Direct Contact				
				Statewide Default Background Levels	Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Particulate Soil Inhalation Criteria	Footnotes	Nonresidential Particulate Soil Inhalation Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SS-08	VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	No volatile organic compounds detected above reporting limits.																	
	SEMI-VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	Fluoranthene	250			730,000		730,000		5,500		9,300,000,000		4,100,000,000		46,000,000		130,000,000	
	Pyrene	450			480,000		480,000		ID		6,700,000,000		2,900,000,000		29,000,000		84,000,000	
	PESTICIDES/PCBS	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	4-4'-DDD	36			NLL		NLL		NLL		44,000,000		56,000,000		95,000		400,000	
	4-4'-DDE	74			NLL		NLL		NLL		32,000,000		40,000,000		45,000		190,000	
	4-4'-DDT	86			NLL		NLL		NLL		32,000,000		40,000,000		57,000		280,000	
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Antimony	0.38			4.3		4.3		94	X	13,000		5,900		180		670	
	Arsenic	5.4		5.8	4.6		4.6		4.6		720		910		7.6		37	
	Barium (B)	55		75	1,300		1,300		440	G	330,000		150,000		37,000		130,000	
	Beryllium	0.46			51		51		85	G	1,300		590		410		1,600	
	Cadmium (B)	0.38		1.2	6.0		6.0		3.6	G,X	1,700		2,200		550		2,100	
	Chromium [Total] (H)	17																
	Chromium [VI]				30		30		3.3		260		240		2,500		9,200	
	Cobalt	6.3		6.8	0.8		2.0		2.0		13,000		5,900		2,600		9,000	
	Copper (B)	14		32	5,800		5,800		75	G	130,000		59,000		20,000		73,000	
	Iron (B)	16,000		12,000	6.0		6.0		NA		ID		ID		160,000		580,000	
	Lead (B)	41		21	700		700		2,800	G,X	100,000		44,000		400		900	DD
	Manganese (B)	290		440	1.0		1.0		56	G,X	3,300		1,500		25,000		90,000	
	Molybdenum (B)	1.5			1.5		4.2		64	X	ID		ID		2,600		9,600	
	Nickel (B)	16		20	100		100		76	G	13,000		16,000		40,000		150,000	
	Selenium (B)	0.29		0.41	4.0		4.0		0.4		130,000		59,000		2,600		9,600	
	Vanadium	19			72		990		190		ID		ID		750	DD	5,500	DD
	Zinc (B)	60		47	2,400		5,000		170	G	ID		ID		170,000		630,000	

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TABLE 2

SURFICIAL SOIL SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Groundwater Protection				Ambient Air (Y)				Direct Contact						
				Statewide Default Background Levels	Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Particulate Soil Inhalation Criteria	Footnotes	Nonresidential Particulate Soil Inhalation Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SS-09	VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	No volatile organic compounds detected above reporting limits.																	
	SEMI-VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	Benzo(a)anthracene (Q)	1,100			NLL		NLL		NLL		ID		ID		20,000		80,000	
	Benzo(b)fluoranthene (Q)	1,900			NLL		NLL		NLL		ID		ID		20,000		80,000	
	Benzo(k)fluoranthene (Q)	660			NLL		NLL		NLL		ID		ID		200,000		800,000	
	Benzo(a)pyrene (Q)	1,000			NLL		NLL		NLL		1,500,000		1,900,000		2,000		8,000	
	Chrysene (Q)	1,200			NLL		NLL		NLL		ID		ID		2,000,000		8,000,000	
	Fluoranthene	1,600			730,000		730,000		5,500		9,300,000,000		4,100,000,000		46,000,000		130,000,000	
	Phenanthrene	700			56,000		160,000		2,100		6,700,000		2,900,000		1,600,000		5,200,000	
	Pyrene	2,900			480,000		480,000		ID		6,700,000,000		2,900,000,000		29,000,000		84,000,000	
	PESTICIDES/PCBS	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	4-4'-DDD	3,300			NLL		NLL		NLL		44,000,000		56,000,000		95,000		400,000	
	4-4'-DDE	13,000			NLL		NLL		NLL		32,000,000		40,000,000		45,000		190,000	
	4-4'-DDT	12,000			NLL		NLL		NLL		32,000,000		40,000,000		57,000		280,000	
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Antimony	1.9			4.3		4.3		94	X	13,000		5,900		180		670	
	Arsenic	12		5.8	4.6		4.6		4.6		720		910		7.6		37	
	Barium (B)	85		75	1,300		1,300		440	G	330,000		150,000		37,000		130,000	
	Beryllium	0.52			51		51		85	G	1,300		590		410		1,600	
	Cadmium (B)	0.78		1.2	6.0		6.0		3.6	G,X	1,700		2,200		550		2,100	
	Chromium [Total] (H)	18																
	Chromium [VI]				30		30		3.3		260		240		2,500		9,200	
	Cobalt	4.3		6.8	0.8		2.0		2.0		13,000		5,900		2,600		9,000	
	Copper (B)	36		32	5,800		5,800		75	G	130,000		59,000		20,000		73,000	
	Cyanide (P,R)	0.2		0.39	4.0		4.0		0.1		250		250		12		250	
	Iron (B)	15,000		12,000	6.0		6.0		NA		ID		ID		160,000		580,000	
	Lead (B)	230		21	700		700		2,800	G,X	100,000		44,000		400		900	DD
	Manganese (B)	250		440	1.0		1.0		56	G,X	3,300		1,500		25,000		90,000	
	Mercury [Total] (B,Z)	0.17		0.13	1.7		1.7		0.05	M	20,000		8,800		160		580	
	Molybdenum (B)	1.7			1.5		4.2		64	X	ID		ID		2,600		9,600	
	Nickel (B)	15		20	100		100		76	G	13,000		16,000		40,000		150,000	
	Selenium (B)	0.75		0.41	4.0		4.0		0.4		130,000		59,000		2,600		9,600	
	Silver (B)	0.26		1.0	4.5		13		0.1	M	6,700		2,900		2,500		9,000	
	Vanadium	18			72		990		190		ID		ID		750	DD	5,500	DD
	Zinc (B)	130		47	2,400		5,000		170	G	ID		ID		170,000		630,000	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
 Qualifier definitions in Appendix D. Footnote definitions in Appendix E.
 Shaded Criteria indicate an exceedance.
 A blank Default Background column means that value has not been determined.

TABLE 2

SURFICIAL SOIL SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Groundwater Protection				Ambient Air (Y)				Direct Contact						
				Statewide Default Background Levels	Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Particulate Soil Inhalation Criteria	Footnotes	Nonresidential Particulate Soil Inhalation Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SS-10	VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	No volatile organic compounds detected above reporting limits.																	
	SEMI-VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	Fluoranthene	260			730,000		730,000		5,500		9,300,000,000		4,100,000,000		46,000,000		130,000,000	
	Pyrene	420			480,000		480,000		ID		6,700,000,000		2,900,000,000		29,000,000		84,000,000	
	PESTICIDES/PCBS	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	4-4'-DDD	40			NLL		NLL		NLL		44,000,000		56,000,000		95,000		400,000	
	4-4'-DDE	84			NLL		NLL		NLL		32,000,000		40,000,000		45,000		190,000	
	4-4'-DDT	150			NLL		NLL		NLL		32,000,000		40,000,000		57,000		280,000	
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Antimony	0.48			4.3		4.3		94	X	13,000		5,900		180		670	
	Arsenic	5.5		5.8	4.6		4.6		4.6		720		910		7.6		37	
	Barium (B)	53		75	1,300		1,300		440	G	330,000		150,000		37,000		130,000	
	Beryllium	0.5			51		51		85	G	1,300		590		410		1,600	
	Cadmium (B)	0.23		1.2	6.0		6.0		3.6	G,X	1,700		2,200		550		2,100	
	Chromium [Total] (H)	16																
	Chromium [VI]				30		30		3.3		260		240		2,500		9,200	
	Cobalt	7.6		6.8	0.8		2.0		2.0		13,000		5,900		2,600		9,000	
	Copper (B)	15		32	5,800		5,800		75	G	130,000		59,000		20,000		73,000	
	Cyanide (P,R)			0.39	4.0		4.0		0.1		250		250		12		250	
	Iron (B)	19,000		12,000	6.0		6.0		NA		ID		ID		160,000		580,000	
	Lead (B)	21		21	700		700		2,800	G,X	100,000		44,000		400		900	DD
	Lead (Fine fraction)				NA		NA		NA		100,000		44,000		400		900	DD
	Lead (Coarse fraction)				NA		NA		NA		NA		44,000		400		900	DD
	Manganese (B)	450		440	1.0		1.0		56	G,X	3,300		1,500		25,000		90,000	
	Molybdenum (B)	1.6			1.5		4.2		64	X	ID		ID		2,600		9,600	
	Nickel (B)	19		20	100		100		76	G	13,000		16,000		40,000		150,000	
	Selenium (B)	0.26		0.41	4.0		4.0		0.4		130,000		59,000		2,600		9,600	
	Vanadium	20			72		990		190		ID		ID		750	DD	5,500	DD
	Zinc (B)	47		47	2,400		5,000		170	G	ID		ID		170,000		630,000	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
Qualifier definitions in Appendix D. Footnote definitions in Appendix E.
Shaded Criteria indicate an exceedance.
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TABLE 2

SURFICIAL SOIL SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Groundwater Protection				Ambient Air (Y)				Direct Contact					
				Statewide Default Background Levels	Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Particulate Soil Inhalation Criteria	Footnotes	Nonresidential Particulate Soil Inhalation Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria
SS-11	VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		
	No volatile organic compounds detected above reporting limits.																
	SEMI-VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		
	No semi-volatile organic compounds detected above reporting limits.																
	PESTICIDES/PCBS	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		
	No pesticide/PCB compounds detected above reporting limits.																
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		
	Antimony	4.1			4.3		4.3	94	X	13,000		5,900		180		670	
	Arsenic	7.0		5.8	4.6		4.6	4.6		720		910		7.6		37	
	Barium (B)	57		75	1,300		1,300	440	G	330,000		150,000		37,000		130,000	
	Beryllium	0.61			51		51	85	G	1,300		590		410		1,600	
	Cadmium (B)	0.25		1.2	6.0		6.0	3.6	G,X	1,700		2,200		550		2,100	
	Chromium [Total] (H)	26															
	Chromium [VI]				30		30	3.3		260		240		2,500		9,200	
	Cobalt	9.1		6.8	0.8		2.0	2.0		13,000		5,900		2,600		9,000	
	Copper (B)	16		32	5,800		5,800	75	G	130,000		59,000		20,000		73,000	
	Iron (B)	26,000		12,000	6.0		6.0	NA		ID		ID		160,000		580,000	
	Lead (B)	12		21	700		700	2,800	G,X	100,000		44,000		400		900	DD
	Manganese (B)	940		440	1.0		1.0	56	G,X	3,300		1,500		25,000		90,000	
	Molybdenum (B)	1.5			1.5		4.2	64	X	ID		ID		2,600		9,600	
	Nickel (B)	23		20	100		100	76	G	13,000		16,000		40,000		150,000	
	Selenium (B)	0.21		0.41	4.0		4.0	0.4		130,000		59,000		2,600		9,600	
	Vanadium	32			72		990	190		ID		ID		750	DD	5,500	DD
	Zinc (B)	46		47	2,400		5,000	170	G	ID		ID		170,000		630,000	

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TABLE 2

SURFICIAL SOIL SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Groundwater Protection					Ambient Air (Y)					Direct Contact				
				Statewide Default Background Levels	Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Particulate Soil Inhalation Criteria	Footnotes	Nonresidential Particulate Soil Inhalation Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SS-12	VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	No volatile organic compounds detected above reporting limits.																	
	SEMI-VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	Benzo(a)anthracene (Q)	250			NLL		NLL		NLL		ID		ID		20,000		80,000	
	Chrysene (Q)	250			NLL		NLL		NLL		ID		ID		2,000,000		8,000,000	
	Fluoranthene	460			730,000		730,000		5,500		9,300,000,000		4,100,000,000		46,000,000		130,000,000	
	Phenanthrene	240			56,000		160,000		2,100		6,700,000		2,900,000		1,600,000		5,200,000	
	Pyrene	340			480,000		480,000		ID		6,700,000,000		2,900,000,000		29,000,000		84,000,000	
	PESTICIDES/PCBS	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	Chlordane (J)	13			NLL		NLL		NLL		31,000,000		21,000,000		31,000		150,000	
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Antimony	0.32			4.3		4.3		94	X	13,000		5,900		180		670	
	Arsenic	4.7		5.8	4.6		4.6		4.6		720		910		7.6		37	
	Barium (B)	30		75	1,300		1,300		440	G	330,000		150,000		37,000		130,000	
	Beryllium	0.32			51		51		85	G	1,300		590		410		1,600	
	Cadmium (B)	0.25		1.2	6.0		6.0		3.6	G,X	1,700		2,200		550		2,100	
	Chromium [Total] (H)	33																
	Chromium [VI]				30		30		3.3		260		240		2,500		9,200	
	Cobalt	5.0		6.8	0.8		2.0		2.0		13,000		5,900		2,600		9,000	
	Copper (B)	14		32	5,800		5,800		75	G	130,000		59,000		20,000		73,000	
	Iron (B)	16,000		12,000	6.0		6.0		NA		ID		ID		160,000		580,000	
	Lead (B)	22		21	700		700		2,800	G,X	100,000		44,000		400		900	DD
	Manganese (B)	720		440	1.0		1.0		56	G,X	3,300		1,500		25,000		90,000	
	Molybdenum (B)	1.0			1.5		4.2		64	X	ID		ID		2,600		9,600	
	Nickel (B)	14		20	100		100		76	G	13,000		16,000		40,000		150,000	
	Selenium (B)	0.24		0.41	4.0		4.0		0.4		130,000		59,000		2,600		9,600	
	Vanadium	20			72		990		190		ID		ID		750	DD	5,500	DD
	Zinc (B)	58		47	2,400		5,000		170	G	ID		ID		170,000		630,000	

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TABLE 2

SURFICIAL SOIL SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Groundwater Protection					Ambient Air (Y)					Direct Contact				
				Statewide Default Background Levels	Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Particulate Soil Inhalation Criteria	Footnotes	Nonresidential Particulate Soil Inhalation Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SS-13	VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	No volatile organic compounds detected above reporting limits.																	
	SEMI-VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	No semi-volatile organic compounds detected above reporting limits.																	
	PESTICIDES/PCBS	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	No pesticide/PCB compounds detected above reporting limits.																	
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Antimony	0.37			4.3		4.3		94	X	13,000		5,900		180		670	
	Arsenic	5.1		5.8	4.6		4.6		4.6		720		910		7.6		37	
	Barium (B)	36		75	1,300		1,300		440	G	330,000		150,000		37,000		130,000	
	Beryllium	0.38			51		51		85	G	1,300		590		410		1,600	
	Cadmium (B)	0.26		1.2	6.0		6.0		3.6	G,X	1,700		2,200		550		2,100	
	Chromium [Total] (H)	21																
	Chromium [VI]				30		30		3.3		260		240		2,500		9,200	
	Cobalt	5.3		6.8	0.8		2.0		2.0		13,000		5,900		2,600		9,000	
	Copper (B)	12		32	5,800		5,800		75	G	130,000		59,000		20,000		73,000	
	Iron (B)	17,000		12,000	6.0		6.0		NA		ID		ID		160,000		580,000	
	Lead (B)	17		21	700		700		2,800	G,X	100,000		44,000		400		900	DD
	Manganese (B)	440		440	1.0		1.0		56	G,X	3,300		1,500		25,000		90,000	
	Molybdenum (B)	1.0			1.5		4.2		64	X	ID		ID		2,600		9,600	
Nickel (B)	12		20	100		100		76	G	13,000		16,000		40,000		150,000		
Selenium (B)	0.24		0.41	4.0		4.0		0.4		130,000		59,000		2,600		9,600		
Vanadium	22			72		990		190		ID		ID		750	DD	5,500	DD	
Zinc (B)	62		47	2,400		5,000		170	G	ID		ID		170,000		630,000		

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TABLE 2

SURFICIAL SOIL SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Groundwater Protection				Ambient Air (Y)				Direct Contact						
				Statewide Default Background Levels	Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Particulate Soil Inhalation Criteria	Footnotes	Nonresidential Particulate Soil Inhalation Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SS-14	VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	No volatile organic compounds detected above reporting limits.																	
	SEMI-VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	Anthracene	520		41,000	41,000		ID		67,000,000,000		29,000,000,000		230,000,000		730,000,000			
	Benzo(a)anthracene (Q)	1,700		NLL	NLL		NLL		ID		ID		20,000		80,000			
	Benzo(b)fluoranthene (Q)	2,100		NLL	NLL		NLL		ID		ID		20,000		80,000			
	Benzo(k)fluoranthene (Q)	700		NLL	NLL		NLL		ID		ID		200,000		800,000			
	Benzo(a)pyrene (Q)	1,500		NLL	NLL		NLL		1,500,000		1,900,000		2,000		8,000			
	Chrysene (Q)	1,700		NLL	NLL		NLL		ID		ID		2,000,000		8,000,000			
	Fluoranthene	3,200		730,000	730,000		5,500		9,300,000,000		4,100,000,000		46,000,000		130,000,000			
	Fluorene	270		390,000	890,000		5,300		9,300,000,000		4,100,000,000		27,000,000		87,000,000			
	Indeno(1,2,3-cd)pyrene (Q)	640		NLL	NLL		NLL		ID		ID		20,000		80,000			
	Phenanthrene	2,100		56,000	160,000		2,100		6,700,000		2,900,000		1,600,000		5,200,000			
	Pyrene	3,200		480,000	480,000		ID		6,700,000,000		2,900,000,000		29,000,000		84,000,000			
	PESTICIDES/PCBS	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	No pesticide/PCB compounds detected above reporting limits.																	
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Antimony	0.69		4.3	4.3		94	X	13,000		5,900		180		670			
	Arsenic	4.9		5.8	4.6		4.6		720		910		7.6		37			
	Barium (B)	47		75	1,300		440	G	330,000		150,000		37,000		130,000			
	Beryllium	0.42		51	51		85	G	1,300		590		410		1,600			
	Cadmium (B)	0.33		1.2	6.0		3.6	G,X	1,700		2,200		550		2,100			
	Chromium [Total] (H)	86																
	Chromium [VI]			30	30		3.3		260		240		2,500		9,200			
	Cobalt	4.9		6.8	0.8		2.0		13,000		5,900		2,600		9,000			
	Copper (B)	13		32	5,800		75	G	130,000		59,000		20,000		73,000			
	Iron (B)	30,000		12,000	6.0		6.0		ID		ID		160,000		580,000			
	Lead (B)	50		21	700		700	G,X	100,000		44,000		400		900			DD
	Manganese (B)	1,600		440	1.0		1.0	G,X	3,300		1,500		25,000		90,000			
	Molybdenum (B)	1.2		1.5	4.2		64	X	ID		ID		2,600		9,600			
	Nickel (B)	13		20	100		100	G	13,000		16,000		40,000		150,000			
	Vanadium	83		72	990		190		ID		ID		750	DD	5,500			DD
	Zinc (B)	68		47	2,400		5,000	G	ID		ID		170,000		630,000			

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
Qualifier definitions in Appendix D. Footnote definitions in Appendix E.
Shaded Criteria indicate an exceedance.
A blank Default Background column means that value has not been determined.

TABLE 2

SURFICIAL SOIL SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers /	Groundwater Protection						Ambient Air (Y)				Direct Contact				
				Statewide Default Background Levels	Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Particulate Soil Inhalation Criteria	Footnotes	Nonresidential Particulate Soil Inhalation Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SS-15	VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	No volatile organic compounds detected above reporting limits.																	
	SEMI-VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	Anthracene				41,000		41,000		ID		67,000,000,000		29,000,000,000		230,000,000		730,000,000	
	Benzo(a)anthracene (Q)	580			NLL		NLL		NLL		ID		ID		20,000		80,000	
	Benzo(b)fluoranthene (Q)	740			NLL		NLL		NLL		ID		ID		20,000		80,000	
	Benzo(k)fluoranthene (Q)				NLL		NLL		NLL		ID		ID		200,000		800,000	
	Benzo(g,h,i)perylene				NLL		NLL		NLL		800,000,000		350,000,000		2,500,000		7,000,000	
	Benzo(a)pyrene (Q)	530			NLL		NLL		NLL		1,500,000		1,900,000		2,000		8,000	
	Chrysene (Q)	640			NLL		NLL		NLL		ID		ID		2,000,000		8,000,000	
	Fluoranthene	1,300			730,000		730,000		5,500		9,300,000,000		4,100,000,000		46,000,000		130,000,000	
	Fluorene				390,000		890,000		5,300		9,300,000,000		4,100,000,000		27,000,000		87,000,000	
	Indeno(1,2,3-cd)pyrene (Q)				NLL		NLL		NLL		ID		ID		20,000		80,000	
	Phenanthrene	1,200			56,000		160,000		2,100		6,700,000		2,900,000		1,600,000		5,200,000	
	Pyrene	1,400			480,000		480,000		ID		6,700,000,000		2,900,000,000		29,000,000		84,000,000	
	PESTICIDES/PCBS	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	4-4'-DDD				NLL		NLL		NLL		44,000,000		56,000,000		95,000		400,000	
	4-4'-DDE				NLL		NLL		NLL		32,000,000		40,000,000		45,000		190,000	
	4-4'-DDT				NLL		NLL		NLL		32,000,000		40,000,000		57,000		280,000	
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Antimony	0.37			4.3		4.3		94	X	13,000		5,900		180		670	
	Arsenic	5.6		5.8	4.6		4.6		4.6		720		910		7.6		37	
	Barium (B)	42		75	1,300		1,300		440	G	330,000		150,000		37,000		130,000	
	Beryllium	0.44			51		51		85	G	1,300		590		410		1,600	
	Cadmium (B)	0.26		1.2	6.0		6.0		3.6	G,X	1,700		2,200		550		2,100	
	Chromium [Total] (H)	34																
	Chromium [VI]				30		30		3.3		260		240		2,500		9,200	
	Cobalt	6.3		6.8	0.8		2.0		2.0		13,000		5,900		2,600		9,000	
	Copper (B)	15		32	5,800		5,800		75	G	130,000		59,000		20,000		73,000	
	Iron (B)	24,000		12,000	6.0		6.0		NA		ID		ID		160,000		580,000	
	Lead (B)	33		21	700		700		2,800	G,X	100,000		44,000		400		900	DD
	Manganese (B)	720		440	1.0		1.0		56	G,X	3,300		1,500		25,000		90,000	
	Molybdenum (B)	1.6			1.5		4.2		64	X	ID		ID		2,600		9,600	
	Nickel (B)	16		20	100		100		76	G	13,000		16,000		40,000		150,000	
	Selenium (B)	0.27		0.41	4.0		4.0		0.4		130,000		59,000		2,600		9,600	
	Vanadium	36			72		990		190		ID		ID		750	DD	5,500	DD
	Zinc (B)	75		47	2,400		5,000		170	G	ID		ID		170,000		630,000	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
 Qualifier definitions in Appendix D. Footnote definitions in Appendix E.
 Shaded Criteria indicate an exceedance.
 A blank Default Background column means that value has not been determined.

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-01	239255.13	736836.16	Hand auger	NA	0-24 in.	Moist, light brown, fine sand.	Hand auger; no PID reading.
				NA	24-54 in.	Moist, light tan, fine sand.	Deep grab sample. VOA portion of sample collected at 54 in. Remaining sample portion taken from 48-54 in.

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-02/ SB-02 DUP	239270.44	737054.69	0-4 ft.	38 in.	0-7 in.	Damp, black, organic top soil with grass, roots, and fine gravel.	Deep grab sample. VOA portion of sample collected at 15 in. of 4-8 ft. core. Remaining sample portion taken from 8-18 in. of 4-8 ft. core.
					7-11 in.	Damp, brown, fine to medium sand.	
					11-13 in.	Wet, brown, fine to medium sand with fine gravel, roots, and vegetative roots scattered through zone.	
					13-23 in.	Wet, medium brown, very fine to medium sand, continued plant roots.	
					23-33 in.	Moist, brown, fine to medium sand.	
					33-38 in.	Wet, tan, fine to coarse sand. PID = 0.0 ppm	
			4-8 ft.	48 in.	0-18 in.	Wet, brown, fine to coarse sand.	
					18-22 in.	Saturated, brown with red iron staining, very, very fine sand with fine gravel.	
					22-26 in.	Wet, brown, very fine to medium sand.	
					26-31 in.	Moist, brown, fine sand with 60% fine gravel.	
					31-35 in.	Moist medium brown-gray, fine sand with gravel.	
					35-37 in.	Moist, brown, very fine to coarse sand.	
					37-48 in.	Wet, gravel-brown, fine to coarse sand with 50% gravel up to ¾ diameter. PID = 0.0 ppm	

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-03	239228.58	737209.22	0-4 ft.	35 in.	0-7 in.	Wet, dark gray, sand and silt, plant roots.	Deep grab sample. VOA portion of sample collected at 5 in. of 4-6 ft. core.
					7-18 in. 18-35 in.	Moist, medium brown, fine sand. Wet, medium brown-tan, very fine sand grading to fine to coarse sand. PID = 0.0 ppm	
			4-6 ft.	26 in.	0-6 in. 6-9 in. 9-26 in.	Very moist, brown, fine to coarse sand. Very moist, medium gray-brown, fine to very coarse sand and gravel. Wet, medium gray-brown, fine to very coarse sand and gravel with gray, fine silt at base, clean. PID = 0.0 ppm	Remaining sample portion taken from 0-20 in. of 4-6 ft. core.

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-04	239130.23	737195.92	0-4 ft.	36 in.	0-13 in.	Wet, very dark gray, fine sand and silt, occasional gravel up to ½ inch diameter.	Deep grab sample. VOA portion of sample collected at 15 in. of 4-7 ft. core.
					13-16 in. 16-36 in.	Damp, medium brown, very fine to fine sand. Saturated, medium brown, very fine sand to gravel up to ¾ inches. PID = 0.0 ppm	
			4-7 ft.	48 in.	0-12 in. 12-16 in. 16-26 in. 26-48 in.	Slough. Saturated, gray-brown, coarse sand and gravel. Very moist, medium gray-brown, very, very, fine sand and silt. Very moist, gray, very, very, fine sand and silt, clean. PID = 0.0 ppm	Remaining sample portion taken from 7-17 in. of 4-7 ft. core.

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-05	239067.53	737234.76	0-4 ft.	28 in.	0-4 in.	Damp, black, leaf/loam grading to gray silt/fine sand, gray/brown.	Deep grab sample. VOA portion of sample collected at 16 in. of 8-12 ft. core. Remaining sample portion taken from 14-22 in. of 8-12 ft. core.
					4-10 in.	Damp, gray-brown, silty sand, very fine sand.	
					10-12 in.	Damp, gray-black, silty sand, organic material.	
					12-15 in.	Damp, transition from gray-brown to light red-brown, silty sand.	
					15-28 in.	Moist, red-brown sand, trace fine sand, clean. PID = 0.0 ppm	
		4-8 ft.	0 in.		Two inch cobble blocked core barrel; no soil recovery.		
		8-12 ft.	22 in.	0-11 in. 11-14 in. 14-22 in.	Moist, light brown, silty, very fine sand. Moist, brown, organic plant material. Moist, light brown, silty, very fine sand, trace clay, clay increasing with depth. PID = 0.0 ppm		
		12-15 ft.	36 in.	0-18 in. 18-36 in.	Damp, light brown, silty, very fine sand. Damp, gray, very fine sand and silt. PID = 0.0 ppm		

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-06	239078.13	736998.26	Hand auger	NA	0-42 in.	Moist, blackish-brown, some rusty brown, silty, fine to medium sand with lots of debris (glass, metal, slag, concrete, some plastic).	Hand auger; no PID reading. Deep grab sample. VOA portion of sample collected at 42 in. Remaining sample portion taken from 36-42 in.

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-07	239096.61	736980.83	Hand auger	NA	0-16 in.	Moist, blackish-brown, silty, fine to medium sand with lots of debris (metal , glass, fabric, rubber, slag).	Hand auger; no PID reading. Deep grab sample. VOA portion of sample collected at 40 in. Remaining sample portion taken from 36-42 in.
				NA	16-48 in.	Wet, blackish-brown, silty, fine to medium sand with lots of debris (metal, glass, fabric, rubber, slag).	
				NA	48-54 in.	Wet, light brown, fine sand.	

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-08	239062.34	737197.99	0-4 ft.	33 in.	0-3 in. 3-13 in. 13-19 in. 19-33 in.	Moist, dark brown, silty sand, topsoil. Moist, mixed brown/dark brown/ grayish-brown, silty sand, trace gravel, some debris (glass). Moist, dark brown, silty, fine sand. Moist, brown, fine to medium sand with some silt and trace gravel. PID = 0.0 ppm	Deep grab sample. VOA portion of sample collected at 5 in. of 4-8 ft. core. Remaining sample portion taken from 4-13 in. of 4-8 ft. core.
			4-8 ft.	36 in.	0-2 in. 2-5 in. 5-17 in. 17-36 in.	Slough. Wet, brown, fine to coarse sand with trace silt. Moist, variegated silt with trace fine sand. Moist, brown silt with trace fine sand and very moist, sandy silt lense at 25 inches. PID = 0.0 ppm	
			8-12 ft.	48 in.	0-14 in. 14-48 in.	Slough. Moist, brown silt, trace very fine sand. PID = 0.0 ppm	

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-09	239063.30	737115.44	0-4 ft.	35 in.	0-14 in.	Moist, blackish-brown, silty, fine sand with some clay and trace gravel, some metal debris/slag at 12-14 inches.	Deep grab sample. VOA portion of sample collected at 21 in. of 4-8 ft. core. Remaining sample portion taken from 16-22 in. of 4-8 ft. core.
					14-22 in.	Very moist, grayish-brown, silty sand with some gravel.	
					22-35 in.	Very moist, brown, silty, fine sand. PID = 0.0 ppm	
			4-8 ft.	47 in.	0-2 in.	Slough	
	2-7 in.	Very moist, brown, silty, fine sand.					
	7-16 in.	Very moist, brown, silty, fine sand with little clay.					
	16-22 in.	Very moist, brown, silty, fine sand with little clay and some gravel.					
		22-47 in.	Moist, brown silt with trace fine sand. PID = 0.0 ppm				
		8-11 ft.	48 in.	0-30 in.	Slough.		
		30-48 in.		Moist, brown to gray silt with trace fine sand. PID = 0.0 ppm			

TABLE 3
SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-10	239008.05	737056.92	0-4 ft.	48 in.	0-4 in.	Damp, gray to brown, fine sand, silt; grass and surface vegetation.	Deep grab sample. VOA portion of sample collected at 3 in. of 4-7 ft. core. Remaining sample portion taken from 0-11 in. of 4-7 ft. core.
					4-13 in. 13-15 in. 15-48 in.	Dry, gray, stiff, silty clay. Damp, gray-brown, fine gravel. Slightly damp, gray-brown, fine, silty sand, trace fine gravel, stiff. PID = 0.0 ppm	
			4-7 ft.	36 in.	0-27 in.	Damp, dark gray-brown, fine, silty sand, trace clay, stiff.	
					27-31 in.	Damp, gray-brown, fine to very fine sand and silt with one inch rock at 27-28 inches.	
					31-32 in.	Damp, gray-brown with black, carbonaceous staining on ¼ inch gravel.	
					32-36 in.	Damp, gray-brown, trace red staining, fine sand and silt with clay, scattered gravel up to ¾ inch. PID = 0.0 ppm	

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-11	239016.31	736998.64	0-4 ft.	36 in.	0-2 in. 2-22 in. 22-23 in. 23-24 in. 24-29 in. 29-36 in.	Topsoil with grass. Slightly damp, gray-brown, very fine silt and sand with scattered gravel up to 1/2 inch diameter. Rock 2 inch. Wood. Slightly damp, dark gray-brown, very fine sand, silt, and clay, stiff. Decomposing wood. PID = 0.0 ppm	Deep grab sample. VOA portion of sample collected at 29 in. of 4-7 ft. core. Remaining sample portion taken from 22-32 in. of 4-7 ft. core.
			4-7 ft.	32 in.	0-4 in. 4-9 in. 9-26 in. 26-32 in.	Wood, decaying wood, likely slough. Damp, light tan, fine sand, occasional gravel. Damp, light tan to reddish brown with trace dark gray staining, fine sand. Damp, brown/gray-brown, fine sand with trace fine to medium gravel. PID = 0.0 ppm	

TABLE 3
SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-12	238970.75	736957.72	0-4 ft.	48 in.	0-1 in. 1-48 in.	Topsoil, grass roots. Slightly damp, gray-brown, fine to very fine sand with silt and clay; scattered gravel through out core up to ½ inch diameter. PID = 0.0 ppm	Deep grab sample. VOA portion of sample collected at 24 in. of 4-7 ft. core. Remaining sample portion taken from 18-28 in. of 4-7 ft. core.
			4-7 ft.	36 in.	0-7 in. 7-22 in. 22-25 in. 25-33 in. 33-36 in.	Damp, gray-brown, very fine sand and silt, trace clay. Damp, light gray-brown, very fine sand and silt, trace fine gravel. Wet, dark gray, fine sand and gravel. Damp, gray, very, very fine sand, silt, and clay. Damp, gray, fine sand and silt. PID = 0.0 ppm	

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-13	238943.00	736925.05	0-4 ft.	42 in.	0-3 in.	Damp, grass and vegetation, gray-brown, silty sand mix.	Deep grab sample. VOA portion of sample collected at 20 in. of 4-7 ft. core. Remaining sample portion taken from 20-30 in. of 4-7 ft. core.
					3-7 in.	Damp, gray-brown, very fine silt, fine gravel (pea-size), mixed with clay.	
					7-10 in.	Moist, gray-brown, very fine silt and sand, trace gravel.	
					10-21 in.	Wet, brown, fine sand with very fine gravel increasing sand grain size with depth, mixed with plant matter and very fine gravel.	
					21-24 in.	Wet, black, carbonaceous, decaying plant material.	
					24-25 in.	Wet, gray-brown, fine to medium sand with gravel, trace black carbonaceous material.	
					25-31 in.	Damp, very light tan, very fine sand and silt, clean.	
					31-35 in.	Damp, gray-brown, very fine sand and silt, some clay, trace fine gravel.	
					35-42 in.	Damp, gray-brown, mixed with black, fine sand, silt, and clay, increasing gray clay with depth, some gravel up to 3/4 inch. PID = 0.0 ppm	

TABLE 3
SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-13 cont.	238943.00	736925.05	4-7 ft.	36 in.	0-10 in. 10-15 in. 15-25 in. 25-36 in.	Slough. Moist, gray, fine sand and silt, trace coarse sand. Moist, gray-brown, fine to medium sand, trace fine gravel. Moist to wet, gray-brown, very fine to medium sand, trace coarse sand and fine gravel. PID = 0.0 ppm	
SB-14	238937.21	736940.72	0-4 ft.	36 in.	0-2 in. 2-5 in. 5-10 in. 10-12 in. 12-15 in. 15-18 in. 18-22 in. 22-28 in. 28-31 in. 31-36 in.	Fill, grass/soil. Damp, gray-brown, sandy silt. Dry, firm, gray-brown, grading to dark gray brown at 10 inches, very fine sand and silt. Dry, dark, gray-brown, silty, clayey, fine sand. Dry, decomposing wood. Damp, dark gray-brown, silty, clayey, fine sand. Damp, light gray, very fine and silt, trace fine gravel. Damp, light gray, very fine and silt, less gravel. Dry, gray, fine sand, black, carbonaceous material. Moist, gray, silt and clay. PID = 0.0 ppm	Deep grab sample. VOA portion of sample collected at 13 in. of 4-7 ft. core. Remaining sample portion taken from 10-20 in. of 4-7 ft. core.
			4-7 ft.	32 in.	0-10 in. 10-28 in. 28-32 in.	Slough. Moist, gray, very fine sand and silt with some very fine gravel (gravel increasing in size with depth). Wood. PID = 0.0 ppm	

TABLE 3
SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL	RECOVERY	UNIT THICKNESS	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB-15	238929.32	736904.50	0-4 ft.	30 in.	0-2 in. 2-13 in. 13-16 in. 16-30 in.	Rock. Very moist, gray-brown silt with occasional fine to coarse gravel. Damp, brown, firm, silty sand, trace gravel. Moist, brown, silty sand, fine to pea-size gravel. PID = 0.0 ppm	Deep grab sample. VOA portion of sample collected at 10 in. of 4-8 ft. core.
			4-8 ft.	48 in.	0-13 in. 13-24 in. 24-27 in. 27-37 in. 37-48 in.	Wet, brown, fine, silty sand, with pea-size gravel. Moist, gray-brown, very fine, silty sand, trace clay. Damp, gray-brown firm, very, very fine, silty sand, trace gravel. Dry, gray-brown, firm, fine silt with gravel. Damp, dark brown to black, very fine, silty sand with organic material; chunks of wood. PID = 0.0 ppm	Remaining sample portion taken from 0-10 in. of 4-8 ft. core.
			8-10 ft.	44 in.	0-26 in. 26-42 in. 42-44 in.	Slough. Damp, light gray-brown, very fine sand and silt, clean. Damp, gray, silt, like till. PID = 0.0 ppm	

Location Coordinates: Michigan GeoRef, North American Datum 1983, Meters

*PID reading units are parts per million (ppm)

TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection					Direct Contact				
					Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SB-01	VOLATILES	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	No volatile organic compounds detected above reporting limits.													
	SEMI-VOLATILES	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	No semi-volatile organic compounds detected above reporting limits.													
	PESTICIDES/PCBS	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	No semi-volatile organic compounds detected above reporting limits.													
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Arsenic	1.7		5.8	4.6		4.6		4.6		7.6		37	
	Barium (B)	6.9		75	1,300		1,300		440	G	37,000		130,000	
	Chromium [Total] (H)	4.7												
	Chromium [VI]				30		30		3.3		2,500		9,200	
	Cobalt	1.8		6.8	0.8		2.0		2.0		2,600		9,000	
	Copper (B)	3.0		32	5,800		5,800		75	G	20,000		73,000	
	Iron (B)	4,700		12,000	6.0		6.0		NA		160,000		580,000	
	Lead (B)	2.5		21	700		700		2,800	G,X	400		900	DD
	Manganese (B)	64		440	1.0		1.0		56	G,X	25,000		90,000	
	Vanadium	6.9			72		990		190		750	DD	5,500	DD
	Zinc (B)	11		47	2,400		5,000		170	G	170,000		630,000	

$\mu\text{g/kg}$ = microgram/kilogram mg/kg = milligram/kilogram

Qualifier definitions in Appendix D. Footnote definitions in Appendix E.

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TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection						Direct Contact			
					Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SB-02	VOLATILES	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	No volatile organic compounds detected above reporting limits.													
	SEMI-VOLATILES	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	No semi-volatile organic compounds detected above reporting limits.													
	PESTICIDES/PCBS	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	No pesticide/PCB compounds detected above reporting limits.													
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Arsenic	2.7		5.8	4.6		4.6		4.6		7.6		37	
	Barium (B)	17		75	1,300		1,300		440	G	37,000		130,000	
	Beryllium	0.22			51		51		85	G	410		1,600	
	Chromium [Total] (H)	10												
	Chromium [VI]				30		30		3.3		2,500		9,200	
	Cobalt	2.4		6.8	0.8		2.0		2.0		2,600		9,000	
	Copper (B)	8.1		32	5,800		5,800		75	G	20,000		73,000	
	Iron (B)	9,000		12,000	6.0		6.0		NA		160,000		580,000	
	Lead (B)	3.1		21	700		700		2,800	G,X	400		900	DD
	Manganese (B)	120		440	1.0		1.0		56	G,X	25,000		90,000	
Nickel (B)	9.2		20	100		100		76	G	40,000		150,000		
Vanadium	11			72		990		190		750	DD	5,500	DD	
Zinc (B)	17		47	2,400		5,000		170	G	170,000		630,000		

$\mu\text{g/kg}$ = microgram/kilogram mg/kg = milligram/kilogram

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TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Groundwater Protection						Direct Contact				
				Statewide Default Background Levels	Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SB-03	VOLATILES	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	
	No volatile organic compounds detected above reporting limits.													
	SEMI-VOLATILES	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	
	No semi-volatile organic compounds detected above reporting limits.													
	PESTICIDES/PCBS	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	
	No pesticide/PCB compounds detected above reporting limits.													
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Arsenic	4.6		5.8	4.6		4.6		4.6		7.6		37	
	Barium (B)	13		75	1,300		1,300		440	G	37,000		130,000	
	Chromium [Total] (H)	8.9												
	Chromium [VI]				30		30		3.3		2,500		9,200	
	Cobalt	3.6		6.8	0.8		2.0		2.0		2,600		9,000	
	Copper (B)	8.4		32	5,800		5,800		75	G	20,000		73,000	
	Iron (B)	9,600		12,000	6.0		6.0		NA		160,000		580,000	
	Lead (B)	4.6		21	700		700		2,800	G,X	400		900	DD
	Manganese (B)	310		440	1.0		1.0		56	G,X	25,000		90,000	
	Nickel (B)	11		20	100		100		76	G	40,000		150,000	
Vanadium	12			72		990		190		750	DD	5,500	DD	
Zinc (B)	20		47	2,400		5,000		170	G	170,000		630,000		

$\mu\text{g}/\text{kg}$ = microgram/kilogram mg/kg = milligram/kilogram

Qualifier definitions in Appendix D. Footnote definitions in Appendix E.

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TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection			Direct Contact								
					Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes		
SB-04	VOLATILES	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)					
	No volatile organic compounds detected above reporting limits.															
	SEMI-VOLATILES	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)			
	No semi-volatile organic compounds detected above reporting limits.															
	PESTICIDES/PCBS	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)			
	No pesticide/PCB compounds detected above reporting limits.															
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Antimony	0.37				4.3		4.3		94	X	180		670		
	Arsenic	7.2		5.8	4.6	4.6		4.6		4.6		7.6		37		
	Barium (B)	42		75	1,300	1,300		1,300		440	G	37,000		130,000		
	Chromium [Total] (H)	8.3														
	Chromium [VI]					30		30		3.3		2,500		9,200		
	Cobalt	4.1		6.8	0.8	0.8		2.0		2.0		2,600		9,000		
	Copper (B)	10		32	5,800	5,800		5,800		75	G	20,000		73,000		
	Iron (B)	12,000		12,000	6.0	6.0		6.0		NA		160,000		580,000		
	Lead (B)	4.5		21	700	700		700		2,800	G,X	400		900	DD	
	Manganese (B)	530		440	1.0	1.0		1.0		56	G,X	25,000		90,000		
Nickel (B)	11		20	100	100		100		76	G	40,000		150,000			
Vanadium	12			72	72		990		190		750	DD	5,500	DD		
Zinc (B)	24		47	2,400	2,400		5,000		170	G	170,000		630,000			

$\mu\text{g}/\text{kg}$ = microgram/kilogram mg/kg = milligram/kilogram

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TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection					Direct Contact				
					Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SB-05	VOLATILES	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	No volatile organic compounds detected above reporting limits.													
	SEMI-VOLATILES	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	No semi-volatile organic compounds detected above reporting limits.													
	PESTICIDES/PCBS	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	No pesticide/PCB compounds detected above reporting limits.													
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Arsenic	7.5		5.8	4.6		4.6		4.6		7.6		37	
	Barium (B)	26		75	1,300		1,300		440	G	37,000		130,000	
	Beryllium	0.38			51		51		85	G	410		1,600	
	Chromium [Total] (H)	16												
	Chromium [VI]				30		30		3.3		2,500		9,200	
	Cobalt	5.1		6.8	0.8		2.0		2.0		2,600		9,000	
	Copper (B)	14		32	5,800		5,800		75	G	20,000		73,000	
	Iron (B)	19,000		12,000	6.0		6.0		NA		160,000		580,000	
	Lead (B)	8.4		21	700		700		2,800	G,X	400		900	DD
	Manganese (B)	250		440	1.0		1.0		56	G,X	25,000		90,000	
	Molybdenum (B)	2.2			1.5		4.2		64	X	2,600		9,600	
	Nickel (B)	13		20	100		100		76	G	40,000		150,000	
Vanadium	20			72		990		190		750	DD	5,500	DD	
Zinc (B)	33		47	2,400		5,000		170	G	170,000		630,000		

$\mu\text{g/kg}$ = microgram/kilogram mg/kg = milligram/kilogram

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SOIL BORING SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection				Direct Contact					
					Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SB-06	VOLATILES	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)			
	Trichloroethylene	260			100		100		4,000	X	500,000	C,D D	500,000	C,D D
	SEMI-VOLATILES	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	Acenaphthene	480			300,000		880,000		8,700		41,000,000		130,000,000	
	Acenaphthylene	130			5,900		17,000		ID		1,600,000		5,200,000	
	Anthracene	2,200			41,000		41,000		ID		230,000,000		730,000,000	
	Benzo(a)anthracene (Q)	7,600			NLL		NLL		NLL		20,000		80,000	
	Benzo(b)fluoranthene (Q)	10,000			NLL		NLL		NLL		20,000		80,000	
	Benzo(k)fluoranthene (Q)	3,000			NLL		NLL		NLL		200,000		800,000	
	Benzo(g,h,i)perylene	2,900			NLL		NLL		NLL		2,500,000		7,000,000	
	Benzo(a)pyrene (Q)	6,700			NLL		NLL		NLL		2,000		8,000	
	Carbazole	650			9,400		39,000		1,100		530,000		2,400,000	
	Chrysene (Q)	7,700			NLL		NLL		NLL		2,000,000		8,000,000	
	Dibenzo(a,h)anthracene (Q)	1,200			NLL		NLL		NLL		2,000		8,000	
	Dibenzofuran	470			ID		ID		1,700		ID		ID	
	Fluoranthene	19,000			730,000		730,000		5,500		46,000,000		130,000,000	
	Fluorene	1,000			390,000		890,000		5,300		27,000,000		87,000,000	
	Indeno(1,2,3-cd)pyrene (Q)	4,400			NLL		NLL		NLL		20,000		80,000	
	Naphthalene	240			35,000		100,000		730		16,000,000		52,000,000	
	Phenanthrene	11,000			56,000		160,000		2,100		1,600,000		5,200,000	
	Pyrene	16,000			480,000		480,000		ID		29,000,000		84,000,000	
	PESTICIDES/PCBS	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	4-4'-DDD	850			NLL		NLL		NLL		95,000		400,000	
	4-4'-DDE	320			NLL		NLL		NLL		45,000		190,000	
	4-4'-DDT	560			NLL		NLL		NLL		57,000		280,000	

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TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection					Direct Contact				
					Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SB-06	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
Cont.	Antimony	6.1			4.3		4.3		94	X	180		670	
	Arsenic	15		5.8	4.6		4.6		4.6		7.6		37	
	Barium (B)	410		75	1,300		1,300		440	G	37,000		130,000	
	Beryllium	0.93			51		51		85	G	410		1,600	
	Cadmium (B)	8.4		1.2	6.0		6.0		3.6	G,X	550		2,100	
	Chromium [Total] (H)	47												
	Chromium [VI]				30		30		3.3		2,500		9,200	
	Cobalt	4.1		6.8	0.8		2.0		2.0		2,600		9,000	
	Copper (B)	240		32	5,800		5,800		75	G	20,000		73,000	
	Cyanide (P,R)	0.8		0.39	4.0		4.0		0.1		12		250	
	Iron (B)	45,000		12,000	6.0		6.0		NA		160,000		580,000	
	Lead (B)	840		21	700		700		2,800	G,X	400		900	DD
	Manganese (B)	350		440	1.0		1.0		56	G,X	25,000		90,000	
	Mercury [Total] (B,Z)	0.16		0.13	1.7		1.7		0.05	M	160		580	
	Molybdenum (B)	9.5			1.5		4.2		64	X	2,600		9,600	
	Nickel (B)	25		20	100		100		76	G	40,000		150,000	
	Selenium (B)	1.8		0.41	4.0		4.0		0.4		2,600		9,600	
	Silver (B)	1.1		1.0	4.5		13		0.1	M	2,500		9,000	
	Vanadium	23			72		990		190		750	DD	5,500	DD
	Zinc (B)	600		47	2,400		5,000		170	G	170,000		630,000	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram

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Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection					Direct Contact				
					Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SB-07	VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	No volatile organic compounds detected above reporting limits.													
	SEMI-VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	Acenaphthene	580			300,000		880,000		8,700		41,000,000		130,000,000	
	Acenaphthylene	300			5,900		17,000		ID		1,600,000		5,200,000	
	Anthracene	2,200			41,000		41,000		ID		230,000,000		730,000,000	
	Benzo(a)anthracene (Q)	11,000			NLL		NLL		NLL		20,000		80,000	
	Benzo(b)fluoranthene (Q)	16,000			NLL		NLL		NLL		20,000		80,000	
	Benzo(a)pyrene (Q)	11,000			NLL		NLL		NLL		2,000		8,000	
	Carbazole	850			9,400		39,000		1,100		530,000		2,400,000	
	Chrysene (Q)	13,000			NLL		NLL		NLL		2,000,000		8,000,000	
	Fluoranthene	17,000			730,000		730,000		5,500		46,000,000		130,000,000	
	Fluorene	950			390,000		890,000		5,300		27,000,000		87,000,000	
	Naphthalene	720			35,000		100,000		730		16,000,000		52,000,000	
	Phenanthrene	9,900			56,000		160,000		2,100		1,600,000		5,200,000	
	Pyrene	19,000			480,000		480,000		ID		29,000,000		84,000,000	
	PESTICIDES/PCBS	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	Chlordane (J)	2,600			NLL		NLL		NLL		31,000		150,000	
	4-4'-DDD	5,400			NLL		NLL		NLL		95,000		400,000	
	4-4'-DDE	1,900			NLL		NLL		NLL		45,000		190,000	
	4-4'-DDT	2,600			NLL		NLL		NLL		57,000		280,000	

µg/kg = microgram/kilogram, mg/kg = milligram/kilogram

Qualifier definitions in Appendix D. Footnote definitions in Appendix E.

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TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection			Direct Contact		
					Residential Drinking Water Protection Criteria	Nonresidential Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Residential Direct Contact Criteria	Nonresidential Direct Contact Criteria	
SB-07 Cont.	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
	Antimony	25			4.3	4.3	94	X	180	670
	Arsenic	31		5.8	4.6	4.6	4.6		7.6	37
	Barium (B)	950		75	1,300	1,300	440	G	37,000	130,000
	Beryllium	0.61			51	51	85	G	410	1,600
	Cadmium (B)	14		1.2	6.0	6.0	3.6	G,X	550	2,100
	Chromium [Total] (H)	100								
	Chromium [VI]				30	30	3.3		2,500	9,200
	Cobalt	11		6.8	0.8	2.0	2.0		2,600	9,000
	Copper (B)	450		32	5,800	5,800	75	G	20,000	73,000
	Cyanide (P,R)	0.7		0.39	4.0	4.0	0.1		12	250
	Iron (B)	120,000		12,000	6.0	6.0	NA		160,000	580,000
	Lead (B)	4,200		21	700	700	2,800	G,X	400	900
	Manganese (B)	650		440	1.0	1.0	56	G,X	25,000	90,000
	Mercury [Total] (B,Z)	1.2		0.13	1.7	1.7	0.05	M	160	580
	Molybdenum (B)	8.7			1.5	4.2	64	X	2,600	9,600
	Nickel (B)	53		20	100	100	76	G	40,000	150,000
	Selenium (B)	2.2		0.41	4.0	4.0	0.4		2,600	9,600
	Silver (B)	3.3		1.0	4.5	13	0.1	M	2,500	9,000
	Vanadium	12			72	990	190		750	DD
	Zinc (B)	1,300		47	2,400	5,000	170	G	170,000	630,000

µg/kg = microgram/kilogram mg/kg = milligram/kilogram

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TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection						Direct Contact			
					Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SB-08	VOLATILES	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	
	No volatile organic compounds detected above reporting limits.													
	SEMI-VOLATILES	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	
	No semi-volatile organic compounds detected above reporting limits.													
	PESTICIDES/PCBS	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	
	No pesticide/PCB compounds detected above reporting limits.													
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Antimony	0.33			4.3		4.3		94	X	180		670	
	Arsenic	5.6		5.8	4.6		4.6		4.6		7.6		37	
	Barium (B)	22		75	1,300		1,300		440	G	37,000		130,000	
	Beryllium	0.27			51		51		85	G	410		1,600	
	Chromium [Total] (H)	9.9												
	Chromium [VI]				30		30		3.3		2,500		9,200	
	Cobalt	4.8		6.8	0.8		2.0		2.0		2,600		9,000	
	Copper (B)	12		32	5,800		5,800		75	G	20,000		73,000	
	Iron (B)	15,000		12,000	6.0		6.0		NA		160,000		580,000	
	Lead (B)	4.9		21	700		700		2,800	G,X	400		900	DD
	Manganese (B)	190		440	1.0		1.0		56	G,X	25,000		90,000	
	Nickel (B)	11		20	100		100		76	G	40,000		150,000	
	Vanadium	16			72		990		190		750	DD	5,500	DD
Zinc (B)	29		47	2,400		5,000		170	G	170,000		630,000		

$\mu\text{g}/\text{kg}$ = microgram/kilogram mg/kg = milligram/kilogram

Qualifier definitions in Appendix D. Footnote definitions in Appendix E.

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TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection					Direct Contact				
					Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SB-09	VOLATILES	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	No volatile organic compounds detected above reporting limits.													
	SEMI-VOLATILES	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	No semi-volatile organic compounds detected above reporting limits.													
	PESTICIDES/PCBS	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	Chlordane (J)				NLL		NLL		NLL		31,000		150,000	
	4-4'-DDD	12			NLL		NLL		NLL		95,000		400,000	
	4-4'-DDE	420			NLL		NLL		NLL		45,000		190,000	
	4-4'-DDT	160			NLL		NLL		NLL		57,000		280,000	
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Arsenic	5.8		5.8	4.6		4.6		4.6		7.6		37	
	Barium (B)	24		75	1,300		1,300		440	G	37,000		130,000	
	Beryllium	0.29			51		51		85	G	410		1,600	
	Chromium [Total] (H)	12												
	Chromium [VI]				30		30		3.3		2,500		9,200	
	Cobalt	4.1		6.8	0.8		2.0		2.0		2,600		9,000	
	Copper (B)	12		32	5,800		5,800		75	G	20,000		73,000	
	Iron (B)	13,000		12,000	6.0		6.0		NA		160,000		580,000	
	Lead (B)	5.9		21	700		700		2,800	G,X	400		900	DD
	Manganese (B)	350		440	1.0		1.0		56	G,X	25,000		90,000	
	Nickel (B)	12		20	100		100		76	G	40,000		150,000	
Vanadium	17			72		990		190		750	DD	5,500	DD	
Zinc (B)	29		47	2,400		5,000		170	G	170,000		630,000		

$\mu\text{g/kg}$ = microgram/kilogram mg/kg = milligram/kilogram

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TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection					Direct Contact				
					Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SB-10	VOLATILES	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	
	No volatile organic compounds detected above reporting limits.													
	SEMI-VOLATILES	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	
	Anthracene	120			41,000		41,000		ID		230,000,000		730,000,000	
	Benzo(a)anthracene (Q)	560			NLL		NLL		NLL		20,000		80,000	
	Benzo(b)fluoranthene (Q)	740			NLL		NLL		NLL		20,000		80,000	
	Benzo(k)fluoranthene (Q)	290			NLL		NLL		NLL		200,000		800,000	
	Benzo(a)pyrene (Q)	520			NLL		NLL		NLL		2,000		8,000	
	Chrysene (Q)	640			NLL		NLL		NLL		2,000,000		8,000,000	
	Fluoranthene	1,400			730,000		730,000		5,500		46,000,000		130,000,000	
	Phenanthrene	830			56,000		160,000		2,100		1,600,000		5,200,000	
	Pyrene	1,100			480,000		480,000		ID		29,000,000		84,000,000	
	PESTICIDES/PCBS	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	
	No pesticide/PCB compounds detected above reporting limits.													
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Arsenic	4.4		5.8	4.6		4.6		4.6		7.6		37	
	Barium (B)	44		75	1,300		1,300		440	G	37,000		130,000	
	Beryllium	0.44			51		51		85	G	410		1,600	
	Cadmium (B)	0.21		1.2	6.0		6.0		3.6	G,X	550		2,100	
	Chromium [Total] (H)	15												
	Chromium [VI]				30		30		3.3		2,500		9,200	
	Cobalt	5.8		6.8	0.8		2.0		2.0		2,600		9,000	
	Copper (B)	11		32	5,800		5,800		75	G	20,000		73,000	
	Iron (B)	17,000		12,000	6.0		6.0		NA		160,000		580,000	
	Lead (B)	11		21	700		700		2,800	G,X	400		900	DD
	Manganese (B)	360		440	1.0		1.0		56	G,X	25,000		90,000	
	Molybdenum (B)	1.2			1.5		4.2		64	X	2,600		9,600	
	Nickel (B)	12		20	100		100		76	G	40,000		150,000	
	Selenium (B)	0.28		0.41	4.0		4.0		0.4		2,600		9,600	
	Vanadium	20			72		990		190		750	DD	5,500	DD
	Zinc (B)	33		47	2,400		5,000		170	G	170,000		630,000	

$\mu\text{g}/\text{kg}$ = microgram/kilogram mg/kg = milligram/kilogram

Qualifier definitions in Appendix D. Footnote definitions in Appendix E.

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TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection				Direct Contact					
					Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SB-11	VOLATILES	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	No volatile organic compounds detected above reporting limits.													
	SEMI-VOLATILES	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	Fluoranthene	140			730,000		730,000		5,500		46,000,000		130,000,000	
	Pyrene	140			480,000		480,000		ID		29,000,000		84,000,000	
	PESTICIDES/PCBS	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	No pesticide/PCB compounds detected above reporting limits.													
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Arsenic	1.7		5.8	4.6		4.6		4.6		7.6		37	
	Barium (B)	15		75	1,300		1,300		440	G	37,000		130,000	
	Chromium [Total] (H)	8.9												
	Chromium [VI]								3.3		2,500		9,200	
	Cobalt	2.7		6.8	0.8		2.0		2.0		2,600		9,000	
	Copper (B)	4.6		32	5,800		5,800		75	G	20,000		73,000	
	Iron (B)	7,900		12,000	6.0		6.0		NA		160,000		580,000	
	Lead (B)	4.4		21	700		700		2,800	G,X	400		900	DD
	Manganese (B)	61		440	1.0		1.0		56	G,X	25,000		90,000	
	Nickel (B)	6.6		20	100		100		76	G	40,000		150,000	
	Vanadium	12			72		990		190		750	DD	5,500	DD
	Zinc (B)	17		47	2,400		5,000		170	G	170,000		630,000	

$\mu\text{g/kg}$ = microgram/kilogram mg/kg = milligram/kilogram

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TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection					Direct Contact				
					Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SB-12	VOLATILES	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	
	No volatile organic compounds detected above reporting limits.													
	SEMI-VOLATILES	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	
	Benzo(a)anthracene (Q)	300			NLL		NLL		NLL		20,000		80,000	
	Benzo(b)fluoranthene (Q)	490			NLL		NLL		NLL		20,000		80,000	
	Chrysene (Q)	400			NLL		NLL		NLL		2,000,000		8,000,000	
	Fluoranthene	730			730,000		730,000		5,500		46,000,000		130,000,000	
	Phenanthrene	400			56,000		160,000		2,100		1,600,000		5,200,000	
	Pyrene	640			480,000		480,000		ID		29,000,000		84,000,000	
	PESTICIDES/PCBS	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	
	No pesticide/PCB compounds detected above reporting limits.													
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Arsenic	4.9		5.8	4.6		4.6		4.6		7.6		37	
	Barium (B)	37		75	1,300		1,300		440	G	37,000		130,000	
	Beryllium	0.31			51		51		85	G	410		1,600	
	Cadmium (B)	0.22		1.2	6.0		6.0		3.6	G,X	550		2,100	
	Chromium [Total] (H)	19												
	Chromium [VI]				30		30		3.3		2,500		9,200	
	Cobalt	4.7		6.8	0.8		2.0		2.0		2,600		9,000	
	Copper (B)	14		32	5,800		5,800		75	G	20,000		73,000	
	Cyanide (P,R)	0.4		0.39	4.0		4.0		0.1		12		250	
	Iron (B)	14,000		12,000	6.0		6.0		NA		160,000		580,000	
	Lead (B)	50		21	700		700		2,800	G,X	400		900	DD
	Manganese (B)	400		440	1.0		1.0		56	G,X	25,000		90,000	
	Nickel (B)	12		20	100		100		76	G	40,000		150,000	
	Vanadium	16			72		990		190		750	DD	5,500	DD
	Zinc (B)	54		47	2,400		5,000		170	G	170,000		630,000	

$\mu\text{g}/\text{kg}$ = microgram/kilogram mg/kg = milligram/kilogram

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TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection					Direct Contact				
					Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SB-13	VOLATILES	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	
	No volatile organic compounds detected above reporting limits.													
	SEMI-VOLATILES	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	
	Chrysene (Q)	95			NLL		NLL		NLL		2,000,000		8,000,000	
	Fluoranthene	170			730,000		730,000		5,500		46,000,000		130,000,000	
	Phenanthrene	100			56,000		160,000		2,100		1,600,000		5,200,000	
	Pyrene	150			480,000		480,000		ID		29,000,000		84,000,000	
	PESTICIDES/PCBS	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	
	No pesticide/PCB compounds detected above reporting limits.													
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Antimony	0.3			4.3		4.3		94	X	180		670	
	Arsenic	3.3		5.8	4.6		4.6		4.6		7.6		37	
	Barium (B)	13		75	1,300		1,300		440	G	37,000		130,000	
	Chromium [Total] (H)	7.3												
	Chromium [VI]				30		30		3.3		2,500		9,200	
	Cobalt	3.0		6.8	0.8		2.0		2.0		2,600		9,000	
	Copper (B)	7.5		32	5,800		5,800		75	G	20,000		73,000	
	Cyanide (P,R)	0.4		0.39	4.0		4.0		0.1		12		250	
	Iron (B)	7,600		12,000	6.0		6.0		NA		160,000		580,000	
	Lead (B)	8.0		21	700		700		2,800	G,X	400		900	DD
	Manganese (B)	230		440	1.0		1.0		56	G,X	25,000		90,000	
	Nickel (B)	8.1		20	100		100		76	G	40,000		150,000	
	Vanadium	8.8			72		990		190		750	DD	5,500	DD
Zinc (B)	25		47	2,400		5,000		170	G	170,000		630,000		

$\mu\text{g}/\text{kg}$ = microgram/kilogram mg/kg = milligram/kilogram

Qualifier definitions in Appendix D. Footnote definitions in Appendix E.

Shaded Criteria indicate an exceedance.

A blank Default Background column means that value has not been determined.

TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection					Direct Contact				
					Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SB-14	VOLATILES	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	
	No volatile organic compounds detected above reporting limits.													
	SEMI-VOLATILES	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	
	Benzo(a)anthracene (Q)	200			NLL		NLL		NLL		20,000		80,000	
	Chrysene (Q)	250			NLL		NLL		NLL		2,000,000		8,000,000	
	Fluoranthene	490			730,000		730,000		5,500		46,000,000		130,000,000	
	Phenanthrene	310			56,000		160,000		2,100		1,600,000		5,200,000	
	Pyrene	530			480,000		480,000		ID		29,000,000		84,000,000	
	PESTICIDES/PCBS	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)		($\mu\text{g}/\text{kg}$)	
	Chlordane (J)	8.6			NLL		NLL		NLL		31,000		150,000	
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Antimony	0.35			4.3		4.3		94	X	180		670	
	Arsenic	5.1		5.8	4.6		4.6		4.6		7.6		37	
	Barium (B)	32		75	1,300		1,300		440	G	37,000		130,000	
	Beryllium	0.34			51		51		85	G	410		1,600	
	Chromium [Total] (H)	33												
	Chromium [VI]				30		30		3.3		2,500		9,200	
	Cobalt	5.5		6.8	0.8		2.0		2.0		2,600		9,000	
	Copper (B)	12		32	5,800		5,800		75	G	20,000		73,000	
	Iron (B)	19,000		12,000	6.0		6.0		NA		160,000		580,000	
	Lead (B)	13		21	700		700		2,800	G,X	400		900	DD
	Lead (Fine fraction)				NA		NA		NA		400		900	DD
	Lead (Coarse fraction)				NA		NA		NA		400		900	DD
	Manganese (B)	810		440	1.0		1.0		56	G,X	25,000		90,000	
	Molybdenum (B)	1.5			1.5		4.2		64	X	2,600		9,600	
	Nickel (B)	14		20	100		100		76	G	40,000		150,000	
	Selenium (B)	0.21		0.41	4.0		4.0		0.4		2,600		9,600	
	Vanadium	23			72		990		190		750	DD	5,500	DD
	Zinc (B)	45		47	2,400		5,000		170	G	170,000		630,000	

$\mu\text{g}/\text{kg}$ = microgram/kilogram mg/kg = milligram/kilogram

Qualifier definitions in Appendix D. Footnote definitions in Appendix E.

Shaded Criteria indicate an exceedance.

A blank Default Background column means that value has not been determined.

TABLE 4

SOIL BORING SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Groundwater Protection					Direct Contact				
					Residential Drinking Water Protection Criteria	Footnotes	Nonresidential Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential Direct Contact Criteria	Footnotes	Nonresidential Direct Contact Criteria	Footnotes
SB-15	VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	No volatile organic compounds detected above reporting limits.													
	SEMI-VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	Fluoranthene	280			730,000		730,000		5,500		46,000,000		130,000,000	
	Pyrene	310			480,000		480,000		ID		29,000,000		84,000,000	
	PESTICIDES/PCBS	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	No pesticide/PCB compounds detected above reporting limits.													
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Antimony	0.39			4.3		4.3		94	X	180		670	
	Arsenic	5.8		5.8	4.6		4.6		4.6		7.6		37	
	Barium (B)	43		75	1,300		1,300		440	G	37,000		130,000	
	Beryllium	0.45			51		51		85	G	410		1,600	
	Cadmium (B)	0.21		1.2	6.0		6.0		3.6	G,X	550		2,100	
	Chromium [Total] (H)	29												
	Chromium [VI]				30		30		3.3		2,500		9,200	
	Cobalt	6.4		6.8	0.8		2.0		2.0		2,600		9,000	
	Copper (B)	18		32	5,800		5,800		75	G	20,000		73,000	
	Iron (B)	20,000		12,000	6.0		6.0		NA		160,000		580,000	
	Lead (B)	16		21	700		700		2,800	G,X	400		900	DD
	Lead (Fine fraction)				NA		NA		NA		400		900	DD
	Lead (Coarse fraction)				NA		NA		NA		400		900	DD
	Manganese (B)	720		440	1.0		1.0		56	G,X	25,000		90,000	
	Molybdenum (B)	1.6			1.5		4.2		64	X	2,600		9,600	
	Nickel (B)	21		20	100		100		76	G	40,000		150,000	
	Selenium (B)	0.21		0.41	4.0		4.0		0.4		2,600		9,600	
	Vanadium	23			72		990		190		750	DD	5,500	DD
	Zinc (B)	58		47	2,400		5,000		170	G	170,000		630,000	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram

Qualifier definitions in Appendix D. Footnote definitions in Appendix E.

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TABLE 5
SURFACE WATER SAMPLE DESCRIPTIONS

SAMPLE NUMBER	LOCATION COORDINATES		SAMPLE DESCRIPTION	DEPTH OF WATER AT SAMPLE LOCATION	PHYSICAL PARAMETERS	COMMENTS
	Northing	Easting				
SW-01	238910.94	737088.07	Slightly turbid.	5 in.; collected sample at 2 in.	Cond = 817 pH = 7.72 T = 16.3 ORP = -275 TDS = 541	Sample collected from the Honeywell Ditch by submerging the bottles.
SW-02 (DUP)	238985.76	737104.11	Slightly turbid.	1 in.	Cond = 1210 pH = 6.79 T = 7.0 ORP = -37 TDS = 827	Sample collected from a 2 ft. diameter, clay discharge pipe along the north bank of the Honeywell Ditch on the Tree Farm property by placing bottles beneath discharge flow.
SW-03	239002.81	737196.90	Turbid.	18 in.	Cond = 709 pH = 7.25 T = 14.9 ORP = -172 TDS = 475	Sample collected from the Honeywell Ditch by submerging the bottles. Matrix spike/matrix spike duplicate taken at this sample location.
SW-04	238940.37	736969.74	Clear.	4 in.	Cond = 1270 pH = 7.1 T = 17.7 ORP = 112 TDS = 860	Sample collected from a surface drainage area in a ravine between two large fill areas by submerging the bottles.

Location Coordinates: Michigan Georef NAD 1983 meters

Cond = Conductivity ($\mu\text{s}/\text{cm}$)

pH = Hydrogen Ionization Potential

T = Temperature ($^{\circ}\text{C}$)

ORP = Oxidation Reduction Potential (millivolts)

TDS = Total Dissolved Solids (ppm – parts per million)

Tree Farm
 1406 East Avon
 Rochester Hills, Michigan
 April 26 and 27, 2011

TABLE 6

SURFACE WATER SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Groundwater Surface Water Interface Criteria	Footnotes	Groundwater Contact Criteria	Footnotes
SW-01	VOLATILES	($\mu\text{g/l}$)		($\mu\text{g/l}$)		($\mu\text{g/l}$)	
	No volatile organic compounds detected above reporting limits.						
	SEMI-VOLATILES	($\mu\text{g/l}$)		($\mu\text{g/l}$)		($\mu\text{g/l}$)	
	No semi-volatile organic compounds detected above reporting limits.						
	PESTICIDES/PCBS	($\mu\text{g/l}$)		($\mu\text{g/l}$)		($\mu\text{g/l}$)	
	No pesticide/PCB compounds detected above reporting limits.						
	INORGANICS	($\mu\text{g/l}$)		($\mu\text{g/l}$)		($\mu\text{g/l}$)	
	Barium (B)	32		670	G	14,000,000	
	Copper (B)	2.9		13	G	7,400,000	
	Iron (B)	386		NA		58,000,000	
Manganese (B)	42		2,800	G,X	9,100,000		
Nickel (B)	2.1		73	G	74,000,000		

$\mu\text{g/l}$ = microgram/liter

Qualifier definitions in Appendix D. Footnote definitions in Appendix E.

Shaded Criteria indicate an exceedance.

TABLE 6

SURFACE WATER SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Groundwater Surface Water Interface Criteria	Footnotes	Groundwater Contact Criteria	Footnotes
SW-02	VOLATILES	($\mu\text{g/l}$)		($\mu\text{g/l}$)		($\mu\text{g/l}$)	
	No volatile organic compounds detected above reporting limits.						
	SEMI-VOLATILES	($\mu\text{g/l}$)		($\mu\text{g/l}$)		($\mu\text{g/l}$)	
	No semi-volatile organic compounds detected above reporting limits.						
	PESTICIDES/PCBS	($\mu\text{g/l}$)		($\mu\text{g/l}$)		($\mu\text{g/l}$)	
	No pesticide/PCB compounds detected above reporting limits.						
	INORGANICS	($\mu\text{g/l}$)		($\mu\text{g/l}$)		($\mu\text{g/l}$)	
	Antimony	1		130	X	68,000	
	Arsenic	1.7		10		4,300	
	Barium (B)	84		670	G	14,000,000	
	Copper (B)	6		13	G	7,400,000	
	Iron (B)	2,600		NA		58,000,000	
	Lead (B)	1.7		16	G,X	ID	
	Manganese (B)	200		2,800	G,X	9,100,000	
	Nickel (B)	4.7		73	G	74,000,000	
	Vanadium	2.6		12		970,000	
Zinc (B)	45		170	G	110,000,000		

$\mu\text{g/l}$ = microgram/liter

Qualifier definitions in Appendix D. Footnote definitions in Appendix E.

Shaded Criteria indicate an exceedance.

TABLE 6

Tree Farm
 1406 East Avon
 Rochester Hills, Michigan
 April 26 and 27, 2011

SURFACE WATER SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Groundwater Surface Water Interface Criteria	Footnotes	Groundwater Contact Criteria	Footnotes
SW-02-DUP	VOLATILES	($\mu\text{g/l}$)		($\mu\text{g/l}$)		($\mu\text{g/l}$)	
	No volatile organic compounds detected above reporting limits.						
	SEMI-VOLATILES	($\mu\text{g/l}$)		($\mu\text{g/l}$)		($\mu\text{g/l}$)	
	No semi-volatile organic compounds detected above reporting limits.						
	PESTICIDES/PCBS	($\mu\text{g/l}$)		($\mu\text{g/l}$)		($\mu\text{g/l}$)	
	No pesticide/PCB compounds detected above reporting limits.						
	INORGANICS	($\mu\text{g/l}$)		($\mu\text{g/l}$)		($\mu\text{g/l}$)	
	Arsenic	1.7		10		4,300	
	Barium (B)	84		670	G	14,000,000	
	Copper (B)	5.9		13	G	7,400,000	
	Iron (B)	2,600		NA		58,000,000	
	Lead (B)	1.7		16	G,X	ID	
	Manganese (B)	200		2,800	G,X	9,100,000	
	Nickel (B)	4.6		73	G	74,000,000	
Vanadium	2.5		12		970,000		
Zinc (B)	43		170	G	110,000,000		

$\mu\text{g/l}$ = microgram/liter

Qualifier definitions in Appendix D. Footnote definitions in Appendix E.

Shaded Criteria indicate an exceedance.

TABLE 6

SURFACE WATER SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Groundwater Surface Water Interface Criteria	Footnotes	Groundwater Contact Criteria	Footnotes
SW-03	VOLATILES	($\mu\text{g/l}$)		($\mu\text{g/l}$)		($\mu\text{g/l}$)	
	No volatile organic compounds detected above reporting limits.						
	SEMI-VOLATILES	($\mu\text{g/l}$)		($\mu\text{g/l}$)		($\mu\text{g/l}$)	
	No semi-volatile organic compounds detected above reporting limits.						
	PESTICIDES/PCBS	($\mu\text{g/l}$)		($\mu\text{g/l}$)		($\mu\text{g/l}$)	
	No pesticide/PCB compounds detected above reporting limits.						
	INORGANICS	($\mu\text{g/l}$)		($\mu\text{g/l}$)		($\mu\text{g/l}$)	
	Arsenic	1		10		4,300	
	Barium (B)	32		670	G	14,000,000	
	Chromium [Total] (H)	1.6					
	Chromium [VI]			11		460,000	
	Copper (B)	3.8		13	G	7,400,000	
	Iron (B)	730		NA		58,000,000	
	Manganese (B)	64		2,800	G,X	9,100,000	
Nickel (B)	2.5		73	G	74,000,000		

$\mu\text{g/l}$ = microgram/liter

Qualifier definitions in Appendix D. Footnote definitions in Appendix E.

Shaded Criteria indicate an exceedance.

TABLE 6

SURFACE WATER SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Groundwater Surface Water Interface Criteria	Footnotes	Groundwater Contact Criteria	Footnotes
SW-04	VOLATILES	($\mu\text{g/l}$)		($\mu\text{g/l}$)		($\mu\text{g/l}$)	
	No volatile organic compounds detected above reporting limits.						
	SEMI-VOLATILES	($\mu\text{g/l}$)		($\mu\text{g/l}$)		($\mu\text{g/l}$)	
	No semi-volatile organic compounds detected above reporting limits.						
	PESTICIDES/PCBS	($\mu\text{g/l}$)		($\mu\text{g/l}$)		($\mu\text{g/l}$)	
	No pesticide/PCB compounds detected above reporting limits.						
	INORGANICS	($\mu\text{g/l}$)		($\mu\text{g/l}$)		($\mu\text{g/l}$)	
	Arsenic	1.5		10		4,300	
	Barium (B)	67		670	G	14,000,000	
	Copper (B)	2.6		13	G	7,400,000	
	Iron (B)	250		NA		58,000,000	
	Manganese (B)	140		2,800	G,X	9,100,000	
Nickel (B)	5.3		73	G	74,000,000		

$\mu\text{g/l}$ = microgram/liter

Qualifier definitions in Appendix D. Footnote definitions in Appendix E.

Shaded Criteria indicate an exceedance.

TABLE 7
SEDIMENT SAMPLE DESCRIPTIONS

SAMPLE NUMBER	LOCATION COORDINATES		DEPTH OF WATER AT SAMPLE LOCATION	DEPTH OF SAMPLE	DESCRIPTION	COMMENTS
	Northing	Easting				
SD-01	238912.28	737086.72	5 in.	0-6 in. VOA 4-6 in.	0-4 in. - Wet, tan, medium sand, leaf litter. 4-6 in. - Wet, gray, medium sand, leaf litter.	Sample collected from the Honeywell Drain. Used 4 ft. length, 2 in. diameter, Geoprobe® macro-core liner to collect sediment.
SD-02	238985.78	737103.94	2 in.	0-3 in. VOA 2-3 in.	0-3 in. - Wet, tan, fine to coarse medium sand with fine gravel.	Sample collected at the base of the discharge flow from a 2 ft. diameter, clay discharge pipe along the north bank of the Honeywell Drain on the Tree Farm property. Used stainless steel spoon to collect sediment.
SD-03	239004.12	737197.36	12 in.	0-10 in. VOA 5-6 in.	0-6 in. - Wet, tan, fine sand with some black silt. 6-10 in. - Wet, blackish-brown, medium sand, some silt, trace fine gravel.	Sample collected from the Honeywell Drain. Used 4 ft. length, 2 in. diameter, Geoprobe® macro-core liner to collect sediment.
SD-04	238940.38	736969.10	4 in.	0-7 in. VOA 6-7 in.	0-6 in. - Wet, brown, silty, fine to medium sand, fine gravel. 6-7 in. - Wet, tan, medium sand.	Sample collected from a surface drainage area in a ravine between two large fill areas. Used 4 ft. length, 2 in. diameter, Geoprobe® macro-core liner to collect sediment.

TABLE 8

SEDIMENT SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	PART 201 SEDIMENT SCREENING LEVELS			Part 201 Soil Criteria					
				USEPA Region 5 RCRA Ecological Screening Levels	Footnotes	Threshold Effect Level (Smith et. al. 1996)	Lowest Effect Level (Persud et. al. 1993)	Minimal Effect Level (EC & MENVIQ 1992)	Soil Groundwater Surface Water Interface Protection Criteria	Footnotes	Soil Residential Direct Contact Criteria	Footnotes
SD-01	VOLATILES	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		
	No volatile organic compounds detected above reporting limits.											
	SEMI-VOLATILES	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		
	No semi-volatile organic compounds detected above reporting limits.											
	PESTICIDES/PCBS	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		
	No pesticide/PCB compounds detected above reporting limits.											
	INORGANICS	(mg/kg)		(mg/kg)		(mg/kg)	(mg/kg)	(mg/kg)		(mg/kg)		
	Arsenic	2.2		9.79	u	5.9	6	7	4.6		7.6	
	Barium (B)	11		NG		NG	NG	NG	440	G	37,000	
	Chromium [Total] (H)	5.2										
	Chromium [VI]			NG		NG	NG	NG	3.3		2,500	
	Cobalt	2.0		50		NG	NG	NG	2.0		2,600	
	Copper (B)	4.4		31.6	u	35.7	16	28	75	G	20,000	
	Cyanide (P,R)	0.2		0.0001	t	NG	NG	NG	0.1		12	
	Iron (B)	5,800		NG		NG	NG	NG	NA		160,000	
	Lead (B)	3.9		35.8	u	35	31	42	2,800	G,X	400	
	Manganese (B)	160		NG		NG	NG	NG	56	G,X	25,000	
Nickel (B)	4.4		22.7	u	18	16	35	76	G	40,000		
Vanadium	6.9		NG		NG	NG	NG	190		750	DD	
Zinc (B)	22		121	u	123	120	150	170	G	170,000		

$\mu\text{g/kg}$ = microgram/kilogram mg/kg = milligram/kilogram
 Qualifier definitions in Appendix D. Footnote definitions in Appendix E.
 Shaded Criteria indicate an exceedance.
 A blank Default Background column means that value has not been determined.

TABLE 8

SEDIMENT SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	PART 201 SEDIMENT SCREENING LEVELS			Part 201 Soil Criteria				
				USEPA Region 5 RCRA Ecological Screening Levels	Footnotes	Threshold Effect Level (Smith et. al. 1996)	Lowest Effect Level (Persud et. al. 1993)	Minimal Effect Level (EC & MENVIQ 1992)	Soil Groundwater Surface Water Interface Protection Criteria	Footnotes	Soil Residential Direct Contact Criteria
SD-02	VOLATILES	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	No volatile organic compounds detected above reporting limits.										
	SEMI-VOLATILES	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	No semi-volatile organic compounds detected above reporting limits.										
	PESTICIDES/PCBS	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	No pesticide/PCB compounds detected above reporting limits.										
	INORGANICS	(mg/kg)		(mg/kg)		(mg/kg)	(mg/kg)	(mg/kg)		(mg/kg)	
	Antimony	0.39		NG		NG	NG	NG	94	X	180
	Arsenic	6.6		9.79	u	5.9	6	7	4.6		7.6
	Barium (B)	63		NG		NG	NG	NG	440	G	37,000
	Cadmium (B)	0.22		0.99	u	0.596	0.6	0.9	3.6	G,X	550
	Chromium [Total] (H)	4.8									
	Chromium [VI]			NG		NG	NG	NG	.33		2,500
	Cobalt	2.5		50		NG	NG	NG	2.0		2,600
	Copper (B)	6.3		31.6	u	35.7	16	28	75	G	20,000
	Cyanide (P,R)	0.2		0.0001	t	NG	NG	NG	0.1		12
	Iron (B)	25,000		NG		NG	NG	NG	NA		160,000
	Lead (B)	10		35.8	u	35	31	42	2,800	G,X	400
	Manganese (B)	450		NG		NG	NG	NG	56	G,X	25,000
	Nickel (B)	4.1		22.7	u	18	16	35	0.05	M	40,000
Selenium (B)	0.29		NG		NG	NG	NG	76	G	2,600	
Vanadium	8.6		NG		NG	NG	NG	190		750	
Zinc (B)	54		121	u	123	120	150	170	G	170,000	

$\mu\text{g/kg}$ = microgram/kilogram mg/kg = milligram/kilogram
Qualifier definitions in Appendix D. Footnote definitions in Appendix E.
Shaded Criteria indicate an exceedance.
A blank Default Background column means that value has not been determined.

TABLE 8

SEDIMENT SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	PART 201 SEDIMENT SCREENING LEVELS			Part 201 Soil Criteria				
				USEPA Region 5 RCRA Ecological Screening Levels	Footnotes	Threshold Effect Level (Smith et. al. 1996)	Lowest Effect Level (Persud et. al. 1993)	Minimal Effect Level (EC & MENVIQ 1992)	Soil Groundwater Surface Water Interface Protection Criteria	Footnotes	Soil Residential Direct Contact Criteria
SD-03	VOLATILES	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	No volatile organic compounds detected above reporting limits.										
	SEMI-VOLATILES	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	No semi-volatile organic compounds detected above reporting limits.										
	PESTICIDES/PCBS	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	($\mu\text{g/kg}$)	($\mu\text{g/kg}$)		($\mu\text{g/kg}$)	
	No pesticide/PCB compounds detected above reporting limits.										
	INORGANICS	(mg/kg)		(mg/kg)		(mg/kg)	(mg/kg)	(mg/kg)		(mg/kg)	
	Arsenic	2.2		9.79	u	5.9	6	7		4.6	7.6
	Barium (B)	13		NG		NG	NG	NG		440	G
	Chromium [Total] (H)	5.4									
	Chromium [VI]			NG		NG	NG	NG		3.3	2,500
	Cobalt	2.3		50		NG	NG	NG		2.0	2,600
	Copper (B)	5.4		31.6	u	35.7	16	28		75	G
	Cyanide (P,R)	0.2		0.0001	t	NG	NG	NG		0.1	12
	Iron (B)	6,000		NG		NG	NG	NG		NA	160,000
	Lead (B)	5.3		35.8	u	35	31	42		2,800	G,X
	Manganese (B)	140		NG		NG	NG	NG		56	G,X
	Nickel (B)	5.1		22.7	u	18	16	35		76	G
	Vanadium	8.4		NG		NG	NG	NG		190	750
	Zinc (B)	25		121	u	123	120	150		170	G
											DD

$\mu\text{g/kg}$ = microgram/kilogram . mg/kg = milligram/kilogram
Qualifier definitions in Appendix D. Footnote definitions in Appendix E.
Shaded Criteria indicate an exceedance.
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TABLE 8

SEDIMENT SAMPLE DATA SUMMARY

Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	PART 201 SEDIMENT SCREENING LEVELS			Part 201 Soil Criteria					
				USEPA Region 5 RCRA Ecological Scening Levels	Footnotes	Threshold Effect Level (Smith et. al. 1996)	Lowest Effect Level (Persud et. al. 1993)	Minimal Effect Level (EC & MENVIQ 1992)	Soil Groundwater Surface Water Interface Protection Criteria	Footnotes	Soil Residential Direct Contact Criteria	Footnotes
SD-04	VOLATILES	(µg/kg)		(µg/kg)		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)		(µg/kg)	
	No volatile organic compounds detected above reporting limits.											
	SEMI-VOLATILES	(µg/kg)		(µg/kg)		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)		(µg/kg)	
	No semi-volatile organic compounds detected above reporting limits.											
	PESTICIDES/PCBS	(µg/kg)		(µg/kg)		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)		(µg/kg)	
	4-4'-DDD	49		4.88	uz	3.54	8	10	NLL		95,000	
	4-4'-DDE	56		3.16	u	1.42	5	7	NLL		45,000	
	INORGANICS	(mg/kg)		(mg/kg)		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)		(mg/kg)	
	Antimony	0.38		NG		NG	NG	NG	94	X	180	
	Arsenic	11		9.79	u	5.9	6	7	4.6		7.6	
	Barium (B)	55		NG		NG	NG	NG	440	G	37,000	
	Beryllium	0.36		NG		NG	NG	NG	85	G	410	
	Cadmium (B)	0.30		0.99	u	0.596	0.6	0.9	3.6	G,X	550	
	Chromium [Total] (H)	15										
	Chromium [VI]			NG		NG	NG	NG	3.3		2,500	
	Cobalt	6.2		50		NG	NG	NG	2.0		2,600	
	Copper (B)	16		31.6	u	35.7	16	28	75	G	20,000	
	Cyanide (P,R)	0.2		0.0001	t	NG	NG	NG	0.1		12	
	Iron (B)	22,000		NG		NG	NG	NG	NA		160,000	
	Lead (B)	23		35.8	u	35	31	42	2,800	G,X	400	
	Manganese (B)	510		NG		NG	NG	NG	56	G,X	25,000	
	Nickel (B)	15		22.7	u	18	16	35	0.05	M	40,000	
	Selenium (B)	0.44		NG		NG	NG	NG	76	G	2,600	
	Vanadium	18		NG		NG	NG	NG	190		750	DD
	Zinc (B)	67		121	u	123	120	150	170	G	170,000	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
 Qualifier definitions in Appendix D. Footnote definitions in Appendix E.
 Shaded Criteria indicate an exceedance.
 A blank Default Background column means that value has not been determined.

Appendix A
Historical Data Searches

Tree Farm

1406 East Avon Road
Rochester, MI 48307

Inquiry Number: 3013112.2s
March 14, 2011

The EDR Radius Map™ Report with GeoCheck®



440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edmet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1406 EAST AVON ROAD
ROCHESTER, MI 48307

COORDINATES

Latitude (North): 42.667100 - 42° 40' 1.6"
Longitude (West): 83.106000 - 83° 6' 21.6"
Universal Transverse Mercator: Zone 17
UTM X (Meters): 327411.6
UTM Y (Meters): 4725783.5
Elevation: 744 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 42083-F1 UTICA, MI
Most Recent Revision: 1983

West Map: 42083-F2 ROCHESTER, MI
Most Recent Revision: 1997

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

EXECUTIVE SUMMARY

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators

RCRA-SQG..... RCRA - Small Quantity Generators

RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal ERNS list

ERNS..... Emergency Response Notification System

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

AST..... Aboveground Tanks

INDIAN UST..... Underground Storage Tanks on Indian Land

FEMA UST..... Underground Storage Tank Listing

State and tribal institutional control / engineering control registries

AUL..... Engineering and Institutional Controls

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Brownfields and UST Site Database

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

ODL..... Open Dump Inventory

EXECUTIVE SUMMARY

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
SWRCY..... Recycling Facilities
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL..... Clandestine Drug Labs
CDL..... Clandestine Drug Lab Listing
US HIST CDL..... National Clandestine Laboratory Register

Local Land Records

LIENS 2..... CERCLA Lien Information
LUCIS..... Land Use Control Information System
LIENS..... Lien List

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
SPILLS..... Pollution Emergency Alerting System

Other Ascertainable Records

DOT OPS..... Incident and Accident Data
DOD..... Department of Defense Sites
FUDS..... Formerly Used Defense Sites
UMTRA..... Uranium Mill Tailings Sites
MINES..... Mines Master Index File
TRIS..... Toxic Chemical Release Inventory System
TSCA..... Toxic Substances Control Act
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing
SSTS..... Section 7 Tracking Systems
ICIS..... Integrated Compliance Information System
PADS..... PCB Activity Database System
MLTS..... Material Licensing Tracking System
RADINFO..... Radiation Information Database
FINDS..... Facility Index System/Facility Registry System
RAATS..... RCRA Administrative Action Tracking System
UIC..... Underground Injection Wells Database
WDS..... Waste Data System
DRYCLEANERS..... Drycleaning Establishments
NPDES..... List of Active NPDES Permits
AIRS..... Permit and Emissions Inventory Data
INDIAN RESERV..... Indian Reservations
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
FINANCIAL ASSURANCE..... Financial Assurance Information Listing
COAL ASH DOE..... Seam-Electric Plan Operation Data
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER..... PCB Transformer Registration Database
COAL ASH..... Coal Ash Disposal Sites

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants..... EDR Proprietary Manufactured Gas Plants

EXECUTIVE SUMMARY

EDR Historical Auto Stations... EDR Proprietary Historic Gas Stations
EDR Historical Cleaners..... EDR Proprietary Historic Dry Cleaners

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in *bold italics* are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: Also known as Superfund, the National Priority List database is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program. The source of this database is the U.S. EPA.

A review of the NPL list, as provided by EDR, and dated 12/31/2010 has revealed that there are 2 NPL sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>J & L LANDFILL</i>	<i>HAMLIN RD</i>	<i>SE 1/4 - 1/2 (0.499 mi.)</i>	<i>0</i>	<i>7</i>
<i>G&H LANDFILL</i>	<i>3160 23 MILE RD</i>	<i>E 1/2 - 1 (0.896 mi.)</i>	<i>0</i>	<i>48</i>

Federal CERCLIS list

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 11/30/2010 has revealed that there is 1 CERCLIS site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>J & L LANDFILL</i>	<i>HAMLIN RD</i>	<i>SE 1/4 - 1/2 (0.499 mi.)</i>	<i>0</i>	<i>7</i>

EXECUTIVE SUMMARY

Federal CERCLIS NFRAP site List

CERC-NFRAP: Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

A review of the CERC-NFRAP list, as provided by EDR, and dated 10/28/2010 has revealed that there is 1 CERC-NFRAP site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SOUTHEASTERN OAKLAND CO INCIN	1741 SCHOOL RD	SE 1/4 - 1/2 (0.368 mi.)	B4	109

Federal institutional controls / engineering controls registries

US ENG CONTROLS: A listing of sites with engineering controls in place.

A review of the US ENG CONTROLS list, as provided by EDR, and dated 01/05/2011 has revealed that there is 1 US ENG CONTROLS site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
J & L LANDFILL	HAMLIN RD	SE 1/4 - 1/2 (0.499 mi.)	0	7

US INST CONTROL: A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

A review of the US INST CONTROL list, as provided by EDR, and dated 01/05/2011 has revealed that there is 1 US INST CONTROL site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
J & L LANDFILL	HAMLIN RD	SE 1/4 - 1/2 (0.499 mi.)	0	7

State- and tribal - equivalent CERCLIS

SHWS: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Environmental Quality's Contaminated Sites List on Diskette With Address.

A review of the SHWS list, as provided by EDR, and dated 01/30/2011 has revealed that there are 4 SHWS sites within approximately 1 mile of the target property.

EXECUTIVE SUMMARY

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
STANS TRUCKING LF Facility Status: Remedial Action in Progress (may incl. use restrictions, O&M and/or monitoring)	1131 E. HAMLIN ROAD	S 1/2 - 1 (0.700 mi.)	8	117
KINGSTON DEVELOPMENT Facility Status: Inactive - no actions taken to address contamination	1805 HAMLIN RD	SSE 1/2 - 1 (0.805 mi.)	C9	117
SANDFILL LF NO 1 Facility Status: Inactive - no actions taken to address contamination	1843 HAMLIN RD	SE 1/2 - 1 (0.825 mi.)	C10	118
SANDFILL LF NO 2 Facility Status: Interim Response in progress	1911 HAMLIN RD	SE 1/2 - 1 (0.861 mi.)	11	118

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Department of Environmental Quality's Michigan Solid Waste Facilities.

A review of the SWF/LF list, as provided by EDR, and dated 01/05/2011 has revealed that there is 1 SWF/LF site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>SE OAKLAND CT RESOURCE RECOVER</i>	<i>1741 SCHOOL RD</i>	<i>SE 1/4 - 1/2 (0.368 mi.)</i>	<i>B6</i>	<i>114</i>

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Quality's Leaking Underground Storage Tank (LUST) Database.

A review of the LUST list, as provided by EDR, and dated 11/19/2010 has revealed that there are 2 LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
AVON BROACH & PROD. CO Facility Status: Closed	1089 JOHN R RD	W 1/8 - 1/4 (0.210 mi.)	A2	107

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>SE OAKLAND CT RESOURCE RECOVER</i> Facility Status: Closed	<i>1741 SCHOOL RD</i>	<i>SE 1/4 - 1/2 (0.368 mi.)</i>	<i>B6</i>	<i>114</i>

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Quality's Michigan UST database.

A review of the UST list, as provided by EDR, and dated 11/19/2010 has revealed that there is 1 UST

EXECUTIVE SUMMARY

site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
AVON BROACH & PROD. CO	1089 JOHN R RD	W 1/8 - 1/4 (0.210 mi.)	A1	106

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

HIST LF: The database contains historical information and is no longer updated..

A review of the HIST LF list, as provided by EDR, and dated 03/01/1997 has revealed that there is 1 HIST LF site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SOCRRA LANDFILL	1741 SCHOOL ROAD	SE 1/4 - 1/2 (0.368 mi.)	B5	110

Local Lists of Hazardous waste / Contaminated Sites

DEL SHWS: Sites that have been delisted or deleted from the List of Contaminated Sites. The available documentation for the site does support it's listing or the site no longer meets criteria specified in rules.

A review of the DEL SHWS list, as provided by EDR, and dated 02/03/2011 has revealed that there is 1 DEL SHWS site within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
YATES CIDER MILL	1990 E. AVON ROAD	NE 1/2 - 1 (0.652 mi.)	7	117

Other Ascertainable Records

RCRA-NonGen: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA-NonGen list, as provided by EDR, and dated 02/17/2010 has revealed that there is 1 RCRA-NonGen site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
AVON COUNTRY MARKET	990 JOHN R RD	W 1/8 - 1/4 (0.213 mi.)	3	107

EXECUTIVE SUMMARY

CONSENT: Major Legal settlements that establish responsibility and standards for cleanup at NPL (superfund) sites. Released periodically by U.S. District Courts after settlement by parties to litigation matters.

A review of the CONSENT list, as provided by EDR, and dated 10/01/2010 has revealed that there is 1 CONSENT site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
G&H LANDFILL	3160 23 MILE RD	E 1/2 - 1 (0.896 mi.)	0	48

ROD: Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid the cleanup.

A review of the ROD list, as provided by EDR, and dated 12/31/2010 has revealed that there are 2 ROD sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
J & L LANDFILL	HAMLIN RD	SE 1/4 - 1/2 (0.499 mi.)	0	7
G&H LANDFILL	3160 23 MILE RD	E 1/2 - 1 (0.896 mi.)	0	48

BEA: Baseline Environmental Assessment.

A review of the BEA list, as provided by EDR, and dated 11/24/2010 has revealed that there is 1 BEA site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
AVON COUNTRY MARKET	990 JOHN R RD	W 1/8 - 1/4 (0.213 mi.)	3	107

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

Site Name

Database(s)

SPRING LAKE SUBDIVISION

SHWS, BROWNFIELDS

OVERVIEW MAP - 3013112.2s



Target Property

▲ Sites at elevations higher than or equal to the target property.

◆ Sites at elevations lower than the target property

▲ Manufactured Gas Plants

National Priority List Sites

Dept, Defense Sites

Indian Reservations BIA

County Boundary

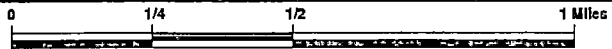
Oil & Gas pipelines

100-year flood zone

500-year flood zone

National Wetland Inventory

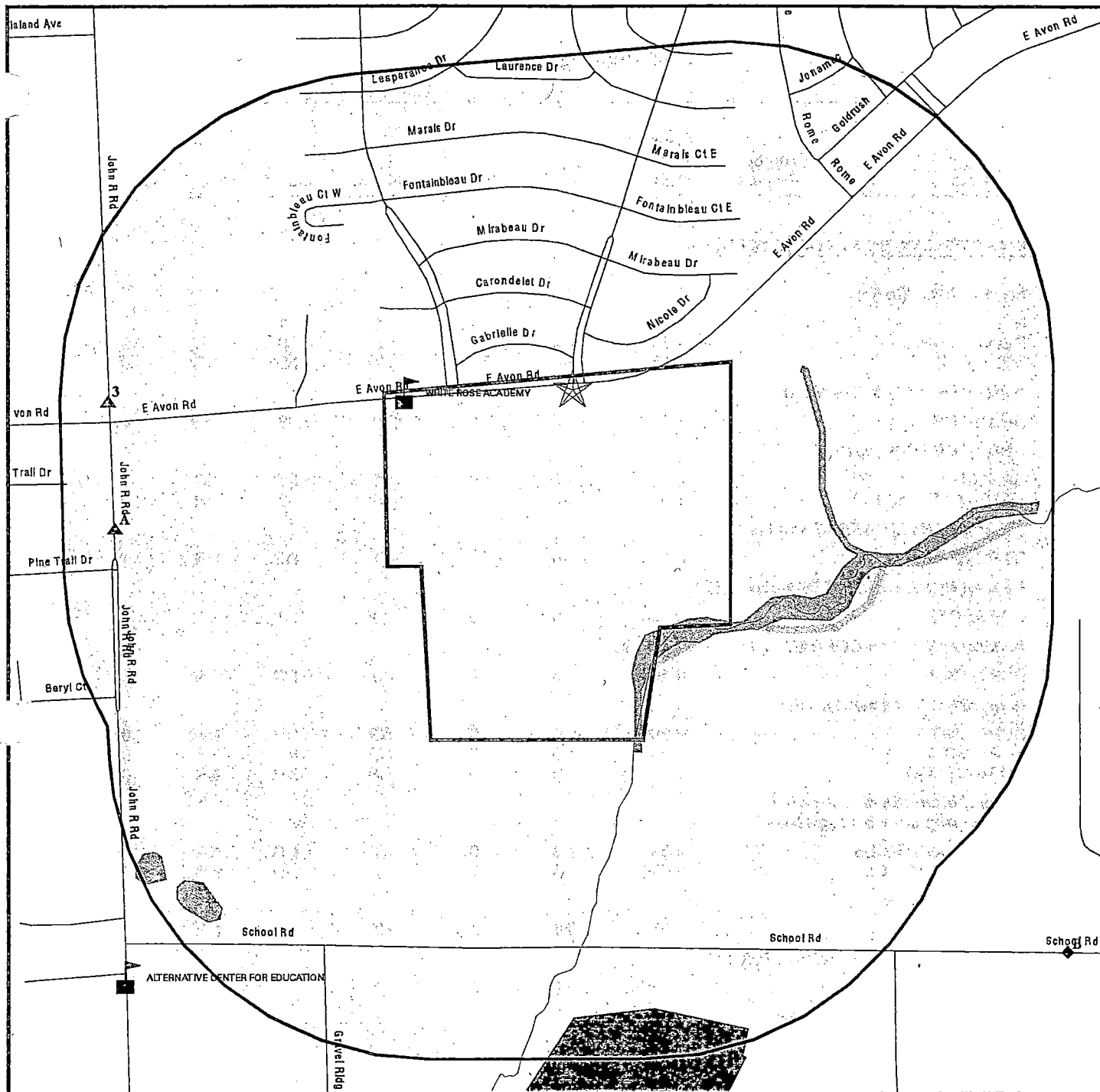
State Wetlands



SITE NAME: Tree Farm
 ADDRESS: 1406 East Avon Road
 Rochester MI 48307
 LAT/LONG: 42.6671 / 83.1060

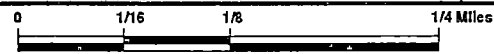
CLIENT: MDEQ/RRD/Superfund
 CONTACT: Teresa Ducsay
 INQUIRY #: 3013112.2s
 DATE: March 14, 2011 10:55 am

DETAIL MAP - 3013112.2s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites

- Indian Reservations BIA
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands



<p>SITE NAME: Tree Farm ADDRESS: 1406 East Avon Road Rochester MI 48307 LAT/LONG: 42.6671 / 83.1060</p>	<p>CLIENT: MDEQ/RRD/Superfund CONTACT: Teresa Ducsay INQUIRY #: 3013112.2s DATE: March 14, 2011 10:55 am</p>
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MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL		1.000	0	0	1	1	NR	2
Proposed NPL		1.000	0	0	0	0	NR	0
NPL LIENS		TP	NR	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL		1.000	0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
CERCLIS		0.500	0	0	1	NR	NR	1
FEDERAL FACILITY		1.000	0	0	0	0	NR	0
<i>Federal CERCLIS NFRAP site List</i>								
CERC-NFRAP		0.500	0	0	1	NR	NR	1
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS		1.000	0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF		0.500	0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG		0.250	0	0	NR	NR	NR	0
RCRA-SQG		0.250	0	0	NR	NR	NR	0
RCRA-CESQG		0.250	0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
US ENG CONTROLS		0.500	0	0	1	NR	NR	1
US INST CONTROL		0.500	0	0	1	NR	NR	1
<i>Federal ERNS list</i>								
ERNS		TP	NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
SHWS		1.000	0	0	0	4	NR	4
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF		0.500	0	0	1	NR	NR	1
<i>State and tribal leaking storage tank lists</i>								
LUST		0.500	0	1	1	NR	NR	2
INDIAN LUST		0.500	0	0	0	NR	NR	0
<i>State and tribal registered storage tank lists</i>								
UST		0.250	0	1	NR	NR	NR	1

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
AST		0.250	0	0	NR	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
FEMA UST		0.250	0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
AUL		0.500	0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP		0.500	0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS		0.500	0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
ODI		0.500	0	0	0	NR	NR	0
DEBRIS REGION 9		0.500	0	0	0	NR	NR	0
SWRCY		0.500	0	0	0	NR	NR	0
HIST LF		0.500	0	0	1	NR	NR	1
INDIAN ODI		0.500	0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL		TP	NR	NR	NR	NR	NR	0
DEL SHWS		1.000	0	0	0	1	NR	1
CDL		TP	NR	NR	NR	NR	NR	0
US HIST CDL		TP	NR	NR	NR	NR	NR	0
Local Land Records								
LIENS 2		TP	NR	NR	NR	NR	NR	0
LUCIS		0.500	0	0	0	NR	NR	0
LIENS		TP	NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS		TP	NR	NR	NR	NR	NR	0
SPILLS		TP	NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA-NonGen		0.250	0	1	NR	NR	NR	1
DOT OPS		TP	NR	NR	NR	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	1	NR	1
ROD		1.000	0	0	1	1	NR	2

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UMTRA		0.500	0	0	0	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
HIST FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
ICIS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
RADINFO		TP	NR	NR	NR	NR	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
UIC		TP	NR	NR	NR	NR	NR	0
WDS		TP	NR	NR	NR	NR	NR	0
DRYCLEANERS		0.250	0	0	NR	NR	NR	0
NPDES		TP	NR	NR	NR	NR	NR	0
AIRS		TP	NR	NR	NR	NR	NR	0
BEA		0.500	0	1	0	NR	NR	1
INDIAN RESERV		1.000	0	0	0	0	NR	0
SCRD DRYCLEANERS		0.500	0	0	0	NR	NR	0
FINANCIAL ASSURANCE		TP	NR	NR	NR	NR	NR	0
COAL ASH DOE		TP	NR	NR	NR	NR	NR	0
COAL ASH EPA		0.500	0	0	0	NR	NR	0
PCB TRANSFORMER		TP	NR	NR	NR	NR	NR	0
COAL ASH		0.500	0	0	0	NR	NR	0

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants		1.000	0	0	0	0	NR	0
EDR Historical Auto Stations		0.250	0	0	NR	NR	NR	0
EDR Historical Cleaners		0.250	0	0	NR	NR	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NPL
Region
SE
1/4-1/2
2637 ft.

J & L LANDFILL
HAMLIN RD
ROCHESTER HILLS, MI 48307

NPL
CERCLIS
US ENG CONTROLS
US INST CONTROL
ROD

1000121669
MID980609440

NPL:

EPA ID: MID980609440
EPA Region: 05
Federal: N
Final Date: 3/31/1989

Category Details:

NPL Status: Currently on the Final NPL
Category Description: Depth To Aquifer-<= 10 Feet
Category Value: 10

NPL Status: Currently on the Final NPL
Category Description: Distance To Nearest Population-> 1/4 And <= 1/2 Mile
Category Value: 2000

Site Details:

Site Name: J & L LANDFILL
Site Status: Final
Site Zip: 48307
Site City: ROCHESTER HILLS
Site State: MI
Federal Site: No
Site County: OAKLAND
EPA Region: 05
Date Proposed: 06/10/86
Date Deleted: Not reported
Date Finalized: 03/31/89

Substance Details:

NPL Status: Currently on the Final NPL
Substance ID: Not reported
Substance: Not reported
CAS #: Not reported
Pathway: Not reported
Scoring: Not reported

NPL Status: Currently on the Final NPL
Substance ID: C178
Substance: COPPER AND COMPOUNDS
CAS #: Not reported
Pathway: GROUND WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: C178
Substance: COPPER AND COMPOUNDS
CAS #: Not reported
Pathway: SURFACE WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: C319

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Substance: CHROMIUM, TRIVALENT
CAS #: 16065-83-1
Pathway: GROUND WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: C319
Substance: CHROMIUM, TRIVALENT
CAS #: 16065-83-1
Pathway: SURFACE WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: C320
Substance: CHROMIUM, HEXAVALENT
CAS #: 18540-29-9
Pathway: GROUND WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: C320
Substance: CHROMIUM, HEXAVALENT
CAS #: 18540-29-9
Pathway: SURFACE WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: D006
Substance: CADMIUM (CD)
CAS #: 7440-43-9
Pathway: GROUND WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: D006
Substance: CADMIUM (CD)
CAS #: 7440-43-9
Pathway: SURFACE WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: D008
Substance: LEAD (PB)
CAS #: 7439-92-1
Pathway: GROUND WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: D008
Substance: LEAD (PB)
CAS #: 7439-92-1
Pathway: SURFACE WATER PATHWAY
Scoring: 3

Summary Details:

Conditions at proposal June 10, 1986): The J L Landfill covers 17 acres on Hamlin Road in Rochester Hills, Oakland County, Michigan. The area

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

is heavily industrialized. Recently, the owner, Jones Laughlin Steel Corp., assumed the name of its parent company, LTV Steel Co. While the landfill operated 1951 to 1980, approximately 1.5 million cubic feet of wastes, including dusts from emission control devices in electric furnaces, were buried at depths of up to 25 feet. Avon Township zoning board granted special use permits for the operation. Dusts at the site contain manganese, chromium, and nickel, according to the company. The landfill has no liner and is located in a stratification consisting of sands and gravels extending between 18 and 35 feet below the surface. These materials facilitate the movement of contaminants into ground water. About 1,500 people depend on shallow wells within 3 miles of the site as a source of drinking water. The nearest well is less than 2,000 feet from the site. Ladd Drain borders the site and flows into Clinton River, which flows through the Rochester-Utica Recreation Area less than 1 mile from the landfill. Status March 31, 1989: EPA is conducting a remedial investigation/feasibility study to determine the type and extent of contamination at the site and identify alternatives for remedial action.

Site Status Details:

NPL Status: Final
Proposed Date: 06/10/1986
Final Date: 03/31/1989
Deleted Date: Not reported

Narratives Details:

NPL Name: J & L LANDFILL
City: ROCHESTER HILLS
State: MI

CERCLIS:

Site ID: 0502882
EPA ID: MID980609440
Facility County: OAKLAND
Short Name: J & L LANDFILL
Congressional District: 09
IFMS ID: 052P
SMSA Number: 2160
USGC Hydro Unit: 04090003
Federal Facility: Not a Federal Facility
DMNSN Number: 17.00000
Site Orphan Flag: N
RCRA ID: Not reported
USGS Quadrangle: Not reported
Site Init By Prog: Not reported
NFRAP Flag: Not reported
Parent ID: Not reported
RST Code: Not reported
EPA Region: 05
Classification: Not reported
Site Settings Code: RU
NPL Status: Currently on the Final NPL
DMNSN Unit Code: ACRE
RBRAC Code: Not reported
RResp Fed Agency Code: Not reported
Non NPL Status: Not reported
Non NPL Status Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Site Fips Code: 26125
CC Concurrence Date: 19970930
CC Concurrence FY: 1997
Alias EPA ID: Not reported
Site FUDS Flag: Not reported

CERCLIS Site Contact Name(s):

Contact ID: 5000124.00000
Contact Name: JEFFREY GORE
Contact Tel: (312) 886-6552
Contact Title: Remedial Project Manager (RPM)
Contact Email: gore.jeffrey@epa.gov

Contact ID: 5271036.00000
Contact Name: CHERYL ALLEN
Contact Tel: (312) 353-6196
Contact Title: Community Involvement Coordinator
Contact Email: Not reported

Contact ID: 5273694.00000
Contact Name: Nita Leftridge
Contact Tel: (312) 353-4685
Contact Title: Site Assessment Manager (SAM)
Contact Email: leftridge.nita@epa.gov

CERCLIS Site Alias Name(s):

Alias ID: 101
Alias Name: AVON TWP LDFL AKA J & L SITE
Alias Address: Not reported
MI

Alias ID: 201
Alias Name: J & L LDFL
Alias Address: Not reported
OAKLAND, MI

Alias ID: 202
Alias Name: J & L LDFL
Alias Address: HAMLIN RD
AVON TWP, MI 48063

Alias ID: 1768
Alias Name: J & L LDFL
Alias Address: Not reported
Not reported

Alias ID: 1769
Alias Name: J & L LANDFILL
Alias Address: HAMLIN ROAD
AVON TOWNSHIP, MI 48063

Alias ID: 1770
Alias Name: J & L LANDFILL
Alias Address: HAMLIN RD
ROCHESTER HILLS, MI 48063

Alias Comments: Not reported

Site Description: In 1976 the Michigan Department of Natural Resources (MDNR) conducted an area-wide groundwater study and identified an area of groundwater contamination primarily attributed to a landfill west of the J&L Landfill. As a result, local residents were provided with an alternative drinking water supply. USEPA files indicate that the J&L Steel Company submitted a CERCLA notification in

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

June 1981, claiming ownership of the subject property for which it reported disposal of 55,555 cubic yards of steel slag from 1966 to 1980. Ecology and Environment, Inc. (E&E), completed a Preliminary Site Assessment in July, 1983, followed by a Site Inspection in June, 1984 to verify the site location and ownership. Based on the results of the RI and previous investigations, the USEPA divided the site into two sections called Operable Units (OUs). OU1 consists of the landfill and its contents. OU2 consists of the groundwater and will be addressed in a separate document in the future. The Site Focused Feasibility Study (FFS) for OU1 was completed in January of 1994. The J&L Landfill site is located on Hamlin Road in Rochester Hills, Michigan. The area surrounding and including J&L Landfill is generally level, with the exception of a drainage ditch along the eastern boundary, Ladd Drain near the northern boundary, the south ditch along Hamlin Road, and a sediment pond in the northwestern corner of the site. The sediment pond contains continuously flowing water fed by groundwater and an inlet culvert originating off-site. There is also a concrete outlet culvert which is believed to be oriented to the northeast, passing under the landfill, and the adjacent property and terminating in Ladd Drain. Vegetation covers most of the site except in scattered patches and roadways. Access to the site is unrestricted. Land use in the vicinity of the J&L site includes residential, industrial, recreational, other landfills, and mining. The J&L site is bordered on the east and north by Sandfill Landfill No.2, and on the west by Sandfill Landfill No.1. There are at least six other landfills within one-half mile of the site. Residential areas exist within 500 feet of the southern property boundary, approximately 1,000 feet northwest of the site, and approximately 600 feet east of the site along Hamlin Road. The J&L site and adjacent properties are zoned light industrial. The J&L site is located less than 1 mile west of the Clinton River which flows from northwest to southeast through the Rochester-Utica State Recreation Area. Ladd Drain, which is located on the northern boundary of the site, drains into the Clinton River. Groundwater flow direction similarly, is towards the north and east. Steel slag and steel manufacturing wastes were the primary wastes disposed at the site, which was a former sand and gravel borrow area. During 1967 or 1968, baghouse dust filters were installed on the electric arc furnaces at the J&L Steel Warren, Michigan facility. The dust collected by these filters, referred to as electric arc furnace (EAF) dust, was thereafter codisposed of with slag at the J&L site. This EAF dust, if classified today, would be considered a listed hazardous waste under RCRA. Disposal operations at J&L may have started as early as 1951 and were terminated in 1980 when the site was closed and the current cap was installed. By November of 1980, J&L landfill had been brought up to grade, as specified by Avon Township Rochester Hills, and covered with a landfill cap. The current cap appears to have been mixed with slag materials, and there are areas void of vegetation and scattered areas of debris across the surface. This indicates that the current cap is not adequate and requires improvement.

CERCLIS Assessment History:

Action Code: 001
Action: DISCOVERY
Date Started: Not reported
Date Completed: 06/01/1981
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Action: PRELIMINARY ASSESSMENT
Date Started: Not reported
Date Completed: 07/01/1983
Priority Level: Higher priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: SITE INSPECTION
Date Started: Not reported
Date Completed: 09/01/1984
Priority Level: Higher priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: HAZARD RANKING SYSTEM PACKAGE
Date Started: Not reported
Date Completed: 07/18/1985
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: NON-NATIONAL PRIORITIES LIST POTENTIALLY RESPONSIBLE PARTY SEARCH
Date Started: Not reported
Date Completed: 05/15/1986
Priority Level: Search Complete, Viable PRPs
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Alternate
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: PROPOSAL TO NATIONAL PRIORITIES LIST
Date Started: Not reported
Date Completed: 06/10/1986
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: FINAL LISTING ON NATIONAL PRIORITIES LIST
Date Started: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Date Completed: 03/31/1989
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMOVAL ASSESSMENT
Date Started: 08/06/1990
Date Completed: 08/10/1990
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: ISSUE REQUEST LETTERS (104E)
Date Started: Not reported
Date Completed: 10/19/1990
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Not reported
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: ISSUE REQUEST LETTERS (104E)
Date Started: Not reported
Date Completed: 01/31/1991
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: ISSUE REQUEST LETTERS (104E)
Date Started: Not reported
Date Completed: 01/31/1991
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: REMOVAL ASSESSMENT
Date Started: 06/11/1992
Date Completed: 06/11/1992
Priority Level: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 04/24/1989
Date Completed: 06/30/1994
Priority Level: Not reported
Operable Unit: LANDFILL CAP
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported
Financial Transaction ID: 0001
Transaction Type: Commitment
Fin. Transaction Date: 03/24/1989
Financial Amount: 300000.00000
Financial Year: 1989

Financial Transaction ID: 0001
Transaction Type: Decommitment
Fin. Transaction Date: 03/24/1989
Financial Amount: 300000.00000
Financial Year: 1989

Financial Transaction ID: 0002
Transaction Type: Actual Obligation
Fin. Transaction Date: 04/24/1989
Financial Amount: 300000.00000
Financial Year: 1989

Financial Transaction ID: 0004
Transaction Type: Commitment
Fin. Transaction Date: 12/11/1989
Financial Amount: 140500.00000
Financial Year: 1990

Financial Transaction ID: 0003
Transaction Type: Actual Obligation
Fin. Transaction Date: 01/10/1990
Financial Amount: 140500.00000
Financial Year: 1990

Financial Transaction ID: 0002
Transaction Type: Decommitment
Fin. Transaction Date: 01/10/1990
Financial Amount: 140500.00000
Financial Year: 1990

Financial Transaction ID: 0003
Transaction Type: Decommitment
Fin. Transaction Date: 08/31/1990
Financial Amount: 250000.00000
Financial Year: 1990

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Financial Transaction ID: 0005
Transaction Type: Commitment
Fin. Transaction Date: 08/31/1990
Financial Amount: 250000.00000
Financial Year: 1990

Financial Transaction ID: 0006
Transaction Type: Actual Obligation
Fin. Transaction Date: 09/20/1990
Financial Amount: 250000.00000
Financial Year: 1990

Financial Transaction ID: 0007
Transaction Type: Commitment
Fin. Transaction Date: 03/29/1991
Financial Amount: 50000.00000
Financial Year: 1991

Financial Transaction ID: 0004
Transaction Type: Decommitment
Fin. Transaction Date: 03/29/1991
Financial Amount: 50000.00000
Financial Year: 1991

Financial Transaction ID: 0008
Transaction Type: Actual Obligation
Fin. Transaction Date: 04/23/1991
Financial Amount: 50000.00000
Financial Year: 1991

Financial Transaction ID: 0009
Transaction Type: Commitment
Fin. Transaction Date: 07/31/1996
Financial Amount: 52000.00000
Financial Year: 1996

Financial Transaction ID: 0001
Transaction Type: Open Commitment
Fin. Transaction Date: 07/31/1996
Financial Amount: 52000.00000
Financial Year: 1996

Financial Transaction ID: 0005
Transaction Type: Decommitment
Fin. Transaction Date: 07/31/1996
Financial Amount: 52000.00000
Financial Year: 1996

Financial Transaction ID: 0010
Transaction Type: Actual Obligation
Fin. Transaction Date: 09/01/1996
Financial Amount: 52000.00000
Financial Year: 1996

Financial Transaction ID: 0010
Transaction Type: Commitment
Fin. Transaction Date: 05/26/1998

Map ID
Direction
Distance
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EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Financial Amount: 10040.00000
Financial Year: 1998

Financial Transaction ID: 0011
Transaction Type: Actual Obligation
Fin. Transaction Date: 06/02/1998
Financial Amount: 10040.00000
Financial Year: 1998

Financial Transaction ID: 0006
Transaction Type: Decommitment
Fin. Transaction Date: 06/02/1998
Financial Amount: 10040.00000
Financial Year: 1998

Financial Transaction ID: 0001
Transaction Type: Deobligation
Fin. Transaction Date: 09/30/1998
Financial Amount: 10040.00000
Financial Year: 1998

Financial Transaction ID: 0001
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 09/30/1998
Financial Amount: 10040.00000
Financial Year: 1998

Action Code: 001
Action: RECORD OF DECISION
Date Started: Not reported
Date Completed: 06/30/1994
Priority Level: Not reported
Operable Unit: LANDFILL CAP
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMEDIAL DESIGN/REMEDIAL ACTION NEGOTIATIONS
Date Started: 09/15/1994
Date Completed: 06/27/1995
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: UNILATERAL ADMIN ORDER
Date Started: Not reported
Date Completed: 06/27/1995
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary

Map ID
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Database(s)
EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN
Date Started: 06/27/1995
Date Completed: 05/19/1996
Priority Level: Not reported
Operable Unit: LANDFILL CAP
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported
Financial Transaction ID: 0002
Transaction Type: Actual Obligation
Fin. Transaction Date: 11/28/1994
Financial Amount: 52425.00000
Financial Year: 1995

Financial Transaction ID: 0001
Transaction Type: Commitment
Fin. Transaction Date: 02/10/1995
Financial Amount: 52425.00000
Financial Year: 1995

Financial Transaction ID: 0001
Transaction Type: Decommitment
Fin. Transaction Date: 02/10/1995
Financial Amount: 52425.00000
Financial Year: 1995

Financial Transaction ID: 0002
Transaction Type: Decommitment
Fin. Transaction Date: 05/06/1996
Financial Amount: 30381.00000
Financial Year: 1996

Financial Transaction ID: 0003
Transaction Type: Actual Obligation
Fin. Transaction Date: 05/06/1996
Financial Amount: 30381.00000
Financial Year: 1996

Action Code: 001
Action: COMMUNITY INVOLVEMENT
Date Started: 12/06/1989
Date Completed: 09/30/1997
Priority Level: Not reported
Operable Unit: LANDFILL CAP
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported
Financial Transaction ID: 0001
Transaction Type: Commitment
Fin. Transaction Date: 06/21/1989
Financial Amount: 25000.00000

Map ID
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MAP FINDINGS

Database(s)
EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Financial Year: 1989

Financial Transaction ID: 0001
Transaction Type: Open Commitment
Fin. Transaction Date: 06/21/1989
Financial Amount: 25000.00000
Financial Year: 1989

Financial Transaction ID: 0001
Transaction Type: Decommitment
Fin. Transaction Date: 12/06/1989
Financial Amount: 25000.00000
Financial Year: 1990

Financial Transaction ID: 0002
Transaction Type: Actual Obligation
Fin. Transaction Date: 12/06/1989
Financial Amount: 25000.00000
Financial Year: 1990

Financial Transaction ID: 0002
Transaction Type: Decommitment
Fin. Transaction Date: 07/09/1992
Financial Amount: 6494.00000
Financial Year: 1992

Financial Transaction ID: 0003
Transaction Type: Commitment
Fin. Transaction Date: 07/09/1992
Financial Amount: 6494.00000
Financial Year: 1992

Financial Transaction ID: 0004
Transaction Type: Actual Obligation
Fin. Transaction Date: 07/22/1992
Financial Amount: 6494.00000
Financial Year: 1992

Financial Transaction ID: 0003
Transaction Type: Decommitment
Fin. Transaction Date: 07/26/1994
Financial Amount: 57000.00000
Financial Year: 1994

Financial Transaction ID: 0004
Transaction Type: Decommitment
Fin. Transaction Date: 07/26/1994
Financial Amount: 42000.00000
Financial Year: 1994

Financial Transaction ID: 0006
Transaction Type: Commitment
Fin. Transaction Date: 07/26/1994
Financial Amount: 42000.00000
Financial Year: 1994

Financial Transaction ID: 0005

Map ID
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MAP FINDINGS

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Database(s)
EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Transaction Type: Commitment
Fin. Transaction Date: 07/26/1994
Financial Amount: 57000.00000
Financial Year: 1994

Financial Transaction ID: 0007
Transaction Type: Actual Obligation
Fin. Transaction Date: 08/08/1994
Financial Amount: 57000.00000
Financial Year: 1994

Financial Transaction ID: 0008
Transaction Type: Actual Obligation
Fin. Transaction Date: 08/08/1994
Financial Amount: 42000.00000
Financial Year: 1994

Financial Transaction ID: 0007
Transaction Type: Commitment
Fin. Transaction Date: 03/31/2006
Financial Amount: 250.00000
Financial Year: 2006

Financial Transaction ID: 0009
Transaction Type: Actual Obligation
Fin. Transaction Date: 04/24/2006
Financial Amount: 207.00000
Financial Year: 2006

Financial Transaction ID: 0001
Transaction Type: Deobligation
Fin. Transaction Date: 04/24/2006
Financial Amount: 207.00000
Financial Year: 2006

Financial Transaction ID: 0001
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 04/24/2006
Financial Amount: 207.00000
Financial Year: 2006

Financial Transaction ID: 0005
Transaction Type: Decommitment
Fin. Transaction Date: 04/24/2006
Financial Amount: 207.00000
Financial Year: 2006

Financial Transaction ID: 0008
Transaction Type: Commitment
Fin. Transaction Date: 08/08/2006
Financial Amount: 250.00000
Financial Year: 2006

Financial Transaction ID: 0006
Transaction Type: Decommitment
Fin. Transaction Date: 09/27/2006
Financial Amount: 43.00000

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Database(s)

EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Financial Year: 2006

Financial Transaction ID: 0007
Transaction Type: Decolmitment
Fin. Transaction Date: 10/04/2006
Financial Amount: 250.00000
Financial Year: 2007

Action Code: 001
Action: ADMINISTRATIVE RECORDS
Date Started: 07/05/1990
Date Completed: 09/30/1997
Priority Level: Admin Record Compiled for a Remedial Event
Operable Unit: LANDFILL CAP
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: RECORD OF DECISION
Date Started: Not reported
Date Completed: 09/30/1997
Priority Level: Final Remedy Selected at Site
Operable Unit: GROUNDWATER
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: PRELIMINARY CLOSE-OUT REPORT PREPARED
Date Started: Not reported
Date Completed: 09/30/1997
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 07/12/1994
Date Completed: 09/30/1997
Priority Level: Not reported
Operable Unit: GROUNDWATER
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Financial Transaction ID: 0001
Transaction Type: Commitment
Fin. Transaction Date: 06/27/1997
Financial Amount: 22000.00000
Financial Year: 1997

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Database(s)

EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Financial Transaction ID: 0001
Transaction Type: Decolmitment
Fin. Transaction Date: 07/15/1997
Financial Amount: 22000.00000
Financial Year: 1997

Financial Transaction ID: 0001
Transaction Type: Actual Obligation
Fin. Transaction Date: 07/15/1997
Financial Amount: 22000.00000
Financial Year: 1997

Financial Transaction ID: 0001
Transaction Type: Deobligation
Fin. Transaction Date: 10/22/1997
Financial Amount: 15329.00000
Financial Year: 1998

Financial Transaction ID: 0001
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 10/22/1997
Financial Amount: 15329.00000
Financial Year: 1998

Financial Transaction ID: 0002
Transaction Type: Deobligation
Fin. Transaction Date: 01/20/1999
Financial Amount: 4466.00000
Financial Year: 1999

Financial Transaction ID: 0002
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 01/20/1999
Financial Amount: 4466.00000
Financial Year: 1999

Financial Transaction ID: 0002
Transaction Type: Commitment
Fin. Transaction Date: 02/22/1999
Financial Amount: 2700.00000
Financial Year: 1999

Financial Transaction ID: 0002
Transaction Type: Decolmitment
Fin. Transaction Date: 03/15/1999
Financial Amount: 2700.00000
Financial Year: 1999

Financial Transaction ID: 0002
Transaction Type: Actual Obligation
Fin. Transaction Date: 03/15/1999
Financial Amount: 2700.00000
Financial Year: 1999

Financial Transaction ID: 0003
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 04/21/1999

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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Financial Amount: 2205.00000
Financial Year: 1999

Financial Transaction ID: 0004
Transaction Type: Deobligation
Fin. Transaction Date: 04/21/1999
Financial Amount: 2700.00000
Financial Year: 1999

Financial Transaction ID: 0003
Transaction Type: Deobligation
Fin. Transaction Date: 04/21/1999
Financial Amount: 2205.00000
Financial Year: 1999

Financial Transaction ID: 0004
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 04/21/1999
Financial Amount: 2700.00000
Financial Year: 1999

Financial Transaction ID: 0001
Transaction Type: Extramural Deoutlay (Credit)
Fin. Transaction Date: 03/06/2000
Financial Amount: 21.00000
Financial Year: 2000

Financial Transaction ID: 0003
Transaction Type: Actual Obligation
Fin. Transaction Date: 03/06/2000
Financial Amount: 21.00000
Financial Year: 2000

Financial Transaction ID: 0002
Transaction Type: Extramural Deoutlay (Credit)
Fin. Transaction Date: 08/28/2000
Financial Amount: 39.00000
Financial Year: 2000

Financial Transaction ID: 0004
Transaction Type: Actual Obligation
Fin. Transaction Date: 08/28/2000
Financial Amount: 39.00000
Financial Year: 2000

Financial Transaction ID: 0003
Transaction Type: Extramural Deoutlay (Credit)
Fin. Transaction Date: 08/01/2001
Financial Amount: 595.00000
Financial Year: 2001

Financial Transaction ID: 0005
Transaction Type: Actual Obligation
Fin. Transaction Date: 08/01/2001
Financial Amount: 595.00000
Financial Year: 2001

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Database(s)

EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Financial Transaction ID: 0005
Transaction Type: Deobligation
Fin. Transaction Date: 08/03/2001
Financial Amount: 656.00000
Financial Year: 2001

Financial Transaction ID: 0005
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 08/03/2001
Financial Amount: 656.00000
Financial Year: 2001

Financial Transaction ID: 0003
Transaction Type: Commitment
Fin. Transaction Date: 09/19/2001
Financial Amount: 3381.00000
Financial Year: 2001

Financial Transaction ID: 0006
Transaction Type: Actual Obligation
Fin. Transaction Date: 09/27/2001
Financial Amount: 3381.00000
Financial Year: 2001

Financial Transaction ID: 0003
Transaction Type: Decommitment
Fin. Transaction Date: 09/27/2001
Financial Amount: 3381.00000
Financial Year: 2001

Financial Transaction ID: 0007
Transaction Type: Deobligation
Fin. Transaction Date: 11/15/2001
Financial Amount: 3381.00000
Financial Year: 2002

Financial Transaction ID: 0006
Transaction Type: Deobligation
Fin. Transaction Date: 11/15/2001
Financial Amount: 28.00000
Financial Year: 2002

Financial Transaction ID: 0007
Transaction Type: Actual Obligation
Fin. Transaction Date: 11/15/2001
Financial Amount: 28.00000
Financial Year: 2002

Financial Transaction ID: 0007
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 11/15/2001
Financial Amount: 28.00000
Financial Year: 2002

Financial Transaction ID: 0006
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 11/15/2001

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MAP FINDINGS

Database(s)
EPA ID Number
EDR ID Number

J & L LANDFILL (Continued)

1000121669

Financial Amount: 3381.00000
Financial Year: 2002

Financial Transaction ID: 0004
Transaction Type: Extramural Deoutlay (Credit)
Fin. Transaction Date: 11/15/2001
Financial Amount: 28.00000
Financial Year: 2002

Financial Transaction ID: 0008
Transaction Type: Actual Obligation
Fin. Transaction Date: 07/31/2002
Financial Amount: 28.00000
Financial Year: 2002

Financial Transaction ID: 0005
Transaction Type: Extramural Deoutlay (Credit)
Fin. Transaction Date: 07/31/2002
Financial Amount: 28.00000
Financial Year: 2002

Financial Transaction ID: 0008
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 08/26/2002
Financial Amount: 28.00000
Financial Year: 2002

Financial Transaction ID: 0008
Transaction Type: Deobligation
Fin. Transaction Date: 08/26/2002
Financial Amount: 28.00000
Financial Year: 2002

Action Code: 001
Action: OPERATIONS AND MAINTENANCE
Date Started: 12/16/1997
Date Completed: Not reported
Priority Level: Not reported
Operable Unit: LANDFILL CAP
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Financial Transaction ID: 0001
Transaction Type: Commitment
Fin. Transaction Date: 09/19/2006
Financial Amount: 30000.00000
Financial Year: 2006

Financial Transaction ID: 0001
Transaction Type: Actual Obligation
Fin. Transaction Date: 09/26/2006
Financial Amount: 30000.00000
Financial Year: 2006

Financial Transaction ID: 0001
Transaction Type: Decommittment

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Database(s)
EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Fin. Transaction Date: 09/26/2006
Financial Amount: 30000.00000
Financial Year: 2006

Financial Transaction ID: 0001
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 11/15/2006
Financial Amount: 10266.00000
Financial Year: 2007

Financial Transaction ID: 0001
Transaction Type: Deobligation
Fin. Transaction Date: 11/15/2006
Financial Amount: 10266.00000
Financial Year: 2007

Financial Transaction ID: 0002
Transaction Type: Deobligation
Fin. Transaction Date: 01/22/2007
Financial Amount: 915.00000
Financial Year: 2007

Financial Transaction ID: 0002
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 01/22/2007
Financial Amount: 915.00000
Financial Year: 2007

Financial Transaction ID: 0003
Transaction Type: Deobligation
Fin. Transaction Date: 02/21/2007
Financial Amount: 176.00000
Financial Year: 2007

Financial Transaction ID: 0003
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 02/21/2007
Financial Amount: 176.00000
Financial Year: 2007

Financial Transaction ID: 0004
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 04/16/2007
Financial Amount: 203.00000
Financial Year: 2007

Financial Transaction ID: 0004
Transaction Type: Deobligation
Fin. Transaction Date: 04/16/2007
Financial Amount: 203.00000
Financial Year: 2007

Financial Transaction ID: 0005
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 05/16/2007
Financial Amount: 1078.00000
Financial Year: 2007

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EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Financial Transaction ID: 0005
Transaction Type: Deobligation
Fin. Transaction Date: 05/16/2007
Financial Amount: 1078.00000
Financial Year: 2007

Financial Transaction ID: 0006
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 06/14/2007
Financial Amount: 4112.00000
Financial Year: 2007

Financial Transaction ID: 0006
Transaction Type: Deobligation
Fin. Transaction Date: 06/14/2007
Financial Amount: 4112.00000
Financial Year: 2007

Financial Transaction ID: 0007
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 07/16/2007
Financial Amount: 142.00000
Financial Year: 2007

Financial Transaction ID: 0007
Transaction Type: Deobligation
Fin. Transaction Date: 07/16/2007
Financial Amount: 142.00000
Financial Year: 2007

Financial Transaction ID: 0008
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 08/14/2007
Financial Amount: 569.00000
Financial Year: 2007

Financial Transaction ID: 0008
Transaction Type: Deobligation
Fin. Transaction Date: 08/14/2007
Financial Amount: 569.00000
Financial Year: 2007

Financial Transaction ID: 0009
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 09/19/2007
Financial Amount: 4073.00000
Financial Year: 2007

Financial Transaction ID: 0009
Transaction Type: Deobligation
Fin. Transaction Date: 09/19/2007
Financial Amount: 4073.00000
Financial Year: 2007

Financial Transaction ID: 0010
Transaction Type: Deobligation
Fin. Transaction Date: 11/08/2007

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EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Financial Amount: 8466.00000
Financial Year: 2008

Financial Transaction ID: 0010
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 11/08/2007
Financial Amount: 8466.00000
Financial Year: 2008

Financial Transaction ID: 0002
Transaction Type: Commitment
Fin. Transaction Date: 12/11/2007
Financial Amount: 25000.00000
Financial Year: 2008

Financial Transaction ID: 0002
Transaction Type: Actual Obligation
Fin. Transaction Date: 12/14/2007
Financial Amount: 25000.00000
Financial Year: 2008

Financial Transaction ID: 0002
Transaction Type: Decommitment
Fin. Transaction Date: 12/14/2007
Financial Amount: 25000.00000
Financial Year: 2008

Financial Transaction ID: 0011
Transaction Type: Deobligation
Fin. Transaction Date: 02/20/2008
Financial Amount: 17909.00000
Financial Year: 2008

Financial Transaction ID: 0011
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 02/20/2008
Financial Amount: 17909.00000
Financial Year: 2008

Financial Transaction ID: 0012
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 03/18/2008
Financial Amount: 720.00000
Financial Year: 2008

Financial Transaction ID: 0012
Transaction Type: Deobligation
Fin. Transaction Date: 03/18/2008
Financial Amount: 720.00000
Financial Year: 2008

Financial Transaction ID: 0013
Transaction Type: Deobligation
Fin. Transaction Date: 06/13/2008
Financial Amount: 5130.00000
Financial Year: 2008

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Database(s)

EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Financial Transaction ID: 0013
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 06/13/2008
Financial Amount: 5130.00000
Financial Year: 2008

Financial Transaction ID: 0014
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 07/17/2008
Financial Amount: 460.00000
Financial Year: 2008

Financial Transaction ID: 0014
Transaction Type: Deobligation
Fin. Transaction Date: 07/17/2008
Financial Amount: 460.00000
Financial Year: 2008

Financial Transaction ID: 0015
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 08/12/2008
Financial Amount: 292.00000
Financial Year: 2008

Financial Transaction ID: 0015
Transaction Type: Deobligation
Fin. Transaction Date: 08/12/2008
Financial Amount: 292.00000
Financial Year: 2008

Financial Transaction ID: 0003
Transaction Type: Commitment
Fin. Transaction Date: 10/28/2008
Financial Amount: 20000.00000
Financial Year: 2009

Financial Transaction ID: 0003
Transaction Type: Decommitment
Fin. Transaction Date: 11/26/2008
Financial Amount: 20000.00000
Financial Year: 2009

Financial Transaction ID: 0003
Transaction Type: Actual Obligation
Fin. Transaction Date: 11/26/2008
Financial Amount: 20000.00000
Financial Year: 2009

Financial Transaction ID: 0017
Transaction Type: Deobligation
Fin. Transaction Date: 01/16/2009
Financial Amount: 16795.00000
Financial Year: 2009

Financial Transaction ID: 0016
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 01/16/2009

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J & L LANDFILL (Continued)

1000121669

Financial Amount: 490.00000
Financial Year: 2009

Financial Transaction ID: 0017
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 01/16/2009
Financial Amount: 16795.00000
Financial Year: 2009

Financial Transaction ID: 0016
Transaction Type: Deobligation
Fin. Transaction Date: 01/16/2009
Financial Amount: 490.00000
Financial Year: 2009

Financial Transaction ID: 0018
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 04/15/2009
Financial Amount: 2216.00000
Financial Year: 2009

Financial Transaction ID: 0018
Transaction Type: Deobligation
Fin. Transaction Date: 04/15/2009
Financial Amount: 2216.00000
Financial Year: 2009

Financial Transaction ID: 0004
Transaction Type: Commitment
Fin. Transaction Date: 04/28/2009
Financial Amount: 38000.00000
Financial Year: 2009

Financial Transaction ID: 0004
Transaction Type: Actual Obligation
Fin. Transaction Date: 05/19/2009
Financial Amount: 38000.00000
Financial Year: 2009

Financial Transaction ID: 0004
Transaction Type: Decommittment
Fin. Transaction Date: 05/19/2009
Financial Amount: 38000.00000
Financial Year: 2009

Financial Transaction ID: 0019
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 08/12/2009
Financial Amount: 989.00000
Financial Year: 2009

Financial Transaction ID: 0019
Transaction Type: Deobligation
Fin. Transaction Date: 08/12/2009
Financial Amount: 989.00000
Financial Year: 2009

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EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Financial Transaction ID: 0020
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 08/31/2009
Financial Amount: 803.00000
Financial Year: 2009

Financial Transaction ID: 0020
Transaction Type: Deobligation
Fin. Transaction Date: 08/31/2009
Financial Amount: 803.00000
Financial Year: 2009

Financial Transaction ID: 0021
Transaction Type: Deobligation
Fin. Transaction Date: 09/17/2009
Financial Amount: 9548.00000
Financial Year: 2009

Financial Transaction ID: 0021
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 09/17/2009
Financial Amount: 9548.00000
Financial Year: 2009

Financial Transaction ID: 0006
Transaction Type: Commitment
Fin. Transaction Date: 11/04/2009
Financial Amount: 38000.00000
Financial Year: 2010

Financial Transaction ID: 0005
Transaction Type: Commitment
Fin. Transaction Date: 11/04/2009
Financial Amount: 38000.00000
Financial Year: 2010

Financial Transaction ID: 0005
Transaction Type: Decommitment
Fin. Transaction Date: 11/04/2009
Financial Amount: 38000.00000
Financial Year: 2010

Financial Transaction ID: 0022
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 11/16/2009
Financial Amount: 1319.00000
Financial Year: 2010

Financial Transaction ID: 0022
Transaction Type: Deobligation
Fin. Transaction Date: 11/16/2009
Financial Amount: 1319.00000
Financial Year: 2010

Financial Transaction ID: 0005
Transaction Type: Actual Obligation
Fin. Transaction Date: 11/16/2009

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EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Financial Amount: 38000.00000
Financial Year: 2010

Financial Transaction ID: 0006
Transaction Type: Decommitment
Fin. Transaction Date: 11/16/2009
Financial Amount: 38000.00000
Financial Year: 2010

Financial Transaction ID: 0023
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 01/21/2010
Financial Amount: 5898.00000
Financial Year: 2010

Financial Transaction ID: 0023
Transaction Type: Deobligation
Fin. Transaction Date: 01/21/2010
Financial Amount: 5898.00000
Financial Year: 2010

Financial Transaction ID: 0024
Transaction Type: Deobligation
Fin. Transaction Date: 03/15/2010
Financial Amount: 604.00000
Financial Year: 2010

Financial Transaction ID: 0024
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 03/15/2010
Financial Amount: 604.00000
Financial Year: 2010

Financial Transaction ID: 0025
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 04/19/2010
Financial Amount: 237.00000
Financial Year: 2010

Financial Transaction ID: 0025
Transaction Type: Deobligation
Fin. Transaction Date: 04/19/2010
Financial Amount: 237.00000
Financial Year: 2010

Financial Transaction ID: 0026
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 06/11/2010
Financial Amount: 8355.00000
Financial Year: 2010

Financial Transaction ID: 0026
Transaction Type: Deobligation
Fin. Transaction Date: 06/11/2010
Financial Amount: 8355.00000
Financial Year: 2010

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J & L LANDFILL (Continued)

1000121669

Financial Transaction ID: 0027
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 07/15/2010
Financial Amount: 5811.00000
Financial Year: 2010

Financial Transaction ID: 0027
Transaction Type: Deobligation
Fin. Transaction Date: 07/15/2010
Financial Amount: 5811.00000
Financial Year: 2010

Financial Transaction ID: 0028
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 08/12/2010
Financial Amount: 684.00000
Financial Year: 2010

Financial Transaction ID: 0028
Transaction Type: Deobligation
Fin. Transaction Date: 08/12/2010
Financial Amount: 684.00000
Financial Year: 2010

Financial Transaction ID: 0029
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 09/14/2010
Financial Amount: 528.00000
Financial Year: 2010

Financial Transaction ID: 0029
Transaction Type: Deobligation
Fin. Transaction Date: 09/14/2010
Financial Amount: 528.00000
Financial Year: 2010

Financial Transaction ID: 0001
Transaction Type: Open Commitment
Fin. Transaction Date: 10/27/2010
Financial Amount: 38000.00000
Financial Year: 2011

Financial Transaction ID: 0007
Transaction Type: Commitment
Fin. Transaction Date: 10/27/2010
Financial Amount: 38000.00000
Financial Year: 2011

Financial Transaction ID: 0030
Transaction Type: Deobligation
Fin. Transaction Date: 11/08/2010
Financial Amount: 24.00000
Financial Year: 2011

Financial Transaction ID: 0030
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 11/08/2010

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Financial Amount: 24.00000
Financial Year: 2011

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL ACTION
Date Started: 05/19/1996
Date Completed: 12/16/1997
Priority Level: Not reported
Operable Unit: LANDFILL CAP
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Financial Transaction ID: 0001
Transaction Type: Actual Obligation
Fin. Transaction Date: 05/17/1996
Financial Amount: 62103.00000
Financial Year: 1996

Financial Transaction ID: 0002
Transaction Type: Decolmitment
Fin. Transaction Date: 05/17/1996
Financial Amount: 62103.00000
Financial Year: 1996

Financial Transaction ID: 0001
Transaction Type: Commitment
Fin. Transaction Date: 01/07/1997
Financial Amount: 42349.00000
Financial Year: 1997

Financial Transaction ID: 0001
Transaction Type: Decolmitment
Fin. Transaction Date: 01/23/1997
Financial Amount: 42349.00000
Financial Year: 1997

Financial Transaction ID: 0003
Transaction Type: Actual Obligation
Fin. Transaction Date: 01/23/1997
Financial Amount: 42349.00000
Financial Year: 1997

Financial Transaction ID: 0001
Transaction Type: Deobligation
Fin. Transaction Date: 04/21/1997
Financial Amount: 1673.00000
Financial Year: 1997

Financial Transaction ID: 0001
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 04/21/1997
Financial Amount: 1673.00000
Financial Year: 1997

Financial Transaction ID: 0002
Transaction Type: Deobligation

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Fin. Transaction Date: 05/21/1997
Financial Amount: 2036.00000
Financial Year: 1997

Financial Transaction ID: 0002
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 05/21/1997
Financial Amount: 2036.00000
Financial Year: 1997

Financial Transaction ID: 0003
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 06/19/1997
Financial Amount: 726.00000
Financial Year: 1997

Financial Transaction ID: 0003
Transaction Type: Deobligation
Fin. Transaction Date: 06/19/1997
Financial Amount: 726.00000
Financial Year: 1997

Financial Transaction ID: 0004
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 07/21/1997
Financial Amount: 3138.00000
Financial Year: 1997

Financial Transaction ID: 0004
Transaction Type: Deobligation
Fin. Transaction Date: 07/21/1997
Financial Amount: 3138.00000
Financial Year: 1997

Financial Transaction ID: 0005
Transaction Type: Deobligation
Fin. Transaction Date: 08/19/1997
Financial Amount: 4808.00000
Financial Year: 1997

Financial Transaction ID: 0005
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 08/19/1997
Financial Amount: 4808.00000
Financial Year: 1997

Financial Transaction ID: 0006
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 09/17/1997
Financial Amount: 4221.00000
Financial Year: 1997

Financial Transaction ID: 0006
Transaction Type: Deobligation
Fin. Transaction Date: 09/17/1997
Financial Amount: 4221.00000
Financial Year: 1997

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Financial Transaction ID: 0007
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 10/22/1997
Financial Amount: 5287.00000
Financial Year: 1998

Financial Transaction ID: 0007
Transaction Type: Deobligation
Fin. Transaction Date: 10/22/1997
Financial Amount: 5287.00000
Financial Year: 1998

Financial Transaction ID: 0008
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 11/17/1997
Financial Amount: 4298.00000
Financial Year: 1998

Financial Transaction ID: 0008
Transaction Type: Deobligation
Fin. Transaction Date: 11/17/1997
Financial Amount: 4298.00000
Financial Year: 1998

Financial Transaction ID: 0009
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 12/29/1997
Financial Amount: 1894.00000
Financial Year: 1998

Financial Transaction ID: 0009
Transaction Type: Deobligation
Fin. Transaction Date: 12/29/1997
Financial Amount: 1894.00000
Financial Year: 1998

Financial Transaction ID: 0011
Transaction Type: Deobligation
Fin. Transaction Date: 01/14/1998
Financial Amount: 1304.00000
Financial Year: 1998

Financial Transaction ID: 0011
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 01/14/1998
Financial Amount: 1304.00000
Financial Year: 1998

Financial Transaction ID: 0012
Transaction Type: Deobligation
Fin. Transaction Date: 02/20/1998
Financial Amount: 7769.00000
Financial Year: 1998

Financial Transaction ID: 0012
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 02/20/1998

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Financial Amount: 7769.00000
Financial Year: 1998

Financial Transaction ID: 0013
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 03/05/1998
Financial Amount: 965.00000
Financial Year: 1998

Financial Transaction ID: 0013
Transaction Type: Deobligation
Fin. Transaction Date: 03/05/1998
Financial Amount: 965.00000
Financial Year: 1998

Financial Transaction ID: 0014
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 03/24/1998
Financial Amount: 669.00000
Financial Year: 1998

Financial Transaction ID: 0014
Transaction Type: Deobligation
Fin. Transaction Date: 03/24/1998
Financial Amount: 669.00000
Financial Year: 1998

Financial Transaction ID: 0015
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 04/23/1998
Financial Amount: 650.00000
Financial Year: 1998

Financial Transaction ID: 0015
Transaction Type: Deobligation
Fin. Transaction Date: 04/23/1998
Financial Amount: 650.00000
Financial Year: 1998

Financial Transaction ID: 0016
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 05/20/1998
Financial Amount: 2910.00000
Financial Year: 1998

Financial Transaction ID: 0016
Transaction Type: Deobligation
Fin. Transaction Date: 05/20/1998
Financial Amount: 2910.00000
Financial Year: 1998

Financial Transaction ID: 0002
Transaction Type: Commitment
Fin. Transaction Date: 05/26/1998
Financial Amount: 7081.00000
Financial Year: 1998

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Financial Transaction ID: 0003
Transaction Type: Decommitment
Fin. Transaction Date: 06/02/1998
Financial Amount: 7081.00000
Financial Year: 1998

Financial Transaction ID: 0004
Transaction Type: Actual Obligation
Fin. Transaction Date: 06/02/1998
Financial Amount: 7081.00000
Financial Year: 1998

Financial Transaction ID: 0018
Transaction Type: Deobligation
Fin. Transaction Date: 06/18/1998
Financial Amount: 1.00000
Financial Year: 1998

Financial Transaction ID: 0018
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 06/18/1998
Financial Amount: 1.00000
Financial Year: 1998

Financial Transaction ID: 0017
Transaction Type: Deobligation
Fin. Transaction Date: 06/18/1998
Financial Amount: 827.00000
Financial Year: 1998

Financial Transaction ID: 0017
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 06/18/1998
Financial Amount: 827.00000
Financial Year: 1998

Financial Transaction ID: 0019
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 08/14/1998
Financial Amount: 488.00000
Financial Year: 1998

Financial Transaction ID: 0019
Transaction Type: Deobligation
Fin. Transaction Date: 08/14/1998
Financial Amount: 488.00000
Financial Year: 1998

Financial Transaction ID: 0020
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 10/07/1998
Financial Amount: 650.00000
Financial Year: 1999

Financial Transaction ID: 0020
Transaction Type: Deobligation
Fin. Transaction Date: 10/07/1998

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Financial Amount: 650.00000
Financial Year: 1999

Financial Transaction ID: 0021
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 01/20/1999
Financial Amount: 3509.00000
Financial Year: 1999

Financial Transaction ID: 0021
Transaction Type: Deobligation
Fin. Transaction Date: 01/20/1999
Financial Amount: 3509.00000
Financial Year: 1999

Financial Transaction ID: 0003
Transaction Type: Commitment
Fin. Transaction Date: 02/22/1999
Financial Amount: 600.00000
Financial Year: 1999

Financial Transaction ID: 0005
Transaction Type: Actual Obligation
Fin. Transaction Date: 03/15/1999
Financial Amount: 600.00000
Financial Year: 1999

Financial Transaction ID: 0004
Transaction Type: Decommitment
Fin. Transaction Date: 03/15/1999
Financial Amount: 600.00000
Financial Year: 1999

Financial Transaction ID: 0023
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 04/21/1999
Financial Amount: 1607.00000
Financial Year: 1999

Financial Transaction ID: 0023
Transaction Type: Deobligation
Fin. Transaction Date: 04/21/1999
Financial Amount: 1607.00000
Financial Year: 1999

Financial Transaction ID: 0022
Transaction Type: Deobligation
Fin. Transaction Date: 04/21/1999
Financial Amount: 302.00000
Financial Year: 1999

Financial Transaction ID: 0022
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 04/21/1999
Financial Amount: 302.00000
Financial Year: 1999

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Financial Transaction ID: 0001
Transaction Type: Extramural Deoutlay (Credit)
Fin. Transaction Date: 08/28/2000
Financial Amount: 21.00000
Financial Year: 2000

Financial Transaction ID: 0006
Transaction Type: Actual Obligation
Fin. Transaction Date: 08/28/2000
Financial Amount: 21.00000
Financial Year: 2000

Financial Transaction ID: 0024
Transaction Type: Deobligation
Fin. Transaction Date: 08/01/2001
Financial Amount: 319.00000
Financial Year: 2001

Financial Transaction ID: 0024
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 08/01/2001
Financial Amount: 319.00000
Financial Year: 2001

Financial Transaction ID: 0004
Transaction Type: Commitment
Fin. Transaction Date: 09/10/2001
Financial Amount: 2.00000
Financial Year: 2001

Financial Transaction ID: 0005
Transaction Type: Decommitment
Fin. Transaction Date: 09/27/2001
Financial Amount: 2.00000
Financial Year: 2001

Financial Transaction ID: 0007
Transaction Type: Actual Obligation
Fin. Transaction Date: 09/27/2001
Financial Amount: 2.00000
Financial Year: 2001

Financial Transaction ID: 0026
Transaction Type: Deobligation
Fin. Transaction Date: 11/15/2001
Financial Amount: 2.00000
Financial Year: 2002

Financial Transaction ID: 0026
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 11/15/2001
Financial Amount: 2.00000
Financial Year: 2002

Financial Transaction ID: 0025
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 11/15/2001

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)
EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Financial Amount: 37.00000
Financial Year: 2002

Financial Transaction ID: 0002
Transaction Type: Extramural Deoutlay (Credit)
Fin. Transaction Date: 11/15/2001
Financial Amount: 37.00000
Financial Year: 2002

Financial Transaction ID: 0025
Transaction Type: Deobligation
Fin. Transaction Date: 11/15/2001
Financial Amount: 37.00000
Financial Year: 2002

Financial Transaction ID: 0008
Transaction Type: Actual Obligation
Fin. Transaction Date: 11/15/2001
Financial Amount: 37.00000
Financial Year: 2002

Financial Transaction ID: 0003
Transaction Type: Extramural Deoutlay (Credit)
Fin. Transaction Date: 07/31/2002
Financial Amount: 37.00000
Financial Year: 2002

Financial Transaction ID: 0009
Transaction Type: Actual Obligation
Fin. Transaction Date: 07/31/2002
Financial Amount: 37.00000
Financial Year: 2002

Financial Transaction ID: 0027
Transaction Type: Deobligation
Fin. Transaction Date: 08/21/2002
Financial Amount: 0.00000
Financial Year: 2002

Financial Transaction ID: 0027
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 08/26/2002
Financial Amount: 37.00000
Financial Year: 2002

Financial Transaction ID: 0028
Transaction Type: Deobligation
Fin. Transaction Date: 08/26/2002
Financial Amount: 37.00000
Financial Year: 2002

Action Code: 002
Action: UNILATERAL ADMIN ORDER
Date Started: Not reported
Date Completed: 06/05/1998
Priority Level: Not reported
Operable Unit: SITEWIDE

Map ID
Direction
Distance
Elevation.

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: Special Notice Issued
Date Started: Not reported
Date Completed: 06/05/1998
Priority Level: Not reported
Operable Unit: GROUNDWATER
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: REMEDIAL DESIGN/REMEDIAL ACTION NEGOTIATIONS
Date Started: 12/02/1997
Date Completed: 06/05/1998
Priority Level: Not reported
Operable Unit: GROUNDWATER
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Financial Transaction ID: 0001
Transaction Type: Commitment
Fin. Transaction Date: 04/11/1997
Financial Amount: 5000.00000
Financial Year: 1997

Financial Transaction ID: 0001
Transaction Type: Decommitment
Fin. Transaction Date: 08/30/1997
Financial Amount: 5000.00000
Financial Year: 1997

Financial Transaction ID: 0001
Transaction Type: Actual Obligation
Fin. Transaction Date: 08/30/1997
Financial Amount: 5000.00000
Financial Year: 1997

Financial Transaction ID: 0001
Transaction Type: Deobligation
Fin. Transaction Date: 03/18/2003
Financial Amount: 5000.00000
Financial Year: 2003

Action Code: 001
Action: SECTION 107 LITIGATION
Date Started: 09/16/1999
Date Completed: 09/16/1999
Priority Level: Not reported
Operable Unit: LANDFILL CAP
Primary Responsibility: Federal Enforcement

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)
EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN
Date Started: 08/27/1998
Date Completed: 11/12/1999
Priority Level: Not reported
Operable Unit: GROUNDWATER
Primary Responsibility: Responsible Party
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: FIVE-YEAR REVIEW
Date Started: 04/17/2001
Date Completed: 09/10/2001
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA In-House
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: CONSENT AGREEMENT (ADMINISTRATIVE)
Date Started: Not reported
Date Completed: 08/20/2003
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: CLAIM IN BANKRUPTCY PROCEEDING
Date Started: 04/03/2003
Date Completed: 08/20/2003
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: FIVE-YEAR REVIEW
Date Started: 12/19/2005
Date Completed: 08/23/2006
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Action Anomaly: Not reported

Federal Register Details:

Fed Register Date: 03/31/1989
Fed Register Volume: 54
Page Number: 13296

Fed Register Date: 06/10/1986
Fed Register Volume: 51
Page Number: 21099

US ENG CONTROLS:

EPA ID: MID980609440
Site ID: 0502882
Name: J & L LANDFILL
Address: HAMLIN RD
ROCHESTER HILLS, MI 48307
EPA Region: 05
County: OAKLAND
Event Code: Not reported
Actual Date: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/30/94
Planned Complet. date: 06/30/94
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Monitoring

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/30/94
Planned Complet. date: 06/30/94
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Cap

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/30/94
Planned Complet. date: 06/30/94
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Engineering Control, (N.O.S.)

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/30/94
Planned Complet. date: 06/30/94
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Liner

Action ID: 001

Map ID
Direction
Distance
Elevation

Site

MAP FINDINGS

Database(s)

EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Action Name: RECORD OF DECISION
Action Completion date: 06/30/94
Planned Complet. date: 06/30/94
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Revegetation

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/30/94
Planned Complet. date: 06/30/94
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Slope Stabilization

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/30/94
Planned Complet. date: 06/30/94
Operable Unit: 01
Contaminated Media : Solid Waste
Engineering Control: Cap

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/30/94
Planned Complet. date: 06/30/94
Operable Unit: 01
Contaminated Media : Solid Waste
Engineering Control: Consolidate

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/30/94
Planned Complet. date: 06/30/94
Operable Unit: 01
Contaminated Media : Solid Waste
Engineering Control: Containment, (N.O.S.)

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/30/94
Planned Complet. date: 06/30/94
Operable Unit: 01
Contaminated Media : Solid Waste
Engineering Control: Gas Collection/Treatment

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/30/94
Planned Complet. date: 06/30/94
Operable Unit: 01
Contaminated Media : Solid Waste
Engineering Control: Liner

Action ID: 001
Action Name: RECORD OF DECISION

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

EDR ID Number
EPA ID Number
Database(s)

J & L LANDFILL (Continued)

1000121669

Action Completion date: 06/30/94
Planned Complet. date: 06/30/94
Operable Unit: 01
Contaminated Media : Solid Waste
Engineering Control: Revegetation

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 09/30/97
Planned Complet. date: 09/30/97
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Alternate Drinking Water, (N.O.S.)

Action ID: 002
Action Name: RECORD OF DECISION
Action Completion date: 09/30/97
Planned Complet. date: 09/30/97
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Monitoring

US INST CONTROL:

EPA ID: MID980609440
Site ID: 0502882
Name: J & L LANDFILL
Action Name: RECORD OF DECISION
Address: HAMLIN RD
ROCHESTER HILLS, MI 48307
EPA Region: 05
County: OAKLAND
Event Code: Not reported
Inst. Control: Access Restriction, Fencing
Actual Date: Not reported
Complet. Date: 06/30/94
Operable Unit: 01
Contaminated Media : Groundwater

EPA ID: MID980609440
Site ID: 0502882
Name: J & L LANDFILL
Action Name: RECORD OF DECISION
Address: HAMLIN RD
ROCHESTER HILLS, MI 48307
EPA Region: 05
County: OAKLAND
Event Code: Not reported
Inst. Control: Institutional Controls, (N.O.S.)
Actual Date: Not reported
Complet. Date: 06/30/94
Operable Unit: 01
Contaminated Media : Groundwater.

EPA ID: MID980609440
Site ID: 0502882
Name: J & L LANDFILL

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

Action Name: RECORD OF DECISION
Address: HAMLIN RD
ROCHESTER HILLS, MI 48307
EPA Region: 05
County: OAKLAND
Event Code: Not reported
Inst. Control: Access Restriction, Fencing
Actual Date: Not reported
Comple. Date: 06/30/94
Operable Unit: 01
Contaminated Media : Soil

EPA ID: MID980609440
Site ID: 0502882
Name: J & L LANDFILL
Action Name: RECORD OF DECISION
Address: HAMLIN RD
ROCHESTER HILLS, MI 48307
EPA Region: 05
County: OAKLAND
Event Code: Not reported
Inst. Control: Institutional Controls, (N.O.S.)
Actual Date: Not reported
Comple. Date: 06/30/94
Operable Unit: 01
Contaminated Media : Soil

EPA ID: MID980609440
Site ID: 0502882
Name: J & L LANDFILL
Action Name: RECORD OF DECISION
Address: HAMLIN RD
ROCHESTER HILLS, MI 48307
EPA Region: 05
County: OAKLAND
Event Code: Not reported
Inst. Control: Access Restriction, Fencing
Actual Date: Not reported
Comple. Date: 06/30/94
Operable Unit: 01
Contaminated Media : Solid Waste

EPA ID: MID980609440
Site ID: 0502882
Name: J & L LANDFILL
Action Name: RECORD OF DECISION
Address: HAMLIN RD
ROCHESTER HILLS, MI 48307
EPA Region: 05
County: OAKLAND
Event Code: Not reported
Inst. Control: Deed Restriction
Actual Date: Not reported
Comple. Date: 06/30/94
Operable Unit: 01
Contaminated Media : Solid Waste

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

J & L LANDFILL (Continued)

1000121669

EPA ID: MID980609440
Site ID: 0502882
Name: J & L LANDFILL
Action Name: RECORD OF DECISION
Address: HAMLIN RD
ROCHESTER HILLS, MI 48307
EPA Region: 05
County: OAKLAND
Event Code: Not reported
Inst. Control: Institutional Controls, (N.O.S.)
Actual Date: Not reported
Comple. Date: 06/30/94
Operable Unit: 01
Contaminated Media : Solid Waste

EPA ID: MID980609440
Site ID: 0502882
Name: J & L LANDFILL
Action Name: RECORD OF DECISION
Address: HAMLIN RD
ROCHESTER HILLS, MI 48307
EPA Region: 05
County: OAKLAND
Event Code: Not reported
Inst. Control: Land Use Restriction
Actual Date: Not reported
Comple. Date: 06/30/94
Operable Unit: 01
Contaminated Media : Solid Waste

EPA ID: MID980609440
Site ID: 0502882
Name: J & L LANDFILL
Action Name: RECORD OF DECISION
Address: HAMLIN RD
ROCHESTER HILLS, MI 48307
EPA Region: 05
County: OAKLAND
Event Code: Not reported
Inst. Control: Deed Restriction
Actual Date: Not reported
Comple. Date: 09/30/97
Operable Unit: 02
Contaminated Media : Groundwater

EPA ID: MID980609440
Site ID: 0502882
Name: J & L LANDFILL
Action Name: RECORD OF DECISION
Address: HAMLIN RD
ROCHESTER HILLS, MI 48307
EPA Region: 05
County: OAKLAND
Event Code: Not reported
Inst. Control: Institutional Controls, (N.O.S.)
Actual Date: Not reported
Comple. Date: 09/30/97

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
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J & L LANDFILL (Continued)

1000121669

Operable Unit: 02
Contaminated Media : Groundwater

ROD:

Full-text of USEPA Record of Decision(s) is available from EDR.

NPL
Region
East
1/2-1
4729 ft.

G&H LANDFILL
3160 23 MILE RD
UTICA, MI 48316

NPL 1000116550
CERCLIS MID980410823
RCRA-NonGen
US ENG CONTROLS
US INST CONTROL
CONSENT
ROD
PADS
FINDS

NPL:

EPA ID: MID980410823
EPA Region: 05
Federal: N
Final Date: 9/8/1983

Category Details:

NPL Status: Currently on the Final NPL
Category Description: Depth To Aquifer-<= 10 Feet
Category Value: 5

NPL Status: Currently on the Final NPL
Category Description: Distance To Nearest Population-> 0 And <= 1/4 Mile
Category Value: 200

Site Details:

Site Name: G&H LANDFILL
Site Status: Final
Site Zip: 48316
Site City: UTICA
Site State: MI
Federal Site: No
Site County: MACOMB
EPA Region: 05
Date Proposed: 12/30/82
Date Deleted: Not reported
Date Finalized: 09/08/83

Substance Details:

NPL Status: Currently on the Final NPL
Substance ID: Not reported
Substance: Not reported
CAS #: Not reported
Pathway: Not reported
Scoring: Not reported

NPL Status: Currently on the Final NPL
Substance ID: A046
Substance: POLYCHLORINATED BIPHENYLS
CAS #: 1336-36-3

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Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Pathway: GROUND WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: A046
Substance: POLYCHLORINATED BIPHENYLS
CAS #: 1336-36-3
Pathway: SURFACE WATER PATHWAY
Scoring: 4

NPL Status: Currently on the Final NPL
Substance ID: C049
Substance: ETHYLBENZENE
CAS #: 100-41-4
Pathway: NO PATHWAY INDICATED
Scoring: 1

NPL Status: Currently on the Final NPL
Substance ID: C146
Substance: AMMONIA
CAS #: 7664-41-7
Pathway: GROUND WATER PATHWAY
Scoring: 2

NPL Status: Currently on the Final NPL
Substance ID: C156
Substance: ALUMINUM AND COMPOUNDS
CAS #: Not reported
Pathway: NO PATHWAY INDICATED
Scoring: 1

NPL Status: Currently on the Final NPL
Substance ID: C161
Substance: BORON AND COMPOUNDS
CAS #: Not reported
Pathway: NO PATHWAY INDICATED
Scoring: 1

NPL Status: Currently on the Final NPL
Substance ID: C201
Substance: MANGANESE AND COMPOUNDS
CAS #: Not reported
Pathway: NO PATHWAY INDICATED
Scoring: 1

NPL Status: Currently on the Final NPL
Substance ID: C247
Substance: ZINC AND COMPOUNDS
CAS #: Not reported
Pathway: NO PATHWAY INDICATED
Scoring: 1

NPL Status: Currently on the Final NPL
Substance ID: D004
Substance: ARSENIC
CAS #: 7440-38-2
Pathway: NO PATHWAY INDICATED

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MAP FINDINGS

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Database(s)

EDR ID Number
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G&H LANDFILL (Continued)

1000116550

Scoring: 1

NPL Status: Currently on the Final NPL
Substance ID: U019
Substance: BENZENE
CAS #: 71-43-2
Pathway: GROUND WATER PATHWAY
Scoring: 2

NPL Status: Currently on the Final NPL
Substance ID: U028
Substance: BIS(2-ETHYLHEXYL)PHTHALATE
CAS #: 117-81-7
Pathway: NO PATHWAY INDICATED
Scoring: 1

NPL Status: Currently on the Final NPL
Substance ID: U188
Substance: PHENOL
CAS #: 108-95-2
Pathway: GROUND WATER PATHWAY
Scoring: 2

NPL Status: Currently on the Final NPL
Substance ID: U188
Substance: PHENOL
CAS #: 108-95-2
Pathway: SURFACE WATER PATHWAY
Scoring: 2

NPL Status: Currently on the Final NPL
Substance ID: U220
Substance: TOLUENE
CAS #: 108-88-3
Pathway: GROUND WATER PATHWAY
Scoring: 2

NPL Status: Currently on the Final NPL
Substance ID: U239
Substance: XYLENE
CAS #: 1330-20-7
Pathway: GROUND WATER PATHWAY
Scoring: 2

Summary Details:

Conditions at listing July 1982): The G H Landfill covers 40 acres in Utica, Macomb County, Michigan. From the late 1950s to 1966, millions of gallons of industrial wastes, including oils, solvents, and process sludges, were dumped into pits and lagoons at the site. In response to a lawsuit filed by the State, a Consent Order was entered in 1967. It required the company to stop disposal of all liquid wastes, but not to clean up wastes already at the site. The site was operated as a refuse landfill from 1967 until it closed in 1974. EPA and the State have documented contamination of soil, surface water, and ground water in the vicinity of the site. Status July 1983): In July 1982, EPA spent 6,902 in CERCLA emergency funds to fence an area contaminated with high levels of PCBs. EPA recently completed a Remedial Action Master Plan outlining the investigations needed to determine

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G&H LANDFILL (Continued)

1000116550

the full extent of cleanup required at the site. It will guide further actions at the site.

Site Status Details:

NPL Status: Final
Proposed Date: 12/30/1982
Final Date: 09/08/1983
Deleted Date: Not reported

Narratives Details:

NPL Name: G&H LANDFILL
City: UTICA
State: MI

CERCLIS:

Site ID: 0502735
EPA ID: MID980410823
Facility County: MACOMB
Short Name: G&H LANDFILL
Congressional District: 10
IFMS ID: 0570
SMSA Number: 2160
USGC Hydro Unit: 04090003
Federal Facility: Not a Federal Facility
DMNSN Number: 80.00000
Site Orphan Flag: N
RCRA ID: Not reported
USGS Quadrangle: Not reported
Site Init By Prog: Not reported
NFRAP Flag: Not reported
Parent ID: Not reported
RST Code: T
EPA Region: 05
Classification: Landfill
Site Settings Code: SU
NPL Status: Currently on the Final NPL
DMNSN Unit Code: ACRE
RBRAC Code: Not reported
RResp Fed Agency Code: Not reported
Non NPL Status: Not reported
Non NPL Status Date: Not reported
Site Fips Code: 26099
CC Concurrence Date: 19990826
CC Concurrence FY: 1999
Alias EPA ID: Not reported
Site FUDS Flag: Not reported

CERCLIS Site Contact Name(s):

Contact ID: Not reported
Contact Name: Not reported
Contact Tel: Not reported
Contact Title: Remedial Project Manager (RPM)
Contact Email: Not reported

Contact ID: 5272803.00000

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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Contact Name: WILLIAM RYAN
Contact Tel: (312) 353-4374
Contact Title: Remedial Project Manager (RPM)
Contact Email: ryan.williamj@epa.gov

Contact ID: 5271036.00000
Contact Name: CHERYL ALLEN
Contact Tel: (312) 353-6196
Contact Title: Community Involvement Coordinator
Contact Email: Not reported

Contact ID: 5273694.00000
Contact Name: Nita Leftridge
Contact Tel: (312) 353-4685
Contact Title: Site Assessment Manager (SAM)
Contact Email: leftridge.nita@epa.gov

CERCLIS Site Alias Name(s):

Alias ID: 101
Alias Name: G & H IND LDFL
Alias Address: 23 MILE RD & RYAN RD
UTICA, MI 48077

Alias ID: 201
Alias Name: G & H LDFL
Alias Address: Not reported
MACOMB, MI

Alias ID: 1759
Alias Name: G & H LDFL
Alias Address: Not reported
Not reported

Alias ID: 1760
Alias Name: G & H LDFL
Alias Address: Not reported
Not reported

Alias ID: 1761
Alias Name: G&H LANDFILL
Alias Address: 3160 23 MILE ROAD
SHELBY TWP, MI 48087

Alias ID: 1762
Alias Name: G&H LANDFILL
Alias Address: 3160 23 MILE RD
UTICA, MI 48087

Alias Comments: Not reported
Site Description: MILLIONS OF GALLONS OF INDUSTRIAL WASTE LIQUIDS WERE DISPOS-ED OF AT THIS
CLOSED LANDFILL. 1966-67 MICHIGAN WATER RE- SOURCES COMM REPORT DOCUMENTED
GROUND AND SURFACE WATER CON-TAMINATION FROM SITE.

CERCLIS Assessment History:

Action Code: 001
Action: DISCOVERY
Date Started: Not reported
Date Completed: 01/01/1979
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported

Map ID
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MAP FINDINGS

Site

Database(s)
EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Action Anomaly: Not reported
Action Code: 001
Action: SITE INSPECTION
Date Started: Not reported
Date Completed: 03/01/1982
Priority Level: Higher priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMOVAL
Date Started: 01/30/1982
Date Completed: 08/11/1982
Priority Level: Stabilized
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Alternate
Urgency Indicator: Time Critical
Action Anomaly: Not reported

Financial Transaction ID: 0001
Transaction Type: Decommittment
Fin. Transaction Date: 07/28/1982
Financial Amount: 6902.00000
Financial Year: 1982

Financial Transaction ID: 0002
Transaction Type: Actual Obligation
Fin. Transaction Date: 07/28/1982
Financial Amount: 6902.00000
Financial Year: 1982

Action Code: 002
Action: Notice Letters Issued
Date Started: Not reported
Date Completed: 08/20/1982
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: HAZARD RANKING SYSTEM PACKAGE
Date Started: Not reported
Date Completed: 11/01/1982
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Facilities
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Map ID
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MAP FINDINGS

Site

Database(s) EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Action Code: 001
Action: PROPOSAL TO NATIONAL PRIORITIES LIST
Date Started: Not reported
Date Completed: 12/30/1982
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: PRELIMINARY ASSESSMENT
Date Started: Not reported
Date Completed: 01/01/1983
Priority Level: Higher priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: REMOVAL
Date Started: 06/20/1983
Date Completed: 07/18/1983
Priority Level: Stabilized
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Alternate
Urgency Indicator: Time Critical
Action Anomaly: Not reported
Financial Transaction ID: 0001
Transaction Type: Decommittment
Fin. Transaction Date: 06/17/1983
Financial Amount: 39921.00000
Financial Year: 1983

Financial Transaction ID: 0002
Transaction Type: Actual Obligation
Fin. Transaction Date: 06/17/1983
Financial Amount: 39921.00000
Financial Year: 1983

Action Code: 001
Action: FINAL LISTING ON NATIONAL PRIORITIES LIST
Date Started: Not reported
Date Completed: 09/08/1983
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORKPLAN APPROVAL BY HQ

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Date Started: 07/27/1983
Date Completed: 09/19/1983
Priority Level: Not reported
Operable Unit: PRP OS OF RD
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: NATIONAL PRIORITIES LIST RESPONSIBLE PARTY SEARCH
Date Started: Not reported
Date Completed: 09/30/1984
Priority Level: Search Complete, Viable PRPs
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: REMOVAL
Date Started: 05/12/1986
Date Completed: 09/30/1986
Priority Level: Stabilized
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Alternate
Urgency Indicator: Time Critical
Action Anomaly: Not reported
Financial Transaction ID: 0001
Transaction Type: Decommitment
Fin. Transaction Date: 05/14/1986
Financial Amount: 230500.00000
Financial Year: 1986

Financial Transaction ID: 0003
Transaction Type: Actual Obligation
Fin. Transaction Date: 05/14/1986
Financial Amount: 230500.00000
Financial Year: 1986

Action Code: 001
Action: ISSUE REQUEST LETTERS (104E)
Date Started: Not reported
Date Completed: 02/23/1987
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Not reported
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 004
Action: REMOVAL
Date Started: 03/18/1987
Date Completed: 03/18/1987

Map ID
Direction
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MAP FINDINGS

Site

Database(s) EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Priority Level: Stabilized
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Emergency
Action Anomaly: Not reported
Financial Transaction ID: 0001
Transaction Type: Decolmitment
Fin. Transaction Date: 03/31/1987
Financial Amount: 5000.00000
Financial Year: 1987

Financial Transaction ID: 0001
Transaction Type: Actual Obligation
Fin. Transaction Date: 03/31/1987
Financial Amount: 5000.00000
Financial Year: 1987

Action Code: 002
Action: ISSUE REQUEST LETTERS (104E)
Date Started: Not reported
Date Completed: 08/28/1987
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Not reported
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMOVAL ASSESSMENT
Date Started: 01/08/1987
Date Completed: 07/27/1988
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: TECHNICAL ASSISTANCE
Date Started: 04/12/1984
Date Completed: 06/30/1989
Priority Level: Not reported
Operable Unit: PRP OS OF RD
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported
Financial Transaction ID: 0001
Transaction Type: Decolmitment
Fin. Transaction Date: 05/15/1984
Financial Amount: 655.00000
Financial Year: 1984

Financial Transaction ID: 0001

Map ID
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Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Transaction Type: Actual Obligation
Fin. Transaction Date: 05/15/1984
Financial Amount: 655.00000
Financial Year: 1984

Action Code: 001
Action: Notice Letters Issued
Date Started: Not reported
Date Completed: 01/09/1990
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: REMOVAL ASSESSMENT
Date Started: 03/31/1990
Date Completed: 06/27/1990
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: RECORD OF DECISION
Date Started: Not reported
Date Completed: 12/21/1990
Priority Level: Final Remedy Selected at Site
Operable Unit: PRP OS OF RD
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 07/27/1983
Date Completed: 12/21/1990
Priority Level: Not reported
Operable Unit: PRP OS OF RD
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Financial Transaction ID: 0003
Transaction Type: Actual Obligation
Fin. Transaction Date: 07/27/1983
Financial Amount: 280000.00000
Financial Year: 1983

Financial Transaction ID: 0001
Transaction Type: Decommittment
Fin. Transaction Date: 07/27/1983

Map ID
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MAP FINDINGS

Site

Database(s)
EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Financial Amount: 362261.00000
Financial Year: 1983

Financial Transaction ID: 0004
Transaction Type: Actual Obligation
Fin. Transaction Date: 07/27/1983
Financial Amount: 82261.00000
Financial Year: 1983

Financial Transaction ID: 0006
Transaction Type: Actual Obligation
Fin. Transaction Date: 09/30/1985
Financial Amount: 200000.00000
Financial Year: 1985

Financial Transaction ID: 0002
Transaction Type: Decommitment
Fin. Transaction Date: 09/30/1985
Financial Amount: 200000.00000
Financial Year: 1985

Financial Transaction ID: 0004
Transaction Type: Decommitment
Fin. Transaction Date: 04/23/1986
Financial Amount: 90040.00000
Financial Year: 1986

Financial Transaction ID: 0008
Transaction Type: Actual Obligation
Fin. Transaction Date: 04/23/1986
Financial Amount: 90040.00000
Financial Year: 1986

Financial Transaction ID: 0005
Transaction Type: Decommitment
Fin. Transaction Date: 05/14/1986
Financial Amount: 75000.00000
Financial Year: 1986

Financial Transaction ID: 0009
Transaction Type: Actual Obligation
Fin. Transaction Date: 05/14/1986
Financial Amount: 75000.00000
Financial Year: 1986

Financial Transaction ID: 0006
Transaction Type: Decommitment
Fin. Transaction Date: 05/28/1986
Financial Amount: 3000.00000
Financial Year: 1986

Financial Transaction ID: 0010
Transaction Type: Actual Obligation
Fin. Transaction Date: 05/28/1986
Financial Amount: 3000.00000
Financial Year: 1986

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Financial Transaction ID: 0007
Transaction Type: Actual Obligation
Fin. Transaction Date: 09/22/1986
Financial Amount: 50000.00000
Financial Year: 1986

Financial Transaction ID: 0003
Transaction Type: Decolmitment
Fin. Transaction Date: 09/22/1986
Financial Amount: 50000.00000
Financial Year: 1986

Financial Transaction ID: 0008
Transaction Type: Decolmitment
Fin. Transaction Date: 06/30/1987
Financial Amount: 677000.00000
Financial Year: 1987

Financial Transaction ID: 0011
Transaction Type: Actual Obligation
Fin. Transaction Date: 06/30/1987
Financial Amount: 677000.00000
Financial Year: 1987

Financial Transaction ID: 0005
Transaction Type: Actual Obligation
Fin. Transaction Date: 08/18/1987
Financial Amount: 7965.00000
Financial Year: 1987

Financial Transaction ID: 0007
Transaction Type: Decolmitment
Fin. Transaction Date: 08/18/1987
Financial Amount: 7965.00000
Financial Year: 1987

Financial Transaction ID: 0001
Transaction Type: Commitment
Fin. Transaction Date: 09/08/1988
Financial Amount: 1300000.00000
Financial Year: 1988

Financial Transaction ID: 0009
Transaction Type: Decolmitment
Fin. Transaction Date: 09/08/1988
Financial Amount: 1300000.00000
Financial Year: 1988

Financial Transaction ID: 0002
Transaction Type: Actual Obligation
Fin. Transaction Date: 09/19/1988
Financial Amount: 1300000.00000
Financial Year: 1988

Financial Transaction ID: 0010
Transaction Type: Decolmitment
Fin. Transaction Date: 12/05/1989

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Financial Amount: 39459.00000
Financial Year: 1990

Financial Transaction ID: 0012
Transaction Type: Commitment
Fin. Transaction Date: 12/05/1989
Financial Amount: 39459.00000
Financial Year: 1990

Financial Transaction ID: 0013
Transaction Type: Actual Obligation
Fin. Transaction Date: 01/16/1990
Financial Amount: 39459.00000
Financial Year: 1990

Financial Transaction ID: 0011
Transaction Type: Decommitment
Fin. Transaction Date: 05/23/1990
Financial Amount: 103541.00000
Financial Year: 1990

Financial Transaction ID: 0014
Transaction Type: Commitment
Fin. Transaction Date: 05/23/1990
Financial Amount: 103541.00000
Financial Year: 1990

Financial Transaction ID: 0015
Transaction Type: Actual Obligation
Fin. Transaction Date: 06/12/1990
Financial Amount: 103541.00000
Financial Year: 1990

Action Code: 002
Action: Special Notice Issued
Date Started: Not reported
Date Completed: 01/04/1991
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: Special Notice Issued
Date Started: Not reported
Date Completed: 01/11/1991
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 005
Action: REMOVAL

Map ID
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EDR ID Number
EPA ID Number
Database(s)

G&H LANDFILL (Continued)

1000116550

Date Started: 07/30/1987
Date Completed: 03/15/1991
Priority Level: Stabilized
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Emergency
Action Anomaly: Not reported
Financial Transaction ID: 0001
Transaction Type: Decommitment
Fin. Transaction Date: 07/21/1987
Financial Amount: 318436.00000
Financial Year: 1987

Financial Transaction ID: 0005
Transaction Type: Actual Obligation
Fin. Transaction Date: 07/21/1987
Financial Amount: 318436.00000
Financial Year: 1987

Financial Transaction ID: 0003
Transaction Type: Actual Obligation
Fin. Transaction Date: 08/01/1988
Financial Amount: 430170.00000
Financial Year: 1988

Financial Transaction ID: 0004
Transaction Type: Commitment
Fin. Transaction Date: 08/01/1988
Financial Amount: 430170.00000
Financial Year: 1988

Financial Transaction ID: 0002
Transaction Type: Decommitment
Fin. Transaction Date: 08/01/1988
Financial Amount: 430170.00000
Financial Year: 1988

Financial Transaction ID: 0006
Transaction Type: Actual Obligation
Fin. Transaction Date: 09/14/1989
Financial Amount: 5852.00000
Financial Year: 1989

Financial Transaction ID: 0003
Transaction Type: Decommitment
Fin. Transaction Date: 09/14/1989
Financial Amount: 5852.00000
Financial Year: 1989

Financial Transaction ID: 0004
Transaction Type: Decommitment
Fin. Transaction Date: 03/25/1991
Financial Amount: 10000.00000
Financial Year: 1991

Financial Transaction ID: 0007

Map ID
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Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Transaction Type: Actual Obligation
Fin. Transaction Date: 03/25/1991
Financial Amount: 10000.00000
Financial Year: 1991

Action Code: 003
Action: REMOVAL ASSESSMENT
Date Started: 04/10/1991
Date Completed: 07/19/1991
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: REMEDIAL DESIGN/REMEDIAL ACTION NEGOTIATIONS
Date Started: 01/16/1991
Date Completed: 06/30/1992
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: Lodged By DOJ
Date Started: Not reported
Date Completed: 09/10/1992
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: Lodged By DOJ
Date Started: Not reported
Date Completed: 09/10/1992
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: Lodged By DOJ
Date Started: Not reported
Date Completed: 09/10/1992
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported

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Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: CONSENT DECREE
Date Started: 04/03/1992
Date Completed: 09/10/1992
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: CONSENT DECREE
Date Started: 09/02/1992
Date Completed: 09/10/1992
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 003
Action: CONSENT DECREE
Date Started: 06/30/1992
Date Completed: 09/10/1992
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: SECTION 107 LITIGATION
Date Started: 10/06/1986
Date Completed: 11/25/1992
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: SECTION 107 LITIGATION
Date Started: 10/01/1987
Date Completed: 11/25/1992
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Map ID
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G&H LANDFILL (Continued)

1000116550

Action Code: 003
Action: SECTION 107 LITIGATION
Date Started: 08/31/1989
Date Completed: 06/30/1993
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN
Date Started: 09/10/1992
Date Completed: 06/02/1995
Priority Level: Not reported
Operable Unit: PRP OS OF RD
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Financial Transaction ID: 0001
Transaction Type: Commitment
Fin. Transaction Date: 08/29/1991
Financial Amount: 50000.00000
Financial Year: 1991

Financial Transaction ID: 0001
Transaction Type: Decolmitment
Fin. Transaction Date: 08/29/1991
Financial Amount: 50000.00000
Financial Year: 1991

Financial Transaction ID: 0002
Transaction Type: Actual Obligation
Fin. Transaction Date: 09/16/1991
Financial Amount: 50000.00000
Financial Year: 1991

Financial Transaction ID: 0002
Transaction Type: Decolmitment
Fin. Transaction Date: 02/07/1992
Financial Amount: 225000.00000
Financial Year: 1992

Financial Transaction ID: 0003
Transaction Type: Commitment
Fin. Transaction Date: 02/07/1992
Financial Amount: 225000.00000
Financial Year: 1992

Financial Transaction ID: 0004
Transaction Type: Actual Obligation
Fin. Transaction Date: 02/26/1992
Financial Amount: 225000.00000
Financial Year: 1992

Map ID
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EDR ID Number
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G&H LANDFILL (Continued)

1000116550

Action Code: 002
Action: STATE SUPPORT AGENCY COOPERATIVE AGREEMENT
Date Started: 08/21/1995
Date Completed: 08/26/1999
Priority Level: Not reported
Operable Unit: PRP OS OF RD
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported
Financial Transaction ID: 0001
Transaction Type: Commitment
Fin. Transaction Date: 07/24/1995
Financial Amount: 40000.00000
Financial Year: 1995

Financial Transaction ID: 0001
Transaction Type: Decommitment
Fin. Transaction Date: 07/24/1995
Financial Amount: 40000.00000
Financial Year: 1995

Financial Transaction ID: 0002
Transaction Type: Actual Obligation
Fin. Transaction Date: 08/21/1995
Financial Amount: 40000.00000
Financial Year: 1995

Action Code: 001
Action: STATE SUPPORT AGENCY COOPERATIVE AGREEMENT
Date Started: 05/30/1985
Date Completed: 08/26/1999
Priority Level: Not reported
Operable Unit: PRP OS OF RD
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported
Financial Transaction ID: 0003
Transaction Type: Actual Obligation
Fin. Transaction Date: 06/04/1985
Financial Amount: 32830.00000
Financial Year: 1985

Financial Transaction ID: 0001
Transaction Type: Decommitment
Fin. Transaction Date: 06/04/1985
Financial Amount: 32830.00000
Financial Year: 1985

Financial Transaction ID: 0002
Transaction Type: Actual Obligation
Fin. Transaction Date: 03/31/1988
Financial Amount: 15150.00000
Financial Year: 1988

Financial Transaction ID: 0001

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Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Transaction Type: Commitment
Fin. Transaction Date: 04/01/1988
Financial Amount: 15150.00000
Financial Year: 1988

Financial Transaction ID: 0002
Transaction Type: Decommitment
Fin. Transaction Date: 04/01/1988
Financial Amount: 15150.00000
Financial Year: 1988

Financial Transaction ID: 0004
Transaction Type: Actual Obligation
Fin. Transaction Date: 12/30/1988
Financial Amount: 20000.00000
Financial Year: 1989

Financial Transaction ID: 0005
Transaction Type: Commitment
Fin. Transaction Date: 12/30/1988
Financial Amount: 20000.00000
Financial Year: 1989

Financial Transaction ID: 0004
Transaction Type: Decommitment
Fin. Transaction Date: 12/30/1988
Financial Amount: 20000.00000
Financial Year: 1989

Financial Transaction ID: 0003
Transaction Type: Decommitment
Fin. Transaction Date: 02/13/1989
Financial Amount: 20000.00000
Financial Year: 1989

Financial Transaction ID: 0007
Transaction Type: Commitment
Fin. Transaction Date: 02/13/1989
Financial Amount: 20000.00000
Financial Year: 1989

Financial Transaction ID: 0006
Transaction Type: Deobligation
Fin. Transaction Date: 02/21/1989
Financial Amount: 20000.00000
Financial Year: 1989

Financial Transaction ID: 0008
Transaction Type: Actual Obligation
Fin. Transaction Date: 02/21/1989
Financial Amount: 20000.00000
Financial Year: 1989

Financial Transaction ID: 0009
Transaction Type: Actual Obligation
Fin. Transaction Date: 04/02/1990
Financial Amount: 25000.00000

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EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Financial Year: 1990

Financial Transaction ID: 0005
Transaction Type: Decommitment
Fin. Transaction Date: 04/02/1990
Financial Amount: 25000.00000
Financial Year: 1990

Financial Transaction ID: 0011
Transaction Type: Commitment
Fin. Transaction Date: 07/12/1990
Financial Amount: 15000.00000
Financial Year: 1990

Financial Transaction ID: 0010
Transaction Type: Actual Obligation
Fin. Transaction Date: 07/16/1990
Financial Amount: 15000.00000
Financial Year: 1990

Financial Transaction ID: 0006
Transaction Type: Decommitment
Fin. Transaction Date: 07/16/1990
Financial Amount: 15000.00000
Financial Year: 1990

Financial Transaction ID: 0012
Transaction Type: Actual Obligation
Fin. Transaction Date: 09/30/1994
Financial Amount: 15000.00000
Financial Year: 1994

Financial Transaction ID: 0007
Transaction Type: Decommitment
Fin. Transaction Date: 09/30/1994
Financial Amount: 15000.00000
Financial Year: 1994

Financial Transaction ID: 0013
Transaction Type: Commitment
Fin. Transaction Date: 08/11/1996
Financial Amount: 20000.00000
Financial Year: 1996

Financial Transaction ID: 0008
Transaction Type: Decommitment
Fin. Transaction Date: 08/11/1996
Financial Amount: 20000.00000
Financial Year: 1996

Financial Transaction ID: 0014
Transaction Type: Actual Obligation
Fin. Transaction Date: 09/30/1996
Financial Amount: 20000.00000
Financial Year: 1996

Financial Transaction ID: 0008

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Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Transaction Type: Deobligation
Fin. Transaction Date: 07/17/2003
Financial Amount: 26.00000
Financial Year: 2003

Financial Transaction ID: 0002
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 07/17/2003
Financial Amount: 26.00000
Financial Year: 2003

Financial Transaction ID: 0003
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 09/22/2003
Financial Amount: 1303.00000
Financial Year: 2003

Financial Transaction ID: 0009
Transaction Type: Deobligation
Fin. Transaction Date: 09/22/2003
Financial Amount: 1303.00000
Financial Year: 2003

Financial Transaction ID: 0004
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 12/01/2003
Financial Amount: 73.00000
Financial Year: 2004

Financial Transaction ID: 0010
Transaction Type: Deobligation
Fin. Transaction Date: 12/01/2003
Financial Amount: 73.00000
Financial Year: 2004

Financial Transaction ID: 0011
Transaction Type: Deobligation
Fin. Transaction Date: 02/03/2004
Financial Amount: 1328.00000
Financial Year: 2004

Financial Transaction ID: 0005
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 02/03/2004
Financial Amount: 1328.00000
Financial Year: 2004

Financial Transaction ID: 0013
Transaction Type: Deobligation
Fin. Transaction Date: 02/24/2004
Financial Amount: 8.00000
Financial Year: 2004

Financial Transaction ID: 0007
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 02/24/2004
Financial Amount: 8.00000

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Database(s)
EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Financial Year: 2004

Financial Transaction ID: 0009
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 03/31/2004
Financial Amount: 42.00000
Financial Year: 2004

Financial Transaction ID: 0015
Transaction Type: Deobligation
Fin. Transaction Date: 03/31/2004
Financial Amount: 42.00000
Financial Year: 2004

Financial Transaction ID: 0008
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 04/26/2004
Financial Amount: 42.00000
Financial Year: 2004

Financial Transaction ID: 0014
Transaction Type: Deobligation
Fin. Transaction Date: 04/26/2004
Financial Amount: 42.00000
Financial Year: 2004

Financial Transaction ID: 0010
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 11/18/2004
Financial Amount: 5286.00000
Financial Year: 2005

Financial Transaction ID: 0016
Transaction Type: Deobligation
Fin. Transaction Date: 11/18/2004
Financial Amount: 5286.00000
Financial Year: 2005

Financial Transaction ID: 0017
Transaction Type: Deobligation
Fin. Transaction Date: 09/29/2005
Financial Amount: 3102.00000
Financial Year: 2005

Financial Transaction ID: 0011
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 09/29/2005
Financial Amount: 3102.00000
Financial Year: 2005

Financial Transaction ID: 0018
Transaction Type: Deobligation
Fin. Transaction Date: 11/28/2005
Financial Amount: 3806.00000
Financial Year: 2006

Financial Transaction ID: 0012

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Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 11/28/2005
Financial Amount: 3806.00000
Financial Year: 2006

Financial Transaction ID: 0013
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 12/16/2005
Financial Amount: 1023.00000
Financial Year: 2006

Financial Transaction ID: 0019
Transaction Type: Deobligation
Fin. Transaction Date: 12/16/2005
Financial Amount: 1023.00000
Financial Year: 2006

Financial Transaction ID: 0020
Transaction Type: Deobligation
Fin. Transaction Date: 01/31/2006
Financial Amount: 1833.00000
Financial Year: 2006

Financial Transaction ID: 0014
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 01/31/2006
Financial Amount: 1833.00000
Financial Year: 2006

Financial Transaction ID: 0007
Transaction Type: Deobligation
Fin. Transaction Date: 02/17/2006
Financial Amount: 99.00000
Financial Year: 2006

Financial Transaction ID: 0001
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 02/17/2006
Financial Amount: 99.00000
Financial Year: 2006

Financial Transaction ID: 0015
Transaction Type: Actual Obligation
Fin. Transaction Date: 04/27/2006
Financial Amount: 99.00000
Financial Year: 2006

Financial Transaction ID: 0016
Transaction Type: Actual Obligation
Fin. Transaction Date: 07/11/2006
Financial Amount: 26.00000
Financial Year: 2006

Financial Transaction ID: 0017
Transaction Type: Actual Obligation
Fin. Transaction Date: 07/21/2006
Financial Amount: 1303.00000

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Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Financial Year: 2006

Financial Transaction ID: 0012
Transaction Type: Deobligation
Fin. Transaction Date: 07/25/2006
Financial Amount: 1313.00000
Financial Year: 2006

Financial Transaction ID: 0006
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 07/25/2006
Financial Amount: 1313.00000
Financial Year: 2006

Financial Transaction ID: 0019
Transaction Type: Actual Obligation
Fin. Transaction Date: 07/26/2006
Financial Amount: 73.00000
Financial Year: 2006

Financial Transaction ID: 0018
Transaction Type: Actual Obligation
Fin. Transaction Date: 07/26/2006
Financial Amount: 1328.00000
Financial Year: 2006

Financial Transaction ID: 0020
Transaction Type: Actual Obligation
Fin. Transaction Date: 08/01/2006
Financial Amount: 45.00000
Financial Year: 2006

Financial Transaction ID: 0021
Transaction Type: Actual Obligation
Fin. Transaction Date: 08/07/2006
Financial Amount: 1313.00000
Financial Year: 2006

Financial Transaction ID: 0023
Transaction Type: Actual Obligation
Fin. Transaction Date: 08/23/2006
Financial Amount: 42.00000
Financial Year: 2006

Financial Transaction ID: 0022
Transaction Type: Actual Obligation
Fin. Transaction Date: 08/23/2006
Financial Amount: 8.00000
Financial Year: 2006

Financial Transaction ID: 0024
Transaction Type: Actual Obligation
Fin. Transaction Date: 08/24/2006
Financial Amount: 5286.00000
Financial Year: 2006

Financial Transaction ID: 0025

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Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Transaction Type: Actual Obligation
Fin. Transaction Date: 08/24/2006
Financial Amount: 42.00000
Financial Year: 2006

Financial Transaction ID: 0001
Transaction Type: Extramural Deoutlay (Credit)
Fin. Transaction Date: 08/24/2006
Financial Amount: 42.00000
Financial Year: 2006

Financial Transaction ID: 0026
Transaction Type: Actual Obligation
Fin. Transaction Date: 08/25/2006
Financial Amount: 3102.00000
Financial Year: 2006

Financial Transaction ID: 0027
Transaction Type: Actual Obligation
Fin. Transaction Date: 08/29/2006
Financial Amount: 3806.00000
Financial Year: 2006

Financial Transaction ID: 0028
Transaction Type: Actual Obligation
Fin. Transaction Date: 08/30/2006
Financial Amount: 1023.00000
Financial Year: 2006

Financial Transaction ID: 0029
Transaction Type: Actual Obligation
Fin. Transaction Date: 08/31/2006
Financial Amount: 1833.00000
Financial Year: 2006

Financial Transaction ID: 0021
Transaction Type: Deobligation
Fin. Transaction Date: 11/22/2006
Financial Amount: 33.00000
Financial Year: 2007

Financial Transaction ID: 0015
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 11/22/2006
Financial Amount: 33.00000
Financial Year: 2007

Financial Transaction ID: 0030
Transaction Type: Actual Obligation
Fin. Transaction Date: 12/29/2006
Financial Amount: 33.00000
Financial Year: 2007

Action Code: 001
Action: PRELIMINARY CLOSE-OUT REPORT PREPARED
Date Started: Not reported
Date Completed: 08/26/1999

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EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Priority Level: Not reported
Operable Unit: PRP OS OF RD
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: COMMUNITY INVOLVEMENT
Date Started: 07/22/1987
Date Completed: 08/26/1999
Priority Level: Not reported
Operable Unit: PRP OS OF RD
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported
Financial Transaction ID: 0001
Transaction Type: Decolmitment
Fin. Transaction Date: 06/26/1987
Financial Amount: 32020.00000
Financial Year: 1987

Financial Transaction ID: 0002
Transaction Type: Actual Obligation
Fin. Transaction Date: 06/26/1987
Financial Amount: 32020.00000
Financial Year: 1987

Financial Transaction ID: 0002
Transaction Type: Decolmitment
Fin. Transaction Date: 07/22/1987
Financial Amount: 23500.00000
Financial Year: 1987

Financial Transaction ID: 0001
Transaction Type: Actual Obligation
Fin. Transaction Date: 07/22/1987
Financial Amount: 23500.00000
Financial Year: 1987

Financial Transaction ID: 0003
Transaction Type: Commitment
Fin. Transaction Date: 12/05/1989
Financial Amount: 10541.00000
Financial Year: 1990

Financial Transaction ID: 0003
Transaction Type: Decolmitment
Fin. Transaction Date: 12/05/1989
Financial Amount: 10541.00000
Financial Year: 1990

Financial Transaction ID: 0004
Transaction Type: Actual Obligation
Fin. Transaction Date: 01/16/1990
Financial Amount: 10541.00000

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EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Financial Year: 1990

Financial Transaction ID: 0004
Transaction Type: Decommitment
Fin. Transaction Date: 08/23/1991
Financial Amount: 15000.00000
Financial Year: 1991

Financial Transaction ID: 0005
Transaction Type: Commitment
Fin. Transaction Date: 08/23/1991
Financial Amount: 15000.00000
Financial Year: 1991

Financial Transaction ID: 0006
Transaction Type: Actual Obligation
Fin. Transaction Date: 09/16/1991
Financial Amount: 15000.00000
Financial Year: 1991

Financial Transaction ID: 0007
Transaction Type: Actual Obligation
Fin. Transaction Date: 09/22/1999
Financial Amount: 237.00000
Financial Year: 1999

Financial Transaction ID: 0001
Transaction Type: Deobligation
Fin. Transaction Date: 09/22/1999
Financial Amount: 237.00000
Financial Year: 1999

Financial Transaction ID: 0001
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 09/22/1999
Financial Amount: 237.00000
Financial Year: 1999

Financial Transaction ID: 0002
Transaction Type: Deobligation
Fin. Transaction Date: 12/16/1999
Financial Amount: 68.00000
Financial Year: 2000

Financial Transaction ID: 0002
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 12/16/1999
Financial Amount: 68.00000
Financial Year: 2000

Financial Transaction ID: 0008
Transaction Type: Actual Obligation
Fin. Transaction Date: 12/16/1999
Financial Amount: 68.00000
Financial Year: 2000

Financial Transaction ID: 0009

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Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Transaction Type: Actual Obligation
Fin. Transaction Date: 03/22/2000
Financial Amount: 26.00000
Financial Year: 2000

Financial Transaction ID: 0003
Transaction Type: Deobligation
Fin. Transaction Date: 03/22/2000
Financial Amount: 26.00000
Financial Year: 2000

Financial Transaction ID: 0003
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 03/22/2000
Financial Amount: 26.00000
Financial Year: 2000

Financial Transaction ID: 0004
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 04/17/2000
Financial Amount: 130.00000
Financial Year: 2000

Financial Transaction ID: 0004
Transaction Type: Deobligation
Fin. Transaction Date: 04/17/2000
Financial Amount: 130.00000
Financial Year: 2000

Financial Transaction ID: 0010
Transaction Type: Actual Obligation
Fin. Transaction Date: 04/17/2000
Financial Amount: 130.00000
Financial Year: 2000

Financial Transaction ID: 0001
Transaction Type: Extramural Deoutlay (Credit)
Fin. Transaction Date: 04/18/2000
Financial Amount: 9.00000
Financial Year: 2000

Financial Transaction ID: 0012
Transaction Type: Actual Obligation
Fin. Transaction Date: 04/18/2000
Financial Amount: 7.00000
Financial Year: 2000

Financial Transaction ID: 0005
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 04/18/2000
Financial Amount: 7.00000
Financial Year: 2000

Financial Transaction ID: 0006
Transaction Type: Deobligation
Fin. Transaction Date: 04/18/2000
Financial Amount: 7.00000

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EDR ID Number
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G&H LANDFILL (Continued)

1000116550

Financial Year: 2000

Financial Transaction ID: 0005
Transaction Type: Deobligation
Fin. Transaction Date: 04/18/2000
Financial Amount: 9.00000
Financial Year: 2000

Financial Transaction ID: 0011
Transaction Type: Actual Obligation
Fin. Transaction Date: 04/18/2000
Financial Amount: 9.00000
Financial Year: 2000

Financial Transaction ID: 0007
Transaction Type: Deobligation
Fin. Transaction Date: 09/22/2000
Financial Amount: 26.00000
Financial Year: 2000

Financial Transaction ID: 0006
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 09/22/2000
Financial Amount: 26.00000
Financial Year: 2000

Financial Transaction ID: 0013
Transaction Type: Actual Obligation
Fin. Transaction Date: 09/22/2000
Financial Amount: 26.00000
Financial Year: 2000

Financial Transaction ID: 0008
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 03/28/2001
Financial Amount: 5.00000
Financial Year: 2001

Financial Transaction ID: 0009
Transaction Type: Deobligation
Fin. Transaction Date: 03/28/2001
Financial Amount: 5.00000
Financial Year: 2001

Financial Transaction ID: 0008
Transaction Type: Deobligation
Fin. Transaction Date: 03/28/2001
Financial Amount: 17.00000
Financial Year: 2001

Financial Transaction ID: 0007
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 03/28/2001
Financial Amount: 17.00000
Financial Year: 2001

Financial Transaction ID: 0015

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EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Transaction Type: Actual Obligation
Fin. Transaction Date: 03/28/2001
Financial Amount: 5.00000
Financial Year: 2001

Financial Transaction ID: 0014
Transaction Type: Actual Obligation
Fin. Transaction Date: 03/28/2001
Financial Amount: 17.00000
Financial Year: 2001

Financial Transaction ID: 0009
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 01/13/2003
Financial Amount: 2.00000
Financial Year: 2003

Financial Transaction ID: 0010
Transaction Type: Deobligation
Fin. Transaction Date: 01/13/2003
Financial Amount: 2.00000
Financial Year: 2003

Financial Transaction ID: 0016
Transaction Type: Actual Obligation
Fin. Transaction Date: 01/13/2003
Financial Amount: 2.00000
Financial Year: 2003

Financial Transaction ID: 0002
Transaction Type: Extramural Deoutlay (Credit)
Fin. Transaction Date: 05/06/2004
Financial Amount: 0.00000
Financial Year: 2004

Financial Transaction ID: 0017
Transaction Type: Actual Obligation
Fin. Transaction Date: 05/06/2004
Financial Amount: 0.00000
Financial Year: 2004

Financial Transaction ID: 0011
Transaction Type: Deobligation
Fin. Transaction Date: 05/13/2004
Financial Amount: 2.00000
Financial Year: 2004

Financial Transaction ID: 0010
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 05/13/2004
Financial Amount: 2.00000
Financial Year: 2004

Financial Transaction ID: 0018
Transaction Type: Actual Obligation
Fin. Transaction Date: 05/13/2004
Financial Amount: 2.00000

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Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Financial Year: 2004

Financial Transaction ID: 0012
Transaction Type: Deobligation
Fin. Transaction Date: 11/03/2004
Financial Amount: 0.00000
Financial Year: 2005

Financial Transaction ID: 0006
Transaction Type: Commitment
Fin. Transaction Date: 03/17/2006
Financial Amount: 350.00000
Financial Year: 2006

Financial Transaction ID: 0005
Transaction Type: Decolmitment
Fin. Transaction Date: 05/02/2006
Financial Amount: 306.00000
Financial Year: 2006

Financial Transaction ID: 0019
Transaction Type: Actual Obligation
Fin. Transaction Date: 05/02/2006
Financial Amount: 306.00000
Financial Year: 2006

Financial Transaction ID: 0011
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 05/03/2006
Financial Amount: 306.00000
Financial Year: 2006

Financial Transaction ID: 0013
Transaction Type: Deobligation
Fin. Transaction Date: 05/03/2006
Financial Amount: 306.00000
Financial Year: 2006

Financial Transaction ID: 0007
Transaction Type: Commitment
Fin. Transaction Date: 08/08/2006
Financial Amount: 350.00000
Financial Year: 2006

Financial Transaction ID: 0006
Transaction Type: Decolmitment
Fin. Transaction Date: 09/27/2006
Financial Amount: 44.00000
Financial Year: 2006

Financial Transaction ID: 0007
Transaction Type: Decolmitment
Fin. Transaction Date: 10/04/2006
Financial Amount: 350.00000
Financial Year: 2007

Financial Transaction ID: 0008

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Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Transaction Type: Commitment
Fin. Transaction Date: 11/09/2006
Financial Amount: 400.00000
Financial Year: 2007

Financial Transaction ID: 0020
Transaction Type: Actual Obligation
Fin. Transaction Date: 02/26/2007
Financial Amount: 3326.00000
Financial Year: 2007

Financial Transaction ID: 0012
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 02/26/2007
Financial Amount: 3326.00000
Financial Year: 2007

Financial Transaction ID: 0014
Transaction Type: Deobligation
Fin. Transaction Date: 02/26/2007
Financial Amount: 3326.00000
Financial Year: 2007

Financial Transaction ID: 0021
Transaction Type: Actual Obligation
Fin. Transaction Date: 04/04/2007
Financial Amount: 2224.00000
Financial Year: 2007

Financial Transaction ID: 0016
Transaction Type: Deobligation
Fin. Transaction Date: 04/04/2007
Financial Amount: 2224.00000
Financial Year: 2007

Financial Transaction ID: 0022
Transaction Type: Actual Obligation
Fin. Transaction Date: 04/04/2007
Financial Amount: 1102.00000
Financial Year: 2007

Financial Transaction ID: 0013
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 04/04/2007
Financial Amount: 1102.00000
Financial Year: 2007

Financial Transaction ID: 0014
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 04/04/2007
Financial Amount: 2224.00000
Financial Year: 2007

Financial Transaction ID: 0015
Transaction Type: Deobligation
Fin. Transaction Date: 04/04/2007
Financial Amount: 1102.00000

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Database(s) EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Financial Year: 2007

Financial Transaction ID: 0015
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 06/13/2007
Financial Amount: 13267.00000
Financial Year: 2007

Financial Transaction ID: 0025
Transaction Type: Actual Obligation
Fin. Transaction Date: 06/13/2007
Financial Amount: 368.00000
Financial Year: 2007

Financial Transaction ID: 0024
Transaction Type: Actual Obligation
Fin. Transaction Date: 06/13/2007
Financial Amount: 13267.00000
Financial Year: 2007

Financial Transaction ID: 0023
Transaction Type: Actual Obligation
Fin. Transaction Date: 06/13/2007
Financial Amount: 36.00000
Financial Year: 2007

Financial Transaction ID: 0016
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 06/13/2007
Financial Amount: 36.00000
Financial Year: 2007

Financial Transaction ID: 0018
Transaction Type: Deobligation
Fin. Transaction Date: 06/13/2007
Financial Amount: 36.00000
Financial Year: 2007

Financial Transaction ID: 0017
Transaction Type: Deobligation
Fin. Transaction Date: 06/13/2007
Financial Amount: 13267.00000
Financial Year: 2007

Financial Transaction ID: 0008
Transaction Type: Decommitment
Fin. Transaction Date: 06/13/2007
Financial Amount: 368.00000
Financial Year: 2007

Financial Transaction ID: 0019
Transaction Type: Deobligation
Fin. Transaction Date: 06/14/2007
Financial Amount: 368.00000
Financial Year: 2007

Financial Transaction ID: 0017

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EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 06/14/2007
Financial Amount: 368.00000
Financial Year: 2007

Financial Transaction ID: 0018
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 07/17/2007
Financial Amount: 2410.00000
Financial Year: 2007

Financial Transaction ID: 0020
Transaction Type: Deobligation
Fin. Transaction Date: 07/17/2007
Financial Amount: 2410.00000
Financial Year: 2007

Financial Transaction ID: 0026
Transaction Type: Actual Obligation
Fin. Transaction Date: 07/17/2007
Financial Amount: 2410.00000
Financial Year: 2007

Financial Transaction ID: 0009
Transaction Type: Decolmitment
Fin. Transaction Date: 09/29/2007
Financial Amount: 33.00000
Financial Year: 2007

Action Code: 001
Action: OPERATIONS AND MAINTENANCE
Date Started: 08/26/1999
Date Completed: Not reported
Priority Level: Not reported
Operable Unit: PRP OS OF RD
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: OPERATIONS AND MAINTENANCE
Date Started: 06/21/2000
Date Completed: Not reported
Priority Level: Not reported
Operable Unit: PRP OS OF RD
Primary Responsibility: Responsible Party
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL ACTION
Date Started: 08/19/1996
Date Completed: 06/21/2000
Priority Level: Final RA Report
Operable Unit: PRP OS OF RD

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G&H LANDFILL (Continued)

1000116550

Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Long Term Action
Action Anomaly: Not reported
Financial Transaction ID: 0001
Transaction Type: Decommitment
Fin. Transaction Date: 03/22/1995
Financial Amount: 250000.00000
Financial Year: 1995

Financial Transaction ID: 0001
Transaction Type: Commitment
Fin. Transaction Date: 03/22/1995
Financial Amount: 250000.00000
Financial Year: 1995

Financial Transaction ID: 0002
Transaction Type: Actual Obligation
Fin. Transaction Date: 03/22/1995
Financial Amount: 250000.00000
Financial Year: 1995

Financial Transaction ID: 0002
Transaction Type: Decommitment
Fin. Transaction Date: 02/28/1997
Financial Amount: 1.00000
Financial Year: 1997

Financial Transaction ID: 0003
Transaction Type: Actual Obligation
Fin. Transaction Date: 02/28/1997
Financial Amount: 1.00000
Financial Year: 1997

Financial Transaction ID: 0004
Transaction Type: Actual Obligation
Fin. Transaction Date: 07/01/1997
Financial Amount: 1.00000
Financial Year: 1997

Financial Transaction ID: 0001
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 08/10/1998
Financial Amount: 12445.00000
Financial Year: 1998

Financial Transaction ID: 0005
Transaction Type: Actual Obligation
Fin. Transaction Date: 08/10/1998
Financial Amount: 12445.00000
Financial Year: 1998

Financial Transaction ID: 0001
Transaction Type: Deobligation
Fin. Transaction Date: 08/10/1998
Financial Amount: 12445.00000
Financial Year: 1998

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EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Financial Transaction ID: 0002
Transaction Type: Deobligation
Fin. Transaction Date: 08/18/1998
Financial Amount: 11724.00000
Financial Year: 1998

Financial Transaction ID: 0002
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 08/18/1998
Financial Amount: 11724.00000
Financial Year: 1998

Financial Transaction ID: 0006
Transaction Type: Actual Obligation
Fin. Transaction Date: 08/18/1998
Financial Amount: 11724.00000
Financial Year: 1998

Financial Transaction ID: 0003
Transaction Type: Deobligation
Fin. Transaction Date: 10/06/1998
Financial Amount: 14213.00000
Financial Year: 1999

Financial Transaction ID: 0003
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 10/06/1998
Financial Amount: 14213.00000
Financial Year: 1999

Financial Transaction ID: 0007
Transaction Type: Actual Obligation
Fin. Transaction Date: 10/07/1998
Financial Amount: 14213.00000
Financial Year: 1999

Financial Transaction ID: 0008
Transaction Type: Actual Obligation
Fin. Transaction Date: 10/21/1998
Financial Amount: 6198.00000
Financial Year: 1999

Financial Transaction ID: 0004
Transaction Type: Deobligation
Fin. Transaction Date: 10/21/1998
Financial Amount: 6198.00000
Financial Year: 1999

Financial Transaction ID: 0004
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 10/21/1998
Financial Amount: 6198.00000
Financial Year: 1999

Financial Transaction ID: 0009
Transaction Type: Actual Obligation
Fin. Transaction Date: 11/20/1998

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Database(s) EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Financial Amount: 4059.00000
Financial Year: 1999

Financial Transaction ID: 0005
Transaction Type: Deobligation
Fin. Transaction Date: 11/20/1998
Financial Amount: 4059.00000
Financial Year: 1999

Financial Transaction ID: 0005
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 11/20/1998
Financial Amount: 4059.00000
Financial Year: 1999

Financial Transaction ID: 0007
Transaction Type: Deobligation
Fin. Transaction Date: 01/19/1999
Financial Amount: 1738.00000
Financial Year: 1999

Financial Transaction ID: 0006
Transaction Type: Deobligation
Fin. Transaction Date: 01/19/1999
Financial Amount: 13682.00000
Financial Year: 1999

Financial Transaction ID: 0007
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 01/19/1999
Financial Amount: 1738.00000
Financial Year: 1999

Financial Transaction ID: 0006
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 01/19/1999
Financial Amount: 13682.00000
Financial Year: 1999

Financial Transaction ID: 0011
Transaction Type: Actual Obligation
Fin. Transaction Date: 01/19/1999
Financial Amount: 1738.00000
Financial Year: 1999

Financial Transaction ID: 0010
Transaction Type: Actual Obligation
Fin. Transaction Date: 01/19/1999
Financial Amount: 13682.00000
Financial Year: 1999

Financial Transaction ID: 0008
Transaction Type: Deobligation
Fin. Transaction Date: 02/19/1999
Financial Amount: 1042.00000
Financial Year: 1999

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Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Financial Transaction ID: 0012
Transaction Type: Actual Obligation
Fin. Transaction Date: 02/19/1999
Financial Amount: 1042.00000
Financial Year: 1999

Financial Transaction ID: 0008
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 02/19/1999
Financial Amount: 1042.00000
Financial Year: 1999

Financial Transaction ID: 0013
Transaction Type: Actual Obligation
Fin. Transaction Date: 03/24/1999
Financial Amount: 2459.00000
Financial Year: 1999

Financial Transaction ID: 0009
Transaction Type: Deobligation
Fin. Transaction Date: 03/24/1999
Financial Amount: 2459.00000
Financial Year: 1999

Financial Transaction ID: 0009
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 03/24/1999
Financial Amount: 2459.00000
Financial Year: 1999

Financial Transaction ID: 0001
Transaction Type: Extramural Deoutlay (Credit)
Fin. Transaction Date: 03/25/1999
Financial Amount: 4059.00000
Financial Year: 1999

Financial Transaction ID: 0010
Transaction Type: Deobligation
Fin. Transaction Date: 03/25/1999
Financial Amount: 4059.00000
Financial Year: 1999

Financial Transaction ID: 0014
Transaction Type: Actual Obligation
Fin. Transaction Date: 03/25/1999
Financial Amount: 4059.00000
Financial Year: 1999

Financial Transaction ID: 0015
Transaction Type: Actual Obligation
Fin. Transaction Date: 04/01/1999
Financial Amount: 4059.00000
Financial Year: 1999

Financial Transaction ID: 0010
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 04/22/1999

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EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Financial Amount: 840.00000
Financial Year: 1999

Financial Transaction ID: 0011
Transaction Type: Deobligation
Fin. Transaction Date: 04/22/1999
Financial Amount: 840.00000
Financial Year: 1999

Financial Transaction ID: 0016
Transaction Type: Actual Obligation
Fin. Transaction Date: 04/22/1999
Financial Amount: 840.00000
Financial Year: 1999

Financial Transaction ID: 0011
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 04/23/1999
Financial Amount: 4059.00000
Financial Year: 1999

Financial Transaction ID: 0012
Transaction Type: Deobligation
Fin. Transaction Date: 04/23/1999
Financial Amount: 4059.00000
Financial Year: 1999

Financial Transaction ID: 0012
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 05/20/1999
Financial Amount: 1937.00000
Financial Year: 1999

Financial Transaction ID: 0017
Transaction Type: Actual Obligation
Fin. Transaction Date: 05/20/1999
Financial Amount: 1937.00000
Financial Year: 1999

Financial Transaction ID: 0013
Transaction Type: Deobligation
Fin. Transaction Date: 05/20/1999
Financial Amount: 1937.00000
Financial Year: 1999

Financial Transaction ID: 0013
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 06/02/1999
Financial Amount: 14.00000
Financial Year: 1999

Financial Transaction ID: 0014
Transaction Type: Deobligation
Fin. Transaction Date: 06/02/1999
Financial Amount: 14.00000
Financial Year: 1999

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EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Financial Transaction ID: 0018
Transaction Type: Actual Obligation
Fin. Transaction Date: 06/02/1999
Financial Amount: 14.00000
Financial Year: 1999

Financial Transaction ID: 0015
Transaction Type: Deobligation
Fin. Transaction Date: 06/18/1999
Financial Amount: 1186.00000
Financial Year: 1999

Financial Transaction ID: 0014
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 06/18/1999
Financial Amount: 1186.00000
Financial Year: 1999

Financial Transaction ID: 0019
Transaction Type: Actual Obligation
Fin. Transaction Date: 06/18/1999
Financial Amount: 1186.00000
Financial Year: 1999

Financial Transaction ID: 0015
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 07/21/1999
Financial Amount: 2432.00000
Financial Year: 1999

Financial Transaction ID: 0020
Transaction Type: Actual Obligation
Fin. Transaction Date: 07/21/1999
Financial Amount: 2432.00000
Financial Year: 1999

Financial Transaction ID: 0016
Transaction Type: Deobligation
Fin. Transaction Date: 07/21/1999
Financial Amount: 2432.00000
Financial Year: 1999

Financial Transaction ID: 0016
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 09/03/1999
Financial Amount: 1965.00000
Financial Year: 1999

Financial Transaction ID: 0017
Transaction Type: Deobligation
Fin. Transaction Date: 09/03/1999
Financial Amount: 1965.00000
Financial Year: 1999

Financial Transaction ID: 0021
Transaction Type: Actual Obligation
Fin. Transaction Date: 09/03/1999

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Database(s) EDR ID Number
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G&H LANDFILL (Continued)

1000116550

Financial Amount: 1965.00000
Financial Year: 1999

Financial Transaction ID: 0018
Transaction Type: Deobligation
Fin. Transaction Date: 09/22/1999
Financial Amount: 1107.00000
Financial Year: 1999

Financial Transaction ID: 0017
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 09/22/1999
Financial Amount: 1107.00000
Financial Year: 1999

Financial Transaction ID: 0022
Transaction Type: Actual Obligation
Fin. Transaction Date: 09/22/1999
Financial Amount: 1107.00000
Financial Year: 1999

Financial Transaction ID: 0018
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 10/21/1999
Financial Amount: 964.00000
Financial Year: 2000

Financial Transaction ID: 0023
Transaction Type: Actual Obligation
Fin. Transaction Date: 10/21/1999
Financial Amount: 964.00000
Financial Year: 2000

Financial Transaction ID: 0019
Transaction Type: Deobligation
Fin. Transaction Date: 10/21/1999
Financial Amount: 964.00000
Financial Year: 2000

Financial Transaction ID: 0019
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 12/16/1999
Financial Amount: 202.00000
Financial Year: 2000

Financial Transaction ID: 0024
Transaction Type: Actual Obligation
Fin. Transaction Date: 12/16/1999
Financial Amount: 202.00000
Financial Year: 2000

Financial Transaction ID: 0020
Transaction Type: Deobligation
Fin. Transaction Date: 12/16/1999
Financial Amount: 202.00000
Financial Year: 2000

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EDR ID Number
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G&H LANDFILL (Continued)

1000116550

Financial Transaction ID: 0021
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 03/22/2000
Financial Amount: 1075.00000
Financial Year: 2000

Financial Transaction ID: 0022
Transaction Type: Deobligation
Fin. Transaction Date: 03/22/2000
Financial Amount: 1075.00000
Financial Year: 2000

Financial Transaction ID: 0021
Transaction Type: Deobligation
Fin. Transaction Date: 03/22/2000
Financial Amount: 1714.00000
Financial Year: 2000

Financial Transaction ID: 0025
Transaction Type: Actual Obligation
Fin. Transaction Date: 03/22/2000
Financial Amount: 1714.00000
Financial Year: 2000

Financial Transaction ID: 0026
Transaction Type: Actual Obligation
Fin. Transaction Date: 03/22/2000
Financial Amount: 1075.00000
Financial Year: 2000

Financial Transaction ID: 0020
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 03/22/2000
Financial Amount: 1714.00000
Financial Year: 2000

Financial Transaction ID: 0023
Transaction Type: Deobligation
Fin. Transaction Date: 03/24/2000
Financial Amount: 967.00000
Financial Year: 2000

Financial Transaction ID: 0027
Transaction Type: Actual Obligation
Fin. Transaction Date: 03/24/2000
Financial Amount: 967.00000
Financial Year: 2000

Financial Transaction ID: 0022
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 03/24/2000
Financial Amount: 967.00000
Financial Year: 2000

Financial Transaction ID: 0023
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 04/17/2000

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G&H LANDFILL (Continued)

1000116550

Financial Amount: 1847.00000
Financial Year: 2000

Financial Transaction ID: 0025
Transaction Type: Deobligation
Fin. Transaction Date: 04/17/2000
Financial Amount: 371.00000
Financial Year: 2000

Financial Transaction ID: 0028
Transaction Type: Actual Obligation
Fin. Transaction Date: 04/17/2000
Financial Amount: 1847.00000
Financial Year: 2000

Financial Transaction ID: 0029
Transaction Type: Actual Obligation
Fin. Transaction Date: 04/17/2000
Financial Amount: 371.00000
Financial Year: 2000

Financial Transaction ID: 0024
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 04/17/2000
Financial Amount: 371.00000
Financial Year: 2000

Financial Transaction ID: 0024
Transaction Type: Deobligation
Fin. Transaction Date: 04/17/2000
Financial Amount: 1847.00000
Financial Year: 2000

Financial Transaction ID: 0028
Transaction Type: Deobligation
Fin. Transaction Date: 04/18/2000
Financial Amount: 1618.00000
Financial Year: 2000

Financial Transaction ID: 0027
Transaction Type: Deobligation
Fin. Transaction Date: 04/18/2000
Financial Amount: 1777.00000
Financial Year: 2000

Financial Transaction ID: 0026
Transaction Type: Deobligation
Fin. Transaction Date: 04/18/2000
Financial Amount: 354.00000
Financial Year: 2000

Financial Transaction ID: 0025
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 04/18/2000
Financial Amount: 1618.00000
Financial Year: 2000

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EDR ID Number
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G&H LANDFILL (Continued)

1000116550

Financial Transaction ID: 0002
Transaction Type: Extramural Deoutlay (Credit)
Fin. Transaction Date: 04/18/2000
Financial Amount: 1777.00000
Financial Year: 2000

Financial Transaction ID: 0003
Transaction Type: Extramural Deoutlay (Credit)
Fin. Transaction Date: 04/18/2000
Financial Amount: 354.00000
Financial Year: 2000

Financial Transaction ID: 0032
Transaction Type: Actual Obligation
Fin. Transaction Date: 04/18/2000
Financial Amount: 1618.00000
Financial Year: 2000

Financial Transaction ID: 0031
Transaction Type: Actual Obligation
Fin. Transaction Date: 04/18/2000
Financial Amount: 354.00000
Financial Year: 2000

Financial Transaction ID: 0030
Transaction Type: Actual Obligation
Fin. Transaction Date: 04/18/2000
Financial Amount: 1777.00000
Financial Year: 2000

Financial Transaction ID: 0033
Transaction Type: Actual Obligation
Fin. Transaction Date: 05/17/2000
Financial Amount: 524.00000
Financial Year: 2000

Financial Transaction ID: 0029
Transaction Type: Deobligation
Fin. Transaction Date: 05/17/2000
Financial Amount: 524.00000
Financial Year: 2000

Financial Transaction ID: 0026
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 05/17/2000
Financial Amount: 524.00000
Financial Year: 2000

Financial Transaction ID: 0034
Transaction Type: Actual Obligation
Fin. Transaction Date: 06/20/2000
Financial Amount: 355.00000
Financial Year: 2000

Financial Transaction ID: 0027
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 06/20/2000

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EDR ID Number
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G&H LANDFILL (Continued)

1000116550

Financial Amount: 355.00000
Financial Year: 2000

Financial Transaction ID: 0030
Transaction Type: Deobligation
Fin. Transaction Date: 06/20/2000
Financial Amount: 355.00000
Financial Year: 2000

Financial Transaction ID: 0031
Transaction Type: Deobligation
Fin. Transaction Date: 07/18/2000
Financial Amount: 1158.00000
Financial Year: 2000

Financial Transaction ID: 0035
Transaction Type: Actual Obligation
Fin. Transaction Date: 07/18/2000
Financial Amount: 1158.00000
Financial Year: 2000

Financial Transaction ID: 0028
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 07/18/2000
Financial Amount: 1158.00000
Financial Year: 2000

Financial Transaction ID: 0036
Transaction Type: Actual Obligation
Fin. Transaction Date: 08/22/2000
Financial Amount: 737.00000
Financial Year: 2000

Financial Transaction ID: 0032
Transaction Type: Deobligation
Fin. Transaction Date: 08/22/2000
Financial Amount: 737.00000
Financial Year: 2000

Financial Transaction ID: 0029
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 08/22/2000
Financial Amount: 737.00000
Financial Year: 2000

Financial Transaction ID: 0037
Transaction Type: Actual Obligation
Fin. Transaction Date: 09/22/2000
Financial Amount: 1921.00000
Financial Year: 2000

Financial Transaction ID: 0030
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 09/22/2000
Financial Amount: 1921.00000
Financial Year: 2000

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EDR ID Number
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G&H LANDFILL (Continued)

1000116550

Financial Transaction ID: 0033
Transaction Type: Deobligation
Fin. Transaction Date: 09/22/2000
Financial Amount: 1921.00000
Financial Year: 2000

Financial Transaction ID: 0031
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 10/19/2000
Financial Amount: 3098.00000
Financial Year: 2001

Financial Transaction ID: 0034
Transaction Type: Deobligation
Fin. Transaction Date: 10/19/2000
Financial Amount: 3098.00000
Financial Year: 2001

Financial Transaction ID: 0038
Transaction Type: Actual Obligation
Fin. Transaction Date: 10/19/2000
Financial Amount: 3098.00000
Financial Year: 2001

Financial Transaction ID: 0035
Transaction Type: Deobligation
Fin. Transaction Date: 11/21/2000
Financial Amount: 1322.00000
Financial Year: 2001

Financial Transaction ID: 0039
Transaction Type: Actual Obligation
Fin. Transaction Date: 11/21/2000
Financial Amount: 1322.00000
Financial Year: 2001

Financial Transaction ID: 0032
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 11/21/2000
Financial Amount: 1322.00000
Financial Year: 2001

Financial Transaction ID: 0040
Transaction Type: Actual Obligation
Fin. Transaction Date: 02/15/2001
Financial Amount: 103.00000
Financial Year: 2001

Financial Transaction ID: 0004
Transaction Type: Extramural Deoutlay (Credit)
Fin. Transaction Date: 02/15/2001
Financial Amount: 103.00000
Financial Year: 2001

Financial Transaction ID: 0036
Transaction Type: Deobligation
Fin. Transaction Date: 02/15/2001

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EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Financial Amount: 103.00000
Financial Year: 2001

Financial Transaction ID: 0038
Transaction Type: Deobligation
Fin. Transaction Date: 03/28/2001
Financial Amount: 195.00000
Financial Year: 2001

Financial Transaction ID: 0042
Transaction Type: Actual Obligation
Fin. Transaction Date: 03/28/2001
Financial Amount: 4965.00000
Financial Year: 2001

Financial Transaction ID: 0034
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 03/28/2001
Financial Amount: 195.00000
Financial Year: 2001

Financial Transaction ID: 0033
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 03/28/2001
Financial Amount: 4965.00000
Financial Year: 2001

Financial Transaction ID: 0041
Transaction Type: Actual Obligation
Fin. Transaction Date: 03/28/2001
Financial Amount: 195.00000
Financial Year: 2001

Financial Transaction ID: 0037
Transaction Type: Deobligation
Fin. Transaction Date: 03/28/2001
Financial Amount: 4965.00000
Financial Year: 2001

Financial Transaction ID: 0043
Transaction Type: Actual Obligation
Fin. Transaction Date: 01/13/2003
Financial Amount: 570.00000
Financial Year: 2003

Financial Transaction ID: 0035
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 01/13/2003
Financial Amount: 570.00000
Financial Year: 2003

Financial Transaction ID: 0039
Transaction Type: Deobligation
Fin. Transaction Date: 01/13/2003
Financial Amount: 570.00000
Financial Year: 2003

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Database(s)
EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Financial Transaction ID: 0040
Transaction Type: Deobligation
Fin. Transaction Date: 12/03/2003
Financial Amount: 205.00000
Financial Year: 2004

Financial Transaction ID: 0036
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 12/03/2003
Financial Amount: 205.00000
Financial Year: 2004

Financial Transaction ID: 0044
Transaction Type: Actual Obligation
Fin. Transaction Date: 12/03/2003
Financial Amount: 205.00000
Financial Year: 2004

Financial Transaction ID: 0037
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 01/02/2004
Financial Amount: 117.00000
Financial Year: 2004

Financial Transaction ID: 0041
Transaction Type: Deobligation
Fin. Transaction Date: 01/02/2004
Financial Amount: 117.00000
Financial Year: 2004

Financial Transaction ID: 0045
Transaction Type: Actual Obligation
Fin. Transaction Date: 01/02/2004
Financial Amount: 117.00000
Financial Year: 2004

Financial Transaction ID: 0005
Transaction Type: Extramural Deoutlay (Credit)
Fin. Transaction Date: 05/06/2004
Financial Amount: 10.00000
Financial Year: 2004

Financial Transaction ID: 0046
Transaction Type: Actual Obligation
Fin. Transaction Date: 05/06/2004
Financial Amount: 10.00000
Financial Year: 2004

Financial Transaction ID: 0042
Transaction Type: Deobligation
Fin. Transaction Date: 05/13/2004
Financial Amount: 263.00000
Financial Year: 2004

Financial Transaction ID: 0047
Transaction Type: Actual Obligation
Fin. Transaction Date: 05/13/2004

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Financial Amount: 263.00000
Financial Year: 2004

Financial Transaction ID: 0038
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 05/13/2004
Financial Amount: 263.00000
Financial Year: 2004

Financial Transaction ID: 0043
Transaction Type: Deobligation
Fin. Transaction Date: 11/03/2004
Financial Amount: 10.00000
Financial Year: 2005

Financial Transaction ID: 0045
Transaction Type: Deobligation
Fin. Transaction Date: 02/06/2007
Financial Amount: 3326.00000
Financial Year: 2007

Financial Transaction ID: 0048
Transaction Type: Actual Obligation
Fin. Transaction Date: 02/06/2007
Financial Amount: 6652.00000
Financial Year: 2007

Financial Transaction ID: 0049
Transaction Type: Actual Obligation
Fin. Transaction Date: 02/06/2007
Financial Amount: 3326.00000
Financial Year: 2007

Financial Transaction ID: 0040
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 02/06/2007
Financial Amount: 3326.00000
Financial Year: 2007

Financial Transaction ID: 0039
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 02/06/2007
Financial Amount: 6652.00000
Financial Year: 2007

Financial Transaction ID: 0044
Transaction Type: Deobligation
Fin. Transaction Date: 02/06/2007
Financial Amount: 6652.00000
Financial Year: 2007

Financial Transaction ID: 0050
Transaction Type: Actual Obligation
Fin. Transaction Date: 03/02/2007
Financial Amount: 19371.00000
Financial Year: 2007

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)
EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Financial Transaction ID: 0041
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 03/02/2007
Financial Amount: 19371.00000
Financial Year: 2007

Financial Transaction ID: 0046
Transaction Type: Deobligation
Fin. Transaction Date: 03/02/2007
Financial Amount: 19371.00000
Financial Year: 2007

Action Code: 001
Action: FIVE-YEAR REVIEW
Date Started: 07/01/2001
Date Completed: 09/05/2001
Priority Level: Not reported
Operable Unit: PRP OS OF RD
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Financial Transaction ID: 0001
Transaction Type: Deobligation
Fin. Transaction Date: 06/13/2007
Financial Amount: 1077.00000
Financial Year: 2007

Financial Transaction ID: 0001
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 06/13/2007
Financial Amount: 1077.00000
Financial Year: 2007

Financial Transaction ID: 0001
Transaction Type: Actual Obligation
Fin. Transaction Date: 06/13/2007
Financial Amount: 1077.00000
Financial Year: 2007

Financial Transaction ID: 0002
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 03/26/2008
Financial Amount: 980.00000
Financial Year: 2008

Financial Transaction ID: 0002
Transaction Type: Deobligation
Fin. Transaction Date: 03/26/2008
Financial Amount: 980.00000
Financial Year: 2008

Financial Transaction ID: 0002
Transaction Type: Actual Obligation
Fin. Transaction Date: 03/26/2008
Financial Amount: 980.00000
Financial Year: 2008

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Financial Transaction ID: 0003
Transaction Type: Extramural Outlay (Payment)
Fin. Transaction Date: 04/22/2009
Financial Amount: 3999.00000
Financial Year: 2009

Financial Transaction ID: 0003
Transaction Type: Deobligation
Fin. Transaction Date: 04/22/2009
Financial Amount: 3999.00000
Financial Year: 2009

Financial Transaction ID: 0003
Transaction Type: Actual Obligation
Fin. Transaction Date: 04/22/2009
Financial Amount: 3999.00000
Financial Year: 2009

Action Code: 002
Action: FIVE-YEAR REVIEW
Date Started: 12/05/2005
Date Completed: 09/27/2006
Priority Level: Not reported
Operable Unit: PRP OS OF RD
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Federal Register Details:

Fed Register Date: 09/08/1983
Fed Register Volume: 48
Page Number: 40658

Fed Register Date: 12/30/1982
Fed Register Volume: 47
Page Number: 58476

RCRA-NonGen:

Date form received by agency: 09/19/2000
Facility name: G & H IND LANDFILL SUPERFUND SITE
Facility address: 3160 23 MILE RD
SHELBY TOWNSHIP, MI 48316
EPA ID: MID980410823
Contact: DAVID JAEGER
Contact address: 3160 23 MILE RD
SHELBY TOWNSHIP, MI 48316
Contact country: Not reported
Contact telephone: (810) 323-7937
Contact email: Not reported
EPA Region: 05
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Owner/Operator Summary:

Owner/operator name: NAME NOT REPORTED
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Owner/operator name: LEONARD FORSTER ESTATE (RICHARD SABLE)
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1901
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:

Date form received by agency: 09/17/1998
Facility name: G & H IND LANDFILL SUPERFUND SITE
Classification: Not a generator, verified

Date form received by agency: 07/16/1984
Facility name: G & H IND LANDFILL SUPERFUND SITE
Classification: Large Quantity Generator

Violation Status: No violations found

US ENG CONTROLS:

EPA ID: MID980410823
Site ID: 0502735
Name: G&H LANDFILL
Address: 3160 23 MILE RD
UTICA, MI 48316

EPA Region: 05
County: MACOMB
Event Code: Not reported
Actual Date: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 12/21/90
Planned Complet. date: / /
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Alternate Drinking Water, (N.O.S.)

Action ID: Q01
Action Name: RECORD OF DECISION
Action Completion date: 12/21/90
Planned Complet. date: / /
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Discharge

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 12/21/90
Planned Complet. date: / /
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Monitoring

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 12/21/90
Planned Complet. date: / /
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Other, (N.O.S.)

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 12/21/90
Planned Complet. date: / /
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Pump And Treat

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 12/21/90
Planned Complet. date: / /
Operable Unit: 01
Contaminated Media : Sediment
Engineering Control: Cap

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 12/21/90
Planned Complet. date: / /
Operable Unit: 01
Contaminated Media : Sediment
Engineering Control: Consolidate

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 12/21/90
Planned Complet. date: / /
Operable Unit: 01
Contaminated Media : Sediment
Engineering Control: Disposal

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 12/21/90
Planned Complet. date: / /
Operable Unit: 01
Contaminated Media : Sediment
Engineering Control: Excavation

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 12/21/90
Planned Complet. date: / /
Operable Unit: 01
Contaminated Media : Sediment
Engineering Control: Other, (N.O.S.)

Action ID: 001

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Action Name: RECORD OF DECISION
Action Completion date: 12/21/90
Planned Complet. date: / /
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Cap

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 12/21/90
Planned Complet. date: / /
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Consolidate

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 12/21/90
Planned Complet. date: / /
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Disposal

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 12/21/90
Planned Complet. date: / /
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Excavation

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 12/21/90
Planned Complet. date: / /
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Incineration

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 12/21/90
Planned Complet. date: / /
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Other, (N.O.S.)

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 12/21/90
Planned Complet. date: / /
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Vitrification

Action ID: 001
Action Name: RECORD OF DECISION

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Action Completion date: 12/21/90
Planned Complet. date: / /
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Wetlands Replacement

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 12/21/90
Planned Complet. date: / /
Operable Unit: 01
Contaminated Media : Solid Waste
Engineering Control: Cap

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 12/21/90
Planned Complet. date: / /
Operable Unit: 01
Contaminated Media : Solid Waste
Engineering Control: Incineration

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 12/21/90
Planned Complet. date: / /
Operable Unit: 01
Contaminated Media : Solid Waste
Engineering Control: Other, (N.O.S.)

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 12/21/90
Planned Complet. date: / /
Operable Unit: 01
Contaminated Media : Solid Waste
Engineering Control: Vitrification

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 12/21/90
Planned Complet. date: / /
Operable Unit: 01
Contaminated Media : Surface Water
Engineering Control: Monitoring

US INST CONTROL:

EPA ID: MID980410823
Site ID: 0502735
Name: G&H LANDFILL
Action Name: RECORD OF DECISION
Address: 3160 23 MILE RD
UTICA, MI 48316
EPA Region: 05
County: MACOMB
Event Code: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

Inst. Control: Institutional Controls, (N.O.S.)
Actual Date: Not reported
Comple. Date: 12/21/90
Operable Unit: 01
Contaminated Media : Sediment

EPA ID: MID980410823
Site ID: 0502735
Name: G&H LANDFILL
Action Name: RECORD OF DECISION
Address: 3160 23 MILE RD
UTICA, MI 48316

EPA Region: 05
County: MACOMB
Event Code: Not reported
Inst. Control: Institutional Controls, (N.O.S.)
Actual Date: Not reported
Comple. Date: 12/21/90
Operable Unit: 01
Contaminated Media : Soil

EPA ID: MID980410823
Site ID: 0502735
Name: G&H LANDFILL
Action Name: RECORD OF DECISION
Address: 3160 23 MILE RD
UTICA, MI 48316

EPA Region: 05
County: MACOMB
Event Code: Not reported
Inst. Control: Institutional Controls, (N.O.S.)
Actual Date: Not reported
Comple. Date: 12/21/90
Operable Unit: 01
Contaminated Media : Solid Waste

EPA ID: MID980410823
Site ID: 0502735
Name: G&H LANDFILL
Action Name: RECORD OF DECISION
Address: 3160 23 MILE RD
UTICA, MI 48316

EPA Region: 05
County: MACOMB
Event Code: Not reported
Inst. Control: Institutional Controls, (N.O.S.)
Actual Date: Not reported
Comple. Date: 12/21/90
Operable Unit: 01
Contaminated Media : Surface Water

CONSENT:

EPA ID: MID980410823
Site ID: Not reported
Case Title: U.S. V. BROWNING-FERRIS INDUSTRIES, INC., ET AL. (BFI - G & H
LANDFILL)
Court Num: 92-75460

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

District: Michigan, East
Entered Date: 19930630
Full-text of the consent decree for this site issued by the United States District Court is available from EDR. Contact your EDR Account Executive.

ROD: Full-text of USEPA Record of Decision(s) is available from EDR.

PADS:
EPAID: MID980410823
Facility name: G&H LANDFILL
Facility Address: 3160 23-MILE ROAD
MACOMB COUNTY, MI 48316
Facility country: US
Generator: No
Storer: No
Transporter: Yes
Disposer: No
Research facility: No
Smelter: No
Facility owner name: ESTATE OF LEONARD FORSTER
Contact title: Not reported
Contact name: TURCHAN, GLENN
Contact tel: (313)942-0909
Contact extension: Not reported
Mailing address: 3160 23 MILE ROAD
MACOMB COUNTY, MI 48316
Mailing country: US
Cert. title: Not reported
Cert. name: Not reported
Cert. date: 1/3/1997
Date received: 2/28/1997

FINDS:

Registry ID: 110009292069

Environmental Interest/Information System

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

CERCLIS (Comprehensive Environmental Response, Compensation, and Liability Information System) is the Superfund database that is used to support management in all phases of the Superfund program. The system contains information on all aspects of hazardous waste sites, including an inventory of sites, planned and actual site activities, and financial information.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number
EPA ID Number

G&H LANDFILL (Continued)

1000116550

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

PCS (Permit Compliance System) is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

A1
West
1/8-1/4
0.210 mi.
1107 ft.

AVON BROACH & PROD. CO
1089 JOHN R RD
ROCHESTER HILLS, MI 48307

Site 1 of 2 in cluster A

UST U003867675
N/A

Relative:
Higher

UST:

Actual:
769 ft.

Facility ID: 00018795
Facility Type: CLOSED
Latitude: 42.6651120000
Longitude: -83.1127810000
Owner Name: Avon Broach & Prod. Co
Owner Address: 1089 John R Rd
Owner City,St,Zip: Rochester Hills, MI 48307-3207
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (313) 689-0800
Contact: THOMAS KLEIN
Contact Phone: (313) 689-0800
Date of Collection: 01-11-2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number

Tank ID: 1
Tank Status: Removed from Ground
Capacity: 500
Install Date: Apr 16 1979
Product: Gasoline
Remove Date: Dec 5 1991
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Galvanized Steel

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AVON BROACH & PROD. CO (Continued)

U003867675

Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

A2
West
1/8-1/4
0.210 mi.
1107 ft.

AVON BROACH & PROD. CO
1089 JOHN R RD
ROCHESTER HILLS, MI 48307

LUST S105551205
N/A

Site 2 of 2 in cluster A

Relative:
Higher

LUST:

Facility ID: 00018795
Source: STATE OF MICHIGAN
Owner Name: Avon Broach & Prod. Co
Owner Address: 1089 John R Rd
Owner City,St,Zip: Rochester Hills, MI 48307-3207
Owner Contact: Not reported
Owner Phone: (313) 689-0800
Country: USA
District: SE Michigan District Office
Site Name: Avon Broach & Products Co. 1089
Latitude: 42.6651120000
Longitude: -83.1127810000
Date of Collection: 01-11-2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Actual:
769 ft.

Leak Number: C-0137-92
Release Date: Jan 7 1992
Substance Released: Unknown
Release Status: Closed
Release Closed Date: Jul 14 1993

3
West
1/8-1/4
0.213 mi.
1125 ft.

AVON COUNTRY MARKET
990 JOHN R RD
ROCHESTER HILLS, MI 48307

RCRA-NonGen 1001220226
FINDS MIR000032227
BEA

Relative:
Higher

RCRA-NonGen:

Date form received by agency: 07/15/2005
Facility name: AVON COUNTRY MARKET
Facility address: 990 JOHN R RD
ROCHESTER HILLS, MI 48307
EPA ID: MIR000032227
Contact: PAUL ESSA
Contact address: 990 JOHN R RD
ROCHESTER HILLS, MI 48307
Contact country: Not reported
Contact telephone: (810) 656-2500
Contact email: Not reported
EPA Region: 05
Classification: Non-Generator

Actual:
773 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AVON COUNTRY MARKET (Continued)

1001220226

Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 07/16/2005
Owner/Op end date: Not reported

Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 07/16/2005
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AVON COUNTRY MARKET (Continued)

1001220226

Generated waste on-site: No

Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:

Date form received by agency: 05/12/1998
Facility name: AVON COUNTRY MARKET
Classification: Small Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110009395305

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

BEA:

Secondary Address: Not reported
BEA Number: 1123
District: Southeast MI
Date Received: 4/19/2000
Submitter Name: CITY OF ROCHESTER HILLS
Petition Determination: No Request
Petition Disclosure: 0
Category: No Hazardous Substance(s)
Determination 20107A: No Request
Reviewer: temppm
Division Assigned: Storage Tank Division

B4
SE
1/4-1/2
0.368 mi.
1941 ft.

SOUTHEASTERN OAKLAND CO INCIN AUTH CLOSE
1741 SCHOOL RD
ROCHESTER, MI 48863

CERC-NFRAP 1003871832
MID981190085

Site 1 of 3 in cluster B

Relative:
Lower

CERC-NFRAP:
Site ID: 0503548
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL

Actual:
725 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SOUTHEASTERN OAKLAND CO INCIN AUTH CLOSE (Continued)

1003871832

Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

Program Priority:
Description: Great Lakes

CERCLIS-NFRAP Assessment History:

Action: DISCOVERY
Date Started: Not reported
Date Completed: 12/31/1985
Priority Level: Not reported

Action: ARCHIVE SITE
Date Started: Not reported
Date Completed: 11/25/1987
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT
Date Started: Not reported
Date Completed: 11/25/1987
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

B5
SE
1/4-1/2
0.368 mi.
1941 ft.
SOCRRA LANDFILL
1741 SCHOOL ROAD
ROCHESTER HILLS, MI 48307
Site 2 of 3 in cluster B

HIST LF S104235568
N/A

Relative:
Lower

Actual:
725 ft.

Historical LF:
Facility ID: 63-000044
Status: INACTIVE
Contact: Mike Czaprenski
Facility Phone: 2488677791
Facility Fax: Not reported
Facility Type: Not reported
Facility Email: Not reported
Facility is Open: Not reported
Facility Type: Not reported
Facility Contact: Not reported
County Code: Not reported
Facility Number: Not reported
Staff: VRGLEB
Active: False
Permit Date: Not reported
Permit Number: 0
License Date: 09/11/1998
License No: 8555
No Waste: Not reported
Enforcement: Not reported
Exp Letters: F
Operator Name: SOCRRA
Operator Contact: Not reported
Operator Address: 3910 W. Webster Road
Operator City,St,Zip: Royal Oak, MI 48073-6764
Operator Telephone: 2482885150
Operator Fax: Not reported
Operator Email: Not reported
Owner Name: SOCRRA

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SOCRRA LANDFILL (Continued)

S104235568

Owner Contact: Tom Waffan
Attention: Not reported
Owner Address: 3910 W. Webster Road
Owner City,St,Zip: Royal Oak, MI 48073-6764
Owner Telephone: (248) 288-5150
Owner Fax: (248) 435-0310
Owner Email: Not reported
District: Not reported
Section: Not reported
Permit Applicant: Not reported
Permit Applicant Contact: Not reported
Permit Applicant Address: Not reported
Permit Applicant City,St,Zip: Not reported
Permit Applicant Phone: Not reported
Application Type: Not reported
Liner Information: Not reported
Nature of Wastes Allowed: Not reported
Township: Not reported
Section Number: Not reported
Township Section: Not reported
District: Not reported
Business Type: Not reported
County Description: Not reported
County 2 Description: Not reported
Liner Type: Not reported
Reported Date: Not reported
Amount: Not reported
Financial Instrument: Not reported
Fund Type: Not reported
Issued Date: Not reported
Expires: Not reported
Expiry: Not reported
Licensed: Not reported
Comments: Signed original RCD in Syed's file.
Date of Expiry of Current License: Not reported
Acreage Currently Licensed: Not reported
Acres Certified Closed: Not reported
Issue of 1st Construction Permit Date: Not reported
Acres Given in 1st Construction Permit: Not reported
Issue of 2nd Construction Permit Date: Not reported
Acres Given in 2nd Construction Permit: Not reported
Issue of 3rd Construction Permit Date: Not reported
Acres Given in 3rd Construction Permit: Not reported
Restrictive Deed Covenant Filed: Not reported
Perpetual Care Fund Type: Not reported
Perpetual Care Fund Signed: Not reported
Perpetual Care Fund Agreement Signed: Not reported
Groundwater Monitoring System Exists: Not reported
Date landfill Certified Closed: Not reported
Received Waste on or After Oct. 9, 1991: Not reported
Site Monitorable Under Definition of New Rules: Not reported

Facility ID: 63-000044
Status: INACTIVE
Contact: Mike Czuprenski
Facility Phone: 2488677791
Facility Fax: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SOCRRA LANDFILL (Continued)

S104235568

Facility Type: Not reported
Facility Email: Not reported
Facility is Open: Not reported
Facility Type: Not reported
Facility Contact: Not reported
County Code: Not reported
Facility Number: Not reported
Staff: VRGLEB
Active: False
Permit Date: Not reported
Permit Number: 0
License Date: 09/11/1998
License No: 8555
No Waste: Not reported
Enforcement: Not reported
Exp Letters: F
Operator Name: SOCRRA
Operator Contact: Mike Czuprenski
Operator Address: 3910 W. Webster Road
Operator City,St,Zip: Royal Oak, MI 48073-6764
Operator Telephone: 2482885150
Operator Fax: Not reported
Operator Email: Not reported
Owner Name: SOCRRA
Owner Contact: Tom Waffan
Attention: Not reported
Owner Address: 3910 W. Webster Road
Owner City,St,Zip: Royal Oak, MI 48073-6764
Owner Telephone: (248) 288-5150
Owner Fax: (248) 435-0310
Owner Email: Not reported
District: Not reported
Section: Not reported
Permit Applicant: Not reported
Permit Applicant Contact: Not reported
Permit Applicant Address: Not reported
Permit Applicant City,St,Zip: Not reported
Permit Applicant Phone: Not reported
Application Type: Not reported
Liner Information: Not reported
Nature of Wastes Allowed: Not reported
Township: Not reported
Section Number: Not reported
Township Section: Not reported
District: Not reported
Business Type: Not reported
County Description: Not reported
County 2 Description: Not reported
Liner Type: Not reported
Reported Date: Not reported
Amount: Not reported
Financial Instrument: Not reported
Fund Type: Not reported
Issued Date: Not reported
Expires: Not reported
Expiry: Not reported
Licensed: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SOCRRA LANDFILL (Continued)

S104235568

Comments: Signed original RCD in Syed's file.
Date of Expiry of Current License: Not reported
Acreage Currently Licensed: Not reported
Acres Certified Closed: Not reported
Issue of 1st Construction Permit Date: Not reported
Acres Given in 1st Construction Permit: Not reported
Issue of 2nd Construction Permit Date: Not reported
Acres Given in 2nd Construction Permit: Not reported
Issue of 3rd Construction Permit Date: Not reported
Acres Given in 3rd Construction Permit: Not reported
Restrictive Deed Covenant Filed: Not reported
Perpetual Care Fund Type: Not reported
Perpetual Care Fund Signed: Not reported
Perpetual Care Fund Agreement Signed: Not reported
Groundwater Monitoring System Exists: Not reported
Date landfill Certified Closed: Not reported
Received Waste on or After Oct. 9, 1991: Not reported
Site Monitorable Under Definition of New Rules: Not reported

Facility ID: 63-000044
Status: INACTIVE
Contact: Mike Czuprenski
Facility Phone: 2488677791
Facility Fax: Not reported
Facility Type: Not reported
Facility Email: Not reported
Facility is Open: Not reported
Facility Type: Not reported
Facility Contact: Not reported
County Code: Not reported
Facility Number: Not reported
Staff: VRGLEB
Active: False
Permit Date: Not reported
Permit Number: 0
License Date: 09/11/1998
License No: 8555
No Waste: Not reported
Enforcement: Not reported
Exp Letters: F
Operator Name: SOCRRA
Operator Contact: Not reported
Operator Address: 3910 W. Webster Road
Operator City,St,Zip: Royal Oak, MI 48073-6764
Operator Telephone: 2482885150
Operator Fax: Not reported
Operator Email: Not reported
Owner Name: SOCRRA
Owner Contact: Tom Waffan
Attention: Not reported
Owner Address: 3910 W. Webster Road
Owner City,St,Zip: Royal Oak, MI 48073-6764
Owner Telephone: (248) 288-5150
Owner Fax: (248) 435-0310
Owner Email: Not reported
District: Not reported
Section: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SOCRRA LANDFILL (Continued)

S104235568

Permit Applicant: Not reported
Permit Applicant Contact: Not reported
Permit Applicant Address: Not reported
Permit Applicant City,St,Zip: Not reported
Permit Applicant Phone: Not reported
Application Type: Not reported
Liner Information: Not reported
Nature of Wastes Allowed: Not reported
Township: Not reported
Section Number: Not reported
Township Section: Not reported
District: Not reported
Business Type: Not reported
County Description: Not reported
County 2 Description: Not reported
Liner Type: Not reported
Reported Date: Not reported
Amount: Not reported
Financial Instrument: Not reported
Fund Type: Not reported
Issued Date: Not reported
Expires: Not reported
Expiry: Not reported
Licensed: Not reported
Comments: Signed original RCD in Syed's file.
Date of Expiry of Current License: Not reported
Acreage Currently Licensed: Not reported
Acres Certified Closed: Not reported
Issue of 1st Construction Permit Date: Not reported
Acres Given in 1st Construction Permit: Not reported
Issue of 2nd Construction Permit Date: Not reported
Acres Given in 2nd Construction Permit: Not reported
Issue of 3rd Construction Permit Date: Not reported
Acres Given in 3rd Construction Permit: Not reported
Restrictive Deed Covenant Filed: Not reported
Perpetual Care Fund Type: Not reported
Perpetual Care Fund Signed: Not reported
Perpetual Care Fund Agreement Signed: Not reported
Groundwater Monitoring System Exists: Not reported
Date landill Certified Closed: Not reported
Received Waste on or After Oct. 9, 1991: Not reported
Site Monitorable Under Definition of New Rules: Not reported

B6
SE
1/4-1/2
0.368 mi.
1941 ft.

SE OAKLAND CT RESOURCE RECOVERY
1741 SCHOOL RD
ROCHESTER HILLS, MI 48073

Site 3 of 3 in cluster B

SWF/LF U000261913
LUST N/A
UST

FINANCIAL ASSURANCE

Relative:
Lower

SWF/LF:

Actual:
725 ft.

Facility ID: 453392
Specific Name: SOUTHEASTERN OAKLAND COUNTY (SOCCRA)
Mailing Address: 3910 W WEBSTER RD
Mailing City: ROYAL OAK
Mailing State: MI
Contact Info: MIKE CZUPRENSKI -- (248) 867-7791
Operating Co.: Not reported
Operator Contact: MIKE CZUPRENSKI -- (248) 288-5150

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)
EDR ID Number
EPA ID Number

SE OAKLAND CT RESOURCE RECOVERY (Continued)

U000261913

Disposal Status: Type II MSW Landfill
Disposal Type: Active - Closing

LUST:

Facility ID: 00014680
Source: STATE OF MICHIGAN
Owner Name: Se Oakland Ct Resource Recovery
Owner Address: 3910 W Webster Rd
Owner City,St,Zip: Royal Oak, MI 48073-6764
Owner Contact: Not reported
Owner Phone: (248) 288-5150
Country: USA
District: SE Michigan District Office
Site Name: Landfill/compost Facility
Latitude: 42.6606080000
Longitude: -83.0972470000
Date of Collection: 01-11-2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-0187-97
Release Date: Apr 4 1997
Substance Released: Diesel,Unknown
Release Status: Closed
Release Closed Date: Apr 9 1998

UST:

Facility ID: 00014680
Facility Type: CLOSED
Latitude: 42.6606080000
Longitude: -83.0972470000
Owner Name: Se Oakland Ct Resource Recovery
Owner Address: 3910 W Webster Rd
Owner City,St,Zip: Royal Oak, MI 48073-6764
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (248) 288-5150
Contact: MICHAEL A CZUPRENSKI
Contact Phone: (248) 288-5150
Date of Collection: 01-11-2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number

Tank ID: 1
Tank Status: Removed from Ground
Capacity: 2000
Install Date: Feb 28 1966
Product: Diesel

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SE OAKLAND CT RESOURCE RECOVERY (Continued)

U000261913

Remove Date: Mar 26 1997
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Constr Material: Unknown
Impressed Device: No

Tank ID: 2
Tank Status: Removed from Ground
Capacity: 1000
Install Date: Not reported
Product: Not reported
Remove Date: Apr 16 1998
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

FINANCIAL ASSURANCE 2:

Region: 2
Site ID: 453392
PCFT Type: Not reported
Contact Info: SOUTHEAST MICHIGAN
Account Number: Not reported
Date Signed by Facility: Not reported
Date Executed by DEQ: Not reported
Current Balance: 620000
Current Balance Date: 6/21/2002
PCFT Status Type: Expired
Specific Name: SOUTHEASTERN OAKLAND COUNTY (SOCCRA)
Project Number: Not reported
Original Balance Date: 1/1/1970
Original Balance: 620000
Regulatory Program: Surety Bond
Notes: 1/1/1970 - Continuous. PCF has zero balance as the bank's administrative fees and previous SWF assesments have deleted the account. No more SWF invoices will be forwarded to the facility. (WRW; 11/26/01.

Region: 2
Site ID: 453392
PCFT Type: Not reported
Contact Info: SOUTHEAST MICHIGAN
Account Number: Not reported
Date Signed by Facility: Not reported
Date Executed by DEQ: Not reported
Current Balance: 600000
Current Balance Date: 9/3/1998
PCFT Status Type: Expired
Specific Name: SOUTHEASTERN OAKLAND COUNTY (SOCCRA)
Project Number: Not reported
Original Balance Date: 9/3/1998
Original Balance: 600000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SE OAKLAND CT RESOURCE RECOVERY (Continued)

U000261913

Regulatory Program: Surety Bond

Notes: 6/8/2005 - Continuous bond - WDS won't allow continuous box to be checked when bond is a surety bond.

7
NE
1/2-1
0.652 mi.
3441 ft.

YATES CIDER MILL
1990 E. AVON ROAD
ROCHESTER HILLS, MI

DEL SHWS S108633154
N/A

Relative:
Lower

DELETED HWS:

Facility ID: 50000900

Status: Deleted - available documentation does not support listing

Actual:
694 ft.

8
South
1/2-1
0.700 mi.
3696 ft.

STANS TRUCKING LF
1131 E. HAMLIN ROAD
ROCHESTER HILLS, MI 48063

SHWS S106131746
N/A

Relative:
Lower

SHWS:

Facility ID: 63000062

Facility Status: Remedial Action in Progress (may incl. use restrictions, O&M and/or monitoring)

Actual:
738 ft.

Source: Refuse Systems

SAM Score: 29

SAM Score Date: 2/24/2004

Township: 03N

Range: 11E

Section: 24

Quarter: SW

Quarter/Quarter: Not reported

Pollutants: Pb

C9
SSE
1/2-1
0.805 mi.
4251 ft.

KINGSTON DEVELOPMENT
1805 HAMLIN RD
ROCHESTER HILLS, MI 48063

SHWS S103085460
N/A

Site 1 of 2 in cluster C

Relative:
Lower

SHWS:

Facility ID: 63000034

Facility Status: Inactive - no actions taken to address contamination

Actual:
719 ft.

Source: Refuse Systems

SAM Score: 17

SAM Score Date: 1/22/2004

Township: 03N

Range: 11E

Section: 24

Quarter: SE

Quarter/Quarter: SW

Pollutants: Acetone; Ni; Toluene

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s) EDR ID Number
 EPA ID Number

C10 **SANDFILL LF NO 1**
SE **1843 HAMLIN RD**
1/2-1 **ROCHESTER HILLS, MI 48087**
0.825 mi.
4357 ft. **Site 2 of 2 in cluster C**

SHWS **S103085478**
 N/A

Relative: **SHWS:**
Lower Facility ID: 63000058
 Facility Status: Inactive - no actions taken to address contamination
Actual: Source: Refuse Systems
717 ft. SAM Score: 34
 SAM Score Date: 2/19/2004
 Township: 03N
 Range: 11E
 Section: 24
 Quarter: SE
 Quarter/Quarter: SE
 Pollutants: Heavy mfg

11 **SANDFILL LF NO 2**
SE **1911 HAMLIN RD**
1/2-1 **ROCHESTER HILLS, MI 48024**
0.861 mi.
4548 ft.

SHWS **S103594507**
 N/A

Relative: **SHWS:**
Lower Facility ID: 63000059
 Facility Status: Interim Response in progress
Actual: Source: Refuse Systems
719 ft. SAM Score: 37
 SAM Score Date: 3/16/2004
 Township: 03N
 Range: 11E
 Section: 24
 Quarter: SE
 Quarter/Quarter: SE
 Pollutants: Domestic comm; Industrial waste

Count: 1 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
UTICA	S103594483	SPRING LAKE SUBDIVISION	51438 SANDSHORES DR	48316	SHWS, BROWNFIELDS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/31/2010	Source: EPA
Date Data Arrived at EDR: 01/13/2011	Telephone: N/A
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 01/13/2011
Number of Days to Update: 15	Next Scheduled EDR Contact: 04/25/2011
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 10
Telephone 206-553-8665

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/31/2010	Source: EPA
Date Data Arrived at EDR: 01/13/2011	Telephone: N/A
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 01/13/2011
Number of Days to Update: 15	Next Scheduled EDR Contact: 04/25/2011
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 02/14/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 05/30/2011
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/31/2010	Source: EPA
Date Data Arrived at EDR: 01/13/2011	Telephone: N/A
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 01/13/2011
Number of Days to Update: 15	Next Scheduled EDR Contact: 04/25/2011
	Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 11/30/2010	Source: EPA
Date Data Arrived at EDR: 12/30/2010	Telephone: 703-412-9810
Date Made Active in Reports: 02/25/2011	Last EDR Contact: 03/01/2011
Number of Days to Update: 57	Next Scheduled EDR Contact: 06/13/2011
	Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA's Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 12/10/2010	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/11/2011	Telephone: 703-603-8704
Date Made Active in Reports: 02/16/2011	Last EDR Contact: 01/11/2011
Number of Days to Update: 36	Next Scheduled EDR Contact: 04/25/2011
	Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/28/2010	Source: EPA
Date Data Arrived at EDR: 12/01/2010	Telephone: 703-412-9810
Date Made Active in Reports: 02/25/2011	Last EDR Contact: 03/01/2011
Number of Days to Update: 86	Next Scheduled EDR Contact: 06/13/2011
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/25/2010
Date Data Arrived at EDR: 06/02/2010
Date Made Active in Reports: 10/04/2010
Number of Days to Update: 124

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/14/2011
Next Scheduled EDR Contact: 05/30/2011
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 02/17/2010
Date Data Arrived at EDR: 02/19/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 01/06/2011
Next Scheduled EDR Contact: 04/18/2011
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 02/17/2010
Date Data Arrived at EDR: 02/19/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 01/06/2011
Next Scheduled EDR Contact: 04/18/2011
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 02/17/2010
Date Data Arrived at EDR: 02/19/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 01/06/2011
Next Scheduled EDR Contact: 04/18/2011
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 02/17/2010
Date Data Arrived at EDR: 02/19/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 01/06/2011
Next Scheduled EDR Contact: 04/18/2011
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 01/05/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/14/2011	Telephone: 703-603-0695
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 03/14/2011
Number of Days to Update: 14	Next Scheduled EDR Contact: 06/27/2011
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/05/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/14/2011	Telephone: 703-603-0695
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 03/14/2011
Number of Days to Update: 14	Next Scheduled EDR Contact: 06/27/2011
	Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 07/09/2010	Source: National Response Center, United States Coast Guard
Date Data Arrived at EDR: 07/09/2010	Telephone: 202-267-2180
Date Made Active in Reports: 08/17/2010	Last EDR Contact: 01/07/2011
Number of Days to Update: 39	Next Scheduled EDR Contact: 04/18/2011
	Data Release Frequency: Annually

State- and tribal - equivalent CERCLIS

SHWS: Contaminated Sites

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 01/30/2011	Source: Department of Natural Resources & Environment
Date Data Arrived at EDR: 02/03/2011	Telephone: 517-373-9541
Date Made Active in Reports: 02/14/2011	Last EDR Contact: 02/03/2011
Number of Days to Update: 11	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Semi-Annually

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Facilities Database

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/05/2011
Date Data Arrived at EDR: 01/07/2011
Date Made Active in Reports: 02/14/2011
Number of Days to Update: 38

Source: Department of Natural Resources & Environment
Telephone: 517-335-4035
Last EDR Contact: 01/03/2011
Next Scheduled EDR Contact: 04/18/2011
Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank Sites

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 11/19/2010
Date Data Arrived at EDR: 11/23/2010
Date Made Active in Reports: 12/23/2010
Number of Days to Update: 30

Source: Department of Natural Resources & Environment
Telephone: 517-373-9837
Last EDR Contact: 02/23/2011
Next Scheduled EDR Contact: 06/06/2011
Data Release Frequency: Annually

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 11/04/2009
Date Data Arrived at EDR: 05/04/2010
Date Made Active in Reports: 07/07/2010
Number of Days to Update: 64

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 05/04/2010
Next Scheduled EDR Contact: 05/16/2011
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 11/04/2010
Date Data Arrived at EDR: 11/05/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 84

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/31/2011
Next Scheduled EDR Contact: 05/16/2011
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 09/01/2010
Date Data Arrived at EDR: 11/05/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 84

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 02/03/2011
Next Scheduled EDR Contact: 05/16/2011
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/12/2010
Date Data Arrived at EDR: 11/12/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 77

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/31/2011
Next Scheduled EDR Contact: 05/16/2011
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 11/19/2010
Date Data Arrived at EDR: 11/19/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 70

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/31/2011
Next Scheduled EDR Contact: 05/16/2011
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 08/27/2010	Source: EPA Region 4
Date Data Arrived at EDR: 08/30/2010	Telephone: 404-562-8677
Date Made Active in Reports: 10/04/2010	Last EDR Contact: 02/16/2011
Number of Days to Update: 35	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Semi-Annually

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 11/16/2010	Source: EPA Region 8
Date Data Arrived at EDR: 11/19/2010	Telephone: 303-312-6271
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 01/31/2011
Number of Days to Update: 70	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Quarterly

State and tribal registered storage tank lists

UST: Underground Storage Tank Facility List
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 11/19/2010	Source: Department of Natural Resources & Environment
Date Data Arrived at EDR: 11/23/2010	Telephone: 517-335-4035
Date Made Active in Reports: 01/20/2011	Last EDR Contact: 02/23/2011
Number of Days to Update: 58	Next Scheduled EDR Contact: 06/06/2011
	Data Release Frequency: Annually

AST: Aboveground Tanks
Registered Aboveground Storage Tanks.

Date of Government Version: 12/16/2010	Source: Department of Natural Resources & Environment
Date Data Arrived at EDR: 12/29/2010	Telephone: 517-373-8168
Date Made Active in Reports: 02/10/2011	Last EDR Contact: 02/18/2011
Number of Days to Update: 43	Next Scheduled EDR Contact: 06/06/2011
	Data Release Frequency: No Update Planned

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 11/10/2010	Source: EPA Region 6
Date Data Arrived at EDR: 12/01/2010	Telephone: 214-665-7591
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 01/31/2011
Number of Days to Update: 58	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 02/11/2010	Source: EPA Region 5
Date Data Arrived at EDR: 02/11/2010	Telephone: 312-886-6136
Date Made Active in Reports: 04/12/2010	Last EDR Contact: 01/31/2011
Number of Days to Update: 60	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 08/27/2010	Source: EPA Region 4
Date Data Arrived at EDR: 08/30/2010	Telephone: 404-562-9424
Date Made Active in Reports: 10/04/2010	Last EDR Contact: 02/16/2011
Number of Days to Update: 35	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Semi-Annually

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 11/19/2010	Source: EPA Region 9
Date Data Arrived at EDR: 11/19/2010	Telephone: 415-972-3368
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 01/31/2011
Number of Days to Update: 70	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 11/16/2010	Source: EPA Region 8
Date Data Arrived at EDR: 11/19/2010	Telephone: 303-312-6137
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 01/31/2011
Number of Days to Update: 70	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 11/01/2010	Source: EPA Region 7
Date Data Arrived at EDR: 12/02/2010	Telephone: 913-551-7003
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 02/03/2011
Number of Days to Update: 57	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 11/12/2010	Source: EPA Region 10
Date Data Arrived at EDR: 11/12/2010	Telephone: 206-553-2857
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 01/31/2011
Number of Days to Update: 77	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 09/01/2010	Source: EPA, Region 1
Date Data Arrived at EDR: 11/05/2010	Telephone: 617-918-1313
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 02/03/2011
Number of Days to Update: 84	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010	Source: FEMA
Date Data Arrived at EDR: 02/16/2010	Telephone: 202-646-5797
Date Made Active in Reports: 04/12/2010	Last EDR Contact: 01/17/2011
Number of Days to Update: 55	Next Scheduled EDR Contact: 05/02/2011
	Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

AUL: Engineering and Institutional Controls

A listing of sites with institutional and/or engineering controls in place.

Date of Government Version: 01/06/2011	Source: Department of Natural Resources & Environment
Date Data Arrived at EDR: 01/07/2011	Telephone: 517-373-4828
Date Made Active in Reports: 02/14/2011	Last EDR Contact: 03/07/2011
Number of Days to Update: 38	Next Scheduled EDR Contact: 06/20/2011
	Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 04/02/2008	Source: EPA, Region 1
Date Data Arrived at EDR: 04/22/2008	Telephone: 617-918-1102
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 01/05/2010
Number of Days to Update: 27	Next Scheduled EDR Contact: 04/18/2011
	Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields and USTfield Site Database

All state funded Part 201 and 213 sites, as well as LUST sites that have been redeveloped by private entities using the BEA process. Be aware that this is not a list of all of the potential brownfield sites in Michigan.

Date of Government Version: 09/27/2010	Source: Department of Natural Resources & Environment
Date Data Arrived at EDR: 09/28/2010	Telephone: 517-373-4805
Date Made Active in Reports: 10/28/2010	Last EDR Contact: 02/28/2011
Number of Days to Update: 30	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Varies

BROWNFIELDS 2: Brownfields Building and Land Site Locations

A listing of brownfield building and land site locations. The listing is a collaborative effort of Michigan Economic Development Corporation, Michigan Economic Developers Association, Detroit Edison, Detroit Area Commercial Board of Realtors

Date of Government Version: 04/09/2007	Source: Economic Development Corporation
Date Data Arrived at EDR: 04/10/2007	Telephone: 888-522-0103
Date Made Active in Reports: 05/01/2007	Last EDR Contact: 03/07/2011
Number of Days to Update: 21	Next Scheduled EDR Contact: 06/20/2011
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 06/24/2010
Date Data Arrived at EDR: 06/25/2010
Date Made Active in Reports: 08/17/2010
Number of Days to Update: 53

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/30/2010
Next Scheduled EDR Contact: 04/11/2011
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 12/22/2010
Next Scheduled EDR Contact: 04/11/2011
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 08/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWRCY: Recycling Facilities

A listing of recycling center locations.

Date of Government Version: 11/24/2009
Date Data Arrived at EDR: 09/30/2010
Date Made Active in Reports: 10/28/2010
Number of Days to Update: 28

Source: Department of Natural Resources & Environment
Telephone: 517-241-5719
Last EDR Contact: 01/07/2011
Next Scheduled EDR Contact: 04/18/2011
Data Release Frequency: Varies

HIST LF: Inactive Solid Waste Facilities

The database contains historical information and is no longer updated.

Date of Government Version: 03/01/1997
Date Data Arrived at EDR: 02/28/2003
Date Made Active in Reports: 03/06/2003
Number of Days to Update: 6

Source: Department of Natural Resources & Environment
Telephone: 517-335-4034
Last EDR Contact: 02/28/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/03/2007	Telephone: 703-308-8245
Date Made Active in Reports: 01/24/2008	Last EDR Contact: 02/08/2011
Number of Days to Update: 52	Next Scheduled EDR Contact: 05/23/2011
	Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 12/03/2010	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 12/30/2010	Telephone: 202-307-1000
Date Made Active in Reports: 02/16/2011	Last EDR Contact: 03/08/2011
Number of Days to Update: 48	Next Scheduled EDR Contact: 06/20/2011
	Data Release Frequency: Quarterly

DEL SHWS: Delisted List of Contaminated Sites

Sites that have been delisted or deleted from the List of Contaminated Sites. The available documentation for the site does not support its listing or the site no longer meets criteria specified in rules.

Date of Government Version: 02/03/2011	Source: Department of Natural Resources & Environment
Date Data Arrived at EDR: 02/03/2011	Telephone: 517-373-9541
Date Made Active in Reports: 02/14/2011	Last EDR Contact: 01/31/2011
Number of Days to Update: 11	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Varies

CDL: Clandestine Drug Lab Listing

A listing of clandestine drug lab locations.

Date of Government Version: 10/20/2008	Source: Department of Community Health
Date Data Arrived at EDR: 11/18/2008	Telephone: 517-373-3740
Date Made Active in Reports: 11/21/2008	Last EDR Contact: 02/01/2011
Number of Days to Update: 3	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 11/19/2008	Telephone: 202-307-1000
Date Made Active in Reports: 03/30/2009	Last EDR Contact: 03/23/2009
Number of Days to Update: 131	Next Scheduled EDR Contact: 06/22/2009
	Data Release Frequency: No Update Planned

Local Land Records

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LIENS 2: CERCLA Lien Information

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties:

Date of Government Version: 11/09/2010	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/16/2010	Telephone: 202-564-6023
Date Made Active in Reports: 02/16/2011	Last EDR Contact: 01/31/2011
Number of Days to Update: 92	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005	Source: Department of the Navy
Date Data Arrived at EDR: 12/11/2006	Telephone: 843-820-7326
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 02/22/2011
Number of Days to Update: 31	Next Scheduled EDR Contact: 06/06/2011
	Data Release Frequency: Varies

LIENS: Lien List

An Environmental Lien is a charge, security, or encumbrance upon title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of hazardous substances or petroleum products upon a property, including (but not limited to) liens imposed pursuant to CERCLA 42 USC * 9607(1) and similar state or local laws. In other words: a lien placed upon a property's title due to an environmental condition

Date of Government Version: 09/13/2010	Source: Department of Natural Resources & Environment
Date Data Arrived at EDR: 11/01/2010	Telephone: 517-373-9837
Date Made Active in Reports: 12/23/2010	Last EDR Contact: 01/28/2011
Number of Days to Update: 52	Next Scheduled EDR Contact: 05/09/2011
	Data Release Frequency: Varies

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2010	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 01/05/2011	Telephone: 202-366-4555
Date Made Active in Reports: 02/25/2011	Last EDR Contact: 01/05/2011
Number of Days to Update: 51	Next Scheduled EDR Contact: 04/18/2011
	Data Release Frequency: Annually

PEAS: Pollution Emergency Alerting System

Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents, pipeline breaks, and release of reportable quantities of hazardous substances.

Date of Government Version: 10/21/2010	Source: Department of Natural Resources & Environment
Date Data Arrived at EDR: 10/22/2010	Telephone: 517-373-8427
Date Made Active in Reports: 10/28/2010	Last EDR Contact: 12/13/2010
Number of Days to Update: 6	Next Scheduled EDR Contact: 03/28/2011
	Data Release Frequency: Quarterly

Other Ascertainable Records

RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/17/2010
Date Data Arrived at EDR: 02/19/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 01/06/2011
Next Scheduled EDR Contact: 04/18/2011
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 10/13/2010
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 02/11/2011
Next Scheduled EDR Contact: 05/23/2011
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 703-692-8801
Last EDR Contact: 01/21/2011
Next Scheduled EDR Contact: 05/02/2011
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 08/12/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 112

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 12/13/2010
Next Scheduled EDR Contact: 03/28/2011
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 10/01/2010
Date Data Arrived at EDR: 10/29/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 91

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/03/2011
Next Scheduled EDR Contact: 04/18/2011
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 02/03/2011
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 22

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 02/03/2011
Next Scheduled EDR Contact: 03/28/2011
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/21/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 99

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 03/04/2011
Next Scheduled EDR Contact: 06/13/2011
Data Release Frequency: Varies

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/04/2010
Date Data Arrived at EDR: 09/09/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 84

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 03/09/2011
Next Scheduled EDR Contact: 06/20/2011
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 01/13/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 36

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 03/01/2011
Next Scheduled EDR Contact: 06/13/2011
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 64

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/29/2010
Next Scheduled EDR Contact: 04/11/2011
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 02/28/2011
Next Scheduled EDR Contact: 06/13/2011
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 02/28/2011
Next Scheduled EDR Contact: 06/13/2011
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/31/2011
Next Scheduled EDR Contact: 05/16/2011
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 04/24/2010
Date Data Arrived at EDR: 04/29/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 18

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 12/23/2010
Next Scheduled EDR Contact: 04/11/2011
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/01/2010
Date Data Arrived at EDR: 11/10/2010
Date Made Active in Reports: 02/16/2011
Number of Days to Update: 98

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/21/2011
Next Scheduled EDR Contact: 05/02/2011
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/18/2010
Date Data Arrived at EDR: 04/06/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 51

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 12/13/2010
Next Scheduled EDR Contact: 03/28/2011
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/11/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/13/2011	Telephone: 202-343-9775
Date Made Active in Reports: 02/16/2011	Last EDR Contact: 01/13/2011
Number of Days to Update: 34	Next Scheduled EDR Contact: 04/25/2011
	Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/14/2010	Source: EPA
Date Data Arrived at EDR: 04/16/2010	Telephone: (312) 353-2000
Date Made Active in Reports: 05/27/2010	Last EDR Contact: 03/14/2011
Number of Days to Update: 41	Next Scheduled EDR Contact: 06/27/2011
	Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2007	Source: EPA/NTIS
Date Data Arrived at EDR: 02/25/2010	Telephone: 800-424-9346
Date Made Active in Reports: 05/12/2010	Last EDR Contact: 03/01/2011
Number of Days to Update: 76	Next Scheduled EDR Contact: 06/13/2011
	Data Release Frequency: Biennially

UIC: Underground Injection Wells Database

A listing of underground injection well locations. The UIC Program is responsible for regulating the construction, operation, permitting, and closure of injection wells that place fluids underground for storage or disposal.

Date of Government Version: 01/31/2011	Source: Department of Natural Resources & Environment
Date Data Arrived at EDR: 02/03/2011	Telephone: 517-241-1515
Date Made Active in Reports: 02/14/2011	Last EDR Contact: 01/31/2011
Number of Days to Update: 11	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Varies

WDS: Waste Data System

The Waste Data System (WDS) tracks activities at facilities regulated by the Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste programs.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/14/2011
Date Data Arrived at EDR: 01/14/2011
Date Made Active in Reports: 02/14/2011
Number of Days to Update: 31

Source: Department of Natural Resources & Environment
Telephone: 517-373-9875
Last EDR Contact: 03/01/2011
Next Scheduled EDR Contact: 06/13/2011
Data Release Frequency: Quarterly

DRYCLEANERS: Drycleaning Establishments
A listing of drycleaning facilities in Michigan.

Date of Government Version: 02/04/2011
Date Data Arrived at EDR: 02/04/2011
Date Made Active in Reports: 02/14/2011
Number of Days to Update: 10

Source: Department of Natural Resources & Environment
Telephone: 517-335-4586
Last EDR Contact: 01/24/2011
Next Scheduled EDR Contact: 05/09/2011
Data Release Frequency: Varies

NPDES: List of Active NPDES Permits

General information regarding NPDES (National Pollutant Discharge Elimination System) permits and NPDES Storm Water permits.

Date of Government Version: 01/11/2011
Date Data Arrived at EDR: 01/13/2011
Date Made Active in Reports: 02/14/2011
Number of Days to Update: 32

Source: Department of Natural Resources & Environment
Telephone: 517-241-1300
Last EDR Contact: 01/13/2011
Next Scheduled EDR Contact: 04/25/2011
Data Release Frequency: Varies

AIRS: Permit and Emissions Inventory Data
Permit and emissions inventory data.

Date of Government Version: 01/12/2011
Date Data Arrived at EDR: 01/14/2011
Date Made Active in Reports: 02/18/2011
Number of Days to Update: 35

Source: Department of Natural Resources & Environment
Telephone: 517-373-7074
Last EDR Contact: 09/29/2010
Next Scheduled EDR Contact: 04/11/2011
Data Release Frequency: Varies

BEA: BASELINE ENVIRONMENTAL ASSESSMENT DATABASE

A Baseline Environmental Assessment (BEA) allows people to purchase or begin operating at a facility without being held liable for existing contamination. BEAs are used to gather enough information about the property being transferred so that existing contamination can be distinguished from any new releases that might occur after the new owner or operator takes over the property.

Date of Government Version: 11/24/2010
Date Data Arrived at EDR: 11/30/2010
Date Made Active in Reports: 12/23/2010
Number of Days to Update: 23

Source: Department of Natural Resources & Environment
Telephone: 517-373-9541
Last EDR Contact: 02/22/2011
Next Scheduled EDR Contact: 06/06/2011
Data Release Frequency: Semi-Annually

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/21/2011
Next Scheduled EDR Contact: 05/02/2011
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/31/2010
Date Data Arrived at EDR: 09/01/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/22/2011
Next Scheduled EDR Contact: 05/09/2011
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 01/18/2011
Next Scheduled EDR Contact: 05/02/2011
Data Release Frequency: Varies

FINANCIAL ASSURANCE: Financial Assurance Information Listing

Financial assurance information.

Date of Government Version: 01/13/2011
Date Data Arrived at EDR: 01/20/2011
Date Made Active in Reports: 02/14/2011
Number of Days to Update: 25

Source: Department of Natural Resources & Environment
Telephone: 517-335-6610
Last EDR Contact: 01/10/2011
Next Scheduled EDR Contact: 04/25/2011
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/21/2011
Next Scheduled EDR Contact: 05/02/2011
Data Release Frequency: N/A

FINANCIAL ASSURANCE 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 01/05/2011
Date Data Arrived at EDR: 01/07/2011
Date Made Active in Reports: 02/14/2011
Number of Days to Update: 38

Source: Department of Natural Resources & Environment
Telephone: 517-335-4034
Last EDR Contact: 01/03/2011
Next Scheduled EDR Contact: 04/18/2011
Data Release Frequency: Varies

COAL ASH: Coal Ash Disposal Sites

Coal-fired power plants in Southeast Michigan that have coal ash handling on site.

Date of Government Version: 10/18/2010
Date Data Arrived at EDR: 10/19/2010
Date Made Active in Reports: 10/28/2010
Number of Days to Update: 9

Source: Department of Natural Resources & Environment
Telephone: 586-753-3754
Last EDR Contact: 01/10/2011
Next Scheduled EDR Contact: 04/25/2011
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/01/2008
Date Data Arrived at EDR: 02/18/2009
Date Made Active in Reports: 05/29/2009
Number of Days to Update: 100

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 02/04/2011
Next Scheduled EDR Contact: 05/16/2011
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 11/09/2009
Date Data Arrived at EDR: 12/18/2009
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 12/21/2010
Next Scheduled EDR Contact: 03/28/2011
Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Historical Auto Stations: EDR Proprietary Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Historical Cleaners: EDR Proprietary Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 08/26/2009
Date Made Active in Reports: 09/11/2009
Number of Days to Update: 16

Source: Department of Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 02/25/2011
Next Scheduled EDR Contact: 06/06/2011
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 07/22/2010
Date Made Active in Reports: 08/26/2010
Number of Days to Update: 35

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/21/2011
Next Scheduled EDR Contact: 05/02/2011
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 02/09/2011
Date Made Active in Reports: 03/04/2011
Number of Days to Update: 23

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 02/09/2011
Next Scheduled EDR Contact: 05/23/2011
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 12/01/2009
Date Made Active in Reports: 12/14/2009
Number of Days to Update: 13

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 02/18/2011
Next Scheduled EDR Contact: 06/06/2011
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 07/19/2010
Date Made Active in Reports: 08/26/2010
Number of Days to Update: 38

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/28/2011
Next Scheduled EDR Contact: 06/13/2011
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 07/06/2010
Date Made Active in Reports: 07/26/2010
Number of Days to Update: 20

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/16/2010
Next Scheduled EDR Contact: 04/04/2011
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data

Source: Rextag Strategies Corp.

Telephone: (281) 769-2247

U.S. Electric Transmission and Power Plants Systems Digital GIS Data

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Centers, Group & Family Homes

Source: Bureau of Regulatory Services

Telephone: 517-373-8300

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2009 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory

Source: Department of Natural Resources

Telephone: 517-241-2254

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

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GEOCHECK® - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

TREE FARM
1406 EAST AVON ROAD
ROCHESTER, MI 48307

TARGET PROPERTY COORDINATES

Latitude (North):	42.66710 - 42° 40' 1.6"
Longitude (West):	83.106 - 83° 6' 21.6"
Universal Transverse Mercator:	Zone 17
UTM X (Meters):	327411.6
UTM Y (Meters):	4725783.5
Elevation:	744 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	42083-F1 UTICA, MI
Most Recent Revision:	1983

West Map:	42083-F2 ROCHESTER, MI
Most Recent Revision:	1997

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

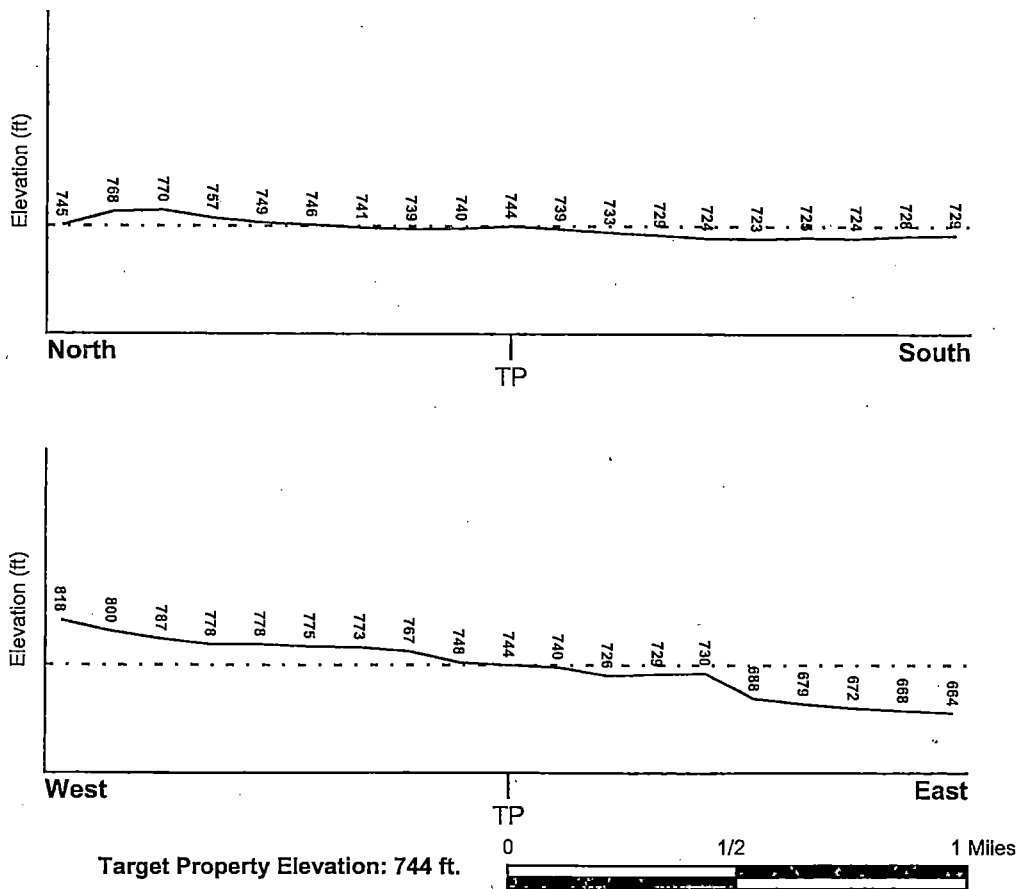
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General East

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Target Property County</u> OAKLAND, MI	<u>FEMA Flood Electronic Data</u> YES - refer to the Overview Map and Detail Map
Flood Plain Panel at Target Property:	26125C - FEMA DFIRM Flood data
Additional Panels in search area:	26099C - FEMA DFIRM Flood data

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u> UTICA	<u>NWI Electronic Data Coverage</u> YES - refer to the Overview Map and Detail Map
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HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Location Relative to TP:	1/2 - 1 Mile SSE
Site Name:	Stans Trucking Inc (Six Star Limited)
Site EPA ID Number:	MID006570105
Surficial Aquifer Flow Dir.:	PRIMARILY TO THE E, WITH NE AND SE COMPONENTS AT THE NORTHEAST CORNER AND SOUTHERN BOUNDARY OF THE SITE.
Measured Depth to Water:	30 feet.
Hydraulic Connection:	The surficial glacial drift aquifer is underlain by a clay deposit. The Clinton River is believed to create a hydraulic discontinuity. The depth to bedrock is 190 feet.
Sole Source Aquifer:	A sole source aquifer is not present at or near the site
Data Quality:	Information based on site-specific subsurface investigations is documented in the CERCLIS investigation report(s)

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

* ©1996 Site-specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

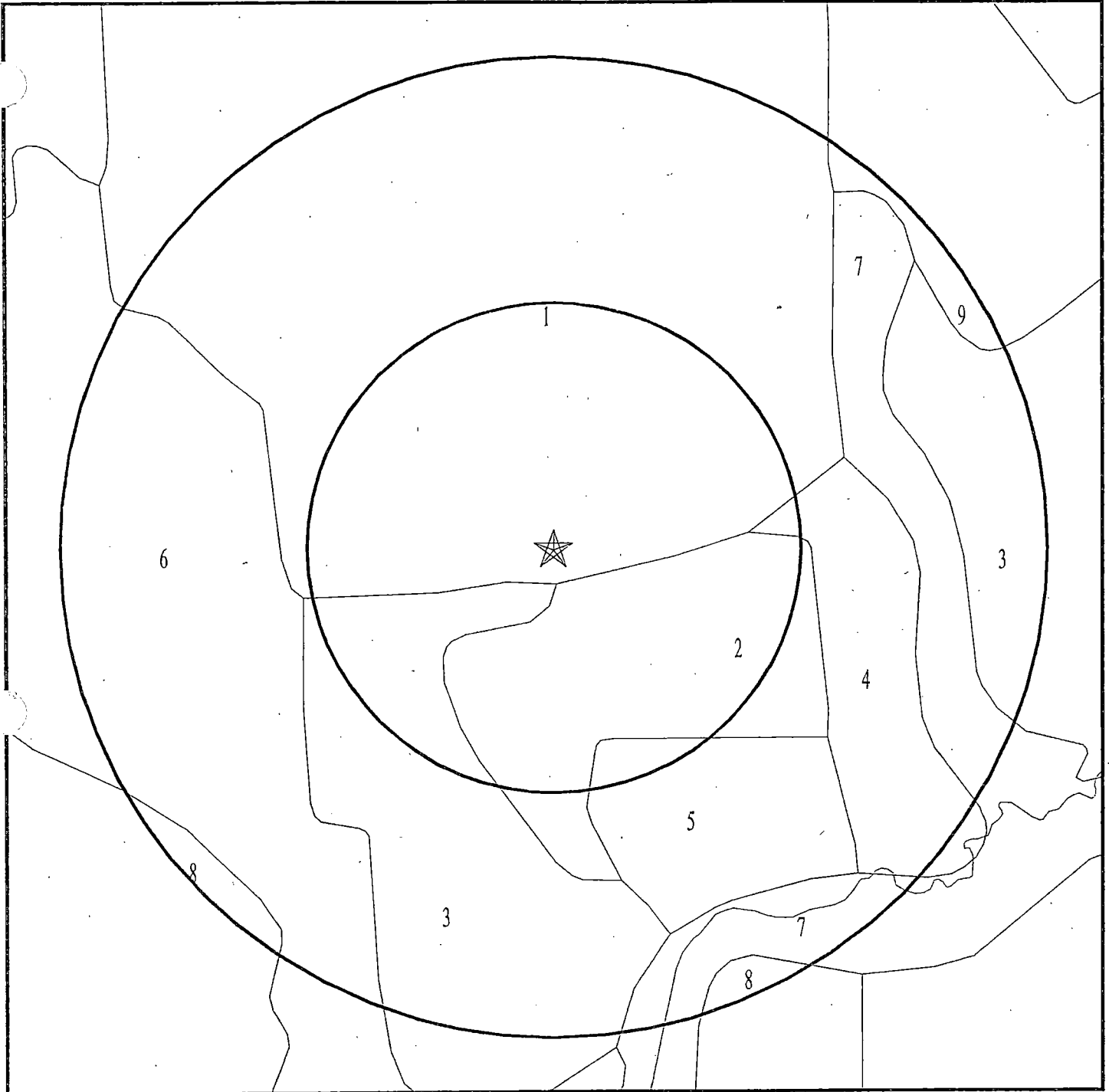
Era: Paleozoic
System: Mississippian
Series: Osagean and Kinderhookian Series
Code: M1 (*decoded above as Era, System & Series*)

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 3013112.2s



- ★ Target Property
- ∕ SSURGO Soil
- ∕ Water



SITE NAME: Tree Farm
ADDRESS: 1406 East Avon Road
Rochester MI 48307
LAT/LONG: 42.6671 / 83.1060

CLIENT: MDEQ/RRD/Superfund
CONTACT: Teresa Ducsay
INQUIRY #: 3013112.2s
DATE: March 14, 2011 10:56 am

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Urban land

Soil Surface Texture:
Hydrologic Group: Not reported

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 2

Soil Component Name: Aquents

Soil Surface Texture: variable

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Very poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	59 inches	variable	Not reported	Not reported	Max: Min:	Max: Min:

Soil Map ID: 3

Soil Component Name: Pits

Soil Surface Texture: variable

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 4

Soil Component Name: Riddles

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 8.4 Min: 7.4
2	7 inches	46 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 8.4 Min: 7.4
3	46 inches	59 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 8.4 Min: 7.4

Soil Map ID: 5

Soil Component Name: Udorthents

Soil Surface Texture: loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	0 inches	loam	Not reported	Not reported	Max: Min:	Max: Min:
2	0 inches	59 inches	variable	Not reported	Not reported	Max: Min:	Max: Min:

Soil Map ID: 6

Soil Component Name: Oakville

Soil Surface Texture: fine sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 137 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 5.6
2	7 inches	37 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 5.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
3	37 inches	59 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 5.6

Soil Map ID: 7

Soil Component Name: Sloan

Soil Surface Texture: silt loam

Hydrologic Group: Class B/D - Drained/undrained hydrology class of soils that can be drained and are classified.

Soil Drainage Class: Very poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 15 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	14 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 8.4 Min: 6.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
2	14 inches	35 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200); Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 8.4 Min: 6.6
3	35 inches	59 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 8.4 Min: 6.6

Soil Map ID: 8

Soil Component Name: Oshtemo

Soil Surface Texture: stratified sand to gravelly sand

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	55 inches	59 inches	stratified sand to gravelly sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 5.1
2	0 inches	7 inches	loamy sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 5.1
3	7 inches	18 inches	loamy sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 5.1
4	18 inches	40 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 5.1
5	40 inches	55 inches	loamy sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 5.1

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 9

Soil Component Name: Udipsamments

Soil Surface Texture: sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	59 inches	sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand.	Max: 141 Min: 42	Max: 6.5 Min: 5.1

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

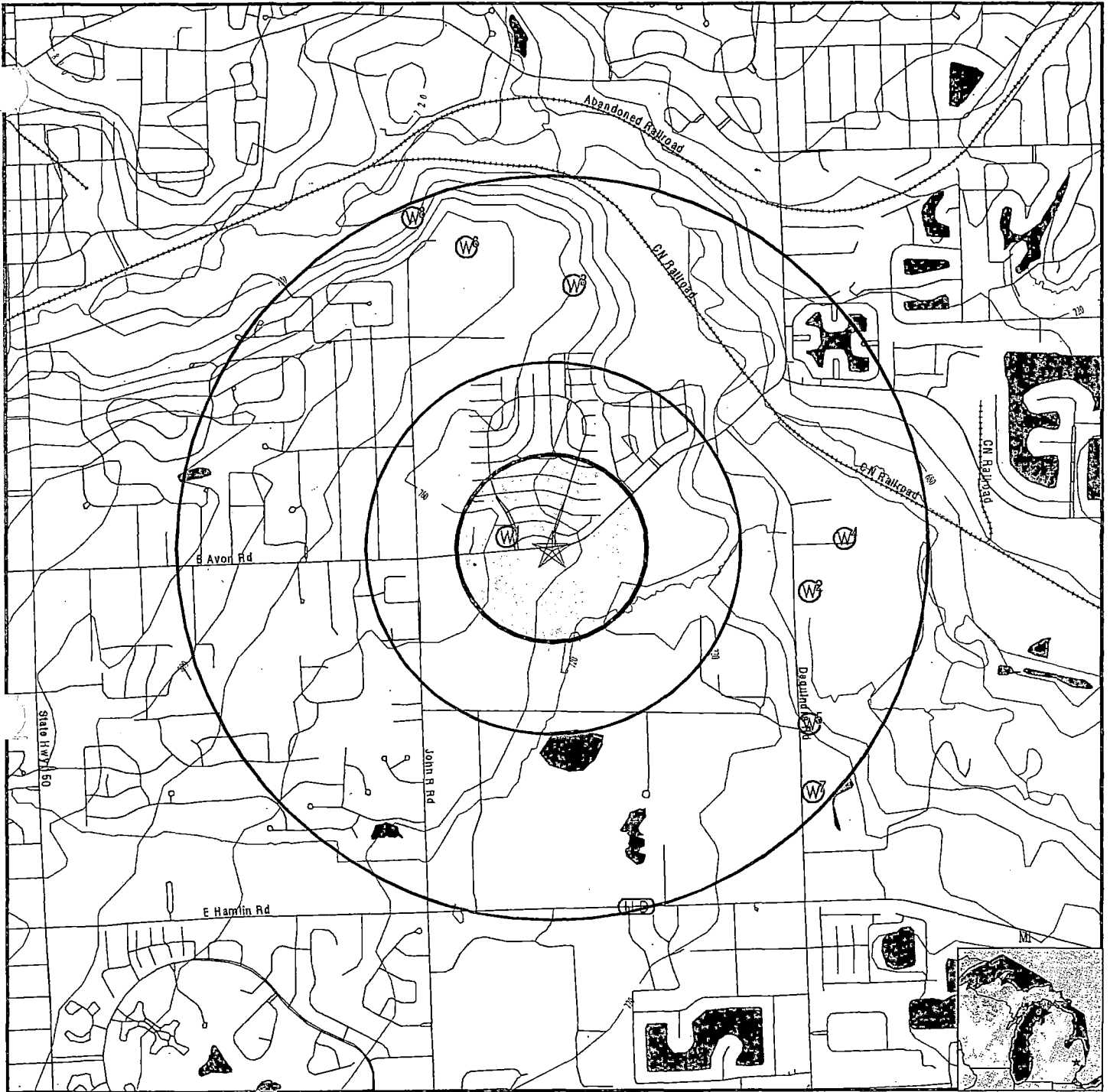
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	MI20256466	0 - 1/8 Mile WNW
2	MI20188546	1/2 - 1 Mile East
3	MI20256469	1/2 - 1 Mile North
4	MI20188545	1/2 - 1 Mile East
5	MI20188547	1/2 - 1 Mile SE
6	MI20256467	1/2 - 1 Mile NNW
7	MI20188548	1/2 - 1 Mile SE
8	MI20256468	1/2 - 1 Mile NNW

PHYSICAL SETTING SOURCE MAP - 3013112.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: Tree Farm
 ADDRESS: 1406 East Avon Road
 Rochester MI 48307
 LAT/LONG: 42.6671 / 83.1060

CLIENT: MDEQ/RRD/Superfund
 CONTACT: Teresa Ducsay
 INQUIRY #: 3013112.2s
 DATE: March 14, 2011 10:56 am

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

1
 WNW MI WELLS MI20256466
 0 - 1/8 Mile
 Higher

Wellid:	63000016282	Import id:	63038113401
County:	Oakland	Township:	Avon
Town range:	03N 11E	Section:	13
Owner name:	NOAH'S ARK		
Well addr:	1221 E AVON RD		
Well depth:	0		
Well type:	Type II public		
Wssn:	2147763		
Well num:	Not Reported	Driller id:	0
Const date:	Not Reported	Case type:	Unknown
Case dia:	-1		
Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	999.99		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.6675545537		
Longitude:	-83.1082999525		
Methd coll:	Interpolation-Map		
Elevation:	750		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Well Depth = 0
Elev flag:	Not Reported		
Swl flag:	SWL > Well Depth		
Elev dem:	748	Elev dif:	2
Elev miv:	750	Aq code:	Unknown Lithology
Aq flag:	Not Reported	Pct aq:	0
Pct aq d:	0	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-3
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

2
East
1/2 - 1 Mile
Lower

MI WELLS MI20188546

Wellid:	50000001265	Import id:	50038219002
County:	Macomb	Township:	Shelby
Town range:	03N 12E	Section:	19
Owner name:	DORIS EARL		
Well addr:	50580 DEQUINDRE		
Well depth:	106		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	323
Const date:	1971-07-14 00:00:00.000	Case type:	Unknown
Case dia:	4		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	106		
Screen frm:	103		
Screen to:	106		
Swl:	1		
Test depth:	65		
Test hours:	2.5		
Test rate:	4	Test methd:	Unknown
Grouted:	0	Pmp cpcity:	0
Latitude:	42.6654047252		
Longitude:	-83.0925613646		
Methd coll:	Interpolation-Map		
Elevation:	675		
Elev methd:	Topographic Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	672	Elev dif:	3
Elev niv:	675	Aq code:	Drift Well
Aq flag:	Not Reported	Pct aq:	43
Pct aq d:	43	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	57
Pct cm d:	57	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	1	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	105	A pct aq2:	44
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	56	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Hardpan
A sc lmod1:	Not Reported	A sc lmaq1:	CM
A sc lpct1:	67	A sc lith2:	Gravel
A sc lmod2:	Water Bearing	A sc lmaq2:	AQ
A sc lpct2:	33	Pct aq 1:	65
Pct maq 1:	0	Pct cm 1:	35
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	40
Pct maq 3:	0	Pct cm 3:	60
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	10	Pct maq 4:	0
Pct cm 4:	90	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	10
Pct maq 5:	0	Pct cm 5:	90
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	105		
Horiz Conduct:	123.81003		
Vert Conduct:	.00093		
T2:	13000.0536		
D50plek:	2089.29471		

3
North
1/2 - 1 Mile
Higher

MI WELLS MI20256469

Wellid:	63000016285	Import id:	63038113404
County:	Oakland	Township:	Avon
Town range:	03N 11E	Section:	13
Owner name:	BLOOMER PARK		
Well addr:	215 JOHN R		
Well depth:	197		
Well type:	Type II public		
Wssn:	2228863		
Well num:	Not Reported	Driller id:	26
Const date:	1980-10-15 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	168		
Screen frm:	0		
Screen to:	0		
Swl:	113		
Test depth:	134		
Test hours:	24		
Test rate:	20	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.6773351955		
Longitude:	-83.1048259948		
Methd coll:	Interpolation-Map		
Elevation:	745		
Elev methd:	Topographic Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	761	Elev dif:	16
Elev miv:	745	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	7
Pct aq d:	8	Pct aq r:	0
Pct maq:	17	Pct maq d:	0
Pct maq r:	100	Pct cm:	76

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	92	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	163
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	30
Pct maq 1:	0	Pct cm 1:	70
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	35	Pct maq 2:	0
Pct cm 2:	65	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	100
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	4.8952		
Vert Conduct:	.00011		
T2:	700.0136		
D50plek:	177.54149		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

4
 East
 1/2 - 1 Mile
 Lower

MI WELLS MI20188545

Wellid:	50000001264	Import id:	50038219001
County:	Macomb	Township:	Shelby
Town range:	03N 12E	Section:	19
Owner name:	JOE & PENNY MOORE		
Well addr:	50964 DEQUINDRE		
Well depth:	85		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2029
Const date:	1990-04-23 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	75		
Screen frm:	81		
Screen to:	85		
Swl:	1		
Test depth:	55		
Test hours:	24		
Test rate:	25	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.6674570844		
Longitude:	-83.0907202171		
Methd coll:	Interpolation-Map		
Elevation:	675		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	672	Elev dif:	3
Elev miv:	675	Aq code:	Drift Well
Aq flag:	Not Reported	Pct aq:	18
Pct aq d:	18	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	35
Pct cm d:	35	Pct cm r:	0
Pct pcm:	47	Pct pcm d:	47
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	15	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	84	A pct aq2:	18
A pct maq2:	0	A pct pcm2:	48
A pct cm2:	35	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	50	Pct pcm 2:	50
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	50	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	50
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	84		
Horiz Conduct:	53.57194		
Vert Conduct:	.00025		
T2:	4500.0429		
D50plek:	608.86709		

5
SE
1/2 - 1 Mile
Lower

MI WELLS MI20188547

Wellid:	50000001266	Import id:	50038219003
County:	Macomb	Township:	Shelby
Town range:	03N 12E	Section:	19
Owner name:	ROBERT BORNO		
Well addr:	49950 DEQUINDRE		
Well depth:	135		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1285
Const date:	1974-09-19 00:00:00.000	Case type:	Unknown
Case dia:	4		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	123		
Screen frm:	131		
Screen to:	135		
Swl:	60		
Test depth:	105		
Test hours:	10		
Test rate:	7	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.6602437249		
Longitude:	-83.0925799452		
Methd coll:	Interpolation-Map		
Elevation:	670		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	ELEV_DIF > 20 feet -- Abs(Elevation feet DEM_Elevation) > 20 feet		
Swl flag:	Not Reported		
Elev dem:	695	Elev dif:	25
Elev miv:	670	Aq code:	Drift Well
Aq flag:	Not Reported	Pct aq:	33
Pct aq d:	33	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	67
Pct cm d:	67	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	14	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	75	A pct aq2:	19
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	81	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	50	Pct maq 2:	0
Pct cm 2:	50	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	16	Pct maq 6:	0
Pct cm 6:	84	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Athk2:	75		
Horiz Conduct:	9.33341		
Vert Conduct:	.00012		
T2:	700.0061		
D50plek:	93.11522		

6
 NNW
 1/2 - 1 Mile
 Higher

MI WELLS MI20256467

Wellid:	63000016283	Import id:	63038113402
County:	Oakland	Township:	Avon
Town range:	03N 11E	Section:	13
Owner name:	BLOOMER PARK		
Well addr:	215 JOHN R		
Well depth:	197		
Well type:	Type II public		
Wssn:	2228963		
Well num:	Not Reported	Driller id:	26
Const date:	1981-06-05 00:00:00.000	Case type:	Unknown
Case dia:	6		
Case depth:	194		
Screen frm:	194		
Screen to:	197		
Swl:	101.92		
Test depth:	188		
Test hours:	6		
Test rate:	20	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.6788171761		
Longitude:	-83.110386146		
Methd coll:	Interpolation-Map		
Elevation:	790		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	794	Elev dif:	4
Elev miv:	790	Aq code:	Drift Well
Aq flag:	Not Reported	Pct aq:	6
Pct aq d:	6	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	39

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct cm d:	39	Pct cm r:	0
Pct pcm:	56	Pct pcm d:	56
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	3	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	95	A pct aq2:	6
A pct maq2:	0	A pct pcm2:	94
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Gravel & Sand
A sc lmod1:	Water Bearing	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	50
Pct pcm 1:	50	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	25
Pct maq 3:	0	Pct cm 3:	75
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	55
Pct pcm 5:	45	Pct na 5:	0
Pct aq 6:	12	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	88
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	100	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	F		
Attk2:	95		
Horiz Conduct:	12.64095		
Vert Conduct:	.01067		
T2:	1200.89		
D50plek:	196.57603		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

7
 SE
 1/2 - 1 Mile
 Lower

MI WELLS MI20188548

Wellid:	50000001267	Import id:	50038219004
County:	Macomb	Township:	Shelby
Town range:	03N 12E	Section:	19
Owner name:	DETROIT SPORTSMEN CONGRESS		
Well addr:	47800 DEQUIDRE		
Well depth:	25		
Well type:	Other		
Wssn:	0		
Well num:	Not Reported	Driller id:	0
Const date:	1969-05-05 00:00:00.000	Case type:	Unknown
Case dia:	1.5		
Case depth:	0		
Screen frm:	21		
Screen to:	25		
Swl:	15		
Test depth:	15		
Test hours:	1		
Test rate:	5	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.6575870988		
Longitude:	-83.0923964194		
Methd coll:	Interpolation-Map		
Elevation:	710		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	718	Elev dif:	8
Elev miv:	710	Aq code:	Drift Well
Aq flag:	Not Reported	Pct aq:	100
Pct aq d:	100	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0
Pct cm d:	0	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	10	A pct aq:	100
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	10	A pct aq2:	100
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	T	A hit top:	F
A hit rock:	F	A sc lith1:	Sand
A sc lmod1:	Coarse	A sc lmaq1:	AQ
A sc lpct1:	100	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	D		
Hit swl:	T		
Athk2:	10		
Horiz Conduct:	100		
Vert Conduct:	100		
T2:	1000		
D50plek:	17.39887		

8
 NNW
 1/2 - 1 Mile
 Lower

MI WELLS MI20256468

Wellid:	63000016284	Import id:	63038113403
County:	Oakland	Township:	Avon
Town range:	03N 11E	Section:	13
Owner name:	BLOOMER PARK		
Well addr:	215 JOHN R		
Well depth:	160		
Well type:	Type II public		
Wssn:	2055563		
Well num:	Not Reported	Driller id:	25
Const date:	Not Reported	Case type:	Unknown
Case dia:	6		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	999.99		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.6799712668		
Longitude:	-83.1132738728		
Methd coll:	Interpolation-Map		
Elevation:	720		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	SWL > Well Depth		
Elev dem:	702	Elev dif:	18
Elev miv:	720	Aq code:	Drift Well
Aq flag:	Not Reported	Pct aq:	19
Pct aq d:	19	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	69
Pct cm d:	69	Pct cm r:	0
Pct pcm:	13	Pct pcm d:	13
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-1
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	100	Pct na 1:	0
Pct aq 2:	50	Pct maq 2:	0
Pct cm 2:	50	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	100
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	100	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	40
Pct maq 7:	0	Pct cm 7:	60
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Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	-0		
T2:	0		
D50plek:	0		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: MI Radon

Radon Test Results

Zipcode	Test Date	LT Sign	Result
48307	5/16/2006		1.3
48307	4/11/2007		1.3
48307	4/9/2009		1.3
48307	9/28/2001		1.2
48307	5/3/2004		1.2
48307	11/22/2004		1.1
48307	1/24/2006		1.1
48307	1/20/2003		1.0
48307	6/30/1998		1.9
48307	1/13/2007	<	0.3
48307	2/5/2008	<	0.3
48307	7/11/2005	<	0.3
48307	8/14/1995	<	0.3
48307	11/5/2002	<	0.3
48307	4/15/2003	<	0.3
48307	2/1/1995		0.4
48307	1/21/1995		0.4
48307	2/14/2004	<	0.3
48307	11/20/2007	<	0.3
48307	9/15/2005	<	0.3
48307	3/3/2009		1.0
48307	1/24/2009		1.0
48307	1/31/2009		1.0
48307	1/26/2007		0.6
48307	4/4/2007		0.8
48307	2/2/2009		0.6
48307	2/10/2009		0.7
48307	2/6/2009		0.6
48307	3/5/2009		0.8
48307	10/20/1995		0.6
48307	10/29/2001		0.6
48307	3/5/2009		0.9
48307	4/14/2009		0.9
48307	10/18/2003		0.5
48307	2/11/2002		0.7
48307	1/24/2009		2.6
48307	2/3/2009		2.8
48307	4/25/2002		2.5
48307	11/2/2002		2.5
48307	10/13/2000		2.5
48307	11/30/2009		2.5
48307	2/3/2009		2.5
48307	1/30/2007		2.4
48307	4/25/2007		2.4
48307	11/10/2008		2.4
48307	2/4/2008		2.2
48307			

**GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON**

AREA RADON INFORMATION

48307	9/30/2000		2.2
48307	11/6/2008		2.2
48307	1/24/2009		2.2
48307	1/27/2009		2.9
48307	5/30/2003		2.7
48307	1/30/2007		2.6
48307	10/7/1996		2.9
48307	12/17/2007		2.6
48307	11/1/2004		2.9
48307	5/24/2006		2.9
48307	10/13/2000		2.8
48307	3/29/1995		3.8
48307	2/15/2008	<	0.3
48307	11/3/2009		3.6
48307	12/3/2004		3.5
48307	10/16/2000		3.5
48307	10/11/2000		3.5
48307	10/3/2009		3.5
48307	2/27/2006		3.5
48307	1/20/1995	<	0.3
48307	11/7/2006		3.2
48307	11/2/2009		3.1
48307	6/1/2007		3.2
48307	1/25/2010		3.1
48307	3/23/1999		3.7
48307	4/23/2009	<	0.3
48307	11/29/2007		1.7
48307	10/7/1995		1.7
48307	8/17/2007		7.6
48307	9/28/2001		6.8
48307	2/22/2007		6.6
48307	7/25/2009		6.6
48307	10/20/2003		6.5
48307	1/16/2003		6.5
48307	2/22/2007		6.5
48307	10/20/2003		5.9
48307	10/31/2009		5.1
48307	11/13/1996		5.0
48307	7/18/2006		5.3
48307	11/3/2007		4.8
48307	1/17/2003		5.2
48307	5/29/2007		7.9
48307	8/17/2007		6.7
48307	1/30/2009		2.0
48307	3/6/2004		9.9
48307	10/30/2004		2.1
48307	1/19/2007		2.1
48307	10/5/2000		2.1
48307	2/2/2009		2.0
48307	2/20/1996		2.0
48307	8/28/2002		1.6
48307	10/20/2000		1.7
48307	10/3/2000		1.7
48307	4/3/2009		1.7
48307	2/28/2009		1.7
48307	10/7/2000		4.2
48307			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

	11/2/2002	4.0
48307	11/8/2002	4.1
48307	6/26/2007	4.0
48307	2/14/1995	4.2
48307	11/5/2003	4.2
48307	10/2/2006	4.5
48307	2/28/2000	1.6
48307	2/17/2004	1.5
48307	1/26/2009	1.5
48307	1/11/2010	1.5
48307	1/31/1997	1.4
48307	1/27/2009	1.4
48307	11/2/2009	1.4
48307	10/17/2009	1.4
48307	10/17/2006	1.4
48307	11/9/2007	1.4

Federal EPA Radon Zone for OAKLAND County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for OAKLAND COUNTY, MI

Number of sites tested: 61

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.189 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	1.539 pCi/L	93%	7%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2009 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory

Source: Department of Natural Resources

Telephone: 517-241-2254

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Amdt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Data

Source: Department of Environmental Quality

Telephone: 517-335-9218

OTHER STATE DATABASE INFORMATION

Michigan Oil and Gas Wells

Source: Department of Natural Resources and Environment

Locations of oil and gas wells are compiled from permit records on file at the Geological Survey Division (GSD), Michigan Department of Natural Resources.

RADON

State Database: MI Radon

Source: Department of Environmental Quality

Telephone: 517-335-9551

Radon Test Results

Michigan Radon Test Results

Source: Department of Environmental Quality

Telephone: 517-335-8037

These results are from test kits distributed by the local health departments and used by Michigan residents. There is no way of knowing whether the devices were used properly, whether there are duplicates (or repeat verification) test (i.e., more than one sample per home), etc.

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

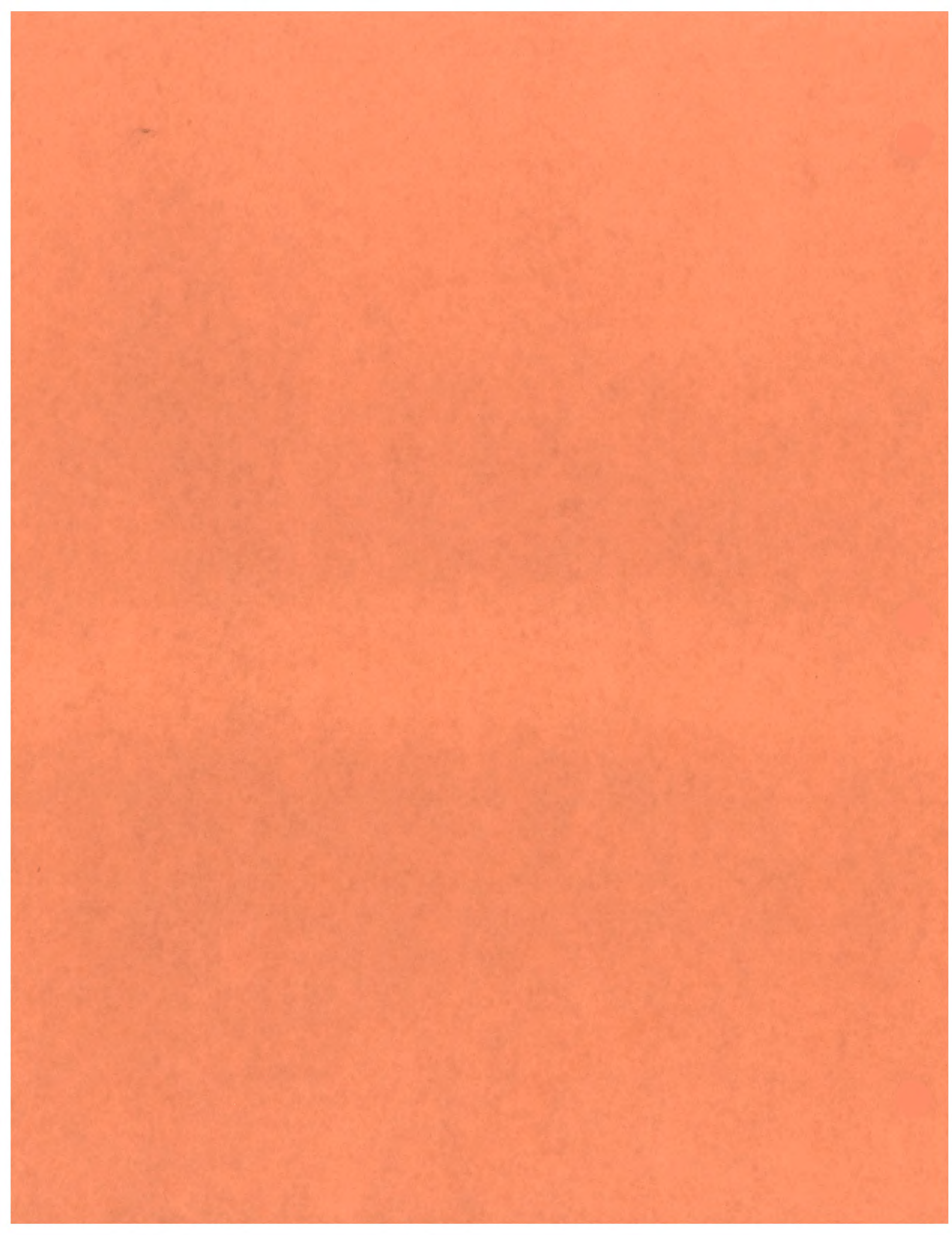
OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

STREET AND ADDRESS INFORMATION

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Tree Farm

1406 East Avon Road

Rochester, MI 48307

Inquiry Number: 3011544.5

March 15, 2011

The EDR Aerial Photo Decade Package



440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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Date EDR Searched Historical Sources:

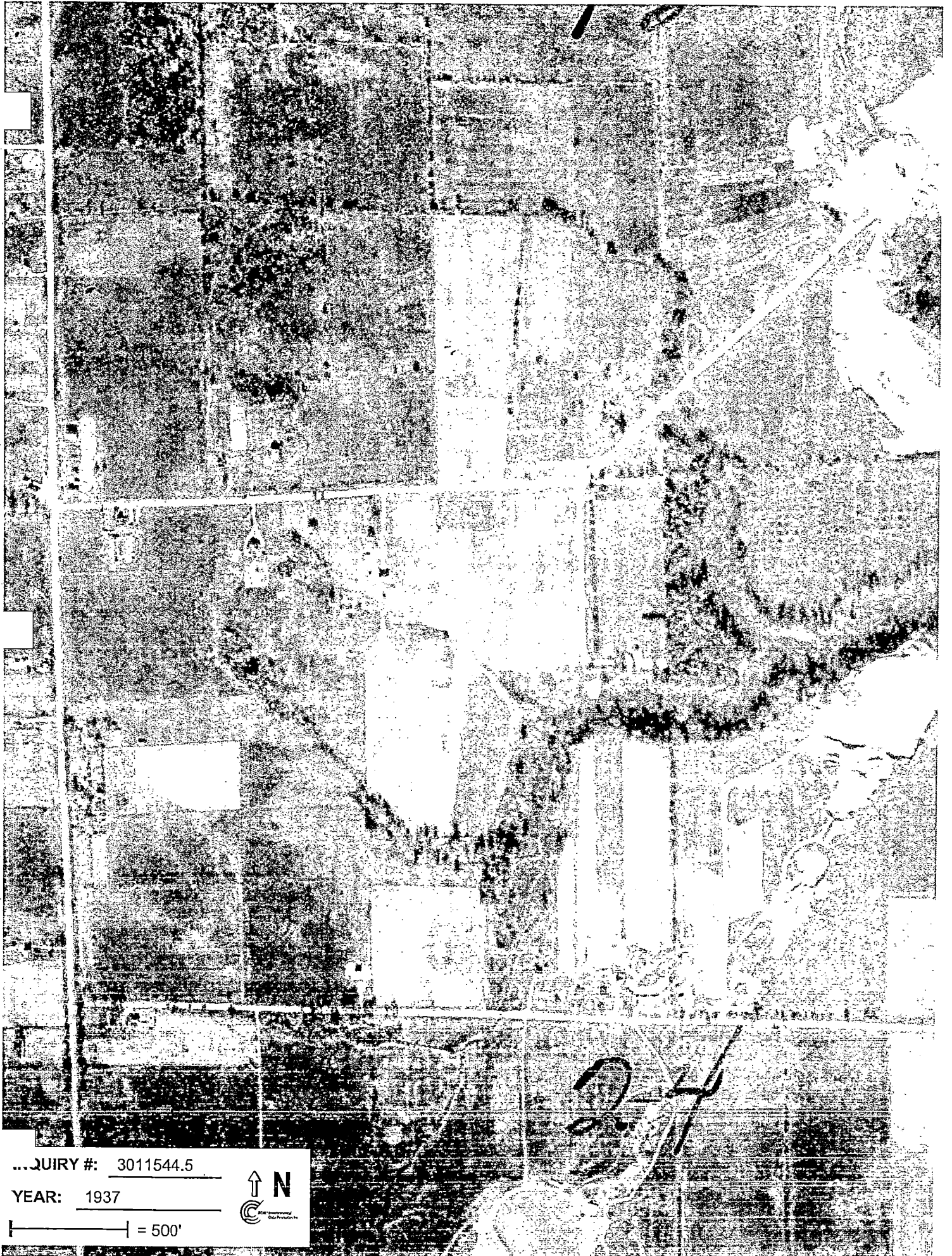
Aerial Photography March 15, 2011

Target Property:

1406 East Avon Road

Rochester, MI 48307

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
1937	Aerial Photograph. Scale: 1"=500'	Flight Year: 1937	AAA
1940	Aerial Photograph. Scale: 1"=500'	Flight Year: 1940	AAA
1949	Aerial Photograph. Scale: 1"=500'	Flight Year: 1949	Detroit Edison
1957	Aerial Photograph. Scale: 1"=500'	Flight Year: 1957	CSS
1961	Aerial Photograph. Scale: 1"=500'	Flight Year: 1961	Detroit Edison
1967	Aerial Photograph. Scale: 1"=500'	Flight Year: 1967	Detroit Edison
1972	Aerial Photograph. Scale: 1"=600'	Flight Year: 1972	ASCS
1980	Aerial Photograph. Scale: 1"=500'	Flight Year: 1980	SEMCOG
1994	Aerial Photograph. Scale: 1"=600'	Flight Year: 1994	NAPP
2000	Aerial Photograph. Scale: 1"=500'	Flight Year: 2000	SEMCOG
2005	Aerial Photograph. Scale: 1"=604'	Flight Year: 2005	EDR



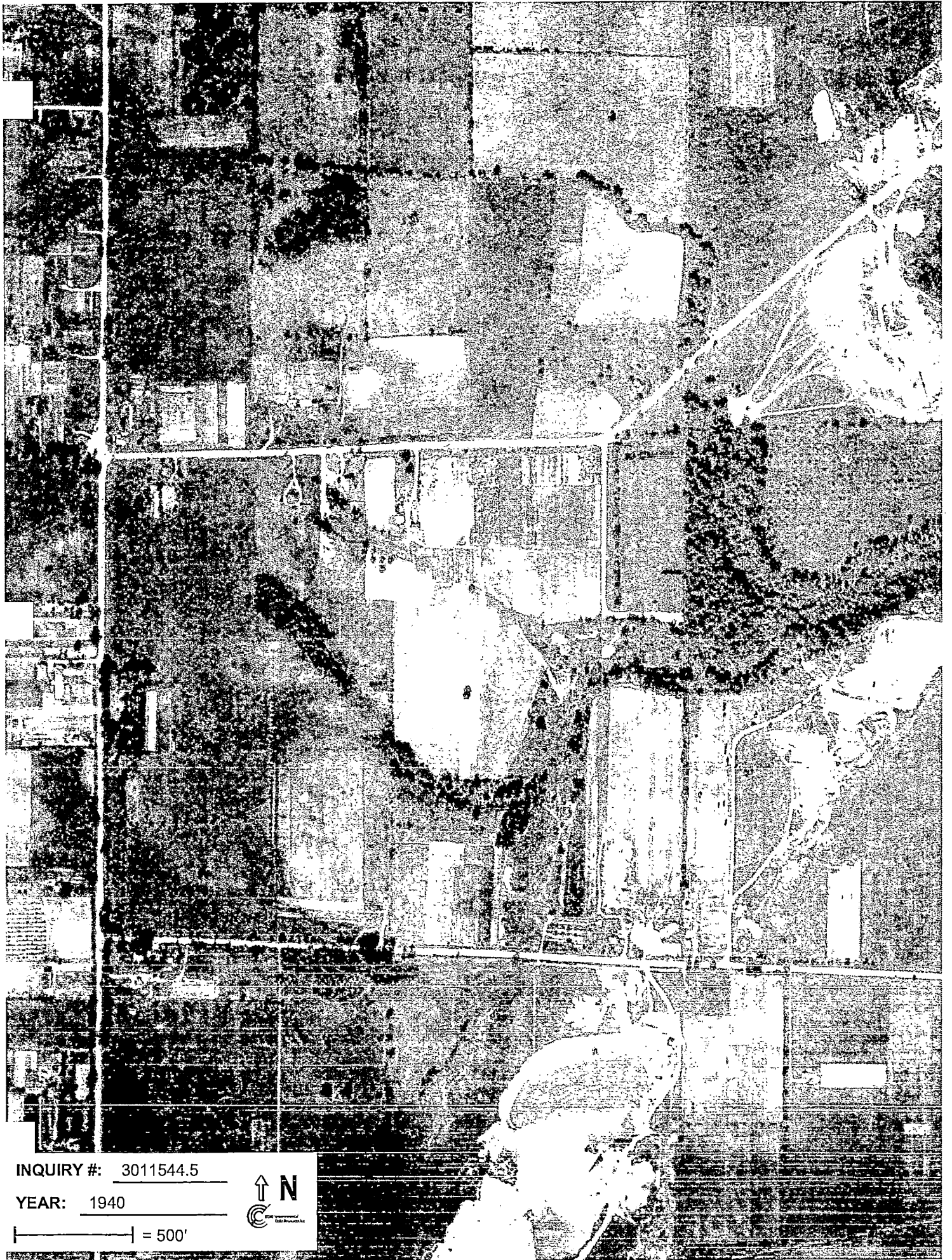
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YEAR: 1937

— = 500'



24

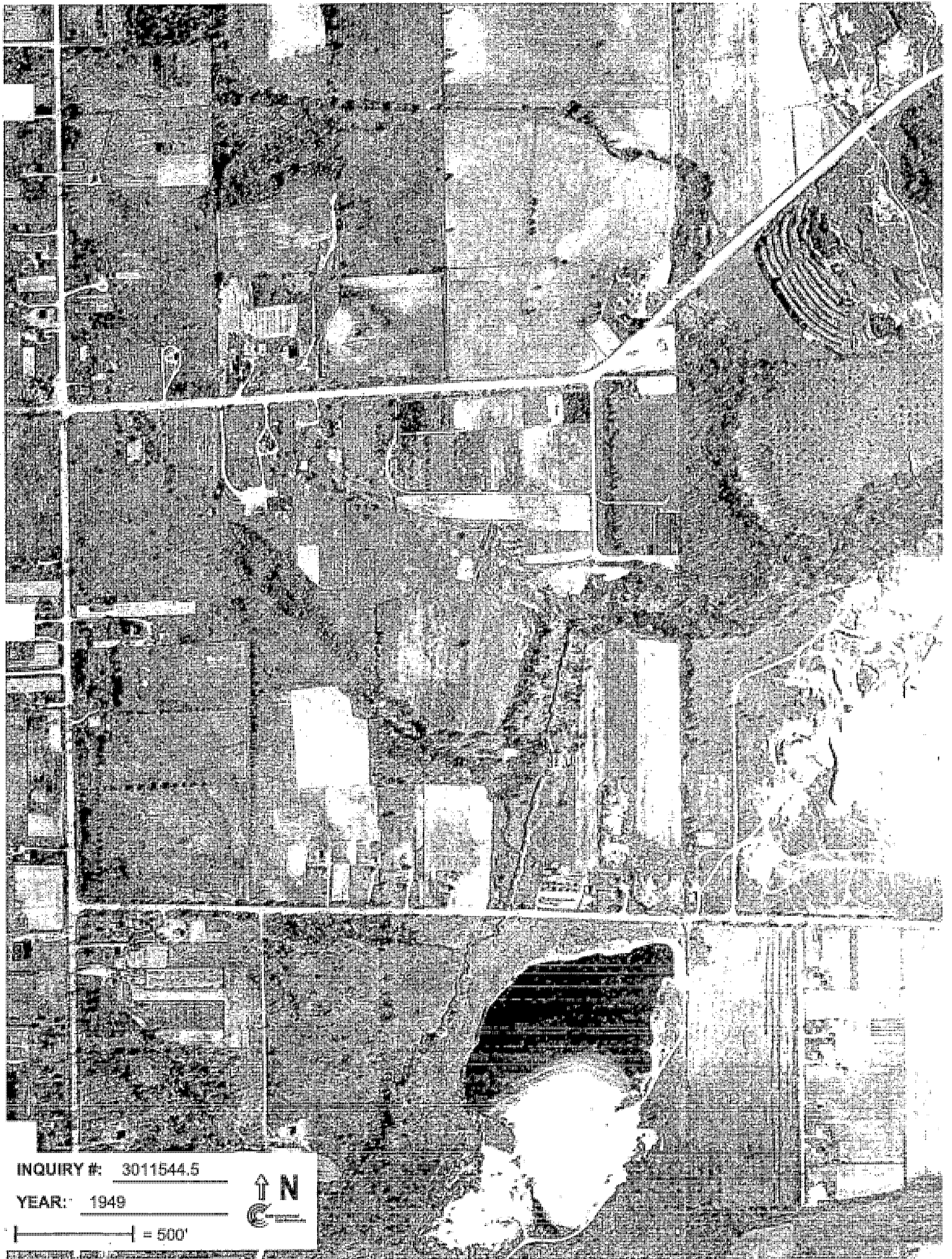


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YEAR: 1940

—|— = 500'



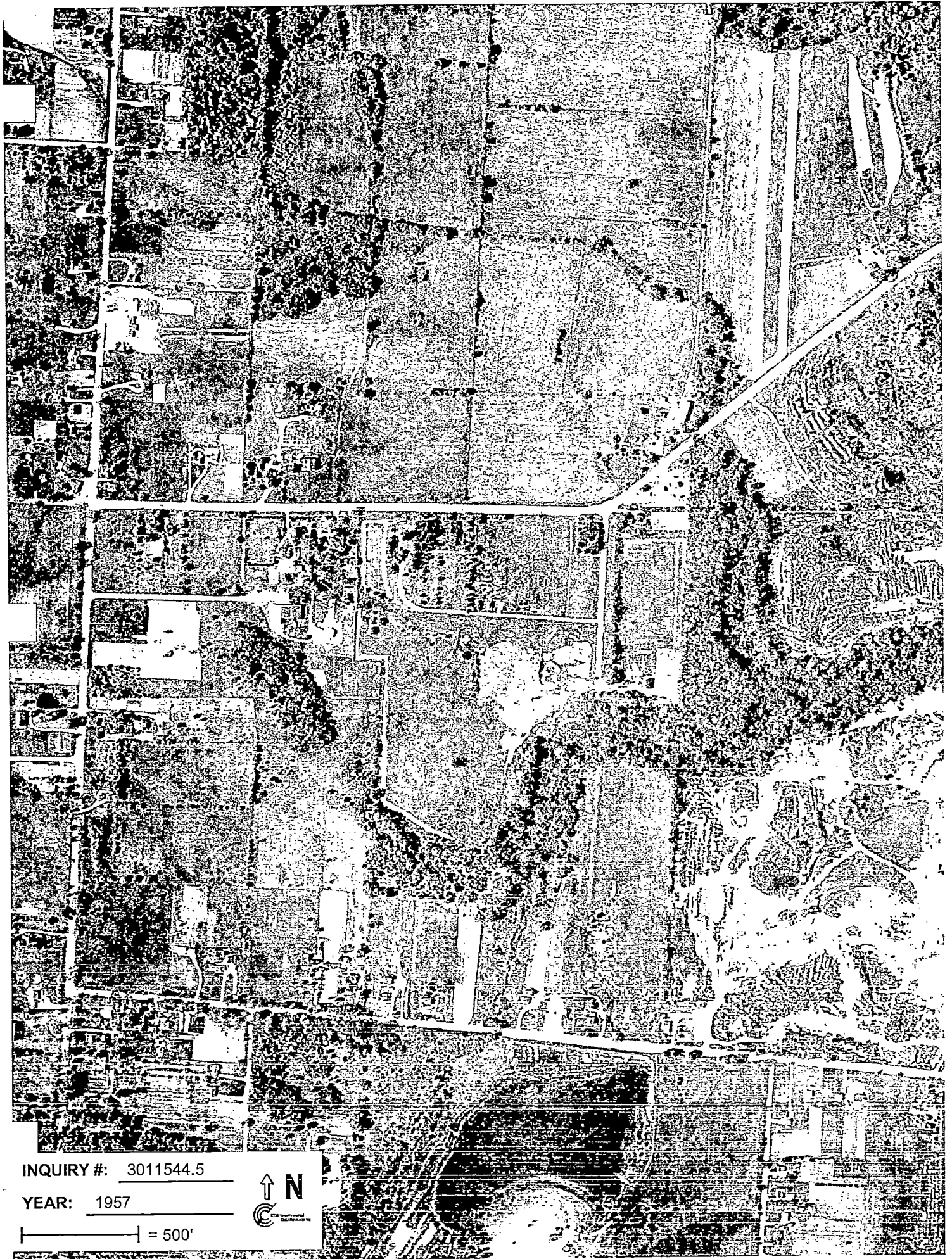


INQUIRY #: 3011544.5

YEAR: 1949



| = 500'



INQUIRY #: 3011544.5

YEAR: 1957

| = 500'





INQUIRY #: 3011544.5

YEAR: 1961

| = 500'





INQUIRY #: 3011544.5

YEAR: 1967

| = 500'



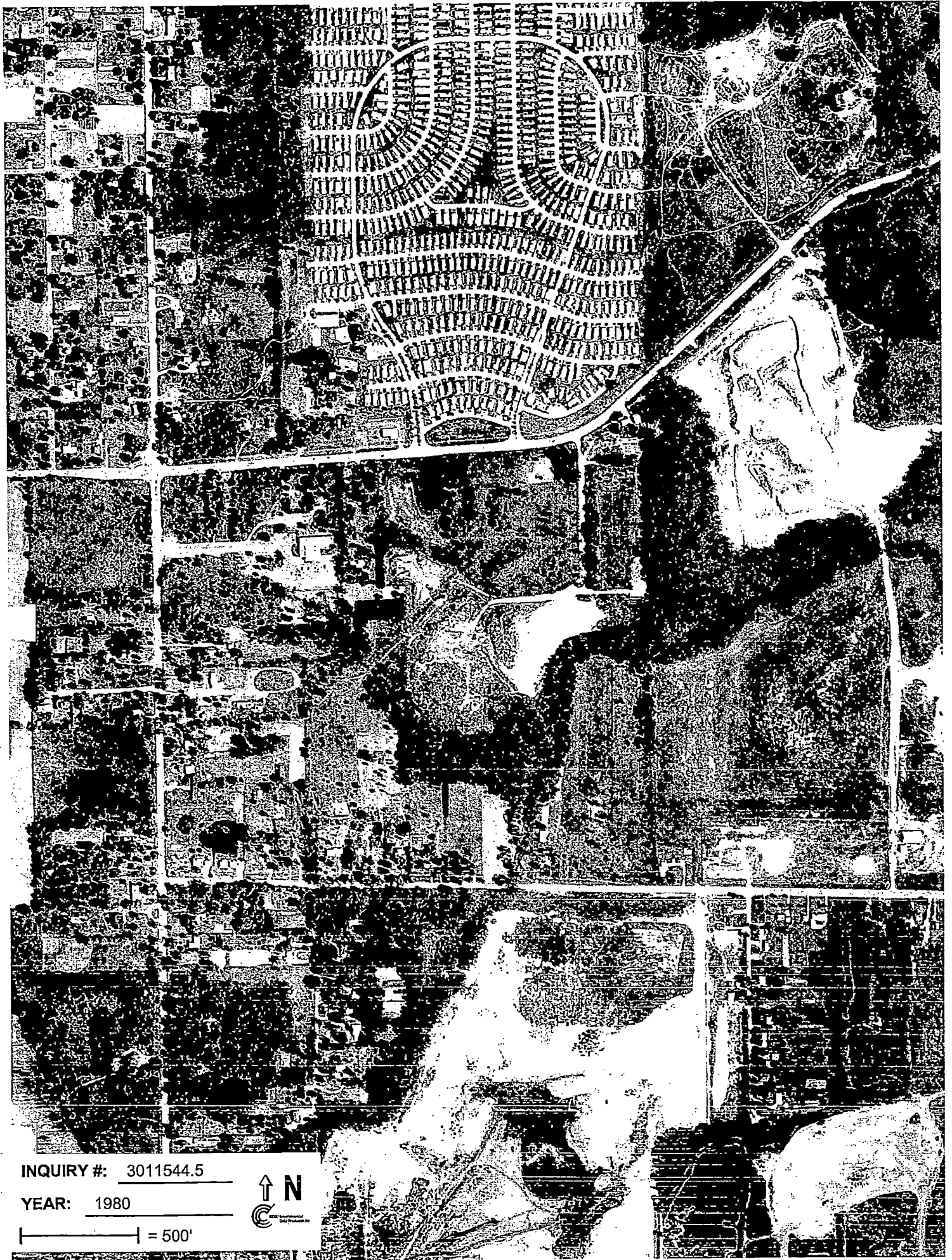


INQUIRY #: 3011544.5

YEAR: 1972


| = 600'





INQUIRY #: 3011544.5

YEAR: 1980

 = 500'





INQUIRY #: 3011544.5

YEAR: 1994

— = 600'



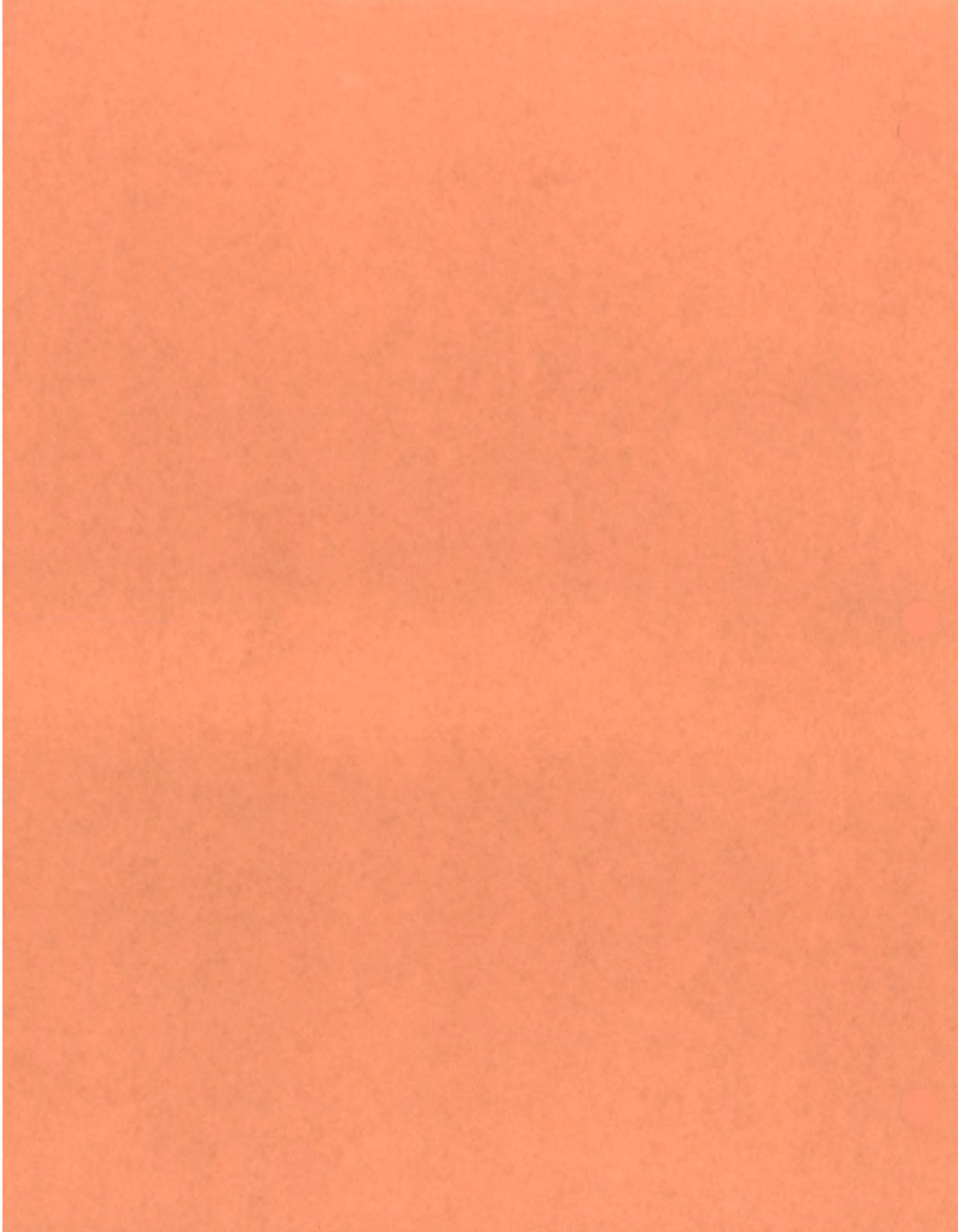


INQUIRY #: 3011544.5

YEAR: 2000

| = 500'





Tree Farm

1406 East Avon Road
Rochester, MI 48307

Inquiry Number: 3011544.3

March 14, 2011

Certified Sanborn® Map Report

Certified Sanborn® Map Report

3/14/11

Site Name:

Tree Farm
1406 East Avon Road
Rochester, MI 48307

Client Name:

MDEQ/RRD/Superfund
P525 West Allegan, South
Lansing, MI 48933



Environmental Data Resources Inc

EDR Inquiry # 3011544.3

Contact: Teresa Ducsay

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by MDEQ/RRD/Superfund were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: Tree Farm
Address: 1406 East Avon Road
City, State, Zip: Rochester, MI 48307
Cross Street:
P.O. # NA
Project: Tree Farm
Certification # B034-4900-807B



Sanborn® Library search results
Certification # B034-4900-807B

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- Library of Congress
- University Publications of America
- EDR Private Collection

The Sanborn Library LLC Since 1866™

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Tree Farm

1406 East Avon Road
Rochester, MI 48307

Inquiry Number: 3011544.4

March 11, 2011

EDR Historical Topographic Map Report

EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

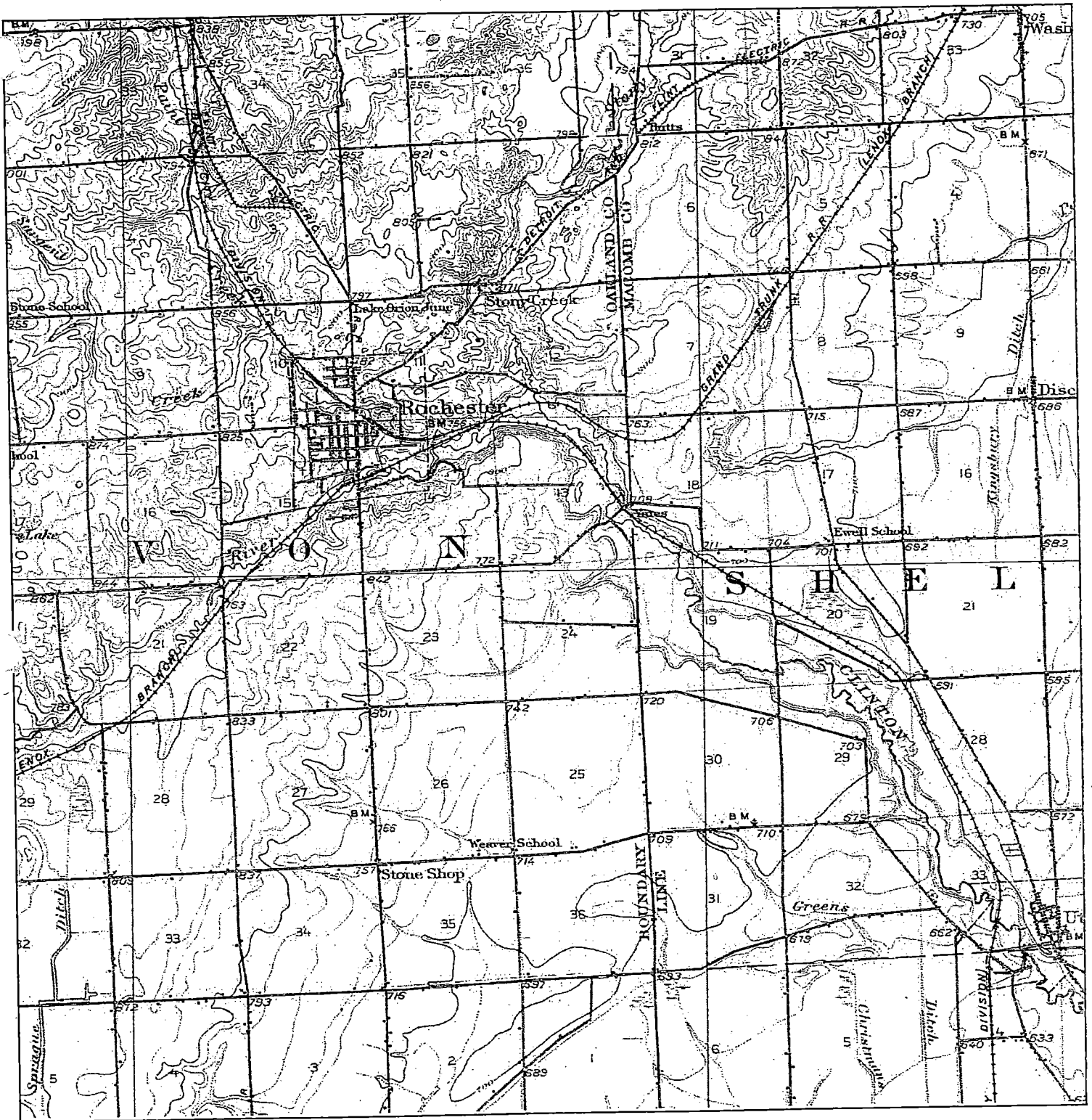
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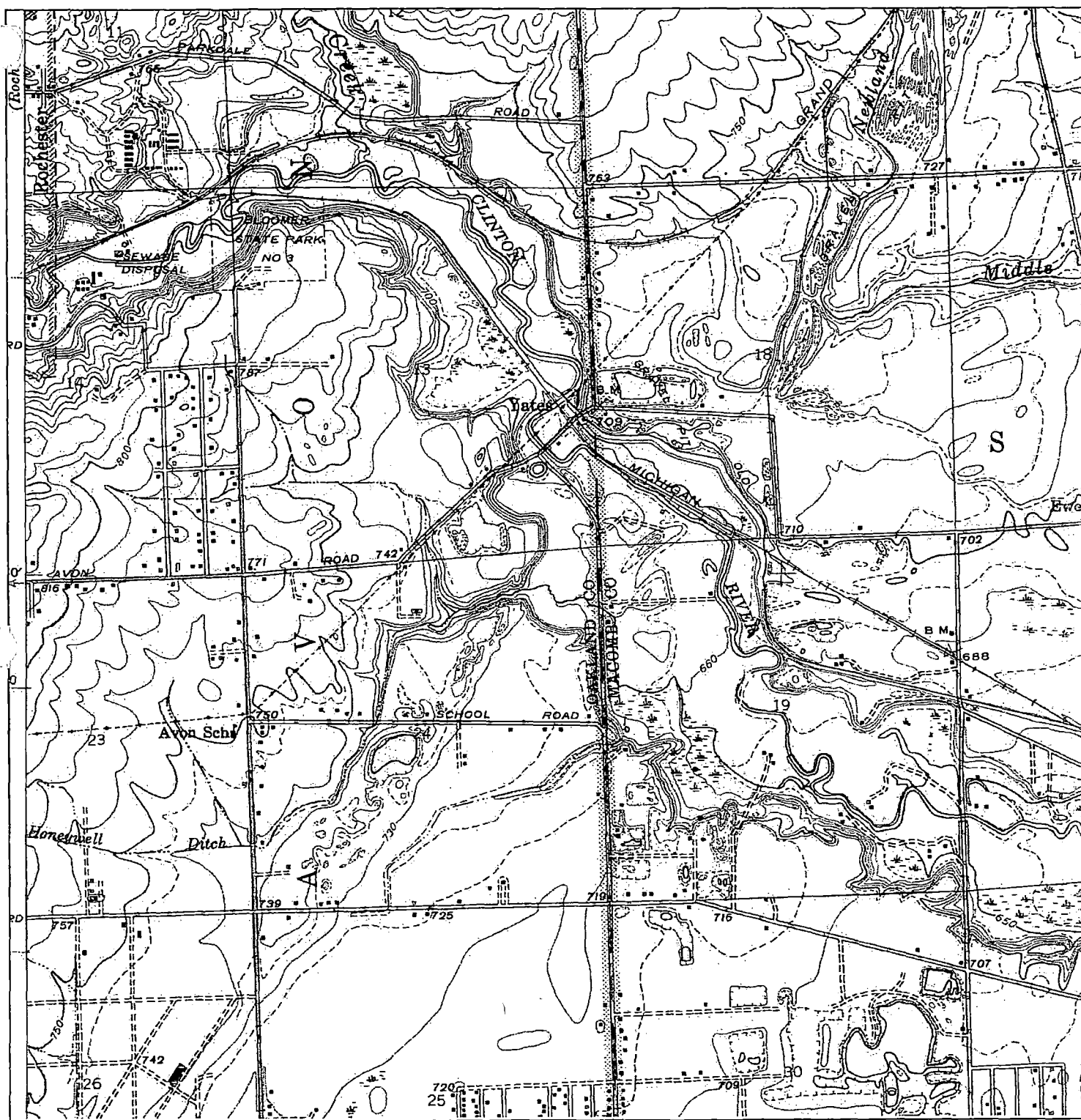
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Historical Topographic Map



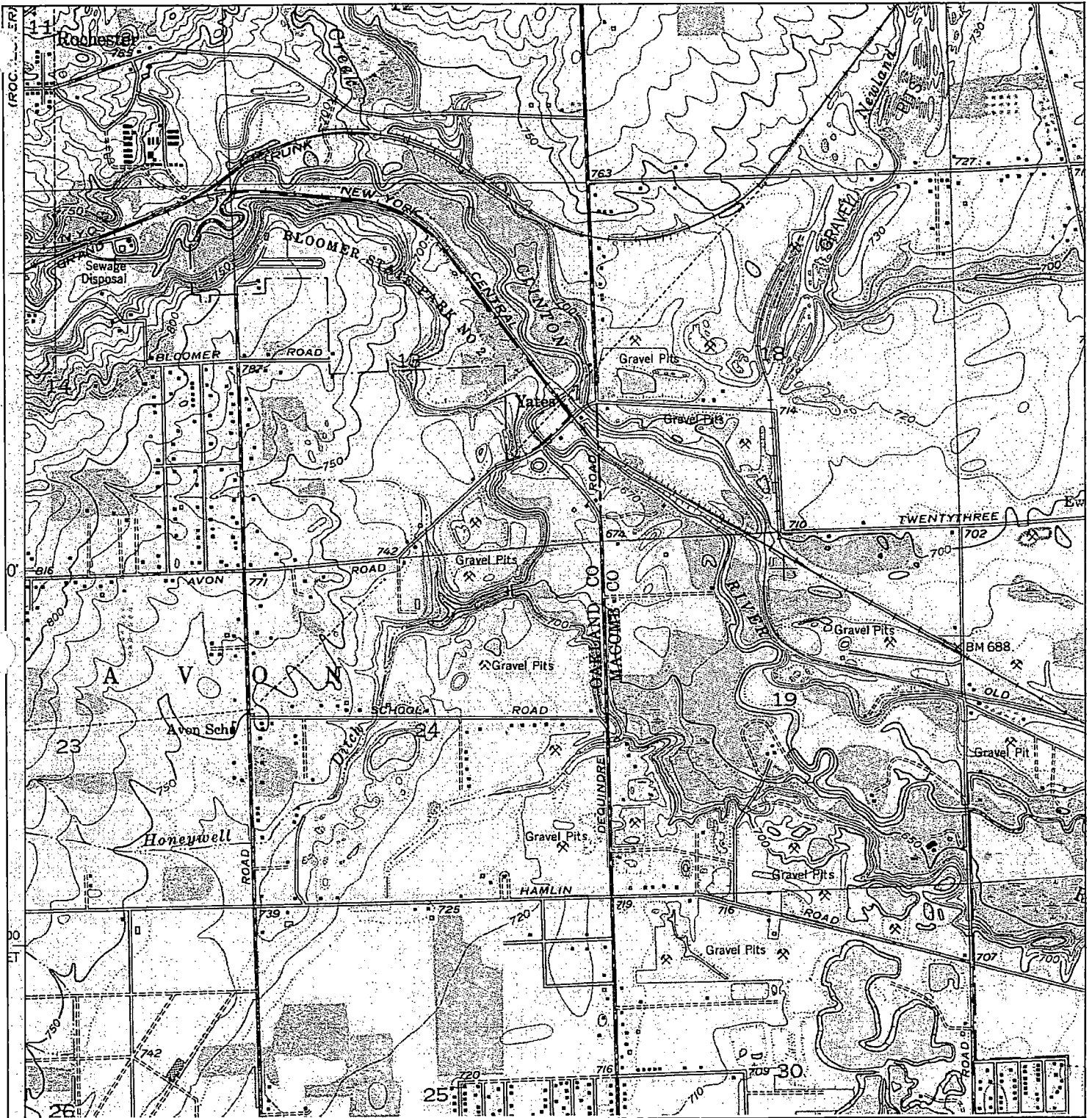
N 	TARGET QUAD NAME: ROCHESTER MAP YEAR: 1908	SITE NAME: Tree Farm ADDRESS: 1406 East Avon Road Rochester, MI 48307	CLIENT: MDEQ/RRD/Superfund CONTACT: Teresa Ducsay INQUIRY#: 3011544.4
	SERIES: 15 SCALE: 1:62500	LAT/LONG: 42.6671 / -83.106	RESEARCH DATE: 03/11/2011


Historical Topographic Map



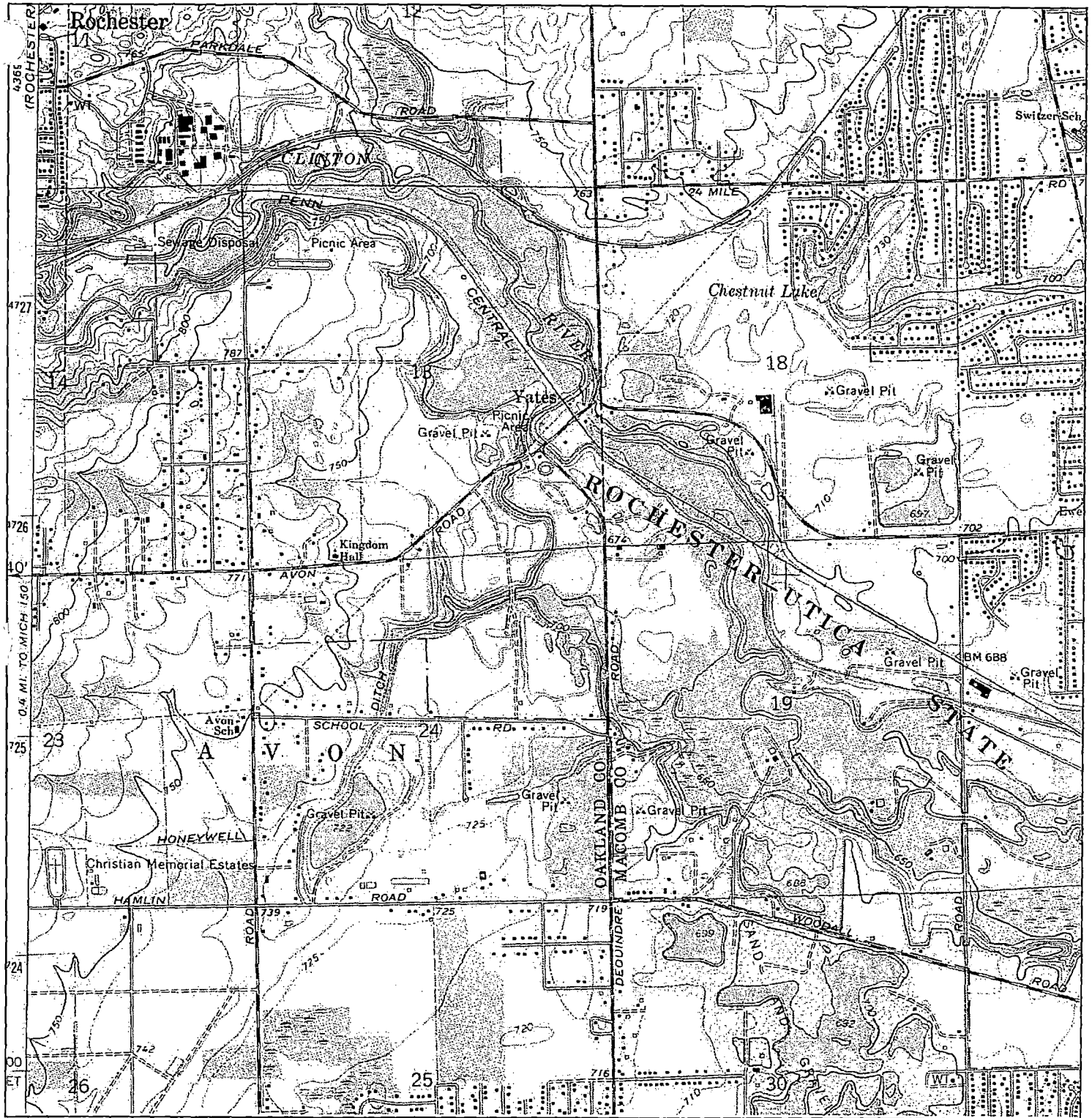
N ↑	TARGET QUAD	SITE NAME: Tree Farm	CLIENT: MDEQ/RRD/Superfund
	NAME: UTICA	ADDRESS: 1406 East Avon Road	CONTACT: Teresa Ducsay
	MAP YEAR: 1946	Rochester, MI 48307	INQUIRY#: 3011544.4
	SERIES: 7.5	LAT/LONG: 42.6671 / -83.106	RESEARCH DATE: 03/11/2011
	SCALE: 1:24000		

Historical Topographic Map



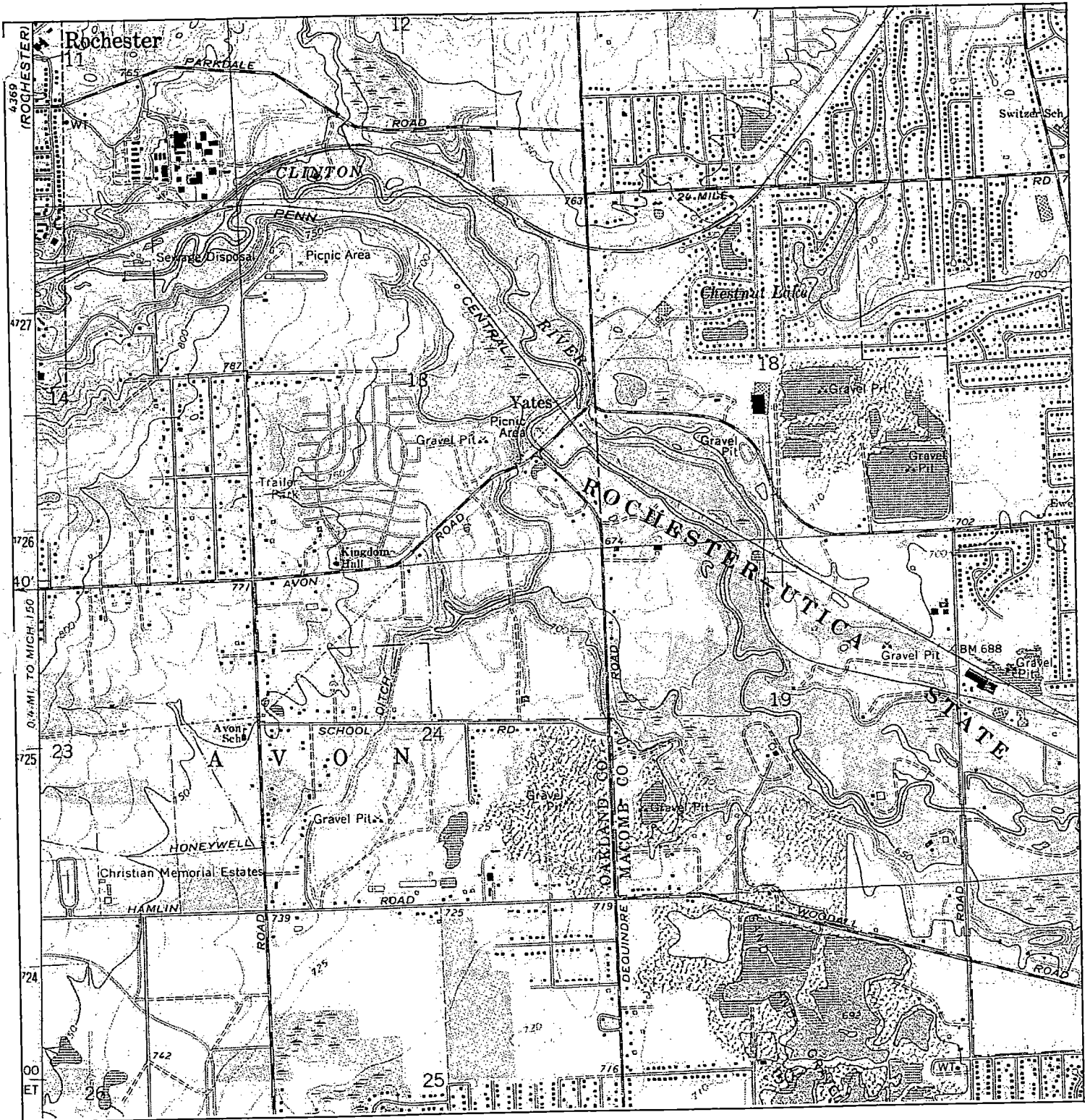
	TARGET QUAD	SITE NAME: Tree Farm	CLIENT: MDEQ/RRD/Superfund
	NAME: UTICA	ADDRESS: 1406 East Avon Road	CONTACT: Teresa Ducsay
	MAP YEAR: 1952	Rochester, MI 48307	INQUIRY#: 3011544.4
		LAT/LONG: 42.6671 / -83.106	RESEARCH DATE: 03/11/2011
	SERIES: 7.5		
	SCALE: 1:24000		

Historical Topographic Map



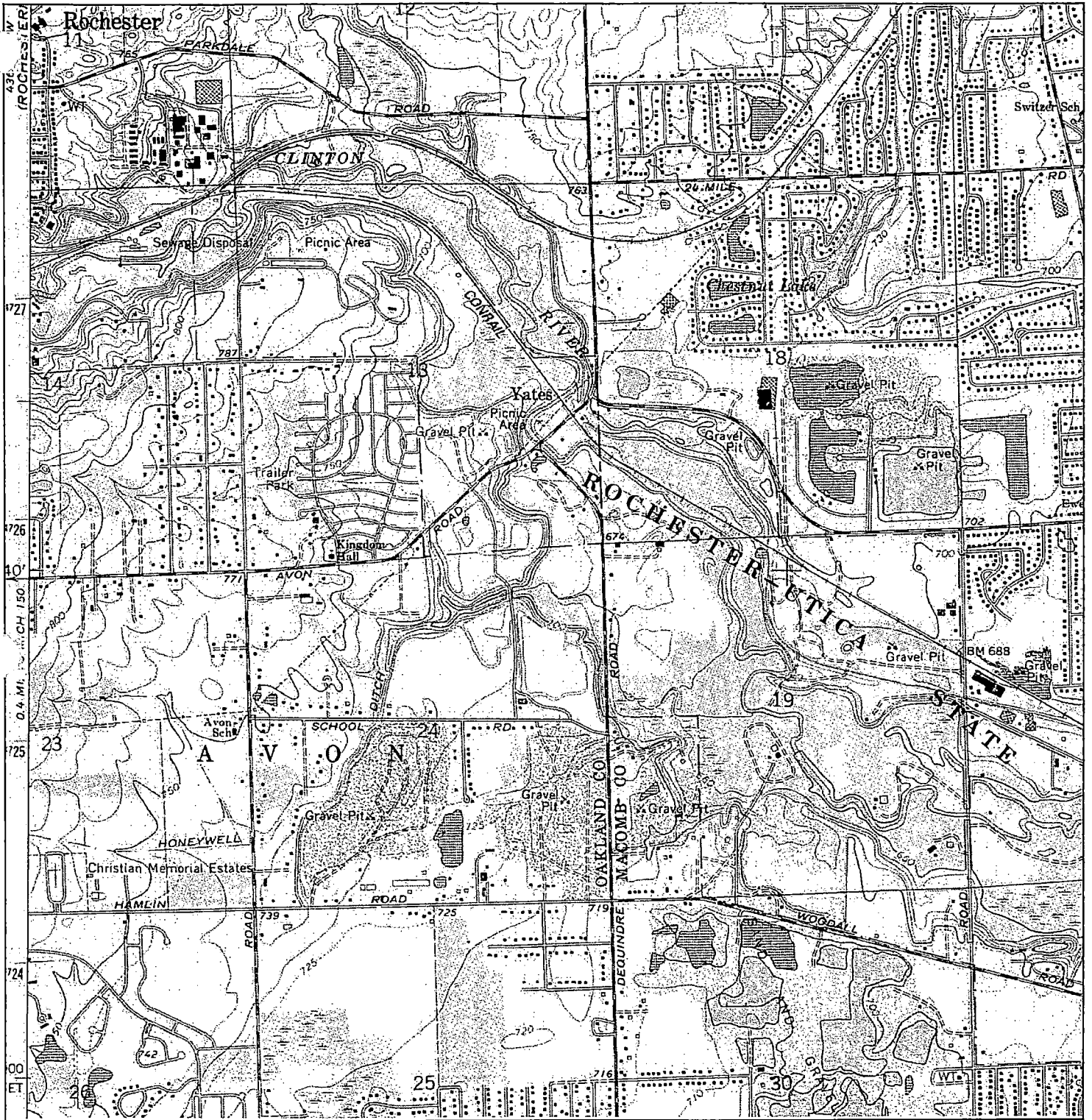
<p>N ↑</p>	<p>TARGET QUAD NAME: UTICA MAP YEAR: 1968</p>	<p>SITE NAME: Tree Farm ADDRESS: 1406 East Avon Road Rochester, MI 48307 LAT/LONG: 42.6671 / -83.106</p>	<p>CLIENT: MDEQ/RRD/Superfund CONTACT: Teresa Ducsay INQUIRY#: 3011544.4 RESEARCH DATE: 03/11/2011</p>
	<p>SERIES: 7.5 SCALE: 1:24000</p>		

Historical Topographic Map



<p>N ↑</p>	TARGET QUAD	SITE NAME:	Tree Farm	CLIENT:	MDEQ/RRD/Superfund
	NAME: UTICA	ADDRESS:	1406 East Avon Road	CONTACT:	Teresa Ducsay
	MAP YEAR: 1973		Rochester, MI 48307	INQUIRY#:	3011544.4
	PHOTOREVISED: 1968	LAT/LONG:	42.6671 / -83.106	RESEARCH DATE:	03/11/2011
	SERIES: 7.5				
SCALE: 1:24000					

Historical Topographic Map



	TARGET QUAD	SITE NAME:	Tree Farm	CLIENT:	MDEQ/RRD/Superfund	
	NAME:	UTICA	ADDRESS:	1406 East Avon Road	CONTACT:	Teresa Ducsay
	MAP YEAR:	1983		Rochester, MI 48307	INQUIRY#:	3011544.4
	PHOTOREVISED:	1968	LAT/LONG:	42.6671 / -83.106	RESEARCH DATE:	03/11/2011
	SERIES:	7.5				
	SCALE:	1:24000				

Appendix B

BFRA Property Photographs

FIELD PHOTOGRAPHY LOG SHEET

PROPERTY NAME: TREE FARM

PAGE: 1 OF 17

U.S. EPA ID #: MIB000000166

DATE: 03/28/2011

DIRECTION OF
PHOTOGRAPH:
SE



DESCRIPTION: View of entrance to the Tree Farm property with sign for address number '1406'.

DATE: 03/28/2011

DIRECTION OF
PHOTOGRAPH:
S



DESCRIPTION: View of entrance drive leading south into the Tree Farm property; lots vegetative cover and trees.

FIELD PHOTOGRAPHY LOG SHEET

PROPERTY NAME: TREE FARM
U.S. EPA ID #: MIB000000166

PAGE: 2 OF 17

DATE: 03/28/2011

DIRECTION OF
PHOTOGRAPH:
SW



DESCRIPTION: View of sign posted near entrance of the Tree Farm property..

DATE: 03/28/2011

DIRECTION OF
PHOTOGRAPH:
SW



DESCRIPTION: View of above ground power line that runs diagonally through the Tree Farm property

FIELD PHOTOGRAPHY LOG SHEET

PROPERTY NAME: TREE FARM
U.S. EPA ID #: MIB000000166

PAGE: 3 OF 17

DATE: 03/28/2011

DIRECTION OF
PHOTOGRAPH:
S



DESCRIPTION: View of marker of buried high pressure gas line that runs through the Tree Farm property.

DATE: 03/28/2011

DIRECTION OF
PHOTOGRAPH:
N



DESCRIPTION: View of fill area (open field) in the southwest corner of the Tree Farm property.

FIELD PHOTOGRAPHY LOG SHEET

PROPERTY NAME: TREE FARM
U.S. EPA ID #: MIB000000166

PAGE: 4 OF 17

DATE: 04/13/2011

DIRECTION OF
PHOTOGRAPH:
N



DESCRIPTION: View of fill area (open field) on the south side of the Tree Farm property.

DATE: 03/28/2011

DIRECTION OF
PHOTOGRAPH:
Toward ground



DESCRIPTION: View of surface depression in fill area on south side of the Tree Farm property

FIELD PHOTOGRAPHY LOG SHEET

PROPERTY NAME: TREE FARM

PAGE: 5 OF 17

U.S. EPA ID #: MIB000000166

DATE: 03/28/2011

DIRECTION OF
PHOTOGRAPH:
N



DESCRIPTION: View of tree nursery in the northeast corner of the Tree Farm property.

DATE: 03/30/2011

DIRECTION OF
PHOTOGRAPH:
S



DESCRIPTION: View of divots from harvested trees in the tree nursery area at the Tree Farm property.

FIELD PHOTOGRAPHY LOG SHEET

PROPERTY NAME: TREE FARM
U.S. EPA ID #: MIB000000166

PAGE: 6 OF 17

DATE: 03/28/2011

DIRECTION OF
PHOTOGRAPH:
E



DESCRIPTION: View of Honeywell Ditch along the south property boundary of the Tree Farm property.

DATE: 03/28/2011

DIRECTION OF
PHOTOGRAPH:
E



DESCRIPTION: View of drain pipe along the Honeywell Ditch on the Tree Farm property.

FIELD PHOTOGRAPHY LOG SHEET

PROPERTY NAME: TREE FARM
U.S. EPA ID #: MIB000000166

PAGE: 7 OF 17

DATE: 03/28/2011

DIRECTION OF
PHOTOGRAPH:
W



DESCRIPTION: View of drive on the east side of the Tree Farm property, near a building footprint.

DATE: 03/28/2011

DIRECTION OF
PHOTOGRAPH:
E



DESCRIPTION: View of gravel pile at the east side of the Tree Farm property, near a building footprint.

FIELD PHOTOGRAPHY LOG SHEET

PROPERTY NAME: TREE FARM
U.S. EPA ID #: MIB000000166

PAGE: 8 OF 17

DATE: 03/28/2011

DIRECTION OF
PHOTOGRAPH:
NW



DESCRIPTION: View of refrigerator located on the edge of the fill area located in the southwest corner of the Tree Farm property.

DATE: 04/26/2011

DIRECTION OF
PHOTOGRAPH:
NW



DESCRIPTION: View of 55-gallon drum and concrete debris, on the edge of fill area in the southwest corner of the Tree Farm property.

FIELD PHOTOGRAPHY LOG SHEET

PROPERTY NAME: TREE FARM
U.S. EPA ID #: MIB000000166

PAGE: 9 OF 17

DATE: 03/28/2011

DIRECTION OF
PHOTOGRAPH:
Toward ground



DESCRIPTION: View of 55-gallon drum and fuel tank along edge of fill area in the southwest corner of the Tree Farm property.

DATE: 03/28/2011

DIRECTION OF
PHOTOGRAPH:
S



DESCRIPTION: View of debris breaching ground surface in fill area in southwest corner of the Tree Farm property.

FIELD PHOTOGRAPHY LOG SHEET

PROPERTY NAME: TREE FARM
U.S. EPA ID #: MIB000000166

PAGE: 10 OF 17

DATE: 03/28/2011

DIRECTION OF
PHOTOGRAPH:
Toward ground



DESCRIPTION: View of 5-gallon metal bucket on the Tree Farm property.

DATE: 03/28/2011

DIRECTION OF
PHOTOGRAPH:
Toward ground



DESCRIPTION: View of television on the east side of the Tree Farm property.

FIELD PHOTOGRAPHY LOG SHEET

PROPERTY NAME: TREE FARM
U.S. EPA ID #: MIB000000166

PAGE: 11 OF 17

DATE: 03/28/2011

DIRECTION OF
PHOTOGRAPH:
Toward ground



DESCRIPTION: View of building foundation and crushed paint bucket on the east side of the Tree Farm property.

DATE: 03/28/2011

DIRECTION OF
PHOTOGRAPH:
N



DESCRIPTION: View of roofing shingles on east side of the Tree Farm property near building foundations.

FIELD PHOTOGRAPHY LOG SHEET

PROPERTY NAME: TREE FARM
U.S. EPA ID #: MIB000000166

PAGE: 12 OF 17

DATE: 03/28/2011

DIRECTION OF
PHOTOGRAPH:
S



DESCRIPTION: View of empty gasoline can near the center of the Tree Farm property.

DATE: 03/28/2011

DIRECTION OF
PHOTOGRAPH:
NE



DESCRIPTION: Close-up view of rusty 55-gallon drum carcass on the east side of the Tree Farm property.

FIELD PHOTOGRAPHY LOG SHEET

PROPERTY NAME: TREE FARM
U.S. EPA ID #: MIB000000166

PAGE: 13 OF 17

DATE: 04/26/2011

DIRECTION OF
PHOTOGRAPH:
E



DESCRIPTION: View of partially full Standard Oil Co. drum (55-gallon) on the east side of the Tree Farm property.

DATE: 04/26/2011

DIRECTION OF
PHOTOGRAPH:
Toward ground



DESCRIPTION: Close-up view of a Standard Oil Co. drum on the east side of the Tree Farm property.

FIELD PHOTOGRAPHY LOG SHEET

PROPERTY NAME: TREE FARM
U.S. EPA ID #: MIB000000166

PAGE: 14 OF 17

DATE: 03/28/2011

DIRECTION OF
PHOTOGRAPH:
NE



DESCRIPTION: View of building foundation remains on the east side of the Tree Farm property.

DATE: 03/28/2011

DIRECTION OF
PHOTOGRAPH:
N



DESCRIPTION: View of building foundation remains on the east side of the Tree Farm property.

FIELD PHOTOGRAPHY LOG SHEET

PROPERTY NAME: TREE FARM
U.S. EPA ID #: MIB000000166

PAGE: 15 OF 17

DATE: 03/30/2011

DIRECTION OF
PHOTOGRAPH:
Toward ground



DESCRIPTION: View of uprooted tree near the center of the Tree Farm property.

DATE: 03/30/2011

DIRECTION OF
PHOTOGRAPH:
N



DESCRIPTION: View of tires near the center of the Tree Farm property.

FIELD PHOTOGRAPHY LOG SHEET

PROPERTY NAME: TREE FARM
U.S. EPA ID #: MIB000000166

PAGE: 16 OF 17

DATE: 04/13/2011

DIRECTION OF
PHOTOGRAPH:
W



DESCRIPTION: View of culvert and surface drainage near the center of the Tree Farm property; some surface drainage in the area.

DATE: 04/13/2011

DIRECTION OF
PHOTOGRAPH:
Toward ground



DESCRIPTION: View of deteriorating plastic drum near fill area in the southwest corner of the Tree Farm property.

Appendix C
Geophysical Survey

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE COMMUNICATION

TO: Teresa Ducsay, Environmental Quality Analyst
Site Assessment and Site Management Unit, Superfund Section

FROM: Charles Graff, Senior Geologist
Geology and Defense Site Management Unit, Superfund Section

C. W. G.

DATE: August 31, 2011

SUBJECT: Geophysical Survey Performed at the Tree Farm Property in
Rochester Hills, Michigan, Spring 2011.

Introduction

As part of a Brownfield assessment of the Tree Farm Property, staff of the MDEQ performed a geophysical survey of the property to evaluate the potential for buried drums, tanks, or other metal debris that might be sources for buried contamination at the property. For this purpose, a Geonics EM61-Mark 2 unit was rented for metal detection. This is a high sensitivity high resolution four-channel time domain electromagnetic metal detector that detects conductive material and objects (both ferrous and non-ferrous metal) below the ground surface, i.e., metal drums and debris. It has advantages over similar equipment in that it can still provide accurate data on subsurface metal objects when used nearby metal structures located at the surface, e.g., chain-link fences, metal buildings, or vehicles.

Staff conducted site reconnaissance on the property prior to performing the geophysical survey to evaluate those areas that appeared to have the most potential for containing buried waste. The property was heavily overgrown with shrubs, saplings, small to large trees, and phragmites plants located in the lower lying areas that contained more saturated soils. Much of the vegetation on the flat-lying areas had to be removed in order to perform the geophysical survey adequately. It was apparent from the reconnaissance visit that two main areas in particular had been filled in and were good candidates for electromagnetic work.

Specifics of the Instrument and the Survey Process

The EM61-Mark 2 unit consists of two electromagnetic coils of 1 meter by 0.5 meter mounted on a small pull-along trailer with two wheels. The operator carries the batteries and electronics on a backpack and carries a handheld computer that is used to set up and store the data (data logger) from the coils while pulling the trailer along the survey transects.

The electromagnetic readings were taken when an odometer mounted on the axle of the trailer wheel triggered the data logger to record the measurements at intervals of 0.193 meters, or 0.63 feet (< 8 inches). A Trimble GeoXH Global Positioning System

Figure 1: General Site Map With Geophysical Survey Areas

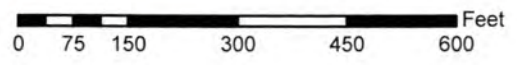


Tree Farm Property-EM61-Mark 2 Electromagnetic Results

Legend

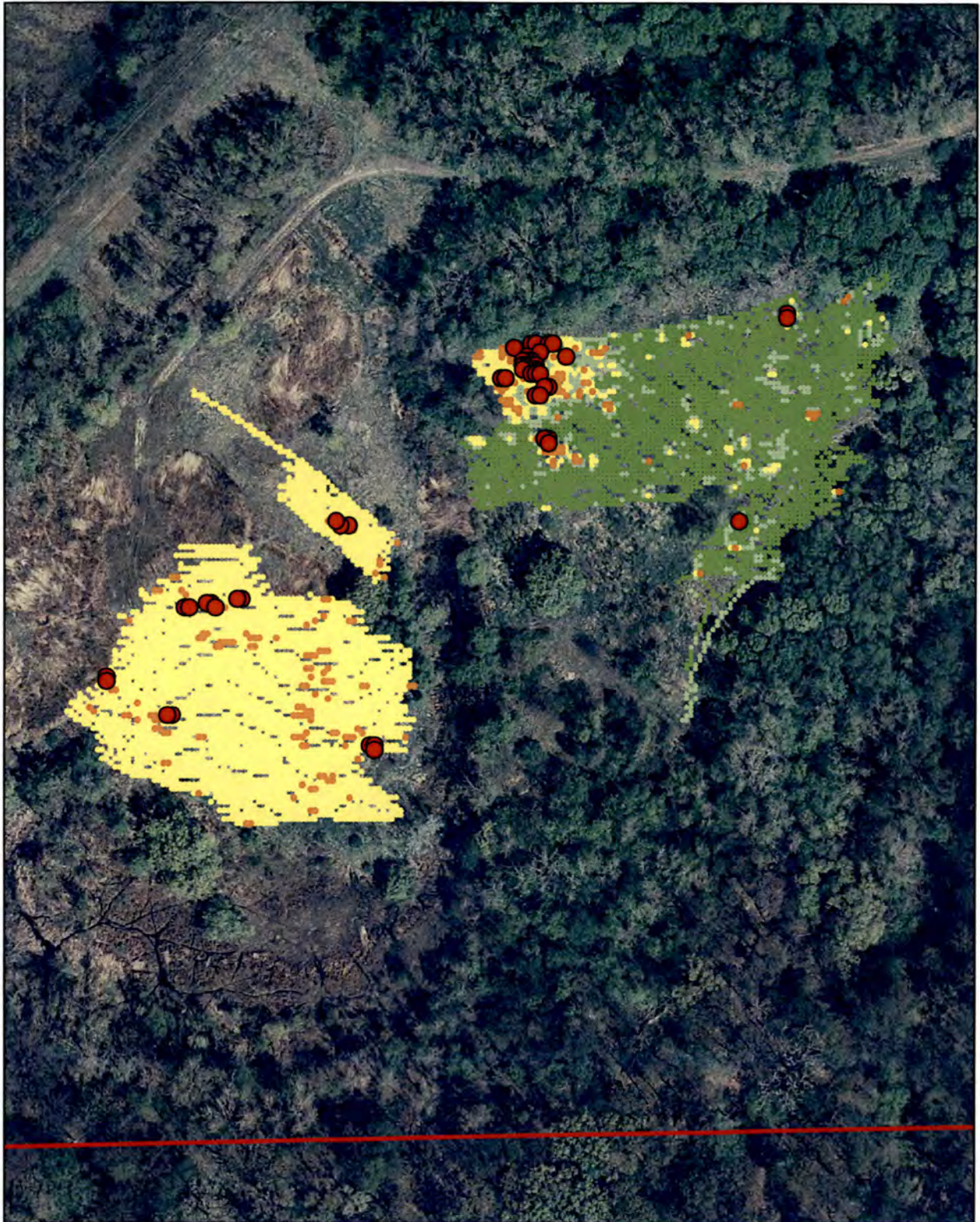
- Property Boundary
- West Area
- East Area

Tree Farm
1406 East Avon Road
Rochester Hills, MI 48307
T3N R11E Section 24
Oakland County
MIB000000166



Compiled by CW Graff, 7-8-11, Michigan Georef
NAD 83m, ArcView 9.3.1, Michigan Geographic
Data Library, TreeFarm_MGR83.mxd

Figure 2. Western and Eastern EM Survey Areas, Channel 1

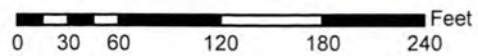


Legend
EM and GPS Data
Channel 1

●	-1172.00000 - -839.00000
●	-838.99999 - -276.00000
●	-275.99999 - 1088.00000
●	1088.00001 - 4302.00000
●	4302.00001 - 11796.00000

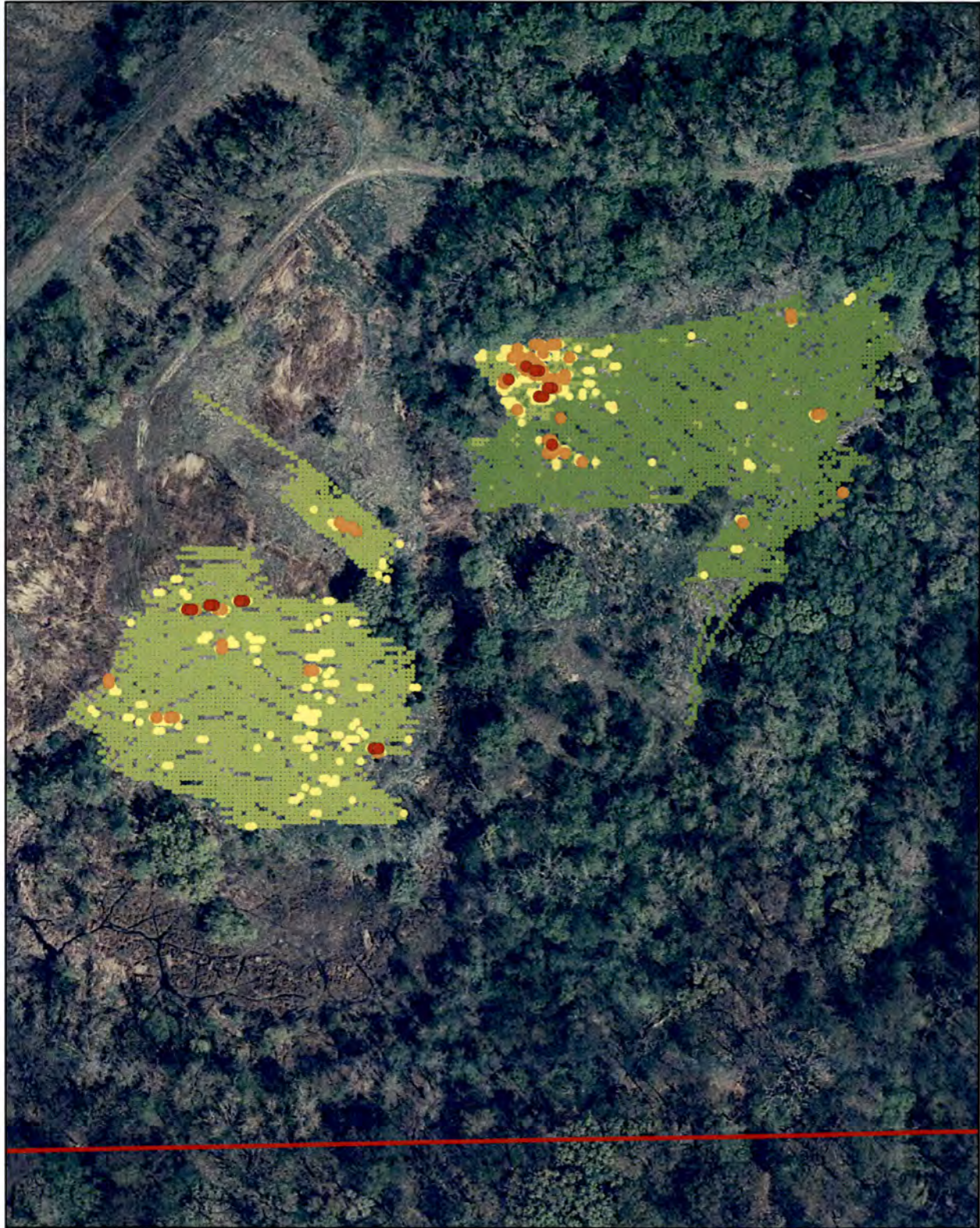
Tree Farm Property EM61-Mark 2 Electromagnetic Results

Tree Farm
1406 East Avon Road
Rochester Hills, MI 48307
T3N R11E Section 24
Oakland County
MIB000000166



Compiled by CW Graff, 7-8-11, Michigan Georef
NAD 83m, ArcView 9.3.1, Michigan Geographic
Data Library, TreeFarm_MGR83.mxd

Figure 3. Western and Eastern EM Survey Areas, Channel 2



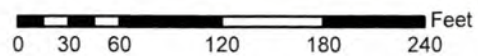
Legend

EM and GPS Data
Channel 2

●	-1172.00000 - -839.00000
●	-838.99999 - -276.00000
●	-275.99999 - 1088.00000
●	1088.00001 - 4302.00000
●	4302.00001 - 11796.00000

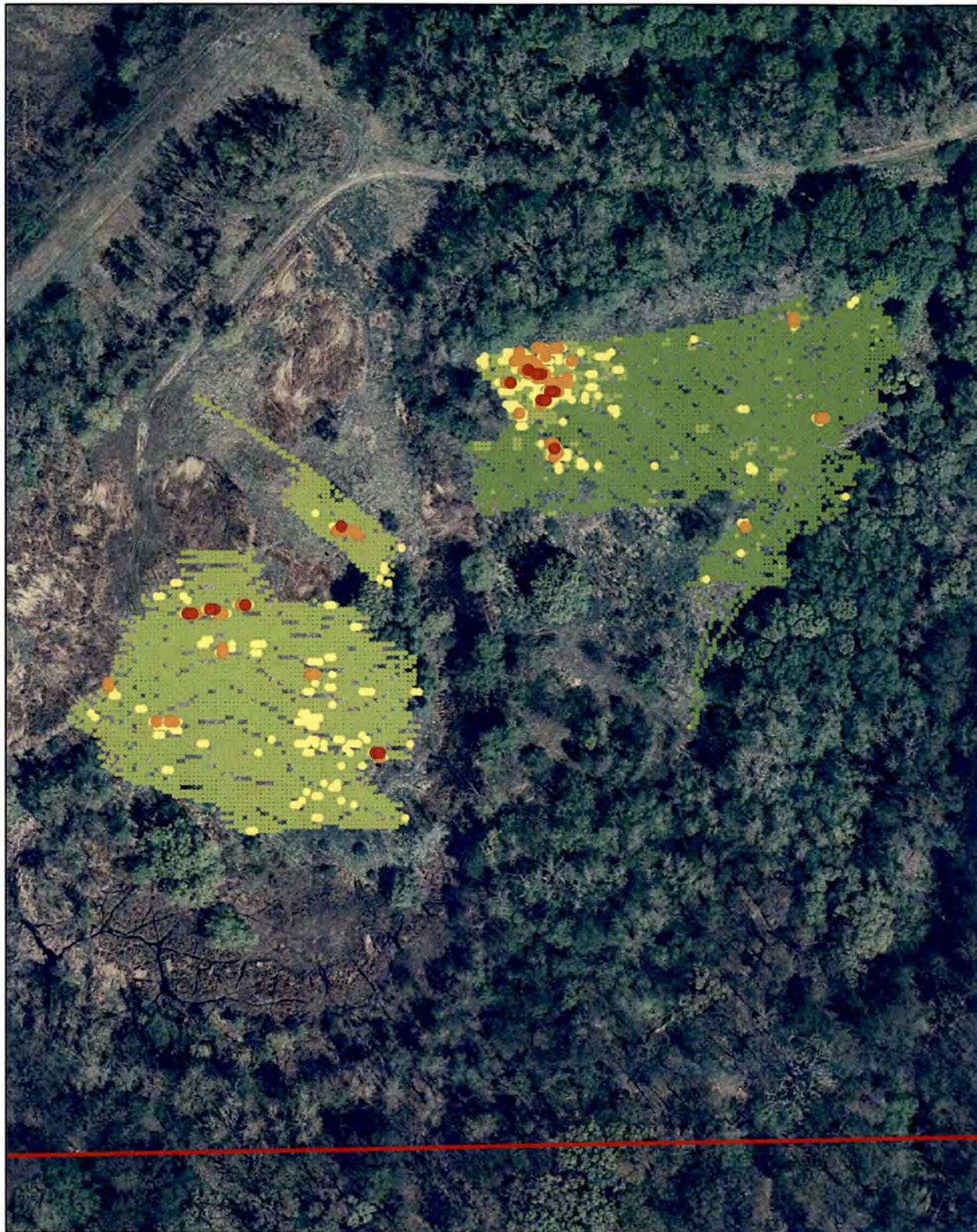
Tree Farm Property EM61-Mark 2 Electromagnetic Results

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Compiled by CW Graff, 7-8-11, Michigan Georef
NAD 83m, ArcView 9.3.1, Michigan Geographic
Data Library, TreeFarm_MGR83.mxd

Figure 4. Western and Eastern EM Survey Areas, Channel 3

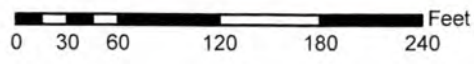


Legend
EM and GPS Data
Channel 3

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●	-838.99999 - -276.00000
●	-275.99999 - 1088.00000
●	1088.00001 - 4302.00000
●	4302.00001 - 11796.00000

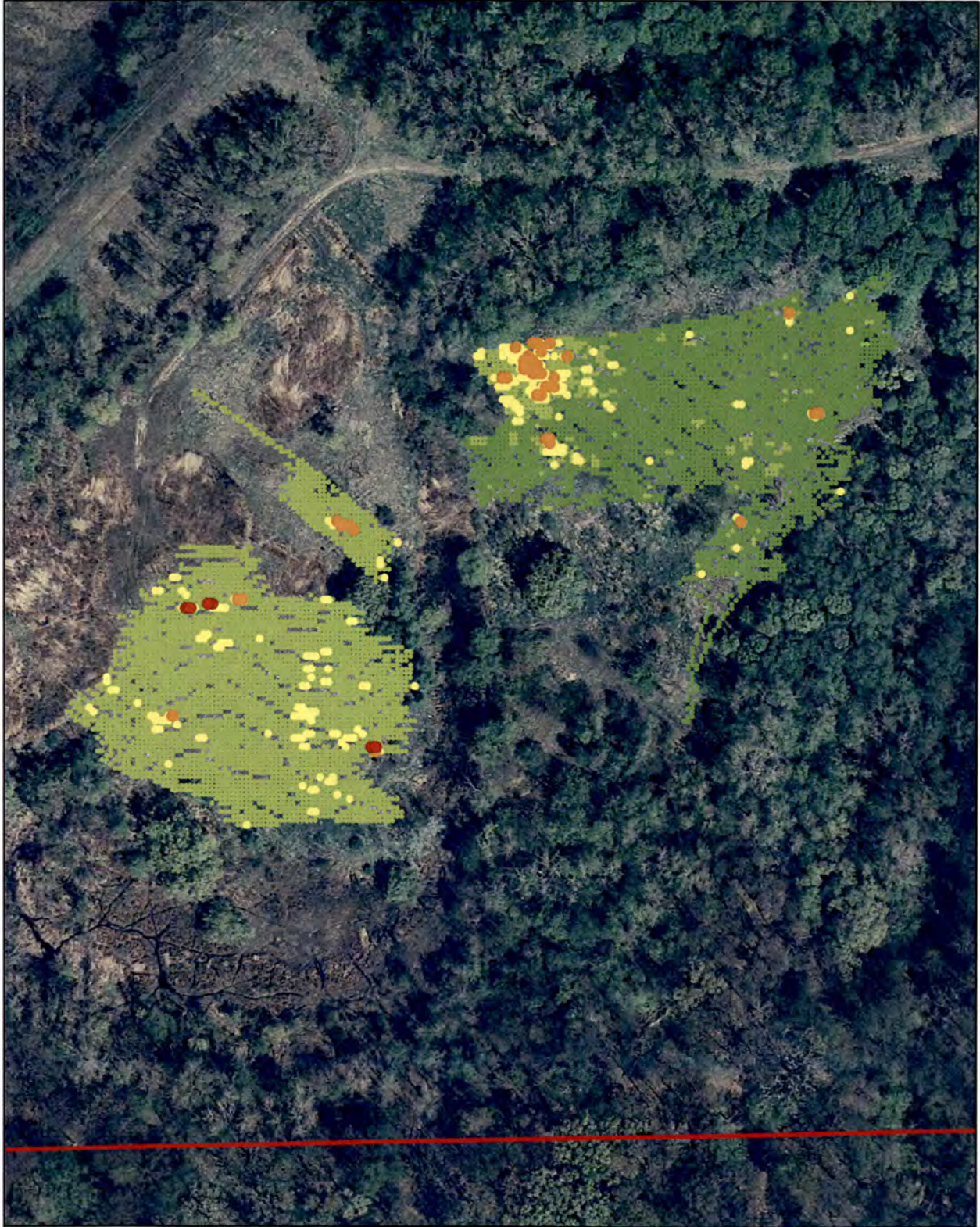
Tree Farm Property EM61-Mark 2 Electromagnetic Results

Tree Farm
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Oakland County
MIB000000166



Compiled by CW Graff, 7-8-11, Michigan Georef
NAD 83m, ArcView 9.3.1, Michigan Geographic
Data Library, TreeFarm_MGR83.mxd

Figure 5. Western and Eastern EM Survey Areas, Channel 4

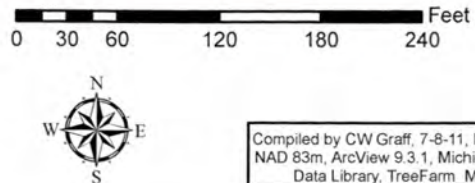


Legend
EM and GPS Data
Channel 4

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●	-838.99999 - -276.00000
●	-275.99999 - 1088.00000
●	1088.00001 - 4302.00000
●	4302.00001 - 11796.00000

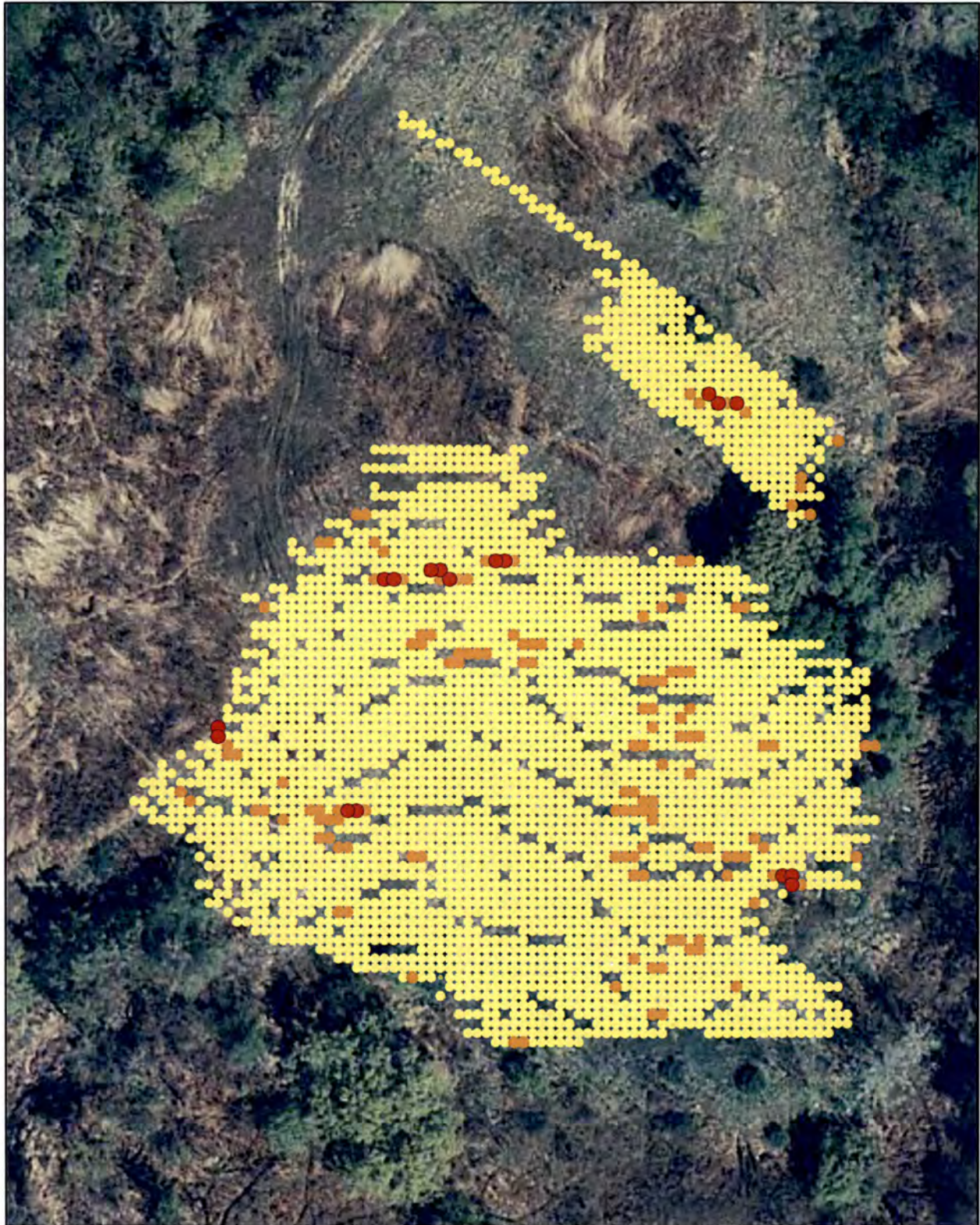
Tree Farm Property EM61-Mark 2 Electromagnetic Results

Tree Farm
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Rochester Hills, MI 48307
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Oakland County
MIB000000166



Compiled by CW Graff, 7-8-11, Michigan Georef
NAD 83m, ArcView 9.3.1, Michigan Geographic
Data Library, TreeFarm_MGR83.mxd

Figure 6. Close Up View of Western EM Survey Area, Channel 1



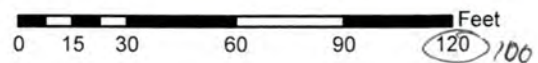
Tree Farm Property EM61-Mark 2 Electromagnetic Results

Legend

EM and GPS Data
Channel 1

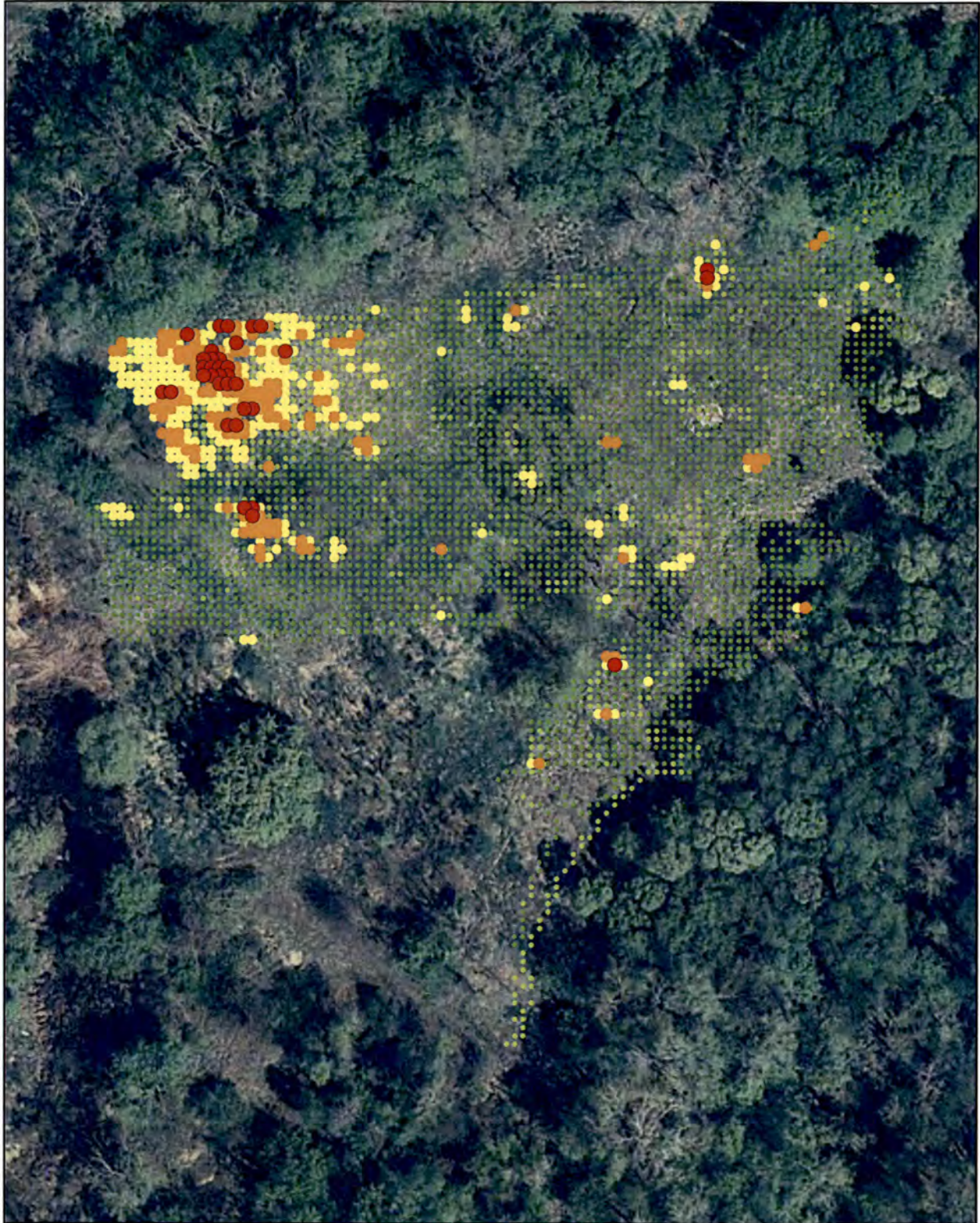
●	-1172.00000 - -839.00000
●	-838.99999 - -276.00000
●	-275.99999 - 1088.00000
●	1088.00001 - 4302.00000
●	4302.00001 - 11796.00000

Tree Farm
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Oakland County
MIB000000166



Compiled by CW Graff, 7-8-11, Michigan Georef
NAD 83m, ArcView 9.3.1, Michigan Geographic
Data Library, TreeFarm_MGR83.mxd

Figure 7. Close Up View of Eastern EM Survey Area, Channel 1



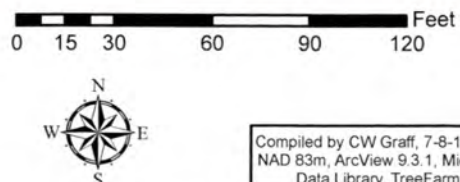
Legend

EM and GPS Data

Channel 1

●	-1172.00000 - -839.00000
●	-838.99999 - -276.00000
●	-275.99999 - 1088.00000
●	1088.00001 - 4302.00000
●	4302.00001 - 11796.00000

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MIB000000166



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NAD 83m, ArcView 9.3.1, Michigan Geographic
Data Library, TreeFarm_MGR83.mxd


 MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
 ENVIRONMENTAL LABORATORY

 P.O. Box 30270
 Lansing, MI 48909
 TEL: (517) 335-9800
 FAX: (517) 335-9600

Client ID: TMW-10 (6.5'-7.5')

Lab ID: 1510021-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Pesticides									
789-02-6	2,4'-DDT	ND	0.010	ug/L	1	10/08/15	B513014	8081/8082	
72-54-8	4,4'-DDD	ND	0.020	ug/L	1	10/08/15	B513014	8081/8082	
72-55-9	4,4'-DDE	ND	0.020	ug/L	1	10/08/15	B513014	8081/8082	
50-29-3	4,4'-DDT	ND	0.020	ug/L	1	10/08/15	B513014	8081/8082	
319-84-6	a-BHC	ND	0.020	ug/L	1	10/08/15	B513014	8081/8082	
5103-71-9	a-Chlordane	ND	0.010	ug/L	1	10/08/15	B513014	8081/8082	
309-00-2	Aldrin	ND	0.010	ug/L	1	10/08/15	B513014	8081/8082	
319-85-7	b-BHC	ND	0.020	ug/L	1	10/08/15	B513014	8081/8082	
319-86-8	d-BHC	ND	0.020	ug/L	1	10/08/15	B513014	8081/8082	
60-57-1	Dieldrin	ND	0.020	ug/L	1	10/08/15	B513014	8081/8082	
959-98-8	Endosulfan I	ND	0.020	ug/L	1	10/08/15	B513014	8081/8082	
33213-65-9	Endosulfan II	ND	0.030	ug/L	1	10/08/15	B513014	8081/8082	
1031-07-8	Endosulfan sulfate	ND	0.050	ug/L	1	10/08/15	B513014	8081/8082	
72-20-8	Endrin	ND	0.020	ug/L	1	10/08/15	B513014	8081/8082	
7421-93-4	Endrin aldehyde	ND	0.020	ug/L	1	10/08/15	B513014	8081/8082	A08
53494-70-5	Endrin ketone	ND	0.020	ug/L	1	10/08/15	B513014	8081/8082	
3-89-9	g-BHC (Lindane)	ND	0.020	ug/L	1	10/08/15	B513014	8081/8082	
5103-74-2	g-Chlordane	ND	0.010	ug/L	1	10/08/15	B513014	8081/8082	
76-44-8	Heptachlor	ND	0.010	ug/L	1	10/08/15	B513014	8081/8082	
1024-57-3	Heptachlor epoxide	ND	0.010	ug/L	1	10/08/15	B513014	8081/8082	
87-82-1	Hexabromobenzene	ND	0.020	ug/L	1	10/08/15	B513014	8081/8082	
72-43-5	Methoxychlor	ND	0.050	ug/L	1	10/08/15	B513014	8081/8082	
2385-85-5	Mirex	ND	0.020	ug/L	1	10/08/15	B513014	8081/8082	
59080-40-9	PBB (BP-6)	ND	0.050	ug/L	1	10/08/15	B513014	8081/8082	
8001-35-2	Toxaphene	ND	0.10	ug/L	1	10/08/15	B513014	8081/8082	
Surrogate: Decachlorobiphenyl			65.6 %	30-150		10/08/15	B513014	8081/8082	
Surrogate: Tetrachloro-m-xylene			34.1 %	30-150		10/08/15	B513014	8081/8082	



DEPARTMENT OF ENVIRONMENTAL QUALITY

 MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
 ENVIRONMENTAL LABORATORY

 P.O. Box 30270
 Lansing, MI 48909
 TEL: (517) 335-9800
 FAX: (517) 335-9800

Client ID: TMW-10 (6.5'-7.5')

Lab ID: 1510021-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	10/08/15	B5I3014	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	10/08/15	B5I3014	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	10/08/15	B5I3014	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	10/08/15	B5I3014	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	10/08/15	B5I3014	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	10/08/15	B5I3014	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	10/08/15	B5I3014	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	10/08/15	B5I3014	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	10/08/15	B5I3014	8081/8082	
Surrogate: Decachlorobiphenyl			67.0 %	30-150		10/08/15	B5I3014	8081/8082	
Surrogate: Tetrachloro-m-xylene			34.7 %	30-150		10/08/15	B5I3014	8081/8082	
Inorganics-General Chemistry									
57-12-5	Total Cyanide	ND	0.050	mg/L	10	10/02/15	B5J0209	ASTM D7511-09	I
Inorganics-Metals									
7440-36-0	Antimony	ND	1.0	ug/L	1	10/13/15	B5J0602	6020/200.8	
7440-38-2	Arsenic	11	1.0	ug/L	1	10/13/15	B5J0602	6020/200.8	
7440-39-3	Barium	82	5.0	ug/L	1	10/13/15	B5J0602	6020/200.8	
7440-41-7	Beryllium	ND	1.0	ug/L	1	10/13/15	B5J0602	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	10/13/15	B5J0602	6020/200.8	
7440-47-3	Chromium	ND	1.0	ug/L	1	10/13/15	B5J0602	6020/200.8	
7440-48-4	Cobalt	ND	5.0	ug/L	1	10/13/15	B5J0602	6020/200.8	
7440-50-8	Copper	ND	1.0	ug/L	1	10/14/15	B5J0602	6020/200.8	
7439-89-6	Iron	11000	20	ug/L	1	10/16/15	B5J0602	6010/200.7	
7439-92-1	Lead	ND	1.0	ug/L	1	10/13/15	B5J0602	6020/200.8	
7439-96-5	Manganese	440	5.0	ug/L	1	10/13/15	B5J0602	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	10/15/15	B5J1405	7470/245.1	
7439-98-7	Molybdenum	ND	5.0	ug/L	1	10/13/15	B5J0602	6020/200.8	
7440-02-0	Nickel	7.3	2.0	ug/L	1	10/13/15	B5J0602	6020/200.8	
7782-49-2	Selenium	ND	1.0	ug/L	1	10/14/15	B5J0602	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	10/13/15	B5J0602	6020/200.8	
7440-28-0	Thallium	ND	2.0	ug/L	1	10/14/15	B5J0602	6020/200.8	
7440-62-2	Vanadium	ND	2.0	ug/L	1	10/13/15	B5J0602	6020/200.8	
7440-66-6	Zinc	ND	5.0	ug/L	1	10/13/15	B5J0602	6020/200.8	



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P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: TMW-02 (13'-14') DUP

Lab ID: 1510021-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	10/02/15	B5J0207	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	10/02/15	B5J0207	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1	10/02/15	B5J0207	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	10/02/15	B5J0207	8260	
591-78-6	2-Hexanone	ND	5.0	ug/L	1	10/02/15	B5J0207	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/02/15	B5J0207	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	10/02/15	B5J0207	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	10/02/15	B5J0207	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	10/02/15	B5J0207	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
108-86-1	Bromobenzene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	10/02/15	B5J0207	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	10/02/15	B5J0207	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	10/02/15	B5J0207	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	10/02/15	B5J0207	8260	
24-48-1	Dibromochloromethane	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	



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Client ID: TMW-02 (13'-14') DUP

Lab ID: 1510021-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	10/02/15	B5J0207	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	10/02/15	B5J0207	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	10/02/15	B5J0207	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	10/02/15	B5J0207	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	10/02/15	B5J0207	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
1330-20-7	m & p -Xylene	ND	2.0	ug/L	1	10/02/15	B5J0207	8260	
74-88-4	Methyl iodide	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	10/02/15	B5J0207	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	10/02/15	B5J0207	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
99-87-6	p-Isopropyl toluene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
75-65-0	tertiary Butyl Alcohol	ND	5.0	ug/L	1	10/02/15	B5J0207	8260	
994-05-8	tertiary Amyl methylether	ND	5.0	ug/L	1	10/02/15	B5J0207	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	10/02/15	B5J0207	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	5.0	ug/L	1	10/02/15	B5J0207	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	10/02/15	B5J0207	8260	
Surrogate: Bromofluorobenzene			100 %	85-115		10/02/15	B5J0207	8260	
Surrogate: Dibromofluoromethane			103 %	82.7-115		10/02/15	B5J0207	8260	
Surrogate: Toluene-d8			99.6 %	85-115		10/02/15	B5J0207	8260	



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Client ID: TMW-02 (13'-14') DUP

Lab ID: 1510021-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Methane									
74-84-0	Ethane	ND	0.10	mg/L	1	10/05/15	B5J0505	8015	
74-85-1	Ethylene	ND	0.010	mg/L	1	10/05/15	B5J0505	8015	
74-82-8	Methane	0:015	0.010	mg/L	1	10/05/15	B5J0505	8015	
Organics-Semivolatiles									
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/L	1	10/08/15	B5J0502	8270	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	ug/L	1	10/08/15	B5J0502	8270	
88-06-2	2,4,6-Trichlorophenol	ND	4.0	ug/L	1	10/08/15	B5J0502	8270	
120-83-2	2,4-Dichlorophenol	ND	10	ug/L	1	10/08/15	B5J0502	8270	
105-67-9	2,4-Dimethylphenol	ND	5.0	ug/L	1	10/08/15	B5J0502	8270	
51-28-5	2,4-Dinitrophenol	ND	25	ug/L	1	10/08/15	B5J0502	8270	
121-14-2	2,4-Dinitrotoluene	ND	5.0	ug/L	1	10/08/15	B5J0502	8270	
606-20-2	2,6-Dinitrotoluene	ND	5.0	ug/L	1	10/08/15	B5J0502	8270	
95-51-2	2-Chloroaniline	ND	5.0	ug/L	1	10/08/15	B5J0502	8270	
91-58-7	2-Chloronaphthalene	ND	2.0	ug/L	1	10/08/15	B5J0502	8270	
95-57-8	2-Chlorophenol	ND	10	ug/L	1	10/08/15	B5J0502	8270	
14-52-1	2-Methyl-4,6-dinitrophenol	ND	20	ug/L	1	10/08/15	B5J0502	8270	
1-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/08/15	B5J0502	8270	
95-48-7	2-Methylphenol (o-Cresol)	ND	10	ug/L	1	10/08/15	B5J0502	8270	
88-74-4	2-Nitroaniline	ND	20	ug/L	1	10/08/15	B5J0502	8270	
88-75-5	2-Nitrophenol	ND	5.0	ug/L	1	10/08/15	B5J0502	8270	
108394,106445	3 & 4-Methylphenol	ND	20	ug/L	1	10/08/15	B5J0502	8270	
99-09-2	3-Nitroaniline	ND	20	ug/L	1	10/08/15	B5J0502	8270	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	ug/L	1	10/08/15	B5J0502	8270	
59-50-7	4-Chloro-3-methyl-phenol	ND	5.0	ug/L	1	10/08/15	B5J0502	8270	
106-47-8	4-Chloroaniline	ND	10	ug/L	1	10/08/15	B5J0502	8270	
7005-72-3	4-Chlorodiphenylether	ND	1.0	ug/L	1	10/08/15	B5J0502	8270	
100-01-6	4-Nitroaniline	ND	20	ug/L	1	10/08/15	B5J0502	8270	
100-02-7	4-Nitrophenol	ND	25	ug/L	1	10/08/15	B5J0502	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	10/08/15	B5J0502	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	10/08/15	B5J0502	8270	
62-53-3	Aniline	ND	4.0	ug/L	1	10/08/15	B5J0502	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	10/08/15	B5J0502	8270	
103-33-3	Azobenzene	ND	2.0	ug/L	1	10/08/15	B5J0502	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	10/08/15	B5J0502	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	10/08/15	B5J0502	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	10/08/15	B5J0502	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	10/08/15	B5J0502	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	10/08/15	B5J0502	8270	
100-51-6	Benzyl Alcohol	ND	50	ug/L	1	10/08/15	B5J0502	8270	
1-91-1	Bis(2-chloroethoxy)methane	ND	2.0	ug/L	1	10/08/15	B5J0502	8270	



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Client ID: TMW-02 (13'-14') DUP

Lab ID: 1510021-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
111-44-4	Bis(2-chloroethyl)ether	ND	1.0	ug/L	1	10/08/15	B5J0502	8270	
108-60-1	Bis(2-chloroisopropyl)ether	ND	1.0	ug/L	1	10/08/15	B5J0502	8270	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	5.0	ug/L	1	10/08/15	B5J0502	8270	
85-68-7	Butyl benzyl phthalate	ND	5.0	ug/L	1	10/08/15	B5J0502	8270	
86-74-8	Carbazole	ND	5.0	ug/L	1	10/08/15	B5J0502	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	10/08/15	B5J0502	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	10/08/15	B5J0502	8270	
132-64-9	Dibenzofuran	ND	4.0	ug/L	1	10/08/15	B5J0502	8270	
84-66-2	Diethylphthalate	ND	5.0	ug/L	1	10/08/15	B5J0502	8270	
131-11-3	Dimethyl phthalate	ND	5.0	ug/L	1	10/08/15	B5J0502	8270	
84-74-2	Di-n-butyl phthalate	ND	5.0	ug/L	1	10/08/15	B5J0502	8270	
117-84-0	Di-n-octyl phthalate	ND	5.0	ug/L	1	10/08/15	B5J0502	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	10/08/15	B5J0502	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	10/08/15	B5J0502	8270	
118-74-1	Hexachlorobenzene	ND	1.0	ug/L	1	10/08/15	B5J0502	8270	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/L	1	10/08/15	B5J0502	8270	
77-47-4	Hexachlorocyclopentadiene	ND	10	ug/L	1	10/08/15	B5J0502	8270	
67-72-1	Hexachloroethane	ND	1.0	ug/L	1	10/08/15	B5J0502	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	10/08/15	B5J0502	8270	
78-59-1	Isophorone	ND	1.0	ug/L	1	10/08/15	B5J0502	8270	
121-69-7	N,N-dimethylaniline	ND	5.0	ug/L	1	10/08/15	B5J0502	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	10/08/15	B5J0502	8270	
98-95-3	Nitrobenzene	ND	2.0	ug/L	1	10/08/15	B5J0502	8270	
100-61-8	N-methylaniline	ND	1.0	ug/L	1	10/08/15	B5J0502	8270	
67-75-9	N-Nitrosodimethylamine	ND	5.0	ug/L	1	10/08/15	B5J0502	8270	
621-64-7	N-Nitrosodi-n-propylamine	ND	2.0	ug/L	1	10/08/15	B5J0502	8270	
86-30-6	N-Nitrosodiphenylamine	ND	2.0	ug/L	1	10/08/15	B5J0502	8270	
87-86-5	Pentachlorophenol	ND	20	ug/L	1	10/08/15	B5J0502	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	10/08/15	B5J0502	8270	
108-95-2	Phenol	ND	5.0	ug/L	1	10/08/15	B5J0502	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	10/08/15	B5J0502	8270	
110-86-1	Pyridine	ND	20	ug/L	1	10/08/15	B5J0502	8270	
632-22-4	Tetramethylurea	ND	1.0	ug/L	1	10/08/15	B5J0502	8270	
Surrogate: 2,4,6-Tribromophenol			71.6 %	33.8-115		10/08/15	B5J0502	8270	
Surrogate: 2-Fluorobiphenyl			41.5 %	24.1-115		10/08/15	B5J0502	8270	
Surrogate: 2-Fluorophenol			18.1 %	10-115		10/08/15	B5J0502	8270	
Surrogate: Nitrobenzene-d5			40.8 %	17.8-115		10/08/15	B5J0502	8270	
Surrogate: Phenol-d6			10.9 %	10-115		10/08/15	B5J0502	8270	
Surrogate: p-Terphenyl-d14			66.1 %	41.8-115		10/08/15	B5J0502	8270	


 MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
 ENVIRONMENTAL LABORATORY

 P.O. Box 30270
 Lansing, MI 48909
 TEL: (517) 335-9800
 FAX: (517) 335-9600

Client ID: TMW-02 (13'-14') DUP

Lab ID: 1510021-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Pesticides									
789-02-6	2,4'-DDT	ND	0.010	ug/L	1	10/08/15	B5I3014	8081/8082	
72-54-8	4,4'-DDD	ND	0.020	ug/L	1	10/08/15	B5I3014	8081/8082	
72-55-9	4,4'-DDE	ND	0.020	ug/L	1	10/08/15	B5I3014	8081/8082	
50-29-3	4,4'-DDT	ND	0.020	ug/L	1	10/08/15	B5I3014	8081/8082	
319-84-6	a-BHC	ND	0.020	ug/L	1	10/08/15	B5I3014	8081/8082	
5103-71-9	a-Chlordane	ND	0.010	ug/L	1	10/08/15	B5I3014	8081/8082	
309-00-2	Aldrin	ND	0.010	ug/L	1	10/08/15	B5I3014	8081/8082	
319-85-7	b-BHC	ND	0.020	ug/L	1	10/08/15	B5I3014	8081/8082	
319-86-8	d-BHC	ND	0.020	ug/L	1	10/08/15	B5I3014	8081/8082	
60-57-1	Dieldrin	ND	0.020	ug/L	1	10/08/15	B5I3014	8081/8082	
959-98-8	Endosulfan I	ND	0.020	ug/L	1	10/08/15	B5I3014	8081/8082	
33213-65-9	Endosulfan II	ND	0.030	ug/L	1	10/08/15	B5I3014	8081/8082	
1031-07-8	Endosulfan sulfate	ND	0.050	ug/L	1	10/08/15	B5I3014	8081/8082	
72-20-8	Endrin	ND	0.020	ug/L	1	10/08/15	B5I3014	8081/8082	
7421-93-4	Endrin aldehyde	ND	0.020	ug/L	1	10/08/15	B5I3014	8081/8082	A08
53494-70-5	Endrin ketone	ND	0.020	ug/L	1	10/08/15	B5I3014	8081/8082	
389-9	g-BHC (Lindane)	ND	0.020	ug/L	1	10/08/15	B5I3014	8081/8082	
5103-74-2	g-Chlordane	ND	0.010	ug/L	1	10/08/15	B5I3014	8081/8082	
76-44-8	Heptachlor	ND	0.010	ug/L	1	10/08/15	B5I3014	8081/8082	
1024-57-3	Heptachlor epoxide	ND	0.010	ug/L	1	10/08/15	B5I3014	8081/8082	
87-82-1	Hexabromobenzene	ND	0.020	ug/L	1	10/08/15	B5I3014	8081/8082	
72-43-5	Methoxychlor	ND	0.050	ug/L	1	10/08/15	B5I3014	8081/8082	
2385-85-5	Mirex	ND	0.020	ug/L	1	10/08/15	B5I3014	8081/8082	
59080-40-9	PBB (BP-6)	ND	0.050	ug/L	1	10/08/15	B5I3014	8081/8082	
8001-35-2	Toxaphene	ND	0.10	ug/L	1	10/08/15	B5I3014	8081/8082	
Surrogate: Decachlorobiphenyl			61.9 %	30-150		10/08/15	B5I3014	8081/8082	
Surrogate: Tetrachloro-m-xylene			48.5 %	30-150		10/08/15	B5I3014	8081/8082	



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Client ID: TMW-02 (13'-14') DUP

Lab ID: 1510021-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	10/08/15	B5I3014	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	10/08/15	B5I3014	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	10/08/15	B5I3014	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	10/08/15	B5I3014	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	10/08/15	B5I3014	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	10/08/15	B5I3014	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	10/08/15	B5I3014	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	10/08/15	B5I3014	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	10/08/15	B5I3014	8081/8082	
Surrogate: Decachlorobiphenyl			63.2 %	30-150		10/08/15	B5I3014	8081/8082	
Surrogate: Tetrachloro-m-xylene			49.2 %	30-150		10/08/15	B5I3014	8081/8082	
Inorganics-General Chemistry									
57-12-5	Total Cyanide	ND	0.005	mg/L	1	10/02/15	B5J0209	ASTM D7511-09	
Inorganics-Metals									
7440-36-0	Antimony	ND	1.0	ug/L	1	10/13/15	B5J0602	6020/200.8	
7440-38-2	Arsenic	6.1	1.0	ug/L	1	10/13/15	B5J0602	6020/200.8	
7440-39-3	Barium	310	5.0	ug/L	1	10/13/15	B5J0602	6020/200.8	
7440-41-7	Beryllium	ND	1.0	ug/L	1	10/13/15	B5J0602	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	10/13/15	B5J0602	6020/200.8	
7440-47-3	Chromium	2.6	1.0	ug/L	1	10/13/15	B5J0602	6020/200.8	
7440-48-4	Cobalt	ND	5.0	ug/L	1	10/13/15	B5J0602	6020/200.8	
7440-50-8	Copper	3.3	1.0	ug/L	1	10/14/15	B5J0602	6020/200.8	
7439-89-6	Iron	7600	20	ug/L	1	10/16/15	B5J0602	6010/200.7	
7439-92-1	Lead	2.0	1.0	ug/L	1	10/13/15	B5J0602	6020/200.8	
7439-96-5	Manganese	230	5.0	ug/L	1	10/13/15	B5J0602	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	10/15/15	B5J1405	7470/245.1	
7439-98-7	Molybdenum	ND	5.0	ug/L	1	10/13/15	B5J0602	6020/200.8	
7440-02-0	Nickel	17	2.0	ug/L	1	10/13/15	B5J0602	6020/200.8	
7782-49-2	Selenium	ND	1.0	ug/L	1	10/13/15	B5J0602	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	10/13/15	B5J0602	6020/200.8	
7440-28-0	Thallium	ND	2.0	ug/L	1	10/14/15	B5J0602	6020/200.8	
7440-62-2	Vanadium	5.3	2.0	ug/L	1	10/13/15	B5J0602	6020/200.8	
7440-66-6	Zinc	17	5.0	ug/L	1	10/13/15	B5J0602	6020/200.8	



Analysis Request Sheet

Lab Work Order Number: **1510021** Project Name: **Tree Farm** Matrix: **WATER**

Site Code/Project Number: **MI300000196** AY: **16** CC Email 1: **DUCSAYT@MI.gov** Project TAT Days: _____ Sample Collector: **Teresa Ducey**

Dept-Division-District: **MDEQ/ARD** Index: **44092** CC Email 2: _____ Project Due Date: _____ Sample Collector Phone: **517-284-5088**

State Project Manager: **Teresa Ducey** PCA: **30701** CC Email 3: _____ Contract Firm: _____

State Project Manager Email: **DUCSAYT@MI.gov** Project: **128** Overflow Lab Choice 1: **Trimatrix** Contract Firm Primary Contact: _____

State Project Manager Phone: **517-284-5088** Phase: **19** Overflow Lab Choice 2: _____ Primary Contact Phone: _____

Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments	Field Cond	Field D.O.	Field pH	Field Secchi	Field Temp
1	TMW-02 (13-14')	10-1-15	1325	10						
2	TMW-06 (20-21')	9-30-15	1315	1						
3	TMW-07 (17-18')	10-1-15	1500	1						
4	TMW-08 (19-20')	9-30-15	1345	1						
5	TMW-09 (12-13')	10-1-15	1730	1						
6	TMW-10 (6.5-7.5')	10-1-15	1640	10						
7	TMW-02 (13-14') DUP	10-1-15	1325	10						
8										
9										
10										

ORGANIC CHEMISTRY	MAD - DISSOLVED METALS	MA - TOTAL METALS	GENERAL CHEMISTRY
VOA - Volatile Organic Acids Volatiles - Full List 1 2 3 4 5 6 7 8 9 10 BTEX/MTBE/TMB only 1 2 3 4 5 6 7 8 9 10 Chlorinated only 1 2 3 4 5 6 7 8 9 10 GRO 1 2 3 4 5 6 7 8 9 10 1,4 Dioxane 1 2 3 4 5 6 7 8 9 10 METH - Methane, Ethane, Ethene Methane, Ethane, Ethene 1 2 3 4 5 6 7 8 9 10 ON - Pesticides, PCBs Pesticides & PCBs 1 2 3 4 5 6 7 8 9 10 Pesticides only 1 2 3 4 5 6 7 8 9 10 PCBs only 1 2 3 4 5 6 7 8 9 10 Toxaphene 1 2 3 4 5 6 7 8 9 10 Chlordane 1 2 3 4 5 6 7 8 9 10 BNA - Base Neutral Acids BNAs 1 2 3 4 5 6 7 8 9 10 Benzidines 1 2 3 4 5 6 7 8 9 10 PNAs only 1 2 3 4 5 6 7 8 9 10 BNs only 1 2 3 4 5 6 7 8 9 10 Acids only 1 2 3 4 5 6 7 8 9 10 Organic Specialty Requests Library search - Volatiles 1 2 3 4 5 6 7 8 9 10 Library search - SemVolts 1 2 3 4 5 6 7 8 9 10 Finger Print 1 2 3 4 5 6 7 8 9 10 DRO/ORO 1 2 3 4 5 6 7 8 9 10	Diss - Silver - Ag 1 2 3 4 5 6 7 8 9 10 Diss - Aluminum - Al 1 2 3 4 5 6 7 8 9 10 Diss - Arsenic - As 1 2 3 4 5 6 7 8 9 10 Diss - Boron - B 1 2 3 4 5 6 7 8 9 10 Diss - Barium - Ba 1 2 3 4 5 6 7 8 9 10 Diss - Beryllium - Be 1 2 3 4 5 6 7 8 9 10 Diss - Cadmium - Cd 1 2 3 4 5 6 7 8 9 10 Diss - Cobalt - Co 1 2 3 4 5 6 7 8 9 10 Diss - Chromium - Cr 1 2 3 4 5 6 7 8 9 10 Diss - Copper - Cu 1 2 3 4 5 6 7 8 9 10 Diss - Iron - Fe 1 2 3 4 5 6 7 8 9 10 Diss - Mercury - Hg 1 2 3 4 5 6 7 8 9 10 Diss - Lithium - Li 1 2 3 4 5 6 7 8 9 10 Diss - Manganese - Mn 1 2 3 4 5 6 7 8 9 10 Diss - Molybdenum - Mo 1 2 3 4 5 6 7 8 9 10 Diss - Nickel - Ni 1 2 3 4 5 6 7 8 9 10 Diss - Lead - Pb 1 2 3 4 5 6 7 8 9 10 Diss - Antimony - Sb 1 2 3 4 5 6 7 8 9 10 Diss - Selenium - Se 1 2 3 4 5 6 7 8 9 10 Diss - Strontium - Sr 1 2 3 4 5 6 7 8 9 10 Diss - Titanium - Ti 1 2 3 4 5 6 7 8 9 10 Diss - Thallium - Tl 1 2 3 4 5 6 7 8 9 10 Diss - Uranium - U 1 2 3 4 5 6 7 8 9 10 Diss - Vanadium - V 1 2 3 4 5 6 7 8 9 10 Diss - Zinc - Zn 1 2 3 4 5 6 7 8 9 10 Diss - Calcium - Ca 1 2 3 4 5 6 7 8 9 10 Diss - Potassium - K 1 2 3 4 5 6 7 8 9 10 Diss - Magnesium - Mg 1 2 3 4 5 6 7 8 9 10 Diss - Sodium - Na 1 2 3 4 5 6 7 8 9 10 Diss - Hardness - Ca, Mg 1 2 3 4 5 6 7 8 9 10 MD - Metals Dissolved Lab Filtration 1 2 3 4 5 6 7 8 9 10	Silver - Ag 1 2 3 4 5 6 7 8 9 10 Aluminum - Al 1 2 3 4 5 6 7 8 9 10 Arsenic - As 1 2 3 4 5 6 7 8 9 10 Boron - B 1 2 3 4 5 6 7 8 9 10 Barium - Ba 1 2 3 4 5 6 7 8 9 10 Beryllium - Be 1 2 3 4 5 6 7 8 9 10 Cadmium - Cd 1 2 3 4 5 6 7 8 9 10 Cobalt - Co 1 2 3 4 5 6 7 8 9 10 Chromium - Cr 1 2 3 4 5 6 7 8 9 10 Copper - Cu 1 2 3 4 5 6 7 8 9 10 Iron - Fe 1 2 3 4 5 6 7 8 9 10 Mercury - Hg 1 2 3 4 5 6 7 8 9 10 Lithium - Li 1 2 3 4 5 6 7 8 9 10 Manganese - Mn 1 2 3 4 5 6 7 8 9 10 Molybdenum - Mo 1 2 3 4 5 6 7 8 9 10 Nickel - Ni 1 2 3 4 5 6 7 8 9 10 Lead - Pb 1 2 3 4 5 6 7 8 9 10 Antimony - Sb 1 2 3 4 5 6 7 8 9 10 Selenium - Se 1 2 3 4 5 6 7 8 9 10 Zinc - Zn 1 2 3 4 5 6 7 8 9 10 Calcium - Ca 1 2 3 4 5 6 7 8 9 10 Potassium - K 1 2 3 4 5 6 7 8 9 10 Magnesium - Mg 1 2 3 4 5 6 7 8 9 10 Sodium - Na 1 2 3 4 5 6 7 8 9 10 Hardness - Ca, Mg 1 2 3 4 5 6 7 8 9 10 LHG - Low Level Mercury Mercury Low Level - Hg 1 2 3 4 5 6 7 8 9 10	GB Total Cyanide - CN 1 2 3 4 5 6 7 8 9 10 GB Amenable Cyanide - CN 1 2 3 4 5 6 7 8 9 10 GCN Available Cyanide - CN 1 2 3 4 5 6 7 8 9 10 CA Chlorophyll 1 2 3 4 5 6 7 8 9 10 GN Ortho Phosphate - OP 1 2 3 4 5 6 7 8 9 10 GN Nitrite - NO ₂ 1 2 3 4 5 6 7 8 9 10 GN Nitrate - NO ₃ (Calc.) 1 2 3 4 5 6 7 8 9 10 GN Suspended Solids - SS 1 2 3 4 5 6 7 8 9 10 GN Dissolved Solids - TDS 1 2 3 4 5 6 7 8 9 10 MN Diss Solids - TDS (Calc.) 1 2 3 4 5 6 7 8 9 10 GN Turbidity 1 2 3 4 5 6 7 8 9 10 MN Total Alkalinity 1 2 3 4 5 6 7 8 9 10 MN Bicarb/Carb Alkalinity (Includes Total Alkalinity) 1 2 3 4 5 6 7 8 9 10 MN Chloride - Cl 1 2 3 4 5 6 7 8 9 10 MN Fluoride - F 1 2 3 4 5 6 7 8 9 10 MN Sulfate - SO ₄ 1 2 3 4 5 6 7 8 9 10 MN Chromium 6 - Cr+6 1 2 3 4 5 6 7 8 9 10 MN Conductivity 1 2 3 4 5 6 7 8 9 10 MN pH 1 2 3 4 5 6 7 8 9 10 GA Chem Oxyg Dem - COD 1 2 3 4 5 6 7 8 9 10 GA Diss Org Carbon - DOC (FF) (Field - Filtered & Preserved) 1 2 3 4 5 6 7 8 9 10 GN Diss Org Carbon - DOC (LF) (Lab - Filtered & Preserved) 1 2 3 4 5 6 7 8 9 10 GA Total Org Carbon - TOC 1 2 3 4 5 6 7 8 9 10 GA Ammonia - NH ₃ 1 2 3 4 5 6 7 8 9 10 GA Nitrate+Nitrite - NO ₃ +NO ₂ 1 2 3 4 5 6 7 8 9 10 GA Kjeldahl Nitrogen - KN 1 2 3 4 5 6 7 8 9 10 GA Total Phosphorus - TP 1 2 3 4 5 6 7 8 9 10

Chain of Custody	Relinquished by	Received By	Date / Time
	Print Name & Org. Teresa Ducey, MDEQ	Kirby Shaw DEQ	10/2/15 0903
	Signature: <i>Teresa Ducey</i>	<i>Kirby Shaw</i>	
	Print Name & Org. _____	_____	
Signature: _____	_____		
Print Name & Org. _____	_____		
Signature: _____	_____		



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

14 October 2015

Work Order: 1510022

Price: \$630.00

Teresa Ducsay
MDEQ-RRD-LANSING
525 W. Allegan Street
Lansing, MI 48909
RE: TREE FARM

I certify that the analyses performed by the MDEQ Environmental Laboratory were conducted by methods approved by the U.S. Environmental Protection Agency and other appropriate regulatory agencies.

Sincerely,

George Krisztian
Laboratory Director



**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY**

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Lansing, MI 48909
TEL: (517) 335-9800
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MDEQ-RRD-LANSING
525 W. Allegan Street
Lansing MI, 48909

Project: TREE FARM
Site Code: MIB000000196
Project Manager: Teresa Ducsay

Reported:
10/14/2015

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
SGP-02	1510022-01	Air	10/01/2015	10/02/2015	
TMW-02 (13'-14')	1510022-02	Air	10/01/2015	10/02/2015	
SGP-07	1510022-03	Air	10/01/2015	10/02/2015	
TMW-07 (17'-18')	1510022-04	Air	10/01/2015	10/02/2015	
SGP-09	1510022-05	Air	10/01/2015	10/02/2015	
TMW-09 (12'-13')	1510022-06	Air	10/01/2015	10/02/2015	
SGP-10	1510022-07	Air	10/01/2015	10/02/2015	

Notes and Definitions

ND Indicates compound analyzed for but not detected
 RL Reporting Limit
 NA Not Applicable



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P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
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Client ID: SGP-02

Lab ID: 1510022-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Methane									
74-84-0	Ethane	ND	20	ppmv	1	10/06/15	B5J0613	8015	
74-85-1	Ethylene	ND	20	ppmv	1	10/06/15	B5J0613	8015	
74-82-8	Methane	150	20	ppmv	1	10/06/15	B5J0613	8015	



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TEL: (517) 335-9800
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Client ID: TMW-02 (13'-14')

Lab ID: 1510022-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Methane									
74-84-0	Ethane	ND	20	ppmv	1	10/06/15	B5J0613	8015	
74-85-1	Ethylene	ND	20	ppmv	1	10/06/15	B5J0613	8015	
74-82-8	Methane	ND	20	ppmv	1	10/06/15	B5J0613	8015	



Client ID: SGP-07

Lab ID: 1510022-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Methane									
74-84-0	Ethane	ND	20	ppmv	1	10/06/15	B5J0613	8015	
74-85-1	Ethylene	ND	20	ppmv	1	10/06/15	B5J0613	8015	
74-82-8	Methane	ND	20	ppmv	1	10/06/15	B5J0613	8015	



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Client ID: TMW-09 (12'-13')

Lab ID: 1510022-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Methane									
74-84-0	Ethane	ND	20	ppmv	1	10/06/15	B5J0613	8015	
74-85-1	Ethylene	ND	20	ppmv	1	10/06/15	B5J0613	8015	
74-82-8	Methane	7800	20	ppmv	1	10/06/15	B5J0613	8015	



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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: SGP-10

Lab ID: 1510022-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Methane									
74-84-0	Ethane	ND	20	ppmv	1	10/06/15	B5J0613	8015	
74-85-1	Ethylene	ND	20	ppmv	1	10/06/15	B5J0613	8015	
74-82-8	Methane	210000	20	ppmv	1	10/06/15	B5J0613	8015	



Analysis Request Sheet

Lab Work Order Number 1510022		Project Name Tree Farm			Matrix AIR	
Site Code/Project Number MFB000000196		AY 16	CC Email 1 DUCSAYT@MI.GOV		Project TAT Days	Sample Collector Teresa Ducey
Dept-Division-District MDEQ/ABD		Index 4409Z	CC Email 2		Project Due Date	Sample Collector Phone 517-284-5088
State Project Manager Teresa Ducey		PCA 30701	CC Email 3		Accept Analysis hold time codes	Contract Firm
State Project Manager Email DUCSAYT@MI.GOV		Project 128	Overflow Lab Choice 1			Contract Firm Primary Contact
State Project Manager Phone 517-284-5088		Phase 19	Overflow Lab Choice 2			Primary Contact Phone

Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments	Regulator ID	Canister/Bottle Vac Number
1	01 SGP-02	10/1/15	1115	1			
2	02 TMW-02 (13'-14')	↓	1145	1	Water Sample		
3	03 SGP-07		0920	1			
4	04 TMW-07 (17'-18')		0940	1			
5	05 SGP-09		1020	1	It Implies		
6	06 TMW-09 (12'-13')		1040	1	time 1020		
7	07 SGP-10		1010	1			
8							
9							
10							

<p>ORGANIC CHEMISTRY</p> <p>VOA - Volatile Organic Analysis</p> <p>Bottlevac <u>1 2 3 4 5 6 7 8 9 10</u></p> <p>Canister - AQO <u>1 2 3 4 5 6 7 8 9 10</u></p> <p>Canister - RRD <u>1 2 3 4 5 6 7 8 9 10</u></p> <p>Tedlar - Volatiles <u>1 2 3 4 5 6 7 8 9 10</u></p> <hr/> <p>METH - Methane, Ethane, Ethene</p> <p>Methane, Ethane, Ethene <u>1 2 3 4 5 6 7 8 9 10</u></p>	<p>for Teresa Ducey (cs)</p>
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Chain of Custody	Relinquished by	Received By	Date / Time
	Print Name & Org. Teresa Ducey, MDEQ	Malissa Smith	10/2/15 9:15
	Signature: <i>Teresa Ducey</i>	<i>Malissa Smith</i>	
Print Name & Org.			
Signature:			
Print Name & Org.			
Signature:			

APPENDIX C

**PART 201 GENERIC CLEANUP CRITERIA
AND SCREENING LEVELS**



**TABLE 1. GROUNDWATER: RESIDENTIAL AND NON-RESIDENTIAL
PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS/PART 213 RISK-BASED SCREENING LEVELS**

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Acenaphthene	83329	1,300	3,800	38	4,200 (S)	4,200 (S)	4,240	ID
Acenaphthylene	208968	52	150	ID	3,900 (S)	3,900 (S)	3,930	ID
Acetaldehyde (I)	75070	950	2,700	130	1.10E+06	2.30E+06	1.00E+09	8.90E+06
Acetate	71501	4,200	12,000	(G)	ID	ID	ID	ID
Acetic acid	64197	4,200	12,000	(G)	NLV	NLV	6.00E+09	1.0E+9 (D)
Acetone (I)	67641	730	2,100	1,700	1.0E+9 (D,S)	1.0E+9 (D,S)	1.00E+09	1.50E+07
Acetonitrile	75058	140	400	NA	2.40E+07	4.50E+07	2.00E+08	2.10E+07
Acetophenone	98862	1,500	4,400	ID	6.1E+6 (S)	6.1E+6 (S)	6.10E+06	ID
Acrolein (I)	107028	120	330	NA	2,100	4,200	2.10E+08	6.70E+06
Acrylamide	79061	0.5 (A)	0.5 (A)	10 (X)	NLV	NLV	2.20E+09	NA
Acrylic acid	79107	3,900	11,000	NA	1.20E+07	2.80E+07	1.00E+09	1.0E+9 (D)
Acrylonitrile (I)	107131	2.6	11	2.0 (M); 1.2	34,000	1.90E+05	7.50E+07	6.40E+06
Alachlor	15972608	2.0 (A)	2.0 (A)	11 (X)	NLV	NLV	1.83E+05	ID
Aldicarb	116063	3.0 (A)	3.0 (A)	NA	NLV	NLV	6.00E+06	ID
Aldicarb sulfone	1646884	2.0 (A)	2.0 (A)	NA	NLV	NLV	7.80E+06	ID
Aldicarb sulfoxide	1646873	4.0 (A)	4.0 (A)	NA	NLV	NLV	2.80E+07	ID
Aldrin	309002	0.098	0.4	0.01 (M); 8.7E-6	180 (S)	180 (S)	180	ID
Aluminum (B)	7429905	50 (V)	50 (V)	NA	NLV	NLV	NA	ID
Ammonia	7664417	10,000 (N)	10,000 (N)	(CC)	3.20E+06	7.10E+06	5.30E+08	ID
t-Amyl methyl ether (TAME)	994058	190 (E)	190 (E)	NA	2.60E+05	5.70E+05	2.64E+06	NA
Aniline	62533	53	220	4	NLV	NLV	3.60E+07	NA
Anthracene	120127	43 (S)	43 (S)	ID	43 (S)	43 (S)	43.4	ID
Antimony	7440360	6.0 (A)	6.0 (A)	130 (X)	NLV	NLV	NA	ID
Arsenic	7440382	10 (A)	10 (A)	10	NLV	NLV	NA	ID
Asbestos (BB)	1332214	7.0E MFL (A)	7.0E MFL (A)	NA	NLV	NLV	NA	NA
Atrazine	1912249	3.0 (A)	3.0 (A)	7.3	NLV	NLV	70,000	ID
Azobenzene	103333	23	94	ID	6,400 (S)	6,400 (S)	6,400	ID
Barium (B)	7440393	2,000 (A)	2,000 (A)	(G)	NLV	NLV	NA	ID



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Benzene (I)	71432	5.0 (A)	5.0 (A)	200 (X)	5,600	35,000	1.75E+06	68,000
Benzdine	92875	0.3 (M); 0.0037	0.3 (M); 0.015	0.3 (M); 0.073	NLV	NLV	5.20E+05	ID
Benzo(a)anthracene (Q)	56553	2.1	8.5	ID	NLV	NLV	9.4	ID
Benzo(b)fluoranthene (Q)	205992	1.5 (S,AA)	1.5 (S,AA)	ID	ID	ID	1.5	ID
Benzo(k)fluoranthene (Q)	207089	1.0 (M); 0.8 (S)	1.0 (M); 0.8 (S)	NA	NLV	NLV	0.8	ID
Benzo(g,h,i)perylene	191242	1.0 (M); 0.26 (S)	1.0 (M); 0.26 (S)	ID	NLV	NLV	0.26	ID
Benzo(a)pyrene (Q)	50328	5.0 (A)	5.0 (A)	ID	NLV	NLV	1.62	ID
Benzoic acid	65850	32,000	92,000	NA	NLV	NLV	3.50E+06	ID
Benzyl alcohol	100516	10,000	29,000	NA	NLV	NLV	4.40E+07	ID
Benzyl chloride	100447	7.7	32	NA	12,000	77,000	4.90E+05	NA
Beryllium	7440417	4.0 (A)	4.0 (A)	(G)	NLV	NLV	NA	ID
bis(2-Chloroethoxy)ethane	112265	ID	ID	ID	NLV	NLV	1.89E+07	ID
bis(2-Chloroethyl)ether (I)	111444	2	8.3	1.0 (M); 0.79	38,000	2.10E+05	1.72E+07	1.7E+7 (S)
bis(2-Ethylhexyl)phthalate	117817	6.0 (A)	6.0 (A)	25	NLV	NLV	340	NA
Boron (B)	7440428	500 (F)	500 (F)	7,200 (X)	NLV	NLV	NA	ID
Bromate	15541454	10 (A)	10 (A)	40 (X)	NLV	NLV	38,000	ID
Bromobenzene (I)	108861	18	50	NA	1.80E+05	3.90E+05	4.13E+05	ID
Bromodichloromethane	75274	80 (A,W)	80 (A,W)	ID	4,800	37,000	6.74E+06	ID
Bromoform	75252	80 (A,W)	80 (A,W)	ID	4.70E+05	3.1E+6 (S)	3.10E+06	ID
Bromomethane	74839	10	29	35	4,000	9,000	1.45E+07	ID
n-Butanol (I)	71363	950	2,700	9,800 (X)	NLV	NLV	7.40E+07	4.70E+07
2-Butanone (MEK) (I)	78933	13,000	38,000	2,200	2.4E+8 (S)	2.4E+8 (S)	2.40E+08	ID
n-Butyl acetate	123864	550	1,600	NA	6.7E+6 (S)	6.7E+6 (S)	6.70E+06	2.50E+06
t-Butyl alcohol	75650	3,900	11,000	NA	1.0E+9 (D,S)	1.0E+9 (D,S)	1.00E+09	6.10E+07
Butyl benzyl phthalate	85687	1,200	2,700 (S)	67 (X)	NLV	NLV	2,690	ID
n-Butylbenzene	104518	80	230	ID	ID	ID	NA	ID
sec-Butylbenzene	135988	80	230	ID	ID	ID	NA	ID
t-Butylbenzene (I)	98066	80	230	ID	ID	ID	NA	ID



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Cadmium (B)	7440439	5.0 (A)	5.0 (A)	(G,X)	NLV	NLV	NA	ID
Camphene (I)	79925	ID	ID	NA	440	1,000	33,400	ID
Caprolactam	105602	5,800	17,000	NA	NLV	NLV	5.25E+09	NA
Carbaryl	63252	700	2,000	NA	ID	ID	1.26E+05	ID
Carbazole	.86748	85	350	10 (M); 4.0	NLV	NLV	7,480	ID
Carbofuran	1563662	40 (A)	40 (A)	NA	NLV	NLV	7.00E+05	ID
Carbon disulfide (I,R)	75150	800	2,300	ID	2.50E+05	5.50E+05	1.19E+06	13,000
Carbon tetrachloride	56235	5.0 (A)	5.0 (A)	45 (X)	370	2,400	7.93E+05	ID
Chlordane (J)	57749	2.0 (A)	2.0 (A)	2.0 (M); 0.00025	56 (S)	56 (S)	56	ID
Chloride	16887006	2.5E+5 (E)	2.5E+5 (E)	(FF)	NLV	NLV	NA	ID
Chlorobenzene (I)	108907	100 (A)	100 (A)	25	2.10E+05	4.7E+5 (S)	4.72E+05	1.60E+05
p-Chlorobenzene sulfonic acid	98668	7,300	21,000	ID	ID	ID	NA	ID
1-Chloro-1,1-difluoroethane	75683	15,000	44,000	NA	3.9E+6 (S)	3.9E+6 (S)	3.90E+06	NA
Chloroethane	75003	430	1,700	1,100 (X)	5.7E+6 (S)	5.7E+6 (S)	5.74E+06	1.10E+05
2-Chloroethyl vinyl ether	110758	ID	ID	NA	ID	ID	1.50E+07	ID
Chloroform	67663	80 (A,W)	80 (A,W)	350	28,000	1.80E+05	7.92E+06	ID
Chloromethane (I)	74873	260	1,100	ID	8,600	45,000	6.34E+06	36,000
4-Chloro-3-methylphenol	59507	150	420	7.4	NLV	NLV	3.90E+06	ID
beta-Chloronaphthalene	91587	1,800	5,200	NA	ID	ID	6,740	ID
2-Chlorophenol	95578	45	130	18	4.90E+05	1.10E+06	2.20E+07	ID
o-Chlorotoluene (I)	95498	150	420	ID	2.20E+05	3.7E+5 (S)	3.73E+05	ID
Chlorpyrifos	2921882	22	63	2.0 (M); 0.002	2.9	6.6	1,120	ID
Chromium (III) (B,H)	16065831	100 (A)	100 (A)	(G,X)	NLV	NLV	NA	ID
Chromium (VI)	18540299	100 (A)	100 (A)	11	NLV	NLV	NA	ID
Chrysene (Q)	218019	1.6 (S)	1.6 (S)	ID	ID	ID	1.6	ID
Cobalt	7440484	40	100	100	NLV	NLV	NA	ID
Copper (B)	7440508	1,000 (E)	1,000 (E)	(G)	NLV	NLV	NA	ID
Cyanazine	21725462	2.3	9.4	56 (X)	NLV	NLV	1.70E+05	ID



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Cyanide (P,R)	57125	200 (A)	200 (A)	5.2	NLV	NLV	NA	ID
Cyclohexanone	108941	33,000	94,000	NA	1,500	3,300	2.30E+07	NA
Dacthal	1861321	73	210	NA	NLV	NLV	500	ID
Dalapon	75990	200 (A)	200 (A)	NA	NLV	NLV	5.02E+08	ID
4-4'-DDD	72548	9.1	37	NA	NLV	NLV	90	ID
4-4'-DDE	72559	4.3	15	NA	NLV	NLV	120	ID
4-4'-DDT	50293	3.6	10	0.02 (M); 1.1E-5	NLV	NLV	25	NA
Decabromodiphenyl ether	1163195	30 (S)	30 (S)	NA	30 (S)	30 (S)	30	ID
Di-n-butyl phthalate	84742	880	2,500	9.7	NLV	NLV	11,200	NA
Di(2-ethylhexyl) adipate	103231	400 (A)	400 (A)	ID	NLV	NLV	471	ID
Di-n-octyl phthalate	117840	130	380	ID	NLV	NLV	3,000	ID
Diacetone alcohol (I)	123422	ID	ID	NA	NLV	NLV	1.00E+09	1.0E+9 (S)
Diazinon	333415	1.3	3.8	1.0 (M); 0.004	NLV	NLV	68,800	NA
Dibenzo(a,h)anthracene (Q)	53703	2.0 (M); 0.21	2.0 (M); 0.85	ID	NLV	NLV	2.49	ID
Dibenzofuran	132649	ID	ID	4	10,000 (S)	10,000 (S)	10,000	ID
Dibromochloromethane	124481	80 (A,W)	80 (A,W)	ID	14,000	1.10E+05	2.60E+06	ID
Dibromochloropropane	96128	0.2 (A)	0.2 (A)	ID	220	1,200 (S)	1,230	NA
Dibromomethane	74953	80	230	NA	ID	ID	1.10E+07	ID
Dicamba	1918009	220	630	NA	NLV	NLV	4.50E+06	ID
1,2-Dichlorobenzene	95501	600 (A)	600 (A)	13	1.6E+5 (S)	1.6E+5 (S)	1.56E+05	NA
1,3-Dichlorobenzene	541731	6.6	19	28	18,000	41,000	1.11E+05	ID
1,4-Dichlorobenzene	106467	75 (A)	75 (A)	17	16,000	74,000 (S)	73,800	NA
3,3'-Dichlorobenzidine	91941	1.1	4.3	0.3 (M); 0.2	NLV	NLV	3,110	ID
Dichlorodifluoromethane	75718	1,700	4,800	ID	2.20E+05	3.0E+5 (S)	3.00E+05	ID
1,1-Dichloroethane	75343	880	2,500	740	1.00E+06	2.30E+06	5.06E+06	3.80E+05
1,2-Dichloroethane (I)	107062	5.0 (A)	5.0 (A)	360 (X)	9,600	59,000	8.52E+06	2.50E+06
1,1-Dichloroethylene (I)	75354	7.0 (A)	7.0 (A)	130	200	1,300	2.25E+06	97,000
cis-1,2-Dichloroethylene	156592	70 (A)	70 (A)	620	93,000	2.10E+05	3.50E+06	5.30E+05



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trans-1,2-Dichloroethylene	156605	100 (A)	100 (A)	1,500 (X)	85,000	2.00E+05	6.30E+06	2.30E+05
2,6-Dichloro-4-nitroaniline	99309	2,200	6,300	NA	NLV	NLV	7,000	ID
2,4-Dichlorophenol	120832	73	210	11	NLV	NLV	4.50E+06	ID
2,4-Dichlorophenoxyacetic acid	94757	70 (A)	70 (A)	220	NLV	NLV	6.80E+05	ID
1,2-Dichloropropane (I)	78875	5.0 (A)	5.0 (A)	230 (X)	16,000	36,000	2.80E+06	5.50E+05
1,3-Dichloropropene	542756	8.5	35	9.0 (X)	3,900	26,000	2.80E+06	1.30E+05
Dichlorovos	62737	1.6	6.7	NA	NLV	NLV	1.60E+07	NA
Dicyclohexyl phthalate	84617	ID	ID	NA	ID	ID	4,000	ID
Dieldrin	60571	0.11	0.43	0.02 (M); 6.5E-6	200 (S)	200 (S)	195	ID
Diethyl ether	60297	10 (E)	10 (E)	ID	6.1E+7 (S)	6.1E+7 (S)	6.10E+07	6.50E+05
Diethyl phthalate	84662	5,500	16,000	110	NLV	NLV	1.08E+06	NA
Diethylene glycol monobutyl ether	112345	88	250	NA	NLV	NLV	1.00E+09	ID
Diisopropyl ether	108203	30	86	ID	8,000 (S)	8,000 (S)	8,041	8,000 (S)
Diisopropylamine (I)	108189	5.6	16	NA	2.10E+07	3.7E+7 (S)	3.69E+07	4.60E+06
Dimethyl phthalate	131113	73,000	2.10E+05	NA	NLV	NLV	4.19E+06	NA
N,N-Dimethylacetamide	127195	180	520	4,100 (X)	NLV	NLV	1.00E+09	NA
N,N-Dimethylaniline	121697	16	46	NA	2.40E+05	1.3E+6 (S)	1.27E+06	NA
Dimethylformamide (I)	68122	700	2,000	NA	NLV	NLV	1.00E+09	ID
2,4-Dimethylphenol	105679	370	1,000	380	NLV	NLV	7.87E+06	ID
2,6-Dimethylphenol	576261	4.4	13	NA	NLV	NLV	6.14E+06	ID
3,4-Dimethylphenol	95658	10	29	25	NLV	NLV	4.93E+06	ID
Dimethylsulfoxide	67685	2.20E+05	6.30E+05	1.90E+05	NLV	NLV	1.66E+08	ID
2,4-Dinitrotoluene	121142	7.7	32	NA	NLV	NLV	2.70E+05	ID
Dinoseb	88857	7.0 (A)	7.0 (A)	1.0 (M); 0.48	NLV	NLV	52,000	ID
1,4-Dioxane (I)	123911	85	350	2,800 (X)	NLV	NLV	9.00E+08	1.40E+08
Diquat	85007	20 (A)	20 (A)	20 (M); 6.0	NLV	NLV	7.00E+05	ID
Dissolved oxygen (DO)	NA	ID	ID	(EE)	ID	ID	NA	NA
Diuron	330541	31	90	NA	NLV	NLV	37,300	ID



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Endosulfan (J)	115297	44	130	0.03 (M); 0.029	ID	ID	510	ID
Endothall	145733	100 (A)	100 (A)	NA	NLV	NLV	1.00E+08	ID
Endrin	72208	2.0 (A)	2.0 (A)	ID	NLV	NLV	250	ID
Epichlorohydrin (I)	106898	5.0 (M); 2.0 (A)	5.0 (M); 2.0 (A)	NA	3.20E+05	6.30E+05	6.60E+07	4.70E+07
Ethanol (I)	64175	1.90E+06	3.80E+06	ID	NLV	NLV	1.00E+09	9.70E+07
Ethyl acetate (I)	141786	6,600	19,000	NA	6.4E+7 (S)	6.4E+7 (S)	6.40E+07	4.20E+06
Ethyl-tert-butyl ether (ETBE)	637923	49 (E)	49 (E)	ID	2.90E+06	5.6E+6 (S)	5.63E+06	ID
Ethylbenzene (I)	100414	74 (E)	74 (E)	18	1.10E+05	1.7E+5 (S)	1.69E+05	43,000
Ethylene dibromide	106934	0.05 (A)	0.05 (A)	5.7 (X)	2,400	15,000	4.20E+06	ID
Ethylene glycol	107211	15,000	42,000	1.9E+5 (X)	NLV	NLV	1.00E+09	NA
Ethylene glycol monobutyl ether	111762	3,700	10,000	NA	2.90E+06	6.50E+06	2.24E+08	NA
Fluoranthene	206440	210 (S)	210 (S)	1.6	210 (S)	210 (S)	206	ID
Fluorene	86737	880	2,000 (S)	12	2,000 (S)	2,000 (S)	1,980	ID
Fluorine (soluble fluoride) (B)	7782414	2,000 (E)	2,000 (E)	ID	NLV	NLV	NA	ID
Formaldehyde	50000	1,300	3,800	120	63,000	3.60E+05	5.50E+08	ID
Formic acid (I,U)	64186	10,000	29,000	ID	7.70E+06	1.50E+07	1.00E+09	1.0E+9 (D)
1-Formylpiperidine	2591868	80	230	NA	ID	ID	NA	ID
Gentian violet	548629	15	63	NA	NLV	NLV	1.00E+06	ID
Glyphosate	1071836	700 (A)	700 (A)	NA	NLV	NLV	1.16E+07	ID
Heptachlor	76448	0.4 (A)	0.4 (A)	0.01 (M); 0.0018	180 (S)	180 (S)	180	ID
Heptachlor epoxide	1024573	0.2 (A)	0.2 (A)	ID	NLV	NLV	200	ID
n-Heptane	142825	2,700 (S)	2,700 (S)	NA	2,700 (S)	2,700 (S)	2,690	200
Hexabromobenzene	87821	0.17 (S); 20	0.17 (S); 58	ID	ID	ID	0.17	ID
Hexachlorobenzene (C-66)	118741	1.0 (A)	1.0 (A)	0.2 (M); 0.0003	440	3,000	6,200	ID
Hexachlorobutadiene (C-46)	87683	15	42	0.053	1,600	3,200 (S)	3,230	ID
alpha-Hexachlorocyclohexane	319846	0.43	1.7	ID	2,000 (S)	2,000 (S)	2,000	ID
beta-Hexachlorocyclohexane	319857	0.88	3.6	ID	NLV	NLV	240	ID
Hexachlorocyclopentadiene (C-56)	77474	50 (A)	50 (A)	ID	130	420	1,800	ID



**TABLE 1. GROUNDWATER: RESIDENTIAL AND NON-RESIDENTIAL
PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS/PART 213 RISK-BASED SCREENING LEVELS**

All criteria, unless otherwise noted, are expressed in units of parts per billion (ppb). One ppb is equivalent to 1 microgram per liter (ug/L). Criteria with 6 or more digits are expressed in scientific notation. For example, 200,000 is presented as 2.0E+5. A footnote is designated by a letter in parentheses and is explained in the footnote pages that follow the criteria tables. When the risk-based criterion is less than the target detection limit (TDL), the TDL is listed as the criterion (§324.20120a(10)). In these cases, 2 numbers are present in the cell. The first number is the criterion (i.e., TDL), and the second number is the risk-based or solubility value, whichever is lower.

Hazardous Substance	Chemical Abstract Service Number	Residential Drinking Water Criteria	Nonresidential Drinking Water Criteria	Groundwater Surface Water Interface Criteria	Residential Groundwater Volatilization to Indoor Air Inhalation Criteria	Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria	Water Solubility	Flammability and Explosivity Screening Level
Hexachloroethane	67721	7.3	21	6.7 (X)	27,000	50,000 (S)	50,000	ID
n-Hexane	110543	3,000	8,600	NA	12,000 (S)	12,000 (S)	12,000	12,000 (S)
2-Hexanone	591786	1,000	2,900	ID	4.20E+06	8.70E+06	1.60E+07	NA
Indeno(1,2,3-cd)pyrene (Q)	193395	2.0 (M); 0.022 (S)	2.0 (M); 0.022 (S)	ID	NLV	NLV	0.022	ID
Iron (B)	7439896	300 (E)	300 (E)	NA	NLV	NLV	NA	ID
Isobutyl alcohol (I)	78831	2,300	6,700	NA	7.6E+7 (S)	7.6E+7 (S)	7.60E+07	ID
Isophorone	78591	770	3,100	1,300 (X)	NLV	NLV	1.20E+07	ID
Isopropyl alcohol (I)	67630	470	1,300	57,000 (X)	NLV	NLV	1.00E+09	6.00E+07
Isopropyl benzene	98828	800	2,300	28	56,000 (S)	56,000 (S)	56,000	29,000
Lead (B)	7439921	4.0 (L)	4.0 (L)	(G,X)	NLV	NLV	NA	ID
Lindane	58899	0.2 (A)	0.2 (A)	0.03 (M); 0.026	ID	ID	6,800	ID
Lithium (B)	7439932	170	350	440	NLV	NLV	NA	ID
Magnesium (B)	7439954	4.00E+05	1.10E+06	NA	NLV	NLV	NA	ID
Manganese (B)	7439965	50 (E)	50 (E)	(G,X)	NLV	NLV	NA	ID
Mercury (Total) (B,Z)	Varies	2.0 (A)	2.0 (A)	0.0013	56 (S)	56 (S)	56	ID
Methane	74828	ID	ID	NA	(K)	(K)	NA	(AA)
Methanol	67561	3,700	10,000	5.9E+5 (X)	2.9E+7 (S)	2.9E+7 (S)	2.90E+07	4.50E+06
Methoxychlor	72435	40 (A)	40 (A)	NA	ID	ID	45	ID
2-Methoxyethanol (I)	109864	7.3	21	NA	NLV	NLV	1.00E+09	ID
2-Methyl-4-chlorophenoxyacetic acid	94746	7.3	21	NA	NLV	NLV	9.24E+05	ID
2-Methyl-4,6-dinitrophenol	534521	20 (M); 2.6	20 (M); 7.3	NA	NLV	NLV	2.00E+05	ID
N-Methyl-morpholine (I)	109024	20	56	NA	NLV	NLV	1.00E+09	ID
Methyl parathion	298000	1.8	5.2	NA	NLV	NLV	50,000	ID
4-Methyl-2-pentanone (MIBK) (I)	108101	1,800	5,200	ID	2.0E+7 (S)	2.0E+7 (S)	2.00E+07	ID
Methyl-tert-butyl ether (MTBE)	1634044	40 (E)	40 (E)	7,100 (X)	4.7E+7 (S)	4.7E+7 (S)	4.68E+07	ID
Methylcyclopentane (I)	96377	ID	ID	NA	22,000	49,000	73,890	ID
4,4'-Methylene-bis-2-chloroaniline	101144	1.1	4.5	NA	NLV	NLV	14,000	ID
Methylene chloride	75092	5.0 (A)	5.0 (A)	1,500 (X)	2.20E+05	1.40E+06	1.70E+07	ID



**TABLE 1. GROUNDWATER: RESIDENTIAL AND NON-RESIDENTIAL
PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS/PART 213 RISK-BASED SCREENING LEVELS**

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2-Methylnaphthalene	91576	260	750	19	25,000 (S)	25,000 (S)	24,600	ID
Methylphenols (J)	1319773	370	1,000	30 (M); 25	NLV	NLV	2.80E+07	NA
Metolachlor	51218452	240	990	15	NLV	NLV	5.30E+05	ID
Metribuzin	21087649	180	520	NA	ID	ID	1.20E+06	ID
Mirex	2385855	0.02 (M); 6.8E-6 (S)	0.02 (M); 6.8E-6 (S)	0.02 (M); 6.8E-6 (S)	ID	ID	6.80E-06	NA
Molybdenum (B)	7439987	73	210	3,200 (X)	NLV	NLV	NA	ID
Naphthalene	91203	520	1,500	11	31,000 (S)	31,000 (S)	31,000	NA
Nickel (B)	7440020	100 (A)	100 (A)	(G)	NLV	NLV	NA	ID
Nitrate (B,N)	14797558	10,000 (A,N)	10,000 (A,N)	ID	NLV	NLV	NA	ID
Nitrite (B,N)	14797650	1,000 (A,N)	1,000 (A,N)	NA	NLV	NLV	NA	ID
Nitrobenzene (I)	98953	3.4	9.6	180 (X)	2.80E+05	5.50E+05	2.09E+06	NA
2-Nitrophenol	88755	20	58	ID	NLV	NLV	2.50E+06	ID
n-Nitroso-di-n-propylamine	621647	5.0 (M); 0.19	5.0 (M); 0.77	NA	NLV	NLV	9.89E+06	ID
N-Nitrosodiphenylamine	86306	270	1,100	NA	NLV	NLV	35,100	ID
Oxamyl	23135220	200 (A)	200 (A)	NA	NLV	NLV	2.80E+08	ID
Oxo-hexyl acetate	88230357	73	210	NA	ID	ID	NA	ID
Pendimethalin	40487421	280 (S)	280 (S)	NA	NLV	NLV	275	ID
Pentachlorobenzene	608935	6.1	17	5.0 (M); 0.019	ID	ID	650	ID
Pentachloronitrobenzene	82686	32 (S)	32 (S)	NA	32 (S)	32 (S)	32	ID
Pentachlorophenol	87865	1.0 (A)	1.0 (A)	(G,X)	NLV	NLV	1.85E+06	ID
Pentane	109660	ID	ID	NA	38,000 (S)	38,000 (S)	38,200	340
2-Pentene (I)	109682	ID	ID	NA	ID	ID	2.03E+05	ID
pH	NA	6.5 to 8.5 (E)	6.5 to 8.5 (E)	6.5 to 9.0	ID	ID	NA	NA
Phenanthrene	85018	52	150	2.0 (M); 1.4	1,000 (S)	1,000 (S)	1,000	ID
Phenol	108952	4,400	13,000	450	NLV	NLV	8.28E+07	NA
Phenytoin	57410	17	68	89 (X)	NLV	NLV	32,000	ID
Phosphorus (Total)	7723140	63,000	2.40E+05	(EE)	NLV	NLV	NA	ID
Phthalic acid	88993	14,000	40,000	NA	NLV	NLV	1.42E+07	ID



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Hazardous Substance	Chemical Abstract Service Number	Residential Drinking Water Criteria	Nonresidential Drinking Water Criteria	Groundwater Surface Water Interface Criteria	Residential Groundwater Volatilization to Indoor Air Inhalation Criteria	Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria	Water Solubility	Flammability and Explosivity Screening Level
Phthalic anhydride	85449	15,000	44,000	NA	NLV	NLV	6.20E+06	NA
Picloram	1918021	500 (A)	500 (A)	46	NLV	NLV	4.30E+05	ID
Piperidine	110894	3.2	9.2	NA	NLV	NLV	1.00E+09	ID
Polybrominated biphenyls (J)	67774327	0.03	0.09	ID	NLV	NLV	1.66E+07	ID
Polychlorinated biphenyls (PCBs) (J,T)	1336363	0.5 (A)	0.5 (A)	0.2 (M); 2.6E-5	45 (S)	45 (S)	44.7	ID
Prometon	1610180	160	460	NA	NLV	NLV	7.50E+05	ID
Propachlor	1918167	95	270	NA	NLV	NLV	6.55E+05	ID
Propazine	139402	200	560	NA	NLV	NLV	8,600	ID
Propionic acid	79094	12,000	35,000	ID	NLV	NLV	1.00E+09	1.0E+9 (D)
Propyl alcohol (I)	71238	1,400	4,000	NA	NLV	NLV	1.00E+09	7.10E+07
n-Propylbenzene (I)	103651	80	230	ID	ID	ID	NA	ID
Propylene glycol	57556	1.50E+05	4.20E+05	2.90E+05	NLV	NLV	1.00E+09	ID
Pyrene	129000	140 (S)	140 (S)	ID	140 (S)	140 (S)	135	ID
Pyridine (I)	110861	20 (M); 7.3	21	NA	5,500	12,000	3.00E+05	81,000
Selenium (B)	7782492	50 (A)	50 (A)	5	NLV	NLV	NA	ID
Silver (B)	7440224	34	98	0.2 (M); 0.06	NLV	NLV	NA	ID
Silvex (2,4,5-TP)	93721	50 (A)	50 (A)	30	NLV	NLV	1.40E+05	ID
Simazine	122349	4.0 (A)	4.0 (A)	17	NLV	NLV	4,470	ID
Sodium	17341252	2.3E+S(HH)	3.50E+05	NA	NLV	NLV	NA	ID
Sodium azide	26628228	88	250	50 (M); 7.3	ID	ID	NA	ID
Strontium (B)	7440246	4,600	13,000	21,000	NLV	NLV	NA	ID
Styrene	100425	100 (A)	100 (A)	80 (X)	1.70E+05	3.1E+5 (S)	3.10E+05	1.40E+05
Sulfate	14808798	2.5E+5 (E)	2.5E+5 (E)	NA	NLV	NLV	NA	ID
Tebuthiuron	34014181	510	1,500	NA	NLV	NLV	2.50E+06	ID
2,3,7,8-Tetrabromodibenzo-p-dioxin (O)	50585416	(O)	(O)	(O)	NLV	NLV	0.00996	ID
1,2,4,5-Tetrachlorobenzene	95943	1,300 (S)	1,300 (S)	2.9 (X)	1,300 (S)	1,300 (S)	1,300	ID
2,3,7,8-Tetrachlorodibenzo-p-dioxin (O)	1746016	3.0E-5 (A)	3.0E-5 (A)	1.0E-5 (M); 3.1E-9	NLV	NLV	0.019	ID
1,1,1,2-Tetrachloroethane	630206	77	320	ID	15,000	96,000	1.10E+06	ID



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Hazardous Substance	Chemical Abstract Service Number	Residential Drinking Water Criteria	Nonresidential Drinking Water Criteria	Groundwater Surface Water Interface Criteria	Residential Groundwater Volatilization to Indoor Air Inhalation Criteria	Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria	Water Solubility	Flammability and Explosivity Screening Level
1,1,2,2-Tetrachloroethane	79345	8.5	35	78 (X)	12,000	77,000	2.97E+06	ID
Tetrachloroethylene	127184	5.0 (A)	5.0 (A)	60 (X)	25,000	1.70E+05	2.00E+05	ID
Tetrahydrofuran	109999	95	270	11,000 (X)	6.90E+06	1.60E+07	1.00E+09	60,000
Tetranitromethane	509148	ID	ID	NA	580	3,200	85,000	ID
Thallium (B)	7440280	2.0 (A)	2.0 (A)	3.7 (X)	NLV	NLV	NA	ID
Toluene (I)	108883	790 (E)	790 (E)	270	5.3E+5 (S)	5.3E+5 (S)	5.26E+05	61,000
p-Toluidine	106490	15	62	NA	NLV	NLV	7.60E+06	NA
Total dissolved solids (TDS)	NA	5.0E+5 (E)	5.0E+5 (E)	(EE)	ID	ID	NA	NA
Toxaphene	8001352	3.0 (A)	3.0 (A)	1.0 (M); 6.8E-5	NLV	NLV	740	ID
Triallate	2303175	95	270	NA	ID	ID	4,000	ID
Tributylamine	102829	10	29	ID	14,000	32,000	75,400	ID
1,2,4-Trichlorobenzene	120821	70 (A)	70 (A)	99 (X)	3.0E+5 (S)	3.0E+5 (S)	3.00E+05	NA
1,1,1-Trichloroethane	71556	200 (A)	200 (A)	89	6.60E+05	1.3E+6 (S)	1.33E+06	ID
1,1,2-Trichloroethane	79005	5.0 (A)	5.0 (A)	330 (X)	17,000	1.10E+05	4.42E+06	NA
Trichloroethylene	79016	5.0 (A)	5.0 (A)	200 (X)	2,200	4,900	1.10E+06	ID
Trichlorofluoromethane	75694	2,600	7,300	NA	1.1E+6 (S)	1.1E+6 (S)	1.10E+06	ID
2,4,5-Trichlorophenol	95954	730	2,100	NA	NLV	NLV	1.20E+06	ID
2,4,6-Trichlorophenol	88062	120	470	5	NLV	NLV	8.00E+05	ID
1,2,3-Trichloropropane	96184	42	120	NA	8,300	18,000	1.90E+06	NA
1,1,2-Trichloro-1,2,2-trifluoroethane	76131	1.7E+5 (S)	1.7E+5 (S)	32	1.7E+5 (S)	1.7E+5 (S)	1.70E+05	ID
Triethanolamine	102716	3,700	10,000	NA	NLV	NLV	1.00E+09	ID
Triethylene glycol	112276	4,300	12,000	NA	NLV	NLV	1.00E+06	ID
3-Trifluoromethyl-4-nitrophenol	88302	4,500	13,000	NA	NLV	NLV	5.00E+06	ID
Trifluralin	1582098	37	110	NA	ID	ID	8,100	ID
2,2,4-Trimethyl pentane	540841	ID	ID	NA	2,300 (S)	2,300 (S)	2,330	160
2,4,4-Trimethyl-2-pentene (I)	107404	ID	ID	NA	ID	ID	11,900	ID
1,2,4-Trimethylbenzene (I)	95636	63 (E)	63 (E)	17	56,000 (S)	56,000 (S)	55,890	56,000 (S)
1,3,5-Trimethylbenzene (I)	108678	72 (E)	72 (E)	45	61,000 (S)	61,000 (S)	61,150	ID



**TABLE 1. GROUNDWATER: RESIDENTIAL AND NON-RESIDENTIAL
PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS/PART 213 RISK-BASED SCREENING LEVELS**

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Hazardous Substance	Chemical Abstract Service Number	Residential Drinking Water Criteria	Nonresidential Drinking Water Criteria	Groundwater Surface Water Interface Criteria	Residential Groundwater Volatilization to Indoor Air Inhalation Criteria	Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria	Water Solubility	Flammability and Explosivity Screening Level
Triphenyl phosphate	115866	1,200	1,400 (S)	NA	NLV	NLV	1,430	ID
tris(2,3-Dibromopropyl)phosphate	126727	10 (M); 0.71	10 (M); 2.9	ID	4,700 (S)	4,700 (S)	4,700	ID
Urea	57136	ID	ID	NA	NLV	NLV	NA	ID
Vanadium	7440622	4.5	62	27	NLV	NLV	NA	ID
Vinyl acetate (I)	108054	640	1,800	NA	4.10E+06	8.90E+06	2.00E+07	1.80E+06
Vinyl chloride	75014	2.0 (A)	2.0 (A)	13 (X)	1,100	13,000	2.76E+06	33,000
White phosphorus (R)	12185103	0.11	0.31	NA	NLV	NLV	NA	ID
Xylenes (I)	1330207	280 (E)	280 (E)	41	1.9E+5 (S)	1.9E+5 (S)	1.86E+05	70,000
Zinc (B)	7440666	2,400	5,000 (E)	(G)	NLV	NLV	NA	ID



**TABLE 2. SOIL: RESIDENTIAL
PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS/PART 213 RISK-BASED SCREENING LEVELS**

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Hazardous Substance	Chemical Abstract Service Number	Statewide Default Background Level	Groundwater Protection		Indoor Air	Ambient Air (Y) (C)				Contact	Csat
			Residential Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Soil Volatilization to Indoor Air Inhalation Criteria	Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation Criteria	Direct Contact Criteria	Soil Saturation Concentration Screening Levels
Acenaphthene	83329	NA	3.00E+05	8,700	1.90E+08	8.10E+07	8.10E+07	8.10E+07	1.40E+10	4.10E+07	NA
Acenaphthylene	208968	NA	5,900	ID	1.60E+06	2.20E+06	2.20E+06	2.20E+06	2.30E+09	1.60E+06	NA
Acetaldehyde (I)	75070	NA	19,000	2,600	2.20E+05	1.70E+05	1.70E+05	2.80E+05	6.00E+08	2.90E+07	1.10E+08
Acetate	71501	NA	ID	(G)	ID	ID	ID	ID	ID	ID	ID
Acetic acid	64197	NA	84,000	(G)	NLV	NLV	NLV	NLV	1.70E+10	1.30E+08	6.50E+08
Acetone (I)	67641	NA	15,000	34,000	2.9E+8 (C)	1.30E+08	1.30E+08	1.90E+08	3.90E+11	2.30E+07	1.10E+08
Acetonitrile	75058	NA	2,800	NA	4.80E+06	1.60E+06	1.60E+06	2.10E+06	4.00E+09	4.30E+06	2.20E+07
Acetophenone	98862	NA	30,000	ID	1.2E+8 (C)	4.40E+07	4.40E+07	4.40E+07	3.30E+10	4.7E+7 (C)	1.10E+06
Acrolein (I)	107028	NA	2,400	NA	410	310	310	610	1.30E+06	3.60E+06	2.30E+07
Acrylamide	79061	NA	10	200 (X)	NLV	NLV	NLV	NLV	2.40E+06	1,900	NA
Acrylic acid	79107	NA	78,000	NA	2.40E+06	1.90E+05	2.30E+05	2.30E+05	6.70E+07	3.5E+7 (DD)	1.10E+08
Acrylonitrile (I)	107131	NA	100 (M); 52	100 (M); 40	6,600	5,000	5,100	10,000	4.60E+07	16,000	8.30E+06
Alachlor	15972608	NA	52	290 (X)	NLV	NLV	NLV	NLV	ID	93,000	NA
Aldicarb	116063	NA	60	NA	NLV	NLV	NLV	NLV	ID	2.30E+05	NA
Aldicarb sulfone	1646884	NA	200 (M); 40	NA	NLV	NLV	NLV	NLV	ID	2.50E+05	NA
Aldicarb sulfoxide	1646873	NA	200(M); 80	NA	NLV	NLV	NLV	NLV	ID	2.90E+05	NA
Aldrin	309002	NA	NLL	NLL	1.30E+06	58,000	58,000	58,000	6.40E+05	1,000	NA
Aluminum (B)	7429905	6.80E+06	1,000	NA	NLV	NLV	NLV	NLV	ID	5.0E+7 (DD)	NA
Ammonia	7664417	NA	ID	(CC)	ID	ID	ID	ID	6.70E+09	ID	1.00E+07
t-Amyl methyl ether (TAME)	994058	NA	3,900	NA	58,000	3.40E+05	7.60E+05	1.80E+06	4.10E+09	2.9E+7 (C)	4.40E+05
Aniline	62533	NA	1,100	330 (M); 80	NLV	NLV	NLV	NLV	6.70E+07	3.30E+05	4.50E+06
Anthracene	120127	NA	41,000	ID	1.0E+9 (D)	1.40E+09	1.40E+09	1.40E+09	6.70E+10	2.30E+08	NA
Antimony	7440360	NA	4,300	94,000 (X)	NLV	NLV	NLV	NLV	1.30E+07	1.80E+05	NA
Arsenic	7440382	5,800	4,600	4,600	NLV	NLV	NLV	NLV	7.20E+05	7,600	NA
Asbestos (BB)	1332214	NA	NLL	NLL	NLV	NLV	NLV	NLV	1.0E+7 (M); 68,000	ID	NA
Atrazine	1912249	NA	60	150	NLV	NLV	NLV	NLV	ID	71,000 (DD)	NA
Azobenzene	103333	NA	4,200	ID	6.10E+06	6.30E+05	6.30E+05	6.30E+05	1.00E+08	1.40E+05	NA



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Barium (B)	7440393	75,000	1.30E+06	(G)	NLV	NLV	NLV	NLV	3.30E+08	3.70E+07	NA
Benzene (I)	71432	NA	100	4,000 (X)	1,600	13,000	34,000	79,000	3.80E+08	1.80E+05	4.00E+05
Benzidine	92875	NA	1,000 (M); 6.0	1,000 (M); 6.0	NLV	NLV	NLV	NLV	46,000	1,000 (M); 23	NA
Benzo(a)anthracene (Q)	56553	NA	NLL	NLL	NLV	NLV	NLV	NLV	ID	20,000	NA
Benzo(b)fluoranthene (Q)	205992	NA	NLL	NLL	ID	ID	ID	ID	ID	20,000	NA
Benzo(k)fluoranthene (Q)	207089	NA	NLL	NLL	NLV	NLV	NLV	NLV	ID	2.00E+05	NA
Benzo(g,h,i)perylene	191242	NA	NLL	NLL	NLV	NLV	NLV	NLV	8.00E+08	2.50E+06	NA
Benzo(a)pyrene (Q)	50328	NA	NLL	NLL	NLV	NLV	NLV	NLV	1.50E+06	2,000	NA
Benzoic acid	65850	NA	6.40E+05	NA	NLV	NLV	NLV	NLV	ID	9.90E+08	NA
Benzyl alcohol	100516	NA	2.00E+05	NA	NLV	NLV	NLV	NLV	3.30E+11	3.2E+8 (C)	5.80E+06
Benzyl chloride	100447	NA	150	NA	6,300	14,000	14,000	17,000	6.20E+07	48,000	2.30E+05
Beryllium	7440417	NA	51,000	(G)	NLV	NLV	NLV	NLV	1.30E+06	4.10E+05	NA
bis(2-Chloroethoxy)ethane	112265	NA	ID	ID	NLV	NLV	NLV	NLV	ID	ID	2.70E+06
bis(2-Chloroethyl)ether (I)	111444	NA	100	100 (M); 20	8,300	3,800	3,800	3,800	9.40E+06	13,000	2.20E+06
bis(2-Ethylhexyl)phthalate	117817	NA	NLL	NLL	NLV	NLV	NLV	NLV	7.00E+08	2.80E+06	1.00E+07
Boron (B)	7440428	NA	10,000	1.4E+5 (X)	NLV	NLV	NLV	NLV	ID	4.8E+7 (DD)	NA
Bromate	15541454	NA	200	800 (X)	NLV	NLV	NLV	NLV	ID	17,000	NA
Bromobenzene (I)	108861	NA	550	NA	3.10E+05	4.50E+05	4.50E+05	4.50E+05	5.30E+08	5.40E+05	7.60E+05
Bromodichloromethane	75274	NA	1,600 (W)	ID	1,200	9,100	9,700	19,000	8.40E+07	1.10E+05	1.50E+06
Bromoform	75252	NA	1,600 (W)	ID	1.50E+05	9.00E+05	9.00E+05	9.00E+05	2.80E+09	8.20E+05	8.70E+05
Bromomethane	74839	NA	200	700	860	11,000	57,000	1.40E+05	3.30E+08	3.20E+05	2.20E+06
n-Butanol (I)	71363	NA	19,000	2.00E+05	NLV	NLV	NLV	NLV	2.30E+10	2.9E+7 (C)	8.70E+06
2-Butanone (MEK) (I)	78933	NA	2.60E+05	44,000	5.4E+7 (C)	2.90E+07	2.90E+07	3.50E+07	6.70E+10	1.2E+8 (C, DD)	2.70E+07
n-Butyl acetate	123864	NA	11,000	NA	5.6E+7 (C)	1.10E+08	2.60E+08	3.20E+08	4.70E+11	1.7E+7 (C)	1.10E+06
t-Butyl alcohol	75650	NA	78,000	NA	3.1E+8 (C)	9.70E+07	2.00E+08	2.00E+08	1.30E+11	1.2E+8 (C)	1.10E+08
Butyl benzyl phthalate	85687	NA	2.2E+6 (C)	1.2E+5 (X)	NLV	NLV	NLV	NLV	4.70E+10	3.6E+7 (C)	3.10E+05
n-Butylbenzene	104518	NA	1,600	ID	ID	ID	ID	ID	2.00E+09	2.50E+06	1.00E+07



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sec-Butylbenzene	135988	NA	1,600	ID	ID	ID	ID	ID	4.00E+08	2.50E+06	1.00E+07
t-Butylbenzene (I)	98066	NA	1,600	ID	ID	ID	ID	ID	6.70E+08	2.50E+06	1.00E+07
Cadmium (B)	7440439	1,200	6,000	(G,X)	NLV	NLV	NLV	NLV	1.70E+06	5.50E+05	NA
Camphene (I)	79925	NA	ID	NA	3,700	1.50E+05	9.10E+05	2.20E+06	5.30E+09	ID	NA
Caprolactam	105602	NA	1.20E+05	NA	NLV	NLV	NLV	NLV	6.70E+08	5.3E+7 (DD)	NA
Carbaryl	63252	NA	14,000	NA	ID	ID	ID	ID	ID	2.20E+07	NA
Carbazole	86748	NA	9,400	1,100	NLV	NLV	NLV	NLV	6.20E+07	5.30E+05	NA
Carbofuran	1563662	NA	800	NA	NLV	NLV	NLV	NLV	ID	1.10E+06	NA
Carbon disulfide (I,R)	75150	NA	16,000	ID	76,000	1.30E+06	7.90E+06	1.90E+07	4.70E+10	7.2E+6 (C, DD)	2.80E+05
Carbon tetrachloride	56235	NA	100	900 (X)	190	3,500	12,000	28,000	1.30E+08	96,000	3.90E+05
Chlordane (J)	57749	NA	NLL	NLL	1.10E+07	1.20E+06	1.20E+06	1.20E+06	3.10E+07	31,000	NA
Chloride	16887006	NA	5.00E+06	(X)	NLV	NLV	NLV	NLV	ID	5.0E+5 (F)	NA
Chlorobenzene (I)	108907	NA	2,000	500	1.20E+05	7.70E+05	9.90E+05	2.10E+06	4.70E+09	4.3E+6 (C)	2.60E+05
p-Chlorobenzene sulfonic acid	98668	NA	1.50E+05	ID	ID	ID	ID	ID	ID	2.30E+08	ID
1-Chloro-1,1-difluoroethane	75683	NA	3.00E+05	NA	2.9E+6 (C)	7.90E+07	5.60E+08	1.40E+09	3.30E+12	4.7E+8 (C)	9.60E+05
Chloroethane	75003	NA	8,600	22,000 (X)	2.9E+6 (C)	3.00E+07	1.20E+08	2.80E+08	6.70E+11	2.6E+6 (C)	9.50E+05
2-Chloroethyl vinyl ether	110758	NA	ID	NA	ID	ID	ID	ID	ID	ID	1.90E+06
Chloroform	67663	NA	1,600 (W)	7,000	7,200	45,000	1.20E+05	2.70E+05	1.30E+09	1.20E+06	1.50E+06
Chloromethane (I)	74873	NA	5,200	ID	2,300	40,000	4.10E+05	1.00E+06	4.90E+09	1.6E+6 (C)	1.10E+06
4-Chloro-3-methylphenol	59507	NA	5,800	280	NLV	NLV	NLV	NLV	ID	4.50E+06	NA
beta-Chloronaphthalene	91587	NA	6.20E+05	NA	ID	ID	ID	ID	ID	5.60E+07	NA
2-Chlorophenol	95578	NA	900	360	4.30E+05	9.60E+05	9.60E+05	9.60E+05	1.20E+09	1.40E+06	1.90E+07
o-Chlorotoluene (I)	95498	NA	3,300	ID	2.70E+05	1.20E+06	2.90E+06	6.30E+06	4.70E+09	4.5E+6 (C)	5.00E+05
Chlorpyrifos	2921882	NA	17,000	1,500	190	4,600	23,000	55,000	1.30E+08	1.10E+07	NA
Chromium (III) (B,H)	16065831	18,000 (total)	1.0E+9 (D)	(G,X)	NLV	NLV	NLV	NLV	3.30E+08	7.90E+08	NA
Chromium (VI)	18540299	NA	30,000	3,300	NLV	NLV	NLV	NLV	2.60E+05	2.50E+06	NA
Chrysene (Q)	218019	NA	NLL	NLL	ID	ID	ID	ID	ID	2.00E+06	NA



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Cobalt	7440484	6,800	800	2,000	NLV	NLV	NLV	NLV	1.30E+07	2.60E+06	NA
Copper (B)	7440508	32,000	5.80E+06	(G)	NLV	NLV	NLV	NLV	1.30E+08	2.00E+07	NA
Cyanazine	21725462	NA	200	1,100 (X)	NLV	NLV	NLV	NLV	ID	14,000	NA
Cyanide (P,R)	57125	390 (total)	4,000	100	NLV	NLV	NLV	NLV	2.50E+05	12,000	NA
Cyclohexanone	108941	NA	5.20E+06	NA	17,000	1.00E+06	1.10E+07	2.70E+07	6.70E+10	1.0E+9 (C,D)	2.20E+08
Dacthal	1861321	NA	50,000	NA	NLV	NLV	NLV	NLV	ID	2.30E+06	NA
Dalapon	75990	NA	4,000	NA	NLV	NLV	NLV	NLV	ID	1.90E+07	5.90E+07
4,4'-DDD	72548	NA	NLL	NLL	NLV	NLV	NLV	NLV	4.40E+07	95,000	NA
4,4'-DDE	72559	NA	NLL	NLL	NLV	NLV	NLV	NLV	3.20E+07	45,000	NA
4,4'-DDT	50293	NA	NLL	NLL	NLV	NLV	NLV	NLV	3.20E+07	57,000	NA
Decabromodiphenyl ether	1163195	NA	1.40E+05	NA	1.0E+9 (D)	8.60E+07	8.60E+07	8.60E+07	2.30E+09	3.80E+06	NA
Di-n-butyl phthalate	84742	NA	9.6E+5 (C)	11,000	NLV	NLV	NLV	NLV	3.30E+09	2.7E+7 (C)	7.60E+05
Di(2-ethylhexyl) adipate	103231	NA	1.3E+7 (C)	ID	NLV	NLV	NLV	NLV	9.20E+09	1.5E+7 (C, DD)	9.60E+05
Di-n-octyl phthalate	117840	NA	1.00E+08	ID	NLV	NLV	NLV	NLV	3.10E+10	6.90E+06	1.40E+08
Diacetone alcohol (I)	123422	NA	ID	NA	NLV	NLV	NLV	NLV	1.60E+11	ID	1.10E+08
Diazinon	333415	NA	95	72	NLV	NLV	NLV	NLV	ID	12,000 (DD)	3.10E+05
Dibenzo(a,h)anthracene (Q)	53703	NA	NLL	NLL	NLV	NLV	NLV	NLV	ID	2,000	NA
Dibenzofuran	132649	NA	ID	1,700	2.00E+06	1.30E+05	1.30E+05	1.30E+05	6.70E+06	ID	NA
Dibromochloromethane	124481	NA	1,600 (W)	ID	3,900	24,000	24,000	33,000	1.30E+08	1.10E+05	6.10E+05
Dibromochloropropane	96128	NA	10 (M); 4.0	ID	220	260	260	260	5.60E+05	4,400 (C)	1,200
Dibromomethane	74953	NA	1,600	NA	ID	ID	ID	ID	ID	2.5E+6 (C)	2.00E+06
Dicamba	1918009	NA	4,400	NA	NA	NLV	NLV	NLV	ID	3.40E+06	NA
1,2-Dichlorobenzene	95501	NA	14,000	280	1.1E+7 (C)	3.90E+07	3.90E+07	5.20E+07	1.00E+11	1.9E+7 (C)	2.10E+05
1,3-Dichlorobenzene	541731	NA	170	680	26,000	79,000	79,000	1.10E+05	2.00E+08	2.0E+5 (C)	1.70E+05
1,4-Dichlorobenzene	106467	NA	1,700	360	19,000	77,000	77,000	1.10E+05	4.50E+08	4.00E+05	NA
3,3'-Dichlorobenzidine	91941	NA	2,000 (M); 28	2,000 (M); 7.4	NLV	NLV	NLV	NLV	6.50E+06	6,600	NA
Dichlorodifluoromethane	75718	NA	95,000	ID	9.00E+05	5.30E+07	5.50E+08	1.40E+09	3.30E+12	5.2E+7 (C)	1.00E+06



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1,1-Dichloroethane	75343	NA	18,000	15,000	2.30E+05	2.10E+06	5.90E+06	1.40E+07	3.30E+10	2.7E+7 (C)	8.90E+05
1,2-Dichloroethane (I)	107062	NA	100	7,200 (X)	2,100	6,200	11,000	26,000	1.20E+08	91,000	1.20E+06
1,1-Dichloroethylene (I)	75354	NA	140	2,600	62	1,100	5,300	13,000	6.20E+07	2.00E+05	5.70E+05
cis-1,2-Dichloroethylene	156592	NA	1,400	12,000	22,000	1.80E+05	4.20E+05	9.90E+05	2.30E+09	2.5E+6 (C)	6.40E+05
trans-1,2-Dichloroethylene	156605	NA	2,000	30,000 (X)	23,000	2.80E+05	8.30E+05	2.00E+06	4.70E+09	3.8E+6 (C)	1.40E+06
2,6-Dichloro-4-nitroaniline	99309	NA	44,000	NA	NLV	NLV	NLV	NLV	ID	6.80E+07	NA
2,4-Dichlorophenol	120832	NA	1,500	330 (M); 220	NLV	NLV	NLV	NLV	5.10E+09	6.6E+5 (DD)	1.80E+06
2,4-Dichlorophenoxy acetic acid	94757	NA	1,400	4,400	NLV	NLV	NLV	NLV	6.70E+09	2.50E+06	NA
1,2-Dichloropropane (I)	78875	NA	100	4,600 (X)	4,000	25,000	50,000	1.10E+05	2.70E+08	1.40E+05	5.50E+05
1,3-Dichloropropene	542756	NA	170	180 (X)	1,000	18,000	68,000	1.60E+05	7.80E+08	10,000	6.20E+05
Dichlorovos	62737	NA	50 (M); 32	NA	NLV	NLV	NLV	NLV	3.30E+07	10,000	2.20E+06
Dicyclohexyl phthalate	84617	NA	ID	NA	ID	ID	ID	ID	ID	ID	NA
Dieldrin	60571	NA	NLL	NLL	1.40E+05	19,000	19,000	19,000	6.80E+05	1,100	NA
Diethyl ether	60297	NA	200	ID	2.8E+7 (C)	8.50E+07	1.50E+08	3.40E+08	8.00E+11	1.1E+8 (C)	7.40E+06
Diethyl phthalate	84662	NA	1.10E+05	2,200	NLV	NLV	NLV	NLV	3.30E+09	1.7E+8 (C)	7.40E+05
Diethylene glycol monobutyl ether	112345	NA	1,800	NA	NLV	NLV	NLV	NLV	1.30E+09	2.70E+06	1.10E+08
Diisopropyl ether	108203	NA	600	ID	6.7E+5 (C)	3.40E+05	7.60E+05	1.80E+06	4.10E+09	9.2E+5 (C)	1,300
Diisopropylamine (I)	108189	NA	110	NA	5.50E+06	6.20E+06	6.20E+06	7.30E+06	1.30E+10	1.70E+05	6.70E+06
Dimethyl phthalate	131113	NA	1.5E+6 (C)	NA	NLV	NLV	NLV	NLV	3.30E+09	1.0E+9 (C,D)	7.90E+05
N,N-Dimethylacetamide	127195	NA	3,600	82,000 (X)	NLV	NLV	NLV	NLV	ID	5.60E+06	1.10E+08
N,N-Dimethylaniline	121697	NA	320	NA	1.70E+05	1.50E+05	1.50E+05	1.50E+05	2.60E+08	5.00E+05	8.00E+05
Dimethylformamide (I)	68122	NA	14,000	NA	NLV	NLV	NLV	NLV	2.00E+09	2.20E+07	1.10E+08
2,4-Dimethylphenol	105679	NA	7,400	7,600	NLV	NLV	NLV	NLV	4.70E+09	1.10E+07	NA
2,6-Dimethylphenol	576261	NA	330 (M); 88	NA	NLV	NLV	NLV	NLV	1.30E+08	1.40E+05	NA
3,4-Dimethylphenol	95658	NA	330 (M); 200	500	NLV	NLV	NLV	NLV	2.30E+08	3.20E+05	NA
Dimethylsulfoxide	67685	NA	4.40E+06	3.80E+06	NLV	NLV	NLV	NLV	1.30E+09	1.0E+9 (C,D)	1.80E+07
2,4-Dinitrotoluene	121142	NA	430	NA	NLV	NLV	NLV	NLV	1.60E+07	48,000	NA



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Dinoseb	88857	NA	300	200 (M); 43	NLV	NLV	NLV	NLV	2.70E+08	66,000 (DD)	1.40E+05
1,4-Dioxane (I)	123911	NA	1,700	56,000 (X)	NLV	NLV	NLV	NLV	5.70E+08	5.30E+05	9.70E+07
Diquat	85007	NA	400	400	NLV	NLV	NLV	NLV	ID	5.00E+05	NA
Diuron	330541	NA	620	NA	NLV	NLV	NLV	NLV	4.70E+08	9.70E+05	NA
Endosulfan (J)	115297	NA	NLL	NLL	ID	ID	ID	ID	ID	1.40E+06	NA
Endothall	145733	NA	NLL	NLL	NLV	NLV	NLV	NLV	2.30E+09	3.80E+06	NA
Endrin	72208	NA	NLL	NLL	NLV	NLV	NLV	NLV	ID	65,000	NA
Epichlorohydrin (I)	106898	NA	100	NA	64,000	31,000	31,000	35,000	6.70E+07	8,900	7.30E+06
Ethanol (I)	64175	NA	3.80E+07	ID	NLV	NLV	NLV	NLV	1.30E+12	1.0E+9 (C, D, DD)	1.10E+08
Ethyl acetate (I)	141786	NA	1.30E+05	NA	3.8E+7 (C)	4.90E+07	4.90E+07	9.80E+07	2.10E+11	2.0E+8 (C)	7.50E+06
Ethyl-tert-butyl ether (ETBE)	637923	NA	980	ID	5.40E+05	1.90E+06	4.50E+06	1.10E+07	2.50E+10	ID	6.50E+05
Ethylbenzene (I)	100414	NA	1,500	360	87,000	7.20E+05	1.00E+06	2.20E+06	1.00E+10	2.2E+7 (C)	1.40E+05
Ethylene dibromide	106934	NA	20 (M); 1.0	110 (X)	670	1,700	1,700	3,300	1.40E+07	92	8.90E+05
Ethylene glycol	107211	NA	3.00E+05	3.8E+6 (X)	NLV	NLV	NLV	NLV	6.70E+10	4.5E+8 (C)	1.10E+08
Ethylene glycol monobutyl ether	111762	NA	74,000	NA	7.40E+05	1.80E+07	1.50E+08	3.60E+08	8.70E+11	1.1E+8 (C)	4.10E+07
Fluoranthene	206440	NA	7.30E+05	5,500	1.0E+9 (D)	7.40E+08	7.40E+08	7.40E+08	9.30E+09	4.60E+07	NA
Fluorene	86737	NA	3.90E+05	5,300	5.80E+08	1.30E+08	1.30E+08	1.30E+08	9.30E+09	2.70E+07	NA
Fluorine (soluble fluoride) (B)	7782414	NA	40,000	ID	NLV	NLV	NLV	NLV	ID	9.0E+6 (DD)	NA
Formaldehyde	50000	NA	26,000	2,400	12,000	13,000	23,000	52,000	2.40E+08	4.10E+07	6.00E+07
Formic acid (I,U)	64186	NA	2.00E+05	ID	1.50E+06	2.10E+05	1.40E+05	1.40E+05	1.30E+08	3.2E+8 (C)	1.10E+08
1-Formylpiperidine	2591868	NA	1,600	NA	ID	ID	ID	ID	ID	2.50E+06	1.00E+07
Genian violet	548629	NA	300	NA	NLV	NLV	NLV	NLV	ID	96,000	NA
Glyphosate	1071836	NA	NLL	NLL	NLV	NLV	NLV	NLV	ID	1.1E+7 (DD)	NA
Heptachlor	76448	NA	NLL	NLL	3.50E+05	62,000	62,000	62,000	2.40E+06	5,600	NA
Heptachlor epoxide	1024573	NA	NLL	NLL	NLV	NLV	NLV	NLV	1.20E+06	3,100	NA
n-Heptane	142825	NA	4.6E+7 (C)	NA	1.5E+6 (C)	2.10E+07	4.40E+07	1.00E+08	2.30E+11	9.9E+8 (C)	2.40E+05
Hexabromobenzene	87821	NA	5,400	ID	ID	ID	ID	ID	ID	1.10E+06	NA



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Hexachlorobenzene (C-66)	118741	NA	1,800	350	41,000	17,000	17,000	17,000	6.80E+06	8,900	NA
Hexachlorobutadiene (C-46)	87683	NA	26,000	91	1.30E+05	1.30E+05	1.30E+05	1.30E+05	1.40E+08	1.00E+05	3.50E+05
alpha-Hexachlorocyclohexane	319846	NA	18	ID	30,000	12,000	22,000	25,000	1.70E+06	2,600	NA
beta-Hexachlorocyclohexane	319857	NA	37	ID	NLV	NLV	NLV	NLV	5.90E+06	5,400	NA
Hexachlorocyclopentadiene (C-56)	77474	NA	3.20E+05	ID	30,000	50,000	50,000	50,000	1.30E+07	2.3E+6 (C)	7.20E+05
Hexachloroethane	67721	NA	430	1,800 (X)	40,000	5.50E+05	9.30E+05	9.30E+05	2.30E+08	2.30E+05	NA
n-Hexane	110543	NA	1.8E+5 (C)	NA	5.1E+5 (C)	3.00E+06	3.20E+06	6.20E+06	1.30E+10	9.2E+7 (C)	44,000
2-Hexanone	591786	NA	20,000	ID	9.90E+05	1.10E+06	1.10E+06	1.40E+06	2.70E+09	3.2E+7 (C)	2.50E+06
Indeno(1,2,3-cd) pyrene (Q)	193395	NA	NLL	NLL	NLV	NLV	NLV	NLV	ID	20,000	NA
Iron (B)	7439896	1.20E+07	6,000	NA	NLV	NLV	NLV	NLV	ID	1.60E+08	NA
Isobutyl alcohol (I)	78831	NA	46,000	NA	2.3E+8 (C)	7.90E+07	7.90E+07	7.90E+07	1.00E+11	7.2E+7 (C)	8.90E+06
Isophorone	78591	NA	15,000	26,000 (X)	NLV	NLV	NLV	NLV	1.20E+10	4.8E+6 (C)	2.40E+06
Isopropyl alcohol (I)	67630	NA	9,400	1.1E+6 (X)	NLV	NLV	NLV	NLV	1.50E+10	1.40E+07	1.10E+08
Isopropyl benzene	98828	NA	91,000	3,200	4.0E+5 (C)	1.70E+06	1.70E+06	2.80E+06	5.80E+09	2.5E+7 (C)	3.90E+05
Lead (B)	7439921	21,000	7.00E+05	(G,X)	NLV	NLV	NLV	NLV	1.00E+08	4.00E+05	NA
Lindane	58899	NA	20 (M); 7.0	20 (M); 1.1	ID	ID	ID	ID	ID	8,300	NA
Lithium (B)	7439932	9,800	3,400	8,800	NLV	NLV	NLV	NLV	2.30E+09	4.2E+6 (DD)	NA
Magnesium (B)	7439954	NA	8.00E+06	NA	NLV	NLV	NLV	NLV	6.70E+09	1.0E+9 (D)	NA
Manganese (B)	7439965	4.40E+05	1,000	(G,X)	NLV	NLV	NLV	NLV	3.30E+06	2.50E+07	NA
Mercury (Total) (B,Z)	Varies	130	1,700	50 (M); 1.2	48,000	52,000	52,000	52,000	2.00E+07	1.60E+05	NA
Methane	74828	NA	ID	NA	8.4E+6 ug/m3 (GG)	ID	ID	ID	ID	ID	ID
Methanol	67561	NA	74,000	1.2E+7 (C)	3.7E+7 (C)	3.10E+07	4.40E+07	9.60E+07	2.20E+11	1.1E+8 (C)	3.10E+06
Methoxychlor	72435	NA	16,000	NA	ID	ID	ID	ID	ID	1.90E+06	NA
2-Methoxyethanol (I)	109864	NA	150	NA	NLV	NLV	NLV	NLV	1.30E+09	2.30E+05	1.10E+08
2-Methyl-4-chlorophenoxyacetic acid	94746	NA	390	NA	NLV	NLV	NLV	NLV	ID	2.30E+05	NA
2-Methyl-4,6-dinitrophenol	534521	NA	830 (M); 400	NA	NLV	NLV	NLV	NLV	1.30E+08	79,000	NA
N-Methyl-morpholine (I)	109024	NA	400	NA	NLV	NLV	NLV	NLV	ID	6.10E+05	1.10E+08



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Methyl parathion	298000	NA	46	NA	NLV	NLV	NLV	NLV	ID	56,000	NA
4-Methyl-2-pentanone (MIBK) (I)	108101	NA	36,000	ID	3.7E+7 (C)	4.50E+07	4.50E+07	6.70E+07	1.40E+11	5.6E+7 (C)	2.70E+06
Methyl-tert-butyl ether (MTBE)	1634044	NA	800	1.4E+5 (X)	9.9E+6 (C)	2.50E+07	3.90E+07	8.70E+07	2.00E+11	1.50E+06	5.90E+06
Methylcyclopentane (I)	96377	NA	ID	NA	92,000	2.30E+06	8.20E+06	2.00E+07	4.70E+10	ID	3.50E+05
4,4'-Methylene-bis-2-chloroaniline (MBOCA)	101144	NA	NLL	NLL	NLV	NLV	NLV	NLV	8.40E+07	6,800	NA
Methylene chloride	75092	NA	100	30,000 (X)	45,000	2.10E+05	5.90E+05	1.40E+06	6.60E+09	1.30E+06	2.30E+06
2-Methylnaphthalene	91576	NA	57,000	4,200	2.70E+06	1.50E+06	1.50E+06	1.50E+06	6.70E+08	8.10E+06	NA
Methylphenols (J)	1319773	NA	7,400	1,000 (M); 600	NLV	NLV	NLV	NLV	6.70E+09	1.10E+07	NA
Metolachlor	51218452	NA	4,800	300	NLV	NLV	NLV	NLV	ID	1.5E+6 (C, DD)	4.40E+05
Metribuzin	21087649	NA	3,600	NA	ID	ID	ID	ID	ID	9.60E+06	NA
Mirex	2385855	NA	NLL	NLL	ID	ID	ID	ID	ID	9,600	NA
Molybdenum (B)	7439987	NA	1,500	64,000 (X)	NLV	NLV	NLV	NLV	ID	2.60E+06	NA
Naphthalene	91203	NA	35,000	730	2.50E+05	3.00E+05	3.00E+05	3.00E+05	2.00E+08	1.60E+07	NA
Nickel (B)	7440020	20,000	1.00E+05	(G)	NLV	NLV	NLV	NLV	1.30E+07	4.00E+07	NA
Nitrate (B,N)	14797558	NA	2.0E+5 (N)	ID	NLV	NLV	NLV	NLV	ID	ID	NA
Nitrite (B,N)	14797650	NA	20,000 (N)	NA	NLV	NLV	NLV	NLV	ID	ID	NA
Nitrobenzene (I)	98953	NA	330 (M); 68	3,600 (X)	91,000	54,000	54,000	54,000	4.70E+07	1.00E+05	4.90E+05
2-Nitrophenol	88755	NA	400	ID	NLV	NLV	NLV	NLV	ID	6.30E+05	NA
n-Nitroso-di-n-propylamine	621647	NA	330 (M); 100	NA	NLV	NLV	NLV	NLV	1.60E+06	1,200	1.50E+06
N-Nitrosodiphenylamine	86306	NA	5,400	NA	NLV	NLV	NLV	NLV	2.20E+09	1.70E+06	NA
Oxamyl	23135220	NA	4,000	NA	NLV	NLV	NLV	NLV	ID	8.60E+06	NA
Oxo-hexyl acetate	88230357	NA	1,500	NA	ID	ID	ID	ID	5.40E+09	2.30E+06	1.00E+07
Pendimethalin	40487421	NA	1.10E+06	NA	NLV	NLV	NLV	NLV	ID	4.60E+07	NA
Pentachlorobenzene	608935	NA	29,000	9,500	ID	ID	ID	ID	ID	3.2E+5 (C)	1.90E+05
Pentachloronitrobenzene	82688	NA	37,000	NA	1.20E+05	2.30E+05	2.30E+05	2.30E+05	3.30E+08	1.70E+06	NA
Pentachlorophenol	87865	NA	22	(G,X)	NLV	NLV	NLV	NLV	1.00E+08	90,000	NA
Pentane	109660	NA	ID	NA	9.7E+5 (C)	3.70E+07	3.10E+08	5.80E+08	1.20E+12	ID	2.40E+05



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2-Pentene (I)	109682	NA	ID	NA	ID	ID	ID	ID	ID	ID	ID	2.20E+05
Phenanthrene	85018	NA	56,000	2,100	2.80E+06	1.60E+05	1.60E+05	1.60E+05	6.70E+06	1.60E+06	NA	NA
Phenol	108952	NA	88,000	9,000	NLV	NLV	NLV	NLV	4.00E+10	4.0E+7 (C, DD)	1.20E+07	1.20E+07
Phenytoin	57410	NA	830	4300 (X)	NLV	NLV	NLV	NLV	2.20E+08	1.00E+05	NA	NA
Phosphorus (Total)	7723140	NA	1.30E+06	(EE)	NLV	NLV	NLV	NLV	6.70E+07	1.0E+9 (D)	NA	NA
Phthalic acid	88993	NA	2.80E+05	NA	NLV	NLV	NLV	NLV	ID	4.3E+8 (C)	1.70E+06	1.70E+06
Phthalic anhydride	85449	NA	3.00E+05	NA	NLV	NLV	NLV	NLV	ID	4.7E+8 (C)	1.10E+06	1.10E+06
Picloram	1918021	NA	10,000	920	NLV	NLV	NLV	NLV	ID	1.60E+07	NA	NA
Piperidine	110894	NA	64	NA	NLV	NLV	NLV	NLV	9.30E+09	99,000	1.20E+08	1.20E+08
Polybrominated biphenyls (J)	67774327	NA	NLL	NLL	NLV	NLV	NLV	NLV	ID	1,200	NA	NA
Polychlorinated biphenyls (PCBs) (J,T)	1336363	NA	NLL	NLL	3.00E+06	2.40E+05	7.90E+06	7.90E+06	5.20E+06	(T)	NA	NA
Prometon	1610180	NA	4,900	NA	NLV	NLV	NLV	NLV	ID	5.00E+06	NA	NA
Propachlor	1918167	NA	1,900	NA	NLV	NLV	NLV	NLV	ID	2.90E+06	NA	NA
Propazine	139402	NA	4,000	NA	NLV	NLV	NLV	NLV	ID	6.10E+06	NA	NA
Propionic acid	79094	NA	2.40E+05	ID	NLV	NLV	NLV	NLV	2.00E+10	3.8E+8 (C)	1.10E+08	1.10E+08
Propyl alcohol (I)	71238	NA	28,000	NA	NLV	NLV	NLV	NLV	4.90E+10	1.3E+7 (DD)	1.10E+08	1.10E+08
n-Propylbenzene (I)	103651	NA	1,600	ID	ID	ID	ID	ID	1.30E+09	2.50E+06	1.00E+07	1.00E+07
Propylene glycol	57556	NA	3.00E+06	5.80E+06	NLV	NLV	NLV	NLV	4.00E+11	1.0E+9 (C,D)	1.10E+08	1.10E+08
Pyrene	129000	NA	4.80E+05	ID	1.0E+9 (D)	6.50E+08	6.50E+08	6.50E+08	6.70E+09	2.90E+07	NA	NA
Pyridine (I)	110861	NA	400	NA	1,100	8,200	40,000	97,000	2.30E+08	2.3E+5 (C)	37,000	37,000
Selenium (B)	7782492	410	4,000	400	NLV	NLV	NLV	NLV	1.30E+08	2.60E+06	NA	NA
Silver (B)	7440224	1,000	4,500	100 (M); 27	NLV	NLV	NLV	NLV	6.70E+06	2.50E+06	NA	NA
Silvex (2,4,5-TP)	93721	NA	3,600	2,200	NLV	NLV	NLV	NLV	ID	1.70E+06	NA	NA
Simazine	122349	NA	80	340	NLV	NLV	NLV	NLV	ID	1.20E+06	NA	NA
Sodium	17341252	NA	4.60E+06	NA	NLV	NLV	NLV	NLV	ID	1.0E+9 (D)	NA	NA
Sodium azide	26628228	NA	1,800	1,000	ID	ID	ID	ID	ID	2.70E+06	NA	NA
Strontium (B)	7440246	NA	92,000	4.20E+05	NLV	NLV	NLV	NLV	ID	3.30E+08	NA	NA



**TABLE 2. SOIL: RESIDENTIAL
PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS/PART 213 RISK-BASED SCREENING LEVELS**

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Hazardous Substance	Chemical Abstract Service Number	Statewide Default Background Level	Groundwater Protection		Indoor Air	Ambient Air (Y) (C)				Contact	Csat
			Residential Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Soil Volatilization to Indoor Air Inhalation Criteria	Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation Criteria	Direct Contact Criteria	Soil Saturation Concentration Screening Levels
Styrene	100425	NA	2,700	2,100 (X)	2.50E+05	9.70E+05	9.70E+05	1.40E+06	5.50E+09	4.00E+05	5.20E+05
Sulfate	14808798	NA	5.00E+06	NA	NLV	NLV	NLV	NLV	ID	ID	NA
Tebuthiuron	34014181	NA	10,000	NA	NLV	NLV	NLV	NLV	ID	4.6E+6 (DD)	NA
2,3,7,8-Tetrabromodibenzo-p-dioxin (O)	50585416	NA	NLL	NLL	NLV	NLV	NLV	NLV	(O)	(O)	NA
1,2,4,5-Tetrachlorobenzene	95943	NA	1.50E+06	3,400 (X)	5.80E+05	2.30E+05	2.30E+05	2.30E+05	6.70E+07	7.70E+07	NA
2,3,7,8-Tetrachlorodibenzo-p-dioxin (O)	1746016	NA	NLL	NLL	NLV	NLV	NLV	NLV	71 (O)	0.09 (O)	NA
1,1,1,2-Tetrachloroethane	630206	NA	1,500	ID	6,200	36,000	54,000	1.00E+05	4.20E+08	4.8E+5 (C)	4.40E+05
1,1,2,2-Tetrachloroethane	79345	NA	170	1,600 (X)	4,300	10,000	10,000	14,000	5.40E+07	53,000	8.70E+05
Tetrachloroethylene	127184	NA	100	1,200 (X)	11,000	1.70E+05	4.80E+05	1.10E+06	2.70E+09	2.0E+5 (C)	88,000
Tetrahydrofuran	109999	NA	1,900	2.2E+5 (X)	1.30E+06	1.30E+07	6.70E+07	1.60E+08	3.90E+11	2.90E+06	1.20E+08
Tetranitromethane	509148	NA	ID	NA	500(M); 110	500 (M); 51	ID	ID	2.10E+05	ID	ID
Thallium (B)	7440280	NA	2,300	4,200 (X)	NLV	NLV	NLV	NLV	1.30E+07	35,000	NA
Toluene (I)	108883	NA	16,000	5,400	3.3E+5 (C)	2.80E+06	5.10E+06	1.20E+07	2.70E+10	5.0E+7 (C)	2.50E+05
p-Toluidine	106490	NA	660 (M); 300	NA	NLV	NLV	NLV	NLV	1.00E+08	94,000	1.20E+06
Toxaphene	8001352	NA	24,000	8,200	NLV	NLV	NLV	NLV	9.70E+06	20,000	NA
Triallate	2303175	NA	95,000	NA	ID	ID	ID	ID	ID	2.9E+6 (C)	2.50E+05
Tributylamine	102829	NA	7,800	ID	5.80E+05	6.00E+05	6.00E+05	6.00E+05	4.70E+08	7.90E+05	3.70E+06
1,2,4-Trichlorobenzene	120821	NA	4,200	5,900 (X)	9.6E+6 (C)	2.80E+07	2.80E+07	2.80E+07	2.50E+10	9.9E+5 (DD)	1.10E+06
1,1,1-Trichloroethane	71556	NA	4,000	1,800	2.50E+05	3.80E+06	1.20E+07	2.80E+07	6.70E+10	5.0E+8 (C)	4.60E+05
1,1,2-Trichloroethane	79005	NA	100	6,600 (X)	4,600	17,000	21,000	44,000	1.90E+08	1.80E+05	9.20E+05
Trichloroethylene	79016	NA	100	4,000 (X)	1,000	11,000	25,000	57,000	1.30E+08	1.1E+5 (DD)	5.00E+05
Trichlorofluoromethane	75694	NA	52,000	NA	2.8E+6 (C)	9.20E+07	6.30E+08	1.50E+09	3.80E+12	7.9E+7 (C)	5.60E+05
2,4,5-Trichlorophenol	95954	NA	39,000	NA	NLV	NLV	NLV	NLV	2.30E+10	2.30E+07	NA
2,4,6-Trichlorophenol	88062	NA	2,400	330 (M); 100	NLV	NLV	NLV	NLV	1.00E+09	7.10E+05	NA
1,2,3-Trichloropropane	96184	NA	840	NA	4,000	9,200	9,200	11,000	2.00E+07	1.3E+6 (C)	8.30E+05
1,1,2-Trichloro-1,2,2-trifluoroethane	76131	NA	9.0E+6 (C)	1,700	5.1E+6 (C)	1.80E+08	8.80E+08	2.10E+09	5.10E+12	1.0E+9 (C,D)	5.50E+05
Triethanolamine	102716	NA	74,000	NA	NLV	NLV	NLV	NLV	3.30E+09	1.10E+08	1.10E+08



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			Residential Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Soil Volatilization to Indoor Air Inhalation Criteria	Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation Criteria	Direct Contact Criteria	Soil Saturation Concentration Screening Levels
Triethylene glycol	112276	NA	86,000	NA	NLV	NLV	NLV	NLV	ID	3.9E+7 (C,DD)	1.10E+05
3-Trifluoromethyl-4-nitrophenol	88302	NA	1.10E+05	NA	NLV	NLV	NLV	NLV	ID	4.1E+7 (DD)	NA
Trifluralin	1582098	NA	1.90E+05	NA	ID	ID	ID	ID	ID	2.00E+06	NA
2,2,4-Trimethyl pentane	540841	NA	ID	NA	1.1E+5 (C)	5.20E+06	3.90E+07	9.60E+07	2.30E+11	ID	19,000
2,4,4-Trimethyl-2-pentene (I)	107404	NA	ID	NA	ID	ID	ID	ID	ID	ID	56,000
1,2,4-Trimethylbenzene (I)	95636	NA	2,100	570	4.3E+6 (C)	2.10E+07	5.00E+08	5.00E+08	8.20E+10	3.2E+7 (C)	1.10E+05
1,3,5-Trimethylbenzene (I)	108678	NA	1,800	1,100	2.6E+6 (C)	1.60E+07	3.80E+08	3.80E+08	8.20E+10	3.2E+7 (C)	94,000
Triphenyl phosphate	115866	NA	1.5E+6 (C)	NA	NLV	NLV	NLV	NLV	ID	3.6E+7 (C)	1.10E+05
Tris(2,3-Dibromopropyl)phosphate	126727	NA	930	ID	82,000 (C)	18,000	18,000	18,000	5.90E+06	4,400	27,000
Urea	57136	NA	ID	NA	NLV	NLV	NLV	NLV	ID	ID	NA
Vanadium	7440622	NA	72,000	4.30E+05	NLV	NLV	NLV	NLV	ID	7.5E+5 (DD)	NA
Vinyl acetate (I)	108054	NA	13,000	NA	7.90E+05	1.70E+06	2.60E+06	5.80E+06	1.30E+10	5.8E+6 (C,DD)	2.40E+06
Vinyl chloride	75014	NA	40	260 (X)	270	4,200	30,000	73,000	3.50E+08	3,800	4.90E+05
White phosphorus (R)	12185103	NA	2.2	NA	NLV	NLV	NLV	NLV	ID	2,300 (DD)	NA
Xylenes (I)	1330207	NA	5,600	820	6.3E+6 (C)	4.60E+07	6.10E+07	1.30E+08	2.90E+11	4.1E+8 (C)	1.50E+05
Zinc (B)	7440666	47,000	2.40E+06	(G)	NLV	NLV	NLV	NLV	ID	1.70E+08	NA



TABLE 3. SOIL: NONRESIDENTIAL
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			Residential Drinking Water Protection Criteria	Nonresidential Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Soil Volatilization to Indoor Air Inhalation Criteria	Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation Criteria	Direct Contact Criteria	Soil Saturation Concentration Screening Levels
Acenaphthene	83329	NA	3.00E+05	8.80E+05	8,700	3.50E+08	9.70E+07	9.70E+07	9.70E+07	6.20E+09	1.30E+08	NA
Acenaphthylene	208968	NA	5,900	17,000	ID	3.00E+06	2.70E+06	2.70E+06	2.70E+06	1.00E+09	5.20E+06	NA
Acetaldehyde (I)	75070	NA	19,000	54,000	2,600	4.00E+05	2.10E+05	2.10E+05	2.90E+05	2.60E+08	9.50E+07	1.10E+08
Acetate	71501	NA	ID	ID	(G)	ID	ID	ID	ID	ID	ID	ID
Acetic acid	64197	NA	84,000	2.40E+05	(G)	NLV	NLV	NLV	NLV	7.40E+09	4.20E+08	6.50E+08
Acetone (I)	67641	NA	15,000	42,000	34,000	5.4E+8 (C)	1.60E+08	1.60E+08	2.00E+08	1.70E+11	7.30E+07	1.10E+08
Acetonitrile	75058	NA	2,800	8,000	NA	8.80E+06	1.90E+06	1.90E+06	2.20E+06	1.80E+09	1.40E+07	2.20E+07
Acetophenone	98862	NA	30,000	88,000	ID	2.1E+8 (C)	5.20E+07	5.20E+07	5.20E+07	1.40E+10	1.5E+8 (C)	1.10E+06
Acrolein (I)	107028	NA	2,400	6,600	NA	760	370	370	630	5.90E+05	1.20E+07	2.30E+07
Acrylamide	79061	NA	10	10	200 (X)	NLV	NLV	NLV	NLV	3.00E+06	8,700	NA
Acrylic acid	79107	NA	78,000	2.20E+05	NA	5.50E+06	2.20E+05	2.70E+05	2.70E+05	2.90E+07	2.1E+8 (C,DD)	1.10E+08
Acrylonitrile (I)	107131	NA	100 (M); 52	220	100 (M); 40	35,000	17,000	17,000	31,000	5.80E+07	74,000	8.30E+06
Alachlor	15972608	NA	52	52	290 (X)	NLV	NLV	NLV	NLV	ID	3.90E+05	NA
Aldicarb	116063	NA	60	60	NA	NLV	NLV	NLV	NLV	ID	7.30E+05	NA
Aldicarb sulfone	1646884	NA	200 (M); 40	200 (M); 40	NA	NLV	NLV	NLV	NLV	ID	8.00E+05	NA
Aldicarb sulfoxide	1646873	NA	200(M); 80	200 (M); 80	NA	NLV	NLV	NLV	NLV	ID	9.50E+05	NA
Aldrin	309002	NA	NLL	NLL	NLL	7.10E+06	2.00E+05	2.00E+05	2.00E+05	8.00E+05	4,300	NA
Aluminum (B)	7429905	6.90E+06	1,000	1,000	NA	NLV	NLV	NLV	NLV	ID	3.7E+8 (DD)	NA
Ammonia	7664417	NA	ID	ID	(CC)	ID	ID	ID	ID	2.90E+09	ID	1.00E+07
t-Amyl methyl ether (TAME)	994058	NA	3,900	3,900	NA	1.10E+05	4.00E+05	7.80E+05	1.80E+06	1.80E+09	9.5E+7 (C)	4.40E+05
Aniline	62533	NA	1,100	4,400	330 (M); 80	NLV	NLV	NLV	NLV	2.90E+07	1.50E+06	4.50E+06
Anthracene	120127	NA	41,000	41,000	ID	1.0E+9 (D)	1.60E+09	1.60E+09	1.60E+09	2.90E+10	7.30E+08	NA
Antimony	7440360	NA	4,300	4,300	94,000 (X)	NLV	NLV	NLV	NLV	5.90E+06	6.70E+05	NA
Arsenic	7440382	5,800	4,600	4,600	4,600	NLV	NLV	NLV	NLV	9.10E+05	37,000	NA
Asbestos (BB)	1332214	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	1.0E+7 (M); 85,000	ID	NA
Atrazine	1912249	NA	60	60	150	NLV	NLV	NLV	NLV	ID	3.3E+5 (DD)	NA
Azobenzene	103333	NA	4,200	17,000	ID	3.20E+07	2.10E+06	2.10E+06	2.10E+06	1.30E+08	6.60E+05	NA



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Barium (B)	7440393	75,000	1.30E+06	1.30E+06	(G)	NLV	NLV	NLV	NLV	1.50E+08	1.30E+08	NA
Benzene (I)	71432	NA	100	100	4,000 (X)	8,400	45,000	99,000	2.30E+05	4.70E+08	8.4E+5 (C)	4.00E+05
Benzidine	92875	NA	1,000 (M); 6.0	1,000 (M); 6.0	1,000 (M); 6.0	NLV	NLV	NLV	NLV	59,000	1,000 (M); 110	NA
Benzo(a)anthracene (Q)	56553	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	80,000	NA
Benzo(b)fluoranthene (Q)	205992	NA	NLL	NLL	NLL	ID	ID	ID	ID	ID	80,000	NA
Benzo(k)fluoranthene (Q)	207089	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	8.00E+05	NA
Benzo(g,h,i)perylene	191242	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	3.50E+08	7.00E+06	NA
Benzo(a)pyrene (Q)	50328	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	1.90E+06	8,000	NA
Benzoic acid	65850	NA	6.40E+05	1.80E+06	NA	NLV	NLV	NLV	NLV	ID	1.0E+9 (D)	NA
Benzyl alcohol	100516	NA	2.00E+05	5.80E+05	NA	NLV	NLV	NLV	NLV	1.50E+11	1.0E+9 (C,D)	5.80E+06
Benzyl chloride	100447	NA	150	640	NA	33,000	48,000	48,000	52,000	7.80E+07	2.20E+05	2.30E+05
Beryllium	7440417	NA	51,000	51,000	(G)	NLV	NLV	NLV	NLV	5.90E+05	1.60E+06	NA
bis(2-Chloroethoxy)ethane	112265	NA	ID	ID	ID	NLV	NLV	NLV	NLV	ID	ID	2.70E+06
bis(2-Chloroethyl)ether (I)	111444	NA	100	170	100 (M); 20	44,000	13,000	13,000	13,000	1.20E+07	58,000	2.20E+06
bis(2-Ethylhexyl)phthalate	117817	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	8.90E+08	1.2E+7 (C)	1.00E+07
Boron (B)	7440428	NA	10,000	10,000	1.4E+5 (X)	NLV	NLV	NLV	NLV	ID	3.5E+8 (DD)	NA
Bromate	15541454	NA	200	200	800 (X)	NLV	NLV	NLV	NLV	ID	91,000	NA
Bromobenzene (I)	108861	NA	550	1,500	NA	5.80E+05	5.40E+05	5.40E+05	5.40E+05	2.40E+08	1.7E+6 (C)	7.60E+05
Bromodichloromethane	75274	NA	1,600 (W)	1,600 (W)	ID	6,400	31,000	31,000	57,000	1.10E+08	4.90E+05	1.50E+06
Bromoform	75252	NA	1,600 (W)	1,600 (W)	ID	7.70E+05	3.10E+06	3.10E+06	3.10E+06	3.60E+09	3.8E+6 (C)	8.70E+05
Bromomethane	74839	NA	200	580	700	1,600	13,000	57,000	1.40E+05	1.50E+08	1.00E+06	2.20E+06
n-Butanol (I)	71363	NA	19,000	54,000	2.00E+05	NLV	NLV	NLV	NLV	1.00E+10	9.5E+7 (C)	8.70E+06
2-Butanone (MEK) (I)	78933	NA	2.60E+05	7.60E+05	44,000	9.9E+7 (C)	3.50E+07	3.50E+07	3.60E+07	2.90E+10	7.0E+8 (C,DD)	2.70E+07
n-Butyl acetate	123864	NA	11,000	32,000	NA	1.0E+8 (C)	1.40E+08	3.10E+08	3.50E+08	2.10E+11	5.5E+7 (C)	1.10E+06
t-Butyl alcohol	75650	NA	78,000	2.20E+05	NA	5.8E+8 (C)	1.20E+08	2.40E+08	2.40E+08	5.60E+10	3.9E+8 (C)	1.10E+08
Butyl benzyl phthalate	85687	NA	2.2E+6 (C)	5.0E+6 (C)	1.2E+5 (X)	NLV	NLV	NLV	NLV	2.10E+10	1.2E+8 (C)	3.10E+05
n-Butylbenzene	104518	NA	1,600	4,600	ID	ID	ID	ID	ID	8.80E+08	8.00E+06	1.00E+07



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sec-Butylbenzene	135988	NA	1,600	4,600	ID	ID	ID	ID	ID	1.80E+08	8.00E+06	1.00E+07
t-Butylbenzene (I)	98066	NA	1,600	4,600	ID	ID	ID	ID	ID	2.90E+08	8.00E+06	1.00E+07
Cadmium (B)	7440439	1,200	6,000	6,000	(G,X)	NLV	NLV	NLV	NLV	2.20E+06	2.10E+06	NA
Camphene (I)	79925	NA	ID	ID	NA	6,700	1.80E+05	9.10E+05	2.20E+06	2.40E+09	ID	NA
Caprolactam	105602	NA	1.20E+05	3.40E+05	NA	NLV	NLV	NLV	NLV	2.90E+08	3.1E+8 (DD)	NA
Carbaryl	63252	NA	14,000	40,000	NA	ID	ID	ID	ID	ID	7.00E+07	NA
Carbazole	86748	NA	9,400	39,000	1,100	NLV	NLV	NLV	NLV	7.80E+07	2.40E+06	NA
Carbofuran	1563662	NA	800	800	NA	NLV	NLV	NLV	NLV	ID	3.60E+06	NA
Carbon disulfide (I,R)	75150	NA	16,000	46,000	ID	1.40E+05	1.60E+06	8.00E+06	1.90E+07	2.10E+10	4.3E+7 (C,DD)	2.80E+05
Carbon tetrachloride	56235	NA	100	100	900 (X)	990	12,000	34,000	79,000	1.70E+08	4.4E+5 (C)	3.90E+05
Chlordane (J)	57749	NA	NLL	NLL	NLL	5.90E+07	4.20E+06	4.20E+06	4.20E+06	2.10E+07	1.50E+05	NA
Chloride	16887006	NA	5.00E+06	5.00E+06	(X)	NLV	NLV	NLV	NLV	ID	5.0E+5 (F)	NA
Chlorobenzene (I)	108907	NA	2,000	2,000	500	2.20E+05	9.20E+05	1.10E+06	2.10E+06	2.10E+09	1.4E+7 (C)	2.60E+05
p-Chlorobenzene sulfonic acid	98668	NA	1.50E+05	4.20E+05	ID	ID	ID	ID	ID	ID	7.30E+08	ID
1-Chloro-1,1-difluoroethane	75683	NA	3.00E+05	8.80E+05	NA	5.4E+6 (C)	9.40E+07	5.70E+08	1.40E+09	1.50E+12	1.0E+9 (C,D)	9.60E+05
Chloroethane	75003	NA	8,600	34,000	22,000 (X)	5.3E+6 (C)	3.60E+07	1.20E+08	2.80E+08	2.90E+11	1.2E+7 (C)	9.50E+05
2-Chloroethyl vinyl ether	110758	NA	ID	ID	NA	ID	ID	ID	ID	ID	ID	1.90E+06
Chloroform	67663	NA	1,600 (W)	1,600 (W)	7,000	38,000	1.50E+05	3.40E+05	7.90E+05	1.60E+09	5.5E+6 (C)	1.50E+06
Chloromethane (I)	74873	NA	5,200	22,000	ID	10,000	1.20E+05	1.00E+06	2.50E+06	2.60E+09	7.4E+6 (C)	1.10E+06
4-Chloro-3-methylphenol	59507	NA	5,800	16,000	280	NLV	NLV	NLV	NLV	ID	1.50E+07	NA
beta-Chloronaphthalene	91587	NA	6.20E+05	1.80E+06	NA	ID	ID	ID	ID	ID	1.80E+08	NA
2-Chlorophenol	95578	NA	900	2,600	360	8.00E+05	1.10E+06	1.10E+06	1.10E+06	5.30E+08	4.50E+06	1.90E+07
o-Chlorotoluene (I)	95498	NA	3,300	9,300	ID	5.00E+05	1.50E+06	3.10E+06	6.40E+06	2.10E+09	1.5E+7 (C)	5.00E+05
Chlorpyrifos	2921882	NA	17,000	48,000	1,500	240	5,500	23,000	56,000	5.90E+07	3.40E+07	NA
Chromium (III) (B,H)	16065831	18,000 (total)	1.0E+9 (D)	1.0E+9 (D)	(G,X)	NLV	NLV	NLV	NLV	1.50E+08	1.0E+9 (D)	NA
Chromium (VI)	18540299	NA	30,000	30,000	3,300	NLV	NLV	NLV	NLV	2.40E+05	9.20E+06	NA
Chrysene (Q)	218019	NA	NLL	NLL	NLL	ID	ID	ID	ID	ID	8.00E+06	NA



TABLE 3. SOIL: NONRESIDENTIAL
PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS/PART 213 RISK-BASED SCREENING LEVELS

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Hazardous Substance	Chemical Abstract Service Number	Statewide Default Background Levels	Groundwater Protection			Indoor Air	Ambient Air (Y) (C)				Contact	Csat
			Residential Drinking Water Protection Criteria	Nonresidential Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Soil Volatilization to Indoor Air Inhalation Criteria	Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation Criteria	Direct Contact Criteria	Soil Saturation Concentration Screening Levels
Cobalt	7440484	6,800	800	2,000	2,000	NLV	NLV	NLV	NLV	5.90E+06	9.00E+06	NA
Copper (B)	7440508	32,000	5.80E+06	5.80E+06	(G)	NLV	NLV	NLV	NLV	5.90E+07	7.30E+07	NA
Cyanazine	21725462	NA	200	200	1,100 (X)	NLV	NLV	NLV	NLV	ID	66,000	NA
Cyanide (P,R)	57125	390 (total)	4,000	4,000	100	NLV	NLV	NLV	NLV	2.50E+05	2.50E+05	NA
Cyclohexanone	108941	NA	5.20E+06	1.50E+07	NA	32,000	1.30E+06	1.10E+07	2.70E+07	2.90E+10	1.0E+9 (C,D)	2.20E+08
Dacthal	1861321	NA	50,000	1.40E+05	NA	NLV	NLV	NLV	NLV	ID	7.30E+06	NA
Dalapon	75990	NA	4,000	4,000	NA	NLV	NLV	NLV	NLV	ID	6.2E+7 (C)	5.90E+07
4-4'-DDD	72548	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	5.60E+07	4.00E+05	NA
4-4'-DDE	72559	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	4.00E+07	1.90E+05	NA
4-4'-DDT	50293	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	4.00E+07	2.80E+05	NA
Decabromodiphenyl ether	1163195	NA	1.40E+05	1.40E+05	NA	1.0E+9 (D)	1.00E+08	1.00E+08	1.00E+08	1.00E+09	1.10E+07	NA
Di-n-butyl phthalate	84742	NA	9.6E+5 (C)	2.7E+6 (C)	11,000	NLV	NLV	NLV	NLV	1.50E+09	8.7E+7 (C)	7.60E+05
Di(2-ethylhexyl) adipate	103231	NA	1.3E+7 (C)	1.3E+7 (C)	ID	NLV	NLV	NLV	NLV	1.20E+10	6.3E+7 (C,DD)	9.60E+05
Di-n-octyl phthalate	117840	NA	1.00E+08	2.9E+8 (C)	ID	NLV	NLV	NLV	NLV	1.40E+10	2.00E+07	1.40E+08
Diacetone alcohol (I)	123422	NA	ID	ID	NA	NLV	NLV	NLV	NLV	7.10E+10	ID	1.10E+08
Diazinon	333415	NA	95	280	72	NLV	NLV	NLV	NLV	ID	70,000 (DD)	3.10E+05
Dibenzo(a,h)anthracene (Q)	53703	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	8,000	NA
Dibenzofuran	132649	NA	ID	ID	1,700	3.60E+06	1.60E+05	1.60E+05	1.60E+05	2.90E+06	ID	NA
Dibromochloromethane	124481	NA	1,600 (W)	1,600 (W)	ID	21,000	80,000	80,000	98,000	1.60E+08	5.00E+05	6.10E+05
Dibromochloropropane	96128	NA	10 (M); 4.0	10 (M); 4.0	ID	1,200	900	900	900	7.00E+05	20,000 (C)	1,200
Dibromomethane	74953	NA	1,600	4,600	NA	ID	ID	ID	ID	ID	8.0E+6 (C)	2.00E+06
Dicamba	1918009	NA	4,400	13,000	NA	NLV	NLV	NLV	NLV	ID	1.70E+07	NA
1,2-Dichlorobenzene	95501	NA	14,000	14,000	280	2.0E+7 (C)	4.60E+07	4.60E+07	5.50E+07	4.40E+10	6.3E+7 (C)	2.10E+05
1,3-Dichlorobenzene	541731	NA	170	480	680	48,000	94,000	94,000	1.10E+05	8.80E+07	6.6E+5 (C)	1.70E+05
1,4-Dichlorobenzene	106467	NA	1,700	1,700	360	1.00E+05	2.60E+05	2.60E+05	3.40E+05	5.70E+08	1.90E+06	NA
3,3'-Dichlorobenzidine	91941	NA	2,000 (M); 28	2,000 (M); 110	2,000 (M); 7.4	NLV	NLV	NLV	NLV	8.20E+06	30,000	NA
Dichlorodifluoromethane	75718	NA	95,000	2.70E+05	ID	1.70E+06	6.30E+07	5.50E+08	1.40E+09	1.50E+12	1.7E+8 (C)	1.00E+06



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Hazardous Substance	Chemical Abstract Service Number	Statewide Default Background Levels	Groundwater Protection			Indoor Air	Ambient Air (Y) (C)				Contact	Csat
			Residential Drinking Water Protection Criteria	Nonresidential Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Soil Volatilization to Indoor Air Inhalation Criteria	Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation Criteria	Direct Contact Criteria	Soil Saturation Concentration Screening Levels
1,1-Dichloroethane	75343	NA	18,000	50,000	15,000	4.30E+05	2.50E+06	6.00E+06	1.40E+07	1.50E+10	8.7E+7 (C)	8.90E+05
1,2-Dichloroethane (I)	107062	NA	100	100	7,200 (X)	11,000	21,000	33,000	74,000	1.50E+08	4.20E+05	1.20E+06
1,1-Dichloroethylene (I)	75354	NA	140	140	2,600	330	3,700	15,000	37,000	7.80E+07	6.6E+5 (C)	5.70E+05
cis-1,2-Dichloroethylene	156592	NA	1,400	1,400	12,000	41,000	2.10E+05	4.30E+05	1.00E+06	1.00E+09	8.0E+6 (C)	6.40E+05
trans-1,2-Dichloroethylene	156605	NA	2,000	2,000	30,000 (X)	43,000	3.30E+05	8.40E+05	2.00E+06	2.10E+09	1.2E+7 (C)	1.40E+06
2,6-Dichloro-4-nitroaniline	99309	NA	44,000	1.30E+05	NA	NLV	NLV	NLV	NLV	ID	2.20E+08	NA
2,4-Dichlorophenol	120832	NA	1,500	4,200	330 (M); 220	NLV	NLV	NLV	NLV	2.30E+09	3.9E+6 (C,DD)	1.80E+06
2,4-Dichlorophenoxyacetic acid	94757	NA	1,400	1,400	4,400	NLV	NLV	NLV	NLV	2.90E+09	8.60E+06	NA
1,2-Dichloropropane (I)	78875	NA	100	100	4,600 (X)	7,400	30,000	51,000	1.20E+05	1.20E+08	6.6E+5 (C)	5.50E+05
1,3-Dichloropropene	542756	NA	170	700	180 (X)	5,400	60,000	2.00E+05	4.70E+05	5.90E+08	2.40E+05	6.20E+05
Dichlorovos	62737	NA	50 (M); 32	130	NA	NLV	NLV	NLV	NLV	1.50E+07	47,000	2.20E+06
Dicyclohexyl phthalate	84617	NA	ID	ID	NA	ID	ID	ID	ID	ID	ID	NA
Dieldrin	60571	NA	NLL	NLL	NLL	7.20E+05	64,000	64,000	64,000	8.50E+05	4,700	NA
Diethyl ether	60297	NA	200	200	ID	5.2E+7 (C)	1.00E+08	1.60E+08	3.50E+08	3.50E+11	3.6E+8 (C)	7.40E+06
Diethyl phthalate	84662	NA	1.10E+05	3.20E+05	2,200	NLV	NLV	NLV	NLV	1.50E+09	5.5E+8 (C)	7.40E+05
Diethylene glycol monobutyl ether	112345	NA	1,800	5,000	NA	NLV	NLV	NLV	NLV	5.90E+08	8.70E+06	1.10E+08
Diisopropyl ether	108203	NA	600	1,700 (C)	ID	1.2E+6 (C)	3.20E+06	4.80E+06	1.00E+07	1.10E+10	3.0E+6 (C)	1,300
Diisopropylamine (I)	108189	NA	110	320	NA	1.0E+7 (C)	7.40E+06	7.40E+06	7.70E+06	5.90E+09	5.60E+05	6.70E+06
Dimethyl phthalate	131113	NA	1.5E+6 (C)	4.2E+6 (C)	NA	NLV	NLV	NLV	NLV	1.50E+09	1.0E+9 (C,D)	7.90E+05
N,N-Dimethylacetamide	127195	NA	3,600	10,000	82,000 (X)	NLV	NLV	NLV	NLV	ID	1.80E+07	1.10E+08
N,N-Dimethylaniline	121697	NA	320	920	NA	8.9E+5 (C)	5.20E+05	5.20E+05	5.20E+05	3.30E+08	1.6E+6 (C)	8.00E+05
Dimethylformamide (I)	68122	NA	14,000	40,000	NA	NLV	NLV	NLV	NLV	8.80E+08	7.00E+07	1.10E+08
2,4-Dimethylphenol	105679	NA	7,400	20,000	7,600	NLV	NLV	NLV	NLV	2.10E+09	3.60E+07	NA
2,6-Dimethylphenol	576261	NA	330 (M); 88	330 (M); 260	NA	NLV	NLV	NLV	NLV	5.90E+07	4.40E+05	NA
3,4-Dimethylphenol	95658	NA	330 (M); 200	580	500	NLV	NLV	NLV	NLV	1.00E+08	1.00E+06	NA
Dimethylsulfoxide	67685	NA	4.40E+06	1.30E+07	3.80E+06	NLV	NLV	NLV	NLV	5.90E+08	1.0E+9 (C,D)	1.80E+07
2,4-Dinitrotoluene	121142	NA	430	640	NA	NLV	NLV	NLV	NLV	2.00E+07	2.20E+05	NA



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Dinoseb	88857	NA	300	300	200 (M); 43	NLV	NLV	NLV	NLV	1.20E+08	3.9E+5 (C,DD)	1.40E+05
1,4-Dioxane (I)	123911	NA	1,700	7,000	56,000 (X)	NLV	NLV	NLV	NLV	7.10E+08	2.40E+06	9.70E+07
Diquat	85007	NA	400	400	400	NLV	NLV	NLV	NLV	ID	1.60E+06	NA
Diuron	330541	NA	620	1,800	NA	NLV	NLV	NLV	NLV	2.10E+08	3.10E+06	NA
Endosulfan (J)	115297	NA	NLL	NLL	NLL	ID	ID	ID	ID	ID	4.40E+06	NA
Endothall	145733	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	1.00E+09	1.20E+07	NA
Endrin	72208	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	1.90E+05	NA
Epichlorohydrin (I)	106898	NA	100	100	NA	1.20E+05	37,000	37,000	37,000	2.90E+07	41,000	7.30E+06
Ethanol (I)	64175	NA	3.80E+07	7.60E+07	ID	NLV	NLV	NLV	NLV	5.60E+11	1.0E+9 (C,D,DDD)	1.10E+08
Ethyl acetate (I)	141786	NA	1.30E+05	3.80E+05	NA	7.0E+7 (C)	5.90E+07	5.90E+07	1.00E+08	9.40E+10	6.6E+8 (C)	7.50E+06
Ethyl-tert-butyl ether (ETBE)	637923	NA	980	980	ID	1.7E+6 (C)	2.30E+06	4.60E+06	1.10E+07	1.10E+10	ID	6.50E+05
Ethylbenzene (I)	100414	NA	1,500	1,500	360	4.6E+5 (C)	2.40E+06	3.10E+06	6.50E+06	1.30E+10	7.1E+7 (C)	1.40E+05
Ethylene dibromide	106934	NA	20 (M); 1.0	20 (M); 1.0	110 (X)	3,600	5,800	5,800	9,800	1.80E+07	430	8.90E+05
Ethylene glycol	107211	NA	3.00E+05	8.40E+05	3.8E+6 (X)	NLV	NLV	NLV	NLV	2.90E+10	1.0E+9 (C,D)	1.10E+08
Ethylene glycol monobutyl ether	111762	NA	74,000	2.00E+05	NA	1.40E+06	2.10E+07	1.50E+08	3.60E+08	3.80E+11	3.6E+8 (C)	4.10E+07
Fluoranthene	206440	NA	7.30E+05	7.30E+05	5,500	1.0E+9 (D)	8.90E+08	8.80E+08	8.80E+08	4.10E+09	1.30E+08	NA
Fluorene	86737	NA	3.90E+05	8.90E+05	5,300	1.0E+9 (D)	1.50E+08	1.50E+08	1.50E+08	4.10E+09	8.70E+07	NA
Fluorine (soluble fluoride) (B)	7782414	NA	40,000	40,000	ID	NLV	NLV	NLV	NLV	ID	6.7E+7 (DD)	NA
Formaldehyde	50000	NA	26,000	76,000	2,400	65,000	43,000	69,000	1.50E+05	2.60E+08	1.3E+8 (C)	6.00E+07
Formic acid (I,U)	64186	NA	2.00E+05	5.80E+05	ID	2.80E+06	2.60E+05	1.60E+05	1.60E+05	5.90E+07	1.0E+9 (C,D)	1.10E+08
1-Formylpiperidine	2591868	NA	1,600	4,600	NA	ID	ID	ID	ID	ID	8.00E+06	1.00E+07
Gentian violet	548629	NA	300	1,300	NA	NLV	NLV	NLV	NLV	ID	4.40E+05	NA
Glyphosate	1071836	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	5.7E+7 (DD)	NA
Heptachlor	76448	NA	NLL	NLL	NLL	1.90E+06	2.10E+05	2.10E+05	2.10E+05	3.00E+06	23,000	NA
Heptachlor epoxide	1024573	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	1.50E+06	9,500	NA
n-Heptane	142825	NA	4.6E+7 (C)	1.3E+8 (C)	NA	2.7E+6 (C)	2.50E+07	4.50E+07	1.00E+08	1.00E+11	1.0E+9 (C,D)	2.40E+05



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Hexabromobenzene	87821	NA	5,400	5,400	ID	ID	ID	ID	ID	ID	3.10E+06	NA
Hexachlorobenzene (C-66)	118741	NA	1,800	1,800	350	2.20E+05	56,000	56,000	56,000	8.50E+06	37,000	NA
Hexachlorobutadiene (C-46)	87683	NA	26,000	72,000	91	7.1E+5 (C)	4.60E+05	4.60E+05	4.60E+05	1.80E+08	4.7E+5 (C)	3.50E+05
alpha-Hexachlorocyclohexane	319846	NA	18	71	ID	1.60E+05	41,000	86,000	86,000	2.10E+06	12,000	NA
beta-Hexachlorocyclohexane	319857	NA	37	150	ID	NLV	NLV	NLV	NLV	7.40E+06	25,000	NA
Hexachlorocyclopentadiene (C-56)	77474	NA	3.20E+05	3.20E+05	ID	56,000	60,000	60,000	60,000	5.90E+06	6.7E+6 (C)	7.20E+05
Hexachloroethane	67721	NA	430	1,200	1,800 (X)	79,000	6.60E+05	1.40E+06	1.40E+06	1.00E+08	7.30E+05	NA
n-Hexane	110543	NA	1.8E+5 (C)	5.1E+5 (C)	NA	9.5E+5 (C)	3.50E+06	3.50E+06	6.40E+06	5.90E+09	3.0E+8 (C)	44,000
2-Hexanone	591786	NA	20,000	58,000	ID	1.80E+06	1.30E+06	1.30E+06	1.50E+06	1.20E+09	1.0E+8 (C)	2.50E+06
Indeno(1,2,3-cd)pyrene (Q)	193395	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	80,000	NA
Iron (B)	7439896	1.20E+07	6,000	6,000	NA	NLV	NLV	NLV	NLV	ID	5.80E+08	NA
Isobutyl alcohol (I)	78831	NA	46,000	1.30E+05	NA	4.3E+8 (C)	9.50E+07	9.50E+07	9.50E+07	4.40E+10	2.3E+8 (C)	8.90E+06
Isophorone	78591	NA	15,000	62,000	26,000 (X)	NLV	NLV	NLV	NLV	8.20E+09	2.2E+7 (C)	2.40E+06
Isopropyl alcohol (I)	67630	NA	9,400	26,000	1.1E+6 (X)	NLV	NLV	NLV	NLV	6.50E+09	4.70E+07	1.10E+08
Isopropyl benzene	98828	NA	91,000	2.60E+05	3,200	7.3E+5 (C)	2.00E+06	2.00E+06	3.00E+06	2.60E+09	8.0E+7 (C)	3.90E+05
Lead (B)	7439921	21,000	7.00E+05	7.00E+05	(G,X)	NLV	NLV	NLV	NLV	4.40E+07	9.0E+5 (DD)	NA
Lindane	58899	NA	20 (M); 7.0	20 (M); 7.0	20 (M); 1.1	ID	ID	ID	ID	ID	42,000	NA
Lithium (B)	7439932	9,800	3,400	7,000	8,800	NLV	NLV	NLV	NLV	1.00E+09	3.1E+7 (DD)	NA
Magnesium (B)	7439954	NA	8.00E+06	2.20E+07	NA	NLV	NLV	NLV	NLV	2.90E+09	1.0E+9 (D)	NA
Manganese (B)	7439965	4.40E+05	1,000	1,000	(G,X)	NLV	NLV	NLV	NLV	1.50E+06	9.00E+07	NA
Mercury (Total) (B,Z)	Varies	130	1,700	1,700	50 (M); 1.2	89,000	62,000	62,000	62,000	8.80E+06	5.80E+05	NA
Methane	74828	NA	ID	ID	NA	8.4E+6 ug/m ³ (GG)	ID	ID	ID	ID	ID	ID
Methanol	67561	NA	74,000	2.00E+05	1.2E+7 (C)	6.7E+7 (C)	3.70E+07	4.60E+07	9.70E+07	9.60E+10	3.6E+8 (C)	3.10E+06
Methoxychlor	72435	NA	16,000	16,000	NA	ID	ID	ID	ID	ID	5.60E+06	NA
2-Methoxyethanol (I)	109864	NA	150	420	NA	NLV	NLV	NLV	NLV	5.90E+08	7.30E+05	1.10E+08
2-Methyl-4-chlorophenoxyacetic acid	94746	NA	390	1,100	NA	NLV	NLV	NLV	NLV	ID	7.30E+05	NA
2-Methyl-4,6-dinitrophenol	534521	NA	830 (M); 400	830 (M); 400	NA	NLV	NLV	NLV	NLV	5.90E+07	2.60E+05	NA



TABLE 3. SOIL: NONRESIDENTIAL
PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS/PART 213 RISK-BASED SCREENING LEVELS

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Hazardous Substance	Chemical Abstract Service Number	Statewide Default Background Levels	Groundwater Protection			Indoor Air	Ambient Air (Y) (C)				Contact	Csat
			Residential Drinking Water Protection Criteria	Nonresidential Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Soil Volatilization to Indoor Air Inhalation Criteria	Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation Criteria	Direct Contact Criteria	Soil Saturation Concentration Screening Levels
N-Methyl-morpholine (I)	109024	NA	400	1,100	NA	NLV	NLV	NLV	NLV	ID	2.00E+06	1.10E+08
Methyl parathion	298000	NA	46	130	NA	NLV	NLV	NLV	NLV	ID	1.80E+05	NA
4-Methyl-2-pentanone (MBK) (I)	108101	NA	36,000	1.00E+05	ID	6.9E+7 (C)	5.30E+07	5.30E+07	7.00E+07	6.00E+10	1.8E+8 (C)	2.70E+06
Methyl-tert-butyl ether (MTBE)	1634044	NA	800	800	1.4E+5 (X)	1.8E+7 (C)	3.00E+07	4.10E+07	8.90E+07	8.80E+10	7.1E+6 (C)	5.90E+06
Methylcyclopentane (I)	96377	NA	ID	ID	NA	1.70E+05	2.80E+06	8.30E+06	2.00E+07	2.10E+10	ID	3.50E+05
4,4'-Methylene-bis-2-chloroaniline	101144	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	1.10E+08	32,000	NA
Methylene chloride	75092	NA	100	100	30,000 (X)	2.40E+05	7.00E+05	1.70E+06	4.00E+06	8.30E+09	5.8E+6 (C)	2.30E+06
2-Methylnaphthalene	91576	NA	57,000	1.70E+05	4,200	4.90E+06	1.80E+06	1.80E+06	1.80E+06	2.90E+08	2.60E+07	NA
Methylphenols (J)	1319773	NA	7,400	20,000	1,000 (M); 600	NLV	NLV	NLV	NLV	2.90E+09	3.60E+07	NA
Metolachlor	51218452	NA	4,800	20,000	300	NLV	NLV	NLV	NLV	ID	6.9E+6 (C,DD)	4.40E+05
Metribuzin	21087649	NA	3,600	10,000	NA	ID	ID	ID	ID	ID	2.80E+07	NA
Mirex	2385855	NA	NLL	NLL	NLL	ID	ID	ID	ID	ID	40,000	NA
Molybdenum (B)	7439987	NA	1,500	4,200	64,000 (X)	NLV	NLV	NLV	NLV	ID	9.60E+06	NA
Naphthalene	91203	NA	35,000	1.00E+05	730	4.70E+05	3.50E+05	3.50E+05	3.50E+05	8.80E+07	5.20E+07	NA
Nickel (B)	7440020	20,000	1.00E+05	1.00E+05	(G)	NLV	NLV	NLV	NLV	1.60E+07	1.50E+08	NA
Nitrate (B,N)	14797558	NA	2.0E+5 (N)	2.0E+5 (N)	ID	NLV	NLV	NLV	NLV	ID	ID	NA
Nitrite (B,N)	14797650	NA	20,000 (N)	20,000 (N)	NA	NLV	NLV	NLV	NLV	ID	ID	NA
Nitrobenzene (I)	98953	NA	330 (M); 68	330 (M); 190	3,600 (X)	1.70E+05	64,000	64,000	64,000	2.10E+07	3.40E+05	4.90E+05
2-Nitrophenol	88755	NA	400	1,200	ID	NLV	NLV	NLV	NLV	ID	2.00E+06	NA
n-Nitroso-di-n-propylamine	621647	NA	330 (M); 100	330 (M); 100	NA	NLV	NLV	NLV	NLV	2.00E+06	5,400	1.50E+06
N-Nitrosodiphenylamine	86306	NA	5,400	22,000	NA	NLV	NLV	NLV	NLV	2.80E+09	7.80E+06	NA
Oxamyl	23135220	NA	4,000	4,000	NA	NLV	NLV	NLV	NLV	ID	2.80E+07	NA
Oxo-hexyl acetate	88230357	NA	1,500	4,200	NA	ID	ID	ID	ID	2.40E+09	7.30E+06	1.00E+07
Pendimethalin	40487421	NA	1.10E+06	1.10E+06	NA	NLV	NLV	NLV	NLV	ID	1.30E+08	NA
Pentachlorobenzene	608935	NA	29,000	81,000	9,500	ID	ID	ID	ID	ID	9.3E+5 (C)	1.90E+05
Pentachloronitrobenzene	82688	NA	37,000	37,000	NA	2.20E+05	2.80E+05	2.80E+05	2.80E+05	1.50E+08	5.50E+06	NA



**TABLE 3. SOIL: NONRESIDENTIAL
PART 201 GENERIC CLEANUP CRITERIA AND SCREENING LEVELS/PART 213 RISK-BASED SCREENING LEVELS**

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Hazardous Substance	Chemical Abstract Service Number	Statewide Default Background Levels	Groundwater Protection			Indoor Air	Ambient Air (Y) (C)				Contact	Csat
			Residential Drinking Water Protection Criteria	Nonresidential Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Soil Volatilization to Indoor Air Inhalation Criteria	Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation Criteria	Direct Contact Criteria	Soil Saturation Concentration Screening Levels
Pentachlorophenol	87865	NA	22	22	(G,X)	NLV	NLV	NLV	NLV	1.30E+08	3.20E+05	NA
Pentane	109660	NA	ID	ID	NA	1.80E+05	4.40E+07	3.40E+08	6.00E+08	5.30E+11	ID	2.40E+05
2-Pentene (I)	109682	NA	ID	ID	NA	ID	ID	ID	ID	ID	ID	2.20E+05
Phenanthrene	85018	NA	56,000	1.60E+05	2,100	5.10E+06	1.90E+05	1.90E+05	1.90E+05	2.90E+06	5.20E+06	NA
Phenol	108952	NA	88,000	2.60E+05	9,000	NLV	NLV	NLV	NLV	1.80E+10	2.3E+8 (C,DD)	1.20E+07
Phenytoin	57410	NA	830	3300	4300 (X)	NLV	NLV	NLV	NLV	2.80E+08	4.80E+05	NA
Phosphorus (Total)	7723140	NA	1.30E+06	4.80E+06	(EE)	NLV	NLV	NLV	NLV	2.90E+07	1.0E+9 (D)	NA
Phthalic acid	88993	NA	2.80E+05	8.00E+05	NA	NLV	NLV	NLV	NLV	ID	1.0E+9 (C,D)	1.70E+06
Phthalic anhydride	85449	NA	3.00E+05	8.80E+05	NA	NLV	NLV	NLV	NLV	ID	1.0E+9 (C,D)	1.10E+06
Picloram	1918021	NA	10,000	10,000	920	NLV	NLV	NLV	NLV	ID	5.10E+07	NA
Piperidine	110894	NA	64	180	NA	NLV	NLV	NLV	NLV	4.10E+09	3.20E+05	1.20E+08
Polybrominated biphenyls (J)	67774327	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	4,800	NA
Polychlorinated biphenyls (PCBs) (J,T)	1336363	NA	NLL	NLL	NLL	1.60E+07	8.10E+05	2.80E+07	2.80E+07	6.50E+06	(T)	NA
Prometon	1610180	NA	4,900	14,000	NA	NLV	NLV	NLV	NLV	ID	1.60E+07	NA
Propachlor	1918167	NA	1,900	5,400	NA	NLV	NLV	NLV	NLV	ID	9.50E+06	NA
Propazine	139402	NA	4,000	11,000	NA	NLV	NLV	NLV	NLV	ID	2.00E+07	NA
Propionic acid	79094	NA	2.40E+05	7.00E+05	ID	NLV	NLV	NLV	NLV	8.80E+09	1.0E+9 (C,D)	1.10E+08
Propyl alcohol (I)	71238	NA	28,000	80,000	NA	NLV	NLV	NLV	NLV	2.10E+10	7.4E+7 (DD)	1.10E+08
n-Propylbenzene (I)	103651	NA	1,600	4,600	ID	ID	ID	ID	ID	5.90E+08	8.00E+06	1.00E+07
Propylene glycol	57556	NA	3.00E+06	8.40E+06	5.80E+06	NLV	NLV	NLV	NLV	1.80E+11	1.0E+9 (C,D)	1.10E+08
Pyrene	129000	NA	4.80E+05	4.80E+05	ID	1.0E+9 (D)	7.80E+08	7.80E+08	7.80E+08	2.90E+09	8.40E+07	NA
Pyridine (I)	110861	NA	400	420	NA	2,000	9,800	40,000	97,000	1.00E+08	7.3E+5 (C)	37,000
Selenium (B)	7782492	410	4,000	4,000	400	NLV	NLV	NLV	NLV	5.90E+07	9.60E+06	NA
Silver (B)	7440224	1,000	4,500	13,000	100 (M); 27	NLV	NLV	NLV	NLV	2.90E+06	9.00E+06	NA
Silvex (2,4,5-TP)	93721	NA	3,600	3,600	2,200	NLV	NLV	NLV	NLV	ID	5.50E+06	NA
Simazine	122349	NA	80	80	340	NLV	NLV	NLV	NLV	ID	3.80E+06	NA
Sodium	17341252	NA	4.60E+06	7.00E+06	NA	NLV	NLV	NLV	NLV	ID	1.0E+9 (D)	NA



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Hazardous Substance	Chemical Abstract Service Number	Statewide Default Background Levels	Groundwater Protection			Indoor Air	Ambient Air (Y) (C)				Contact	Csat
			Residential Drinking Water Protection Criteria	Nonresidential Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Soil Volatilization to Indoor Air Inhalation Criteria	Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation Criteria	Direct Contact Criteria	Soil Saturation Concentration Screening Levels
Sodium azide	26628228	NA	1,800	5,000	1,000	ID	ID	ID	ID	ID	8.70E+06	NA
Strontium (B)	7440246	NA	92,000	2.60E+05	4.20E+05	NLV	NLV	NLV	NLV	ID	1.0E+9 (D)	NA
Styrene	100425	NA	2,700	2,700	2,100 (X)	1.3E+6 (C)	3.30E+06	3.30E+06	4.20E+06	6.90E+09	1.9E+6 (C)	5.20E+05
Sulfate	14808798	NA	5.00E+06	5.00E+06	NA	NLV	NLV	NLV	NLV	ID	ID	NA
Tebuthiuron	34014181	NA	10,000	30,000	NA	NLV	NLV	NLV	NLV	ID	2.7E+7 (DD)	NA
2,3,7,8-Tetrabromodibenzo-p-dioxin (O)	50585416	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	(O)	(O)	NA
1,2,4,5-Tetrachlorobenzene	95943	NA	1.50E+06	1.50E+06	3,400 (X)	1.10E+06	2.70E+05	2.70E+05	2.70E+05	2.90E+07	2.50E+08	NA
2,3,7,8-Tetrachlorodibenzo-p-dioxin (O)	1746016	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	59 (O)	0.99 (O)	NA
1,1,1,2-Tetrachloroethane	630206	NA	1,500	6,400	ID	33,000	1.20E+05	2.10E+05	3.30E+05	5.30E+08	2.2E+6 (C)	4.40E+05
1,1,2,2-Tetrachloroethane	79345	NA	170	700	1,600 (X)	23,000	34,000	34,000	34,000	6.80E+07	2.40E+05	8.70E+05
Tetrachloroethylene	127184	NA	100	100	1,200 (X)	21,000	2.10E+05	4.90E+05	1.10E+06	1.20E+09	9.3E+5 (C)	88,000
Tetrahydrofuran	109999	NA	1,900	5,400	2.2E+5 (X)	2.40E+06	1.50E+07	6.70E+07	1.60E+08	1.70E+11	9.50E+06	1.20E+08
Tetranitromethane	509148	NA	ID	ID	NA	600	500 (M); 180	ID	ID	2.60E+05	ID	ID
Thallium (B)	7440280	NA	2,300	2,300	4,200 (X)	NLV	NLV	NLV	NLV	5.90E+06	1.30E+05	NA
Toluene (I)	108883	NA	16,000	16,000	5,400	6.1E+5 (C)	3.30E+06	3.60E+07	3.60E+07	1.20E+10	1.6E+8 (C)	2.50E+05
p-Toluidine	106490	NA	660 (M); 300	1,200	NA	NLV	NLV	NLV	NLV	1.30E+08	4.30E+05	1.20E+06
Toxaphene	8001352	NA	24,000	24,000	8,200	NLV	NLV	NLV	NLV	1.20E+07	85,000	NA
Triallate	2303175	NA	95,000	2.7E+5 (C)	NA	ID	ID	ID	ID	ID	9.5E+6 (C)	2.50E+05
Tributylamine	102829	NA	7,800	23,000	ID	1.10E+06	7.20E+05	7.20E+05	7.20E+05	2.10E+08	2.60E+06	3.70E+06
1,2,4-Trichlorobenzene	120821	NA	4,200	4,200	5,900 (X)	1.8E+7 (C)	3.40E+07	3.40E+07	3.40E+07	1.10E+10	5.8E+6 (C,DD)	1.10E+06
1,1,1-Trichloroethane	71556	NA	4,000	4,000	1,800	4.60E+05	4.50E+06	1.50E+07	3.10E+07	2.90E+10	1.0E+9 (C,D)	4.60E+05
1,1,2-Trichloroethane	79005	NA	100	100	6,600 (X)	24,000	57,000	57,000	1.20E+05	2.50E+08	8.40E+05	9.20E+05
Trichloroethylene	79016	NA	100	100	4,000 (X)	1,900	14,000	25,000	58,000	5.90E+07	6.6E+5 (C,DD)	5.00E+05
Trichlorofluoromethane	75694	NA	52,000	1.50E+05	NA	5.1E+6(C)	1.10E+08	1.40E+11	1.40E+11	1.70E+12	2.6E+8 (C)	5.60E+05
2,4,5-Trichlorophenol	95954	NA	39,000	1.10E+05	NA	NLV	NLV	NLV	NLV	1.00E+10	7.30E+07	NA
2,4,6-Trichlorophenol	88062	NA	2,400	9,400	330 (M); 100	NLV	NLV	NLV	NLV	1.30E+09	3.30E+06	NA



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1,2,3-Trichloropropane	96184	NA	840	2,400	NA	7,500	11,000	11,000	12,000	8.80E+06	4.2E+6 (C)	8.30E+05
1,1,2-Trichloro-1,2,2-trifluoroethane	76131	NA	9.0E+6 (C)	9.0E+6 (C)	1,700	9.3E+6 (C)	2.10E+08	8.90E+08	2.10E+09	2.30E+12	1.0E+9 (C,D)	5.50E+05
Triethanolamine	102716	NA	74,000	2.00E+05	NA	NLV	NLV	NLV	NLV	1.50E+09	3.6E+8 (C)	1.10E+08
Triethylene glycol	112276	NA	86,000	2.4E+5 (C)	NA	NLV	NLV	NLV	NLV	ID	2.3E+8 (C,DD)	1.10E+05
3-Trifluoromethyl-4-nitrophenol	88302	NA	1.10E+05	3.10E+05	NA	NLV	NLV	NLV	NLV	ID	2.4E+8 (DD)	NA
Trifuralin	1582098	NA	1.90E+05	5.70E+05	NA	ID	ID	ID	ID	ID	5.70E+06	NA
2,2,4-Trimethyl pentane	540841	NA	ID	ID	NA	2.0E+5 (C)	6.30E+06	4.00E+07	9.60E+07	1.00E+11	ID	19,000
2,4,4-Trimethyl-2-pentene (I)	107404	NA	ID	ID	NA	ID	ID	ID	ID	ID	ID	56,000
1,2,4-Trimethylbenzene (I)	95636	NA	2,100	2,100	570	8.0E+6 (C)	2.50E+07	6.00E+08	6.00E+08	3.60E+10	1.0E+8 (C)	1.10E+05
1,3,5-Trimethylbenzene (I)	108678	NA	1,800	1,800	1,100	4.8E+6 (C)	1.90E+07	4.60E+08	4.60E+08	3.60E+10	1.0E+8 (C)	94,000
Triphenyl phosphate	115866	NA	1.5E+6 (C)	1.8E+6 (C)	NA	NLV	NLV	NLV	NLV	ID	1.2E+8 (C)	1.10E+05
tris(2,3-Dibromopropyl)phosphate	126727	NA	930	930	ID	4.3E+5 (C)	60,000	60,000	60,000	7.40E+06	20,000	27,000
Urea	57136	NA	ID	ID	NA	NLV	NLV	NLV	NLV	ID	ID	NA
Vanadium	7440622	NA	72,000	9.90E+05	4.30E+05	NLV	NLV	NLV	NLV	ID	5.5E+6 (DD)	NA
Vinyl acetate (I)	108054	NA	13,000	36,000	NA	1.50E+06	2.00E+06	2.70E+06	5.90E+06	5.90E+09	3.4E+7 (C,DD)	2.40E+06
Vinyl chloride	75014	NA	40	40	260 (X)	2,800	29,000	1.70E+05	4.20E+05	8.90E+08	34,000	4.90E+05
White phosphorus (R)	12185103	NA	2.2	6	NA	NLV	NLV	NLV	NLV	ID	17,000 (DD)	NA
Xylenes (I)	1330207	NA	5,600	5,600	820	1.2E+7 (C)	5.40E+07	6.50E+07	1.30E+08	1.30E+11	1.0E+9 (C,D)	1.50E+05
Zinc (B)	7440666	47,000	2.40E+06	5.00E+06	(G)	NLV	NLV	NLV	NLV	ID	6.30E+08	NA



R 299.49 FOOTNOTES FOR GENERIC CLEANUP CRITERIA TABLES
Cleanup Criteria Requirements for Response Activity (formerly the Part 201 Generic Cleanup
Criteria and Screening Levels)

Effective Date December 30, 2013

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R 299.49 Footnotes for generic cleanup criteria tables.

Rule 49. (1) The footnotes that apply to the generic criteria tables in R 299.44, R 299.46, and R 299.48 are as follows:

- (A) Criterion is the state of Michigan drinking water standard established pursuant to Section 5 of 1976 PA 399, MCL 325.1005.
- (B) Background, as defined in R 299.1(b), may be substituted if higher than the calculated cleanup criterion. Background levels may be less than criteria for some inorganic compounds.
- (C) The criterion developed under R 299.20 to R 299.26 exceeds the chemical-specific soil saturation screening level (C_{sat}). The person proposing or implementing response activity shall document whether additional response activity is required to control free-phase liquids or NAPL to protect against risks associated with free-phase liquids by using methods appropriate for the free-phase liquids present. Development of a site-specific C_{sat} or methods presented in R 299.22, R 299.24(5), and R 299.26(8) may be conducted for the relevant exposure pathways.
- (D) Calculated criterion exceeds 100 percent, hence it is reduced to 100 percent or 1.0E+9 parts per billion (ppb).
- (E) Criterion is the aesthetic drinking water value, as required by Section 20120a(5) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). A notice of aesthetic impact may be employed as an institutional control mechanism if groundwater concentrations exceed the aesthetic drinking water criterion, but do not exceed the applicable health-based drinking water value provided in the following table:

Hazardous Substance	Chemical Abstract Service Number	Residential Health-Based Drinking Water Value	Non-Residential Health-Based Drinking Water Value
Aluminum	7429905	300	4,100
tertiary Amyl methyl ether	994058	910	2,600
Copper	7440508	1,400	4,000
Diethyl ether	60297	3,700	10,000
Ethylbenzene	100414	700	700
Iron	7439896	2,000	5,600
Manganese	7439965	860	2,500
Methyl-tert-butyl ether (MTBE)	1634044	240	690
Toluene	108883	1,000	1,000
1,2,4-Trimethylbenzene	95636	1,000	2,900
1,3,5-Trimethylbenzene	108678	1,000	2,900
Xylenes	1330207	10,000	10,000

- (F) Criterion is based on adverse impacts to plant life and phytotoxicity.
- (G) Groundwater surface water interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water. The final chronic value (FCV) for the protection of aquatic life shall be calculated based on the pH or hardness

of the receiving surface water. Where water hardness exceeds 400 mg CaCO₃/L, use 400 mg CaCO₃/L for the FCV calculation. The FCV formula provides values in units of ug/L or ppb. The generic GSI criterion is the lesser of the calculated FCV, the wildlife value (WV), and the surface water human non-drinking water value (HNDV). The soil GSI protection criteria for these hazardous substances are the greater of the 20 times the GSI criterion or the GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote.

Hazardous Substance	FCV Formula ug/L	FCV Conversion Factor (CF)	WV ug/L	HNDV ug/L
Acetate	EXP(0.2732*(pH) + 7.0362)	NA	NA	1.3E+6
Acetic Acid	EXP(0.2732*(pH) + 7.0362)	NA	NA	1.3E+6
Barium	EXP(1.0629*(LnH)+1.1869)	NA	NA	1.6E+5
Beryllium	EXP(2.5279*(LnH)-10.7689)	NA	NA	1,200
Cadmium [⊗]	(EXP(0.7852*(LnH)-2.715))*CF	1.101672- ((LnH)*(0.041838))	NA	130
Chromium (III) [⊗]	(EXP(0.819*(LnH)+0.6848))*CF	0.86	NA	9,400
Copper	(EXP(0.8545*(LnH)-1.702))*CF	0.96	NA	38,000
Lead [⊗]	(EXP(0.9859*(LnH)-1.270))*CF	1.46203- ((LnH)*(0.14571))	NA	190
Manganese [⊗]	EXP(0.8784*(LnH)+3.5385)	NA	NA	59,000
Nickel	(EXP(0.846*(LnH)+0.0584))*CF	0.997	NA	2.1E+5
Pentachlorophenol [⊗]	EXP(1.005*(pH)-5.134)	NA	NA	2.8
Zinc	(EXP(0.8473*(LnH)+0.884))*CF	0.986	NA	16,000

Where,

EXP(x) = The base of the natural logarithm raised to power x (e^x).

LnH = The natural logarithm of water hardness in mg CaCO₃/L.

* = The multiplication symbol.

⊗ = The GSI criterion developed here may not be protective for surface water that is used as a drinking water source. Refer to footnote (X) for further guidance.

A spreadsheet that may be used to calculate GSI and GSI protection criteria for (G)-footnoted hazardous substances is available on the Department of Environmental Quality (DEQ) internet web site.

- (H) Valence-specific chromium data (Cr III and Cr VI) shall be compared to the corresponding valence-specific cleanup criteria. If both Cr III and Cr VI are present in groundwater, the total concentration of both cannot exceed the drinking water criterion of 100 ug/L. If analytical data are provided for total chromium only, they shall be compared to the cleanup criteria for Cr VI. Cr III soil cleanup criterion for protection of drinking water can only be used at sites where groundwater is prevented from being used as a public water supply, currently and in the future, through an approved land or resource use restriction.
- (I) Hazardous substance may exhibit the characteristic of ignitability as defined in 40 C.F.R. §261.21 (revised as of July 1, 2001), which is adopted by reference in these rules and is available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these rules of \$45, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401 (stock number 869-044-00155-1), or from the DEQ, Remediation and Redevelopment Division (RRD), 525 West Allegan Street, Lansing, Michigan 48933, at cost.
- (J) Hazardous substance may be present in several isomer forms. Isomer-specific concentrations shall be added together for comparison to criteria.
- (K) Hazardous substance may be flammable or explosive, or both.
- (L) Criteria for lead are derived using a biologically based model, as allowed for under Section 20120a(9) of the NREPA, and are not calculated using the algorithms and assumptions specified in pathway-specific rules. The generic residential drinking water criterion of 4 ug/L is linked to the generic residential soil direct contact criterion of 400 mg/kg. A higher concentration in the drinking water, up to the state action level of 15 ug/L, may be allowed as a site-specific remedy and still allow for drinking water use, under Section 20120a(2) and 20120b of the NREPA if soil concentrations are appropriately lower than 400 mg/kg. If a site-specific criterion is approved based on this subdivision, a notice shall be filed on the deed for all property where the groundwater concentrations will exceed 4 ug/L to provide notice of the potential for unacceptable risk if soil or groundwater concentrations increase. Acceptable combinations of site-specific soil and drinking water concentrations are presented in the following table:

Acceptable Combinations of Lead in Drinking Water and Soil

Drinking Water Concentration (ug/L)	Soil Concentration (mg/kg)
5	386-395
6	376-385
7	376-385
8	366-375
9	356-365
10	346-355
11	336-345
12	336-345
13	326-335
14	316-325
15	306-315

- (M) Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.
- (N) The concentrations of all potential sources of nitrate-nitrogen (e.g., ammonia-N, nitrite-N, nitrate-N) in groundwater that is used as a source of drinking water shall not, when added together, exceed the nitrate drinking water criterion of 10,000 ug/L. Where leaching to groundwater is a relevant pathway, soil concentrations of all potential sources of nitrate-nitrogen shall not, when added together, exceed the nitrate drinking water protection criterion of 2.0E+5 ug/kg.
- (O) The concentration of all polychlorinated and polybrominated dibenzodioxin and dibenzofuran isomers present at a facility, expressed as an equivalent concentration of 2,3,7,8-tetrachlorodibenzo-p-dioxin based upon their relative potency, shall be added together and compared to the criteria for 2,3,7,8-tetrachlorodibenzo-p-dioxin. The generic cleanup criteria for 2,3,7,8-tetrachlorodibenzo-p-dioxin are not calculated according to the algorithms presented in R 299.14 to R 299.26. The generic cleanup criteria are being held at the values that the DEQ has used since August 1998, in recognition of the fact that national efforts to reassess risks posed by dioxin are not yet complete. Until these studies are complete, it is premature to select a revised slope factor and/or reference dose for calculation of generic cleanup criteria.
- (P) Amenable cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with all groundwater criteria. Total cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with soil criteria. Nonresidential direct contact criteria may not be protective of the potential for release of hydrogen cyanide gas. Additional land or resource use restrictions may be necessary to protect for the acute inhalation concerns associated with hydrogen cyanide gas.
- (Q) Criteria for carcinogenic polycyclic aromatic hydrocarbons were developed using relative potential potencies to benzo(a)pyrene.
- (R) Hazardous substance may exhibit the characteristic of reactivity as defined in 40 C.F.R. §261.23 (revised as of July 1, 2001), which is adopted by reference in these rules and is available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these rules of \$45, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401 (stock number 869-044-00155-1), or from the DEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost.
- (S) Criterion defaults to the hazardous substance-specific water solubility limit.
- (T) Refer to the federal Toxic Substances Control Act (TSCA), 40 C.F.R. §761, Subpart D and 40 C.F.R. §761, Subpart G, to determine the applicability of TSCA cleanup standards. Subpart D and Subpart G of 40 C.F.R. §761 (July 1, 2001) are adopted by reference in these rules and are available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulations may be purchased, at a cost as of the time of adoption of these rules of \$55, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401, or from the DEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost. Alternatives to compliance with the TSCA standards listed below

are possible under 40 C.F.R. §761 Subpart D. New releases may be subject to the standards identified in 40 C.F.R. §761, Subpart G. Use Part 201 soil direct contact cleanup criteria in the following table if TSCA standards are not applicable.

Land Use Category	TSCA, Subpart D Cleanup Standards	Part 201 Soil Direct Contact Cleanup Criteria
Residential	1,000 ppb, or 10,000 ppb if capped	4,000 ppb
Nonresidential	1,000 ppb, or 10,000 ppb if capped	16,000 ppb

- (U) Hazardous substance may exhibit the characteristic of corrosivity as defined in 40 C.F.R. §261.22 (revised as of July 1, 2001), which is adopted by reference in these rules and is available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these rules of \$45, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401 (stock number 869-044-00155-1), or from the DEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost.
- (V) Criterion is the aesthetic drinking water value as required by Section 20120(a)(5) of the NREPA. Concentrations up to 200 ug/L may be acceptable, and still allow for drinking water use, as part of a site-specific cleanup under Section 20120a(2) and 20120b of the NREPA.
- (W) Concentrations of trihalomethanes in groundwater shall be added together to determine compliance with the Michigan drinking water standard of 80 ug/L. Concentrations of trihalomethanes in soil shall be added together to determine compliance with the drinking water protection criterion of 1,600 ug/kg.
- (X) The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source. For a groundwater discharge to the Great Lakes and their connecting waters or discharge in close proximity to a water supply intake in inland surface waters, the generic GSI criterion shall be the surface water human drinking water value (HDV) listed in the table in this footnote, except for those HDV indicated with an asterisk. For HDV with an asterisk, the generic GSI criterion shall be the lowest of the HDV, the WV, and the calculated FCV. See formulas in footnote (G). Soil protection criteria based on the HDV shall be as listed in the table in this footnote, except for those values with an asterisk. Soil GSI protection criteria based on the HDV shall be as listed in the table in this footnote, except for those values with an asterisk. Soil GSI protection criteria for compounds with an asterisk shall be the greater of 20 times the GSI criterion or the GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote.

Hazardous Substance	Chemical Abstract Service Number	Surface Water Human Drinking Water Values (HDV) (ug/L)	Soil GSI Protection Criteria for HDV (ug/kg)
Acrylamide	79061	0.5 (M); 0.12	10
Alachlor	15972608	3.5	88
Antimony	7440360	2.0 (M); 1.7	1,200
Benzene	71432	12	240
Boron	7440428	4,000	80,000
Bromate	15541454	10 (M); 0.5	200
n-Butanol	71363	3,500	70,000
Butyl benzyl phthalate	85687	6.9	13,000
Cadmium	7440439	2.5*	*
Carbon tetrachloride	56235	5.6	110
Chloride	16887006	50,000	1.0E+6
Chloroethane	75003	170	3,400
Chromium (III)	16065831	120*	*
Cyanazine	21725462	2.0 (M); 0.93	200 (M); 40
1,2-Dichloroethane	107062	6.0	120
trans-1,2-Dichloroethylene	156605	470	9,400
1,2-Dichloropropane	78875	9.1	180
1,3-Dichloropropene	542756	3.3	100 (M); 66
N,N-Dimethylacetamide	127195	700	14,000
1,4-Dioxane	123911	34	680
Ethylene dibromide	106934	0.17	20 (M); 3.4
Ethylene glycol	107211	56,000	1.1E+6
Hexachloroethane	67721	5.3	310
Isophorone	78591	310	6,200
Isopropyl alcohol	67630	28,000	5.6E+5
Lead	7439921	14*	*
Manganese	7439965	1,300*	*
Methanol	67561	14,000	2.8E+5
Methyl-tert-butyl ether (MTBE)	1634044	100	2,000
Methylene chloride	75092	47	940
Molybdenum	7439987	120	2,400
Nitrobenzene	98953	4.7	330 (M); 94
Pentachlorophenol	87865	1.8*	*
Styrene	100425	20	530
1,2,4,5-Tetrachlorobenzene	95943	2.8	3,300
1,1,2,2-Tetrachloroethane	79345	3.2	64
Tetrachloroethylene	127184	11	220
Tetrahydrofuran	109999	350	7,000
Thallium	7440280	2.0 (M); 1.2	1,400
1,2,4-Trichlorobenzene	120821	80	4,700
1,1,2-Trichloroethane	79005	12	240
Trichloroethylene	79016	29	580
Vinyl chloride	75014	1.0 (M); 0.25	40 (M); 20

(Y) Source size modifiers shown in the following table shall be used to determine soil inhalation criteria for ambient air when the source size is not one-half acre. The modifier shall be multiplied by the generic soil inhalation criteria shown in the table of generic cleanup criteria to determine the applicable criterion. See Footnote (C).

Source Size sq. feet or acres	Modifier
400 sq feet	3.17
1000 sq feet	2.2
2000 sq feet	1.76
1/4 acre	1.15
1/2 acre	1
1 acre	0.87
2 acre	0.77
5 acre	0.66
10 acre	0.6
32 acre	0.5
100 acre	0.43

- (Z) Mercury is typically measured as total mercury. The generic cleanup criteria, however, are based on data for different species of mercury. Specifically, data for elemental mercury, chemical abstract service (CAS) number 7439976, serve as the basis for the soil volatilization to indoor air criteria, groundwater volatilization to indoor air, and soil inhalation criteria. Data for methyl mercury, CAS number 22967926, serve as the basis for the GSI criterion; and data for mercuric chloride, CAS number 7487947, serve as the basis for the drinking water, groundwater contact, soil direct contact, and the groundwater protection criteria. Comparison to criteria shall be based on species-specific analytical data only if sufficient facility characterization has been conducted to rule out the presence of other species of mercury.
- (AA) Use 10,000 ug/l where groundwater enters a structure through the use of a water well, sump or other device. Use 28,000 ug/l for all other uses.
- (BB) The state drinking water standard for asbestos (fibers greater than 10 micrometers in length) is in units of a million fibers per liter of water (MFL). Soil concentrations of asbestos are determined by polarized light microscopy.
- (CC) Groundwater: The generic GSI criteria are based on the toxicity of unionized ammonia (NH₃); the criteria are 29 ug/L and 53 ug/L for cold water and warm water surface water, respectively. As a result, the GSI criterion shall be compared to the percent of the total ammonia concentration in the groundwater that will become NH₃ in the surface water. This percent NH₃ is a function of the pH and temperature of the receiving surface water and can be estimated using the following table, taken from Emerson, et al., (Journal of the Fisheries Research Board of Canada, Volume 32(12):2382, 1975).

Percent NH₃ in Aqueous Ammonia Solutions for 0-30 °C and pH 6-10

Temp (°F)	Temp (°C)	pH								
		6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0
32.0	0	0.00827	0.0261	0.0826	0.261	0.820	2.55	7.64	20.7	45.3
33.8	1	0.00899	0.0284	0.0898	0.284	0.891	2.77	8.25	22.1	47.3
35.6	2	0.00977	0.0309	0.0977	0.308	0.968	3.00	8.90	23.6	49.4
37.4	3	0.0106	0.0336	0.106	0.335	1.05	3.25	9.60	25.1	51.5
39.2	4	0.0115	0.0364	0.115	0.363	1.14	3.52	10.3	26.7	53.5
41.0	5	0.0125	0.0395	0.125	0.394	1.23	3.80	11.1	28.3	55.6
42.8	6	0.0136	0.0429	0.135	0.427	1.34	4.11	11.9	30.0	57.6
44.6	7	0.0147	0.0464	0.147	0.462	1.45	4.44	12.8	31.7	59.5
46.4	8	0.0159	0.0503	0.159	0.501	1.57	4.79	13.7	33.5	61.4
48.2	9	0.0172	0.0544	0.172	0.542	1.69	5.16	14.7	35.3	63.3
50.0	10	0.0186	0.0589	0.186	0.586	1.83	5.56	15.7	37.1	65.1
51.8	11	0.0201	0.0637	0.201	0.633	1.97	5.99	16.8	38.9	66.8
53.6	12	0.0218	0.0688	0.217	0.684	2.13	6.44	17.9	40.8	68.5
55.4	13	0.0235	0.0743	0.235	0.738	2.30	6.92	19.0	42.6	70.2
57.2	14	0.0254	0.0802	0.253	0.796	2.48	7.43	20.2	44.5	71.7
59.0	15	0.0274	0.0865	0.273	0.859	2.67	7.97	21.5	46.4	73.3
60.8	16	0.0295	0.0933	0.294	0.925	2.87	8.54	22.8	48.3	74.7
62.6	17	0.0318	0.101	0.317	0.996	3.08	9.14	24.1	50.2	76.1
64.4	18	0.0343	0.108	0.342	1.07	3.31	9.78	25.5	52.0	77.4
66.2	19	0.0369	0.117	0.368	1.15	3.56	10.5	27.0	53.9	78.7
68.0	20	0.0397	0.125	0.396	1.24	3.82	11.2	28.4	55.7	79.9
69.8	21	0.0427	0.135	0.425	1.33	4.10	11.9	29.9	57.5	81.0
71.6	22	0.0459	0.145	0.457	1.43	4.39	12.7	31.5	59.2	82.1
73.4	23	0.0493	0.156	0.491	1.54	4.70	13.5	33.0	60.9	83.2
75.2	24	0.0530	0.167	0.527	1.65	5.03	14.4	34.6	62.6	84.1
77.0	25	0.0569	0.180	0.566	1.77	5.38	15.3	36.3	64.3	85.1
78.8	26	0.0610	0.193	0.607	1.89	5.75	16.2	37.9	65.9	85.9
80.6	27	0.0654	0.207	0.651	2.03	6.15	17.2	39.6	67.4	86.8
82.4	28	0.0701	0.221	0.697	2.17	6.56	18.2	41.2	68.9	87.3
84.2	29	0.0752	0.237	0.747	2.32	7.00	19.2	42.9	70.4	88.3
86.0	30	0.0805	0.254	0.799	2.48	7.46	20.3	44.6	71.8	89.0

The generic approach for estimating NH₃ assumes a default pH of 8 and default temperatures of 68°F and 85°F for cold water and warm water surface water, respectively. The resulting percent NH₃ is 3.8 percent and 7.2 percent for cold water and warm water, respectively. This default percentage shall be multiplied by the total ammonia-nitrogen (NH₃-N) concentration in the groundwater and the resulting NH₃ concentration compared to the applicable GSI criterion. As an

alternative, the maximum pH and temperature data from the specific receiving surface water can be used to estimate, from the table in this footnote, a lower percent unionized ammonia concentration for comparison to the generic GSI.

Soil: The generic soil GSI protection criteria for unionized ammonia are 580 ug/kg and 1,100 ug/kg for cold water and warm water surface water, respectively.

- (DD) Hazardous substance causes developmental effects. Residential direct contact criteria are protective of both prenatal and postnatal exposure. Nonresidential direct contact criteria are protective for a pregnant adult receptor.
- (EE) The following are applicable generic GSI criteria as required by Section 20120e of the NREPA.

Hazardous Substance	GSI (ug/L)	Notes
Phosphorus	1,000	Criteria applicable unless receiving water is a surface water that has a phosphorus waste load allocation or is an inland lake. In those cases, contact the department for applicable values.
Total dissolved solids (TDS)	5.0E+5	If TDS data are not available, the TDS criterion may be used a screening level for the sum of the concentrations of the following substances: calcium, chlorides, iron, magnesium, potassium, sodium, sulfate.
Dissolved Oxygen (DO): Cold receiving waters Warm receiving waters	≥ 7,000 ≥ 5,000	Since a low level of DO can be harmful to aquatic life, the criterion represents a minimum level that on-site samples must exceed. This is in contrast to other criteria which represent "not to exceed" concentrations. DO criteria are not applicable if groundwater Carbonaceous Biochemical Oxygen Demand (CBOD) is less than 10,000 ug/L and groundwater ammonia concentration is less than 2,000 ug/L.

- (FF) The chloride GSI criterion shall be 125 mg/l when the discharge is to surface waters of the state designated as public water supply sources or 50 mg/l when the discharge is to the Great Lakes or connecting waters. Chloride GSI criteria shall not apply for surface waters of the state that are not designated as a public water supply source, however, the total dissolved solids criterion is applicable.
- (GG) Risk-based criteria are not available for methane due to insufficient toxicity data. An acceptable soil gas concentration (presented for both residential and nonresidential land uses) was derived utilizing 25 percent of the lower explosive level for methane. This equates to 1.25 percent or 8.4E+6 ug/m³.
- (HH) The residential criterion for sodium is 230,000 ug/l in accordance with the Sodium Advisory Council recommendation and revised Groundwater Discharge Standards.

"ID" means insufficient data to develop criterion.

"NA" means a criterion or value is not available or, in the case of background and CAS numbers, not applicable.

"NLL" means hazardous substance is not likely to leach under most soil conditions.

“NLV” means hazardous substance is not likely to volatilize under most conditions.

R 299.50 Toxicological and chemical-physical properties.

Rule 50. (1) The toxicological and chemical-physical properties used to calculate generic shall be as shown in table 4, except as provided in section 20120a(9) of the act, R 299.49(1)(l) and R 299.49(1)(o).

(2) Abbreviations used in table 4 have the following meanings when used in this rule:

(a) “NA” means not available.

(b) “NR” means not relevant.

Appendix G

Qualifications Statement



RAYMOND BREGE
STAFF SCIENTIST

PROFILE

Mr. Brege has over 10 years of experience related to environmental consulting, including conducting Phase I through III site investigations, environmental due diligence, and investigation and remediation of underground storage tanks (UST) releases and UST removal. He has a broad knowledge of regulatory requirements, sampling techniques, project planning, applying Risk Based Corrective Action and technical reporting. He also holds an accredited Asbestos Building Inspector (BI) license with the State of Michigan.

SKILLS & ABILITIES

Mr. Brege has completed Phase I site assessments and conducted initial site characterization, planning and implementing of Phase II site investigations for numerous industrial/commercial facilities including field reconnaissance and investigation, regulatory data investigation (ASTM Radius Research), data management and interpretation and preparation of project diagrams, tables and reports.

PROJECT EXPERIENCE

- Assisted in performing hydrogeologic monitoring services for large industrial sites. Work included groundwater monitoring to obtain analytical data requirements under Part 115, Part 201 and /or Part 213.
- Conducted asbestos inspections of residential, commercial, industrial facilities and bridges.
- Managed and/or operated with teams of field technicians collecting groundwater samples using low flow sampling methods at several large industrial sites.
- Conducted investigation and remediation of underground storage tank (UST) releases and removal. Responsibilities included oversight of soil and tank removal, collecting soil, groundwater, and air samples, NAPL monitoring and recovery, and O&M of air sparge systems.
- Provided drafting and/or finalization for project reports (including but not limited to Phase I and II ESAs, BEAs, Due Care Plans, IARs, FARs, Closure Reports and Hydrogeologic Monitoring Reports (HMRs) under Part 115).
- Created site sketches, diagrams and aerial overlays from data and project manager notes. Diagrams included but not limited to Conceptual Site Models (CSMs), groundwater flow maps, site specific diagrams and cross-sectional diagrams.

EDUCATION

- ALPENA COMMUNITY COLLEGE, ASSOCIATES DEGREE IN LIBERAL ARTS WITH AN EMPHASIS ON FINE ARTS
- OSHA 29 CFR 1910.120 40-HOUR HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE (HAZWOPER) TRAINING
- OSHA 29 CFR 1910.120 8-HOUR ANNUAL REFRESHER SAFETY TRAINING
- STATE OF MICHIGAN ACCREDITED ASBESTOS BUILDING INSPECTOR, A52433
- ASTM RISK-BASED CORRECTIVE ACTION (RBCA) APPLIED AT PETROLEUM RELEASE SITES



MARK ERICKSON
SENIOR PROJECT MANAGER

PROFILE

Mr. Erickson is a results-oriented Environmental Professional with over 30 years' experience in procurement, budget preparation, project management and financial and technical management of a diverse portfolio of environmental projects.

SKILLS & ABILITIES

Mr. Erickson has supervised or managed over 2,000 environmental projects including tank removal, well installation, subsurface investigation, water treatment design, installation and operation, soil and groundwater remediation, facility decontamination, demolition, and emergency response. Mr. Erickson has completed many Phase I and Phase II ESA's. He has performed or managed over 650 hydrogeological investigations at retail petroleum, industrial and commercial environments. Additionally, Mr. Erickson has a strong working knowledge of state and local regulations as well as RCRA, CERCLA and TSCA. Mr. Erickson has completed Kleinfelder's project management qualification system certification process.

PROJECT EXPERIENCE

- Managed due diligence activities associated with the purchase of 27 retail gasoline facilities. Managed and coordinated Phase I efforts on each of the 27 sites. Completed Phase II investigations on sites where existing site characterization data was not available. Managed and prepared Phase I and Phase II reports as well as developed a remedial strategy with associated cost for the project. Continued to work with the buyer after the purchase and developed a multi-year strategy to delineate the extent of petroleum affected soil and groundwater and remediated several of the sites during the UST upgrade phase of the project. Remedial options included excavation, soil vapor extraction and air sparge technologies.
- Managed sites for a major oil company. Projects typically involved the removal of out-of-date underground storage tanks (USTs) or the upgrading of out-of-compliance UST system components. If environmental impact was observed or documented using photoionization detectors or analytical laboratory data, the projects involved oversight and directing remedial activities to abate the source materials. Once the USTs were replaced, the projects involved the installation of monitoring wells was often completed to evaluate migration of impact. Remedial systems were designed (including pump and treat, air sparge and soil vapor extraction systems) and installed on the sites to address affected media.

EDUCATION

UNIVERSITY OF ARIZONA, BACHELOR OF SCIENCE IN GEOSCIENCES

BECKER JUNIOR COLLEGE, ASSOCIATE OF SCIENCE IN BUSINESS ADMINISTRATION

NORTHEASTERN UNIVERSITY, VARIOUS REGULATORY COURSES