NOTE: This calculator is provided for evaulation purposes only of the proposed generic volatilization to indoor air criteria. Results may not be used for pathway compliance determinations. Results do not represent DEQ-approved site-specific criteria. Therefore, submittals to the DEQ may not rely upon calculator results. The calculator was developed from the Proposed Rules using Microsoft® Excel 2016 and may not work on other programs or on other versions of Excel. Sample results will be provided to assist in verifying the calculator results from your system.

I AGREE	By identifying that you agree, You are certifying that you have read and understand that the calculator is a tool that implements the proposed rules and any results generated by it are only for demonstration purposes.

ALL ORANGE BOXES MUST BE FILLED IN

PROJECT NAME:	Test Site #1
ADDRESS:	Any Street US
SITE ID:	123456

DATE: 1/26/2018

	VI Tier 2		VI Tier 3A	
Depth to groundwater?	5	ft	5	ft
Res or non res	Residential	--	Nonresidential	--
Building type	House	--	< 50,000	--
Foundation	Basement	--	Slab-on-grade (NR)	--
Soil type verification	Lab Methods		Lab Methods	
USDA soil texture	Silty clay loam		Silty clay loam	
USDA soil texture symbol	SICL	--	SICL	--
County	Cass	--	Cass	--
System temp	12.5	°C	12.5	°C
Information				
Depth below grade of water table	152.4	cm	152.4	cm
Depth below grade of flooring	200.0	cm	15.0	cm
Footings/utilities depth below floor	100.0	cm	100.0	cm
Capillary Zone	133.9	cm	133.9	cm
R299.27(1)(l)(i) Cap Zone to structure	-181.5	cm	3.5	cm
R299.27(1)(l)(ii) GW to foundation	-147.6	cm	37.4	cm
Groundwater method?	**Shallow GW**	--	**GW**	cm
Building Information				
Length (m)	10	m	20	m
Width (m)	10	m	20	m
Height (m)	2.44	m	3.66	m
Air Exchange Rate (hr^{-1})	0.25	hr^{-1}	1.00	hr^{-1}

Parameters for **Silty clay loam**			
Dry bulk density	ρ_b	1.63	g/cm^3
Soil total porosity	n^V	0.482	unitless
Soil water-filled porosity	θ_w^A	0.198	cm^3/cm^3
Air-filled porosity	θ_a^V	0.284	cm^3/cm^3
Residual soil water content	θ_r	0.09	cm^3/cm^3
Soil saturated hydraulic conductivity	K_S	0.46	cm/hr
van Genuchten shape parameter	M	0.34	unitless
Mean particle diameter	D	0.0056	cm

FORM CHECK	
VI Tier 2	FORM COMPLETE
VI Tier 3A	FORM COMPLETE

VI Tier 2 GW calculated via:
Shallow GW: Rule 27(13)a & b
VI Tier 3A GW calculated via:
GW: Rule 27(13)a

Date:	
PROJECT NAME:	
ADDRESS:	
SITE ID:	

	VI Tier 2	VI Tier 3A
Depth to groundwater?	152.4 cm	--
Res or non res:	Residential	Nonresidential
Building type:	House	< 50,000
Foundation:	Basement	Slab-on-grade (NR)
Soil type verification:	Lab Methods	Lab Methods
USDA soil texture:	Silty clay loam	--
USDA soil texture symbol:	SICL	--
County:	Cass	--
Groundwater source:	Shallow GW	GW

NOTE: This calculator is provided for evaulation purposes only of the proposed generic volatilization to indoor air criteria. Results may not be used for pathway compliance determinations. Results do not represent DEQ-approved site-specific criteria. Therefore, submittals to the DEQ may not rely upon calculator results. The calculator was developed from the Proposed Rules using Microsoft® Excel 2016 and may not work on other programs or on other versions of Excel. Sample results will be provided to assist in verifying the calculator results from your system.

RE:0614R1F15U2N1F5, 123456

		VI Tier 1			VI Tier 2			VI Tier 3A		
CAS No.	Hazardous Substance	Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Nonresidential µg/l	Soil Nonresidential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Nonresidential µg/m3
83329	Acenaphthene	3,900 (S) sol	2.0E+05 nc	7,300 nc	3,100 nc	1.1E+07 nc	7,300 nc	3,900 (S) sol	2.0E+08 nc	11,000 nc
208968	Acenaphthylene (CC)	65 nc	NA	7,300 nc	65 nc	NA	7,300 nc	710 (CC) nc	NA	11,000 nc
75070	Acetaldehyde (I)	190 nc	34 (M) nc	310 nc	170 nc	7,600 nc	310 nc	1.2E+06 nc	1.3E+05 nc	460 nc
64197	Acetic acid	3.6E+06 nc	6.5E+05 nc	8,700 nc	3.3E+06 nc	3.5E+07 nc	8,700 nc	1.0E+09 (S) sol	3.5E+07 nc	13,000 nc
67641	Acetone (I,EE,FF)	50,000 (FF) st	2.6E+05 st	1.0E+06 st	50,000 (FF) st	3.7E+07 st	1.0E+06 st	1.0E+09 (S) sol	3.7E+07 st	1.0E+06 st
75058	Acetonitrile	2,800 nc	620 (M) nc	2,100 nc	2,500 nc	1.2E+05 nc	2,100 nc	1.6E+07 nc	2.1E+06 nc	3,100 nc
98862	Acetophenone (DD)	8,700 (DD) dev	6.2E+05 (DD) dev	1.1E+05 (DD) dev	8,700 (DD) dev	8.4E+05 (DD) dev	1.1E+05 (DD) dev	6.1E+06 (S) (DD) sol	8.4E+05 (DD) dev	1.1E+05 (DD) dev
107028	Acrolein (I)	0.25 (M) nc	4.6E-02 (M) nc	0.70 nc	0.23 (M) nc	10 (M) nc	0.70 nc	1,600 nc	180 (M) nc	1.0 nc
79107	Acrylic acid (DD)	1,400 nc	260 nc	7.0 nc	1,200 nc	35,000 nc	7.0 nc	5.0E+06 nc	6.3E+05 nc	10 nc
107131	Acrylonitrile (I)	4.6 ca	1.2 (M) ca	12 ca	4.0 ca	200 ca	12 ca	45,000 ca	5,600 ca	29 ca
309002	Aldrin	0.61 ca	520 ca	0.17 ca	0.44 ca	26,000 ca	0.17 ca	17 (S) sol	7.3E+05 ca	0.41 ca

RE:0614R1F15U2N1F5, 123456

CAS No.	Hazardous Substance	VI Tier 1			VI Tier 2			VI Tier 3A		
		Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Nonresidential µg/l	Soil Nonresidential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Nonresidential µg/m3
7664417	Ammonia (EE,FF)	1,900 (FF) nc	NA	17,000 nc	1,900 (FF) nc	NA	17,000 nc	3.4E+08 st	NA	40,000 st
994058	t-Amyl methyl ether (TAME) (CC)	3.9 (M) nc	NA	2,200 nc	3.9 (M) nc	NA	2,200 nc	97 (CC) nc	NA	3,200 nc
120127	Anthracene	43 (S) sol	1.3E+07 nc	35,000 nc	43 (S) sol	6.6E+08 nc	35,000 nc	43 (S) sol	1.2E+10 nc	51,000 nc
103333	Azobenzene (CC)	1.8 (M) ca	NA	27 ca	1.8 (M) ca	NA	27 ca	23 (CC) ca	NA	64 ca
71432	Benzene (I,KK)	1.0 ca	1.7 (M) ca	110 ca	0.94 (M) ca	130 ca	110 ca	15,000 ca	3,600 ca	260 ca
56553	Benzo(a)anthracene (Q,MM)	9.4 (S) sol	1.6E+05 mut	5.8 (MM) mut	9.4 (S) sol	7.8E+06 mut	5.8 (MM) mut	9.4 (S) sol	5.4E+08 ca	33 ca
100447	Benzyl chloride	2.5 (M) ca	12 (M) ca	17 ca	2.1 (M) ca	770 ca	17 ca	28,000 ca	22,000 ca	40 ca
111444	bis-2-Chloroethylether (I)	6.8 ca	3.4 (M) ca	2.6 ca	5.5 ca	370 ca	2.6 ca	57,000 ca	10,000 ca	6.0 ca
108861	Bromobenzene (I)	62 nc	160 nc	2,100 nc	52 nc	11,000 nc	2,100 nc	4.5E+05 (S) sol	1.9E+05 nc	3,100 nc
75274	Bromodichloromethane (DD)	1.2 ca	0.61 (M) ca	48 ca	1.0 ca	69 (M) ca	48 ca	17,000 nc	1,800 nc	100 nc
75252	Bromoform	89 ca	45 (M) ca	770 ca	75 ca	5,000 ca	770 ca	1.0E+06 ca	1.4E+05 ca	1,800 ca
74839	Bromomethane	2.1 (M) nc	0.90 (M) nc	350 nc	2.0 (M) nc	110 (M) nc	350 nc	19,000 nc	1,900 nc	510 nc
71363	n-Butanol (I)	98,000 nc	20,000 nc	12,000 nc	81,000 nc	2.5E+06 nc	12,000 nc	6.3E+07 (S) sol	2.5E+06 nc	18,000 nc
78933	2-Butanone (MEK) (I,DD,KK)	2,600 (DD) dev	31,000 (DD) dev	1.7E+05 (DD) dev	2,600 (DD) dev	5.9E+06 (DD) dev	1.7E+05 (DD) dev	2.2E+08 (S) (DD) sol	9.3E+06 (DD) dev	1.7E+05 (DD) dev
123864	n-Butyl acetate	2,900 nc	1,100 nc	14,000 nc	2,500 nc	1.4E+05 nc	14,000 nc	8.4E+06 (S) sol	5.9E+05 nc	20,000 nc
75650	t-Butyl alcohol (CC)	230 nc	NA	2,500 nc	230 nc	NA	2,500 nc	1,200 (CC) nc	NA	3,700 nc
104518	n-Butylbenzene	44 nc	550 nc	7,000 nc	38 nc	33,000 nc	7,000 nc	12,000 (S) sol	36,000 nc	10,000 nc
135988	sec-Butylbenzene	270 nc	3,800 nc	14 nc	50 nc	49,000 nc	14 nc	18,000 (S) sol	49,000 nc	20 nc
98066	t-Butylbenzene (I)	7.7E-02 (M) nc	0.64 (M) nc	14 nc	6.9E-02 (M) nc	40 (M) nc	14 nc	810 nc	710 nc	20 nc
79925	Camphene (I,CC))	3.2 nc	NA	2,800 nc	3.2 nc	NA	2,800 nc	110 (CC) nc	NA	4,100 nc
75150	Carbon disulfide (I,R,DD)	92 nc	52 (M) nc	24,000 nc	85 nc	5,300 nc	24,000 nc	7.2E+05 nc	93,000 nc	36,000 nc
56235	Carbon tetrachloride (KK)	0.41 (M) ca	0.31 (M) ca	150 ca	0.38 (M) ca	26 (M) ca	150 ca	5,600 ca	740 ca	360 ca
57749	Chlordane (J,KK,EE)	18 st	13,000 st	6.7 st	14 st	6.6E+05 st	6.7 st	56 (S) sol	1.1E+07 st	9.3 st
108907	Chlorobenzene (I,KK)	33 nc	82 nc	1,700 nc	29 nc	5,700 nc	1,700 nc	3.2E+05 nc	1.0E+05 nc	2,600 nc

RE:0614R1F15U2N1F5, 123456

CAS No.	Hazardous Substance	VI Tier 1			VI Tier 2			VI Tier 3A		
		Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Nonresidential µg/l	Soil Nonresidential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Nonresidential µg/m3
75683	1-Chloro-1,1-difluoroethane	2,800 nc	2,400 nc	1.7E+06 nc	2,800 nc	1.8E+05 nc	1.7E+06 nc	1.4E+06 (S) sol	3.2E+06 nc	2.6E+06 nc
75003	Chloroethane (DD)	620 nc	330 nc	1.4E+05 nc	580 nc	35,000 nc	1.4E+05 nc	5.0E+06 nc	6.2E+05 nc	2.0E+05 nc
110758	2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA
67663	Chloroform (KK)	0.49 (M) ca	0.26 (M) ca	37 ca	0.44 (M) ca	29 (M) ca	37 ca	7,700 ca	820 ca	87 ca
74873	Chloromethane (I)	15 nc	6.9 (M) nc	3,100 nc	14 nc	810 nc	3,100 nc	1.2E+05 nc	14,000 nc	4,600 nc
91587	beta-Chloronaphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
95578	2-Chlorophenol (DD)	45 (DD) dev	12,000 (DD) dev	600 (DD) dev	45 (DD) dev	7.8E+05 (DD) dev	600 (DD) dev	1.1E+07 (S) (DD) sol	7.3E+06 (DD) dev	600 (DD) dev
95498	o-Chlorotoluene (I)	50 nc	200 nc	2,800 nc	43 nc	13,000 nc	2,800 nc	3.7E+05 (S) sol	2.3E+05 nc	4,100 nc
74908	Cyanide, Hydrogen (P,R,DD)	9.0 nc	1.8 (M) nc	28 nc	8.1 nc	360 nc	28 nc	53,000 nc	6,400 nc	41 nc
110827	Cyclohexane (DD)	290 nc	320 (M) nc	2.1E+05 nc	280 nc	21,000 nc	2.1E+05 nc	55,000 (S) sol	50,000 nc	3.1E+05 nc
108941	Cyclohexanone (CC)	2,300 nc	NA	24,000 nc	2,300 nc	NA	24,000 nc	13,000 (CC) nc	NA	36,000 nc
72559	4-4`-DDE	32 ca	39,000 ca	8.7 ca	23 ca	1.9E+06 ca	8.7 ca	40 (S) sol	5.5E+07 ca	21 ca
117840	Di-n-octyl phthalate (CC)	22 (S) sol	NA	16,000 nc	22 (S) sol	NA	16,000 nc	3,500 (S) (CC) sol	NA	24,000 nc
123422	Diacetone alcohol (I)	2.9E+07 nc	5.2E+06 nc	83,000 nc	2.3E+07 nc	3.5E+07 nc	83,000 nc	1.0E+09 (S) sol	3.5E+07 nc	1.2E+05 nc
132649	Dibenzofuran	3,100 (S) sol	7.1E+06 nc	140 nc	3,100 (S) sol	1.1E+08 nc	140 nc	3,100 (S) sol	2.0E+09 nc	200 nc
124481	Dibromochloromethane (MM)	0.78 (M) mut	0.40 (M) mut	14 (MM) mut	0.71 (M) mut	47 (M) mut	14 (MM) mut	28,000 ca	3,200 ca	83 ca
96128	Dibromochloropropane (MM,CC)	4.5E-04 (M) mut	NA	6.2E-02 (MM) mut	4.5E-04 (M) mut	NA	6.2E-02 (MM) mut	2.1E-02 (M) (CC) mut	NA	0.36 ca
74953	Dibromomethane	8.8 nc	3.5 (M) nc	140 nc	7.7 nc	450 nc	140 nc	71,000 nc	8,000 nc	200 nc
95501	1,2-Dichlorobenzene	370 nc	1,500 nc	10,000 nc	310 nc	95,000 nc	10,000 nc	1.6E+05 (S) sol	1.3E+05 nc	15,000 nc
541731	1,3-Dichlorobenzene	2.6 nc	10 (M) nc	100 nc	2.2 nc	660 nc	100 nc	26,000 nc	12,000 nc	150 nc
106467	1,4-Dichlorobenzene (KK)	5.9 ca	23 (M) ca	220 ca	5.0 ca	1,500 ca	220 ca	81,000 (S) sol	43,000 ca	510 ca
75718	Dichlorodifluoromethane	13 nc	12 (M) nc	11,000 nc	13 nc	820 nc	11,000 nc	20,000 nc	14,000 nc	17,000 nc
75343	1,1-Dichloroethane	4.7 ca	2.6 (M) ca	530 ca	4.3 ca	280 ca	530 ca	72,000 ca	8,000 ca	1,200 ca
107062	1,2-Dichloroethane (I,KK)	1.4 ca	0.82 (M) ca	33 ca	1.2 ca	88 ca	33 ca	19,000 ca	2,500 ca	77 ca

RE:0614R1F15U2N1F5, 123456

CAS No.	Hazardous Substance	VI Tier 1			VI Tier 2			VI Tier 3A		
		Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Nonresidential µg/l	Soil Nonresidential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Nonresidential µg/m3
75354	1,1-Dichloroethylene (I,KK)	18 nc	12 (M) nc	7,000 nc	17 nc	1,100 nc	7,000 nc	1.2E+05 nc	19,000 nc	10,000 nc
156592	cis-1,2-Dichloroethylene	3.4 nc	2.1 (M) nc	280 nc	3.1 nc	220 nc	280 nc	32,000 nc	3,800 nc	410 nc
156605	trans-1,2-Dichloroethylene (EE,FF)	27 (FF) st	39 (M) nc	9,000 nc	27 (FF) st	3,600 nc	9,000 nc	9.0E+05 st	1.3E+05 st	26,000 st
78875	1,2-Dichloropropane (I)	2.6 nc	2.1 (M) nc	140 nc	2.3 nc	200 nc	140 nc	25,000 nc	3,500 nc	200 nc
542756	1,3-Dichloropropene (J)	3.3 ca	3.1 (M) ca	210 ca	2.9 ca	270 ca	210 ca	51,000 ca	7,700 ca	500 ca
60571	Dieldrin	3.7 ca	770 ca	0.18 ca	2.5 ca	36,000 ca	0.18 ca	200 (S) sol	1.0E+06 ca	0.43 ca
60297	Diethyl ether	1,200 nc	350 nc	35,000 nc	1,100 nc	56,000 nc	35,000 nc	1.1E+07 nc	9.9E+05 nc	51,000 nc
108203	Diisopropyl ether (DD)	36 (DD) dev	190 (M) (DD) dev	23,000 (DD) dev	36 (DD) dev	24,000 (DD) dev	23,000 (DD) dev	3.2E+06 (DD) dev	2.9E+05 (DD) dev	23,000 (DD) dev
108189	Diisopropylamine (I)	3,500 nc	2,900 nc	7,000 nc	3,100 nc	2.8E+05 nc	7,000 nc	2.2E+07 nc	4.9E+06 nc	10,000 nc
127195	N,N-Dimethylacetamide	1.9E+07 nc	3.8E+06 nc	3,500 nc	1.6E+07 nc	3.9E+07 nc	3,500 nc	1.0E+09 (S) sol	3.9E+07 nc	5,100 nc
121697	N,N-Dimethylaniline (CC)	1.1 (M) ca	NA	71 ca	1.1 (M) ca	NA	71 ca	14 (CC) ca	NA	170 ca
68122	Dimethylformamide (I,CC)	2,700 nc	NA	240 nc	2,700 nc	NA	240 nc	13,000 (CC) nc	NA	360 nc
123911	1,4-Dioxane (I)	1,900 ca	360 (M) ca	170 ca	1,600 ca	74,000 ca	170 ca	1.6E+07 ca	2.1E+06 ca	400 ca
115297	Endosulfan (J)	NA	NA	NA	NA	NA	NA	NA	NA	NA
106898	Epichlorohydrin (I,CC)	0.99 (M) nc	NA	35 nc	0.99 (M) nc	NA	35 nc	5.9 (CC) nc	NA	51 nc
64175	Ethanol (I,DD,EE,FF)	1.0E+05 (FF) st	1.3E+06 (EE) st	6.3E+05 (EE) st	1.0E+05 (FF) st	3.5E+07 (EE) st	6.3E+05 (EE) st	1.0E+09 (S) sol	3.5E+07 (EE) st	6.3E+05 (EE) st
141786	Ethyl acetate (I)	910 nc	210 nc	2,400 nc	800 nc	38,000 nc	2,400 nc	5.7E+06 nc	6.7E+05 nc	3,600 nc
637923	Ethyl-tert-butyl ether (ETBE) (CC)	22 nc	NA	13,000 nc	22 nc	NA	13,000 nc	580 (CC) nc	NA	19,000 nc
100414	Ethylbenzene (I)	2.8 ca	12 (M) ca	340 ca	2.5 ca	790 ca	340 ca	45,000 ca	22,000 ca	800 ca
106934	Ethylene dibromide	0.13 ca	7.4E-02 (M) ca	1.4 ca	0.11 ca	7.8 (M) ca	1.4 ca	1,600 ca	220 ca	3.3 ca
86737	Fluorene	1,700 (S) sol	4.7E+05 nc	4,900 nc	1,700 (S) sol	2.6E+07 nc	4,900 nc	1,700 (S) sol	4.5E+08 nc	7,200 nc
50000	Formaldehyde (DD,MM)	3,000 mut	530 (M) mut	27 (MM) mut	2,800 mut	69,000 mut	27 (MM) mut	3.9E+07 ca	4.8E+06 ca	150 ca
64186	Formic acid (I,U)	2,500 nc	440 (M) nc	10 nc	2,300 nc	48,000 nc	10 nc	6.8E+06 nc	8.4E+05 nc	15 nc
76448	Heptachlor (DD,KK)	0.25 ca	3,600 ca	0.65 ca	0.19 ca	1.9E+05 ca	0.65 ca	180 (S) sol	5.3E+06 ca	1.5 ca

RE:0614R1F15U2N1F5, 123456

CAS No.	Hazardous Substance	VI Tier 1			VI Tier 2			VI Tier 3A		
		Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Nonresidential µg/l	Soil Nonresidential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Nonresidential µg/m3
1024573	Heptachlor epoxide (KK,CC)	1.4E-02 ca	NA	0.33 ca	1.4E-02 ca	NA	0.33 ca	0.20 (CC) ca	NA	0.77 ca
142825	n-Heptane	150 nc	130 nc	1.2E+05 nc	150 nc	8,100 nc	1.2E+05 nc	3,400 (S) (GW) sol	29,000 nc	1.8E+05 nc
87821	Hexabromobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
118741	Hexachlorobenzene (C-66) (KK)	0.11 (M) nc	6.7 (M) nc	1.2 nc	7.7E-02 (M) nc	340 nc	1.2 nc	6.2 (S) sol	6,000 nc	1.8 nc
87683	Hexachlorobutadiene (C-46) (KK)	0.32 ca	2.5 (M) ca	39 ca	0.27 ca	150 ca	39 ca	3,200 (S) sol	4,100 ca	91 ca
77474	Hexachlorocyclopentadiene (C-56)	3.0E-02 (M) nc	0.32 (M) nc	7.0 nc	2.6E-02 (M) nc	18 (M) nc	7.0 nc	410 nc	320 (M) nc	10 nc
67721	Hexachloroethane (KK)	1.5 (M) ca	3.2 (M) ca	85 ca	1.3 (M) ca	230 (M) ca	85 ca	31,000 ca	6,400 ca	200 ca
110543	n-Hexane	29 nc	25 nc	24,000 nc	29 nc	1,600 nc	24,000 nc	1,000 (GW) nc	28,000 nc	36,000 nc
591786	2-Hexanone	660 nc	210 (M) nc	1,000 nc	570 nc	31,000 nc	1,000 nc	3.9E+06 nc	5.4E+05 nc	1,500 nc
78831	Isobutyl alcohol (I)	4.0E+05 nc	79,000 nc	52,000 nc	3.2E+05 nc	3.3E+06 nc	52,000 nc	8.5E+07 (S) sol	3.3E+06 nc	77,000 nc
67630	Isopropyl alcohol (I,DD)	53,000 nc	9,800 nc	7,000 nc	45,000 nc	2.0E+06 nc	7,000 nc	2.9E+08 nc	3.5E+07 nc	10,000 nc
98828	Isopropyl benzene	0.60 (M) ca	3.8 (M) ca	81 ca	0.51 (M) ca	230 (M) ca	81 ca	9,500 ca	6,500 ca	190 ca
58899	Lindane (KK)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Varies	Mercury (Total) (Z,DD,KK)	8.8E-02 nc	2.7E-02 nc	10 nc	7.1E-02 nc	3.7 (M) nc	10 nc	60 (S) sol	65 nc	15 nc
74828	Methane (K)	NA	NA	8.4E+06 (GG)	NA	NA	NA	NA	NA	8.4E+06 (GG)
67561	Methanol (DD)	1.2E+05 (DD) dev	1.4E+06 (DD) dev	6.7E+05 (DD) dev	1.2E+05 (DD) dev	3.5E+07 (DD) dev	6.7E+05 (DD) dev	1.0E+09 (S) (DD) sol	3.5E+07 (DD) dev	6.7E+05 (DD) dev
109864	2-Methoxyethanol (I,DD)	8,400 nc	1,500 nc	38 nc	6,900 nc	2.1E+05 nc	38 nc	3.0E+07 nc	3.7E+06 nc	56 nc
109024	N-Methyl-morpholine (I)	NA	NA	NA	NA	NA	NA	NA	NA	NA
108101	4-Methyl-2-pentanone (MIBK) (I,DD)	720 (DD) dev	12,000 (DD) dev	1.0E+05 (DD) dev	720 (DD) dev	1.1E+06 (DD) dev	1.0E+05 (DD) dev	1.9E+07 (S) (DD) sol	1.1E+06 (DD) dev	1.0E+05 (DD) dev
1634044	Methyl-tert-butyl ether (MTBE)	250 ca	74 (M) ca	3,300 ca	220 ca	12,000 ca	3,300 ca	3.3E+06 ca	3.3E+05 ca	7,700 ca
96377	Methylcyclopentane (I)	30 (M) nc	29 (M) nc	24,000 nc	30 (M) nc	1,900 (M) nc	24,000 nc	36,000 nc	33,000 nc	36,000 nc
75092	Methylene chloride (MM)	79 (FF) st	130 nc	21,000 nc	79 (FF) st	16,000 nc	21,000 nc	2.6E+06 nc	2.8E+05 nc	31,000 nc
91576	2-Methylnaphthalene	66 nc	1,700 nc	350 nc	52 nc	94,000 nc	350 nc	25,000 (S) sol	1.7E+06 nc	510 nc
2385855	Mirex	NA	NA	NA	NA	NA	NA	NA	NA	NA

RE:0614R1F15U2N1F5, 123456

CAS No.	Hazardous Substance	VI Tier 1			VI Tier 2			VI Tier 3A		
		Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Nonresidential µg/l	Soil Nonresidential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Nonresidential µg/m3
91203	Naphthalene	4.2 (M) ca	67 (M) ca	25 ca	3.4 (M) ca	3,900 ca	25 ca	31,000 (S) sol	1.1E+05 ca	59 ca
98953	Nitrobenzene (I,KK)	68 ca	170 (M) ca	21 ca	55 ca	11,000 ca	21 ca	5.7E+05 ca	3.2E+05 ca	50 ca
88755	2-Nitrophenol (CC)	0.12 (M) nc	NA	1.7 nc	0.12 (M) nc	NA	1.7 nc	0.71 (M) (CC) nc	NA	2.6 nc
608935	Pentachlorobenzene (CC)	8.6E-03 (M) nc	NA	3.5 nc	8.6E-03 (M) nc	NA	3.5 nc	0.18 (M) (CC) nc	NA	5.1 nc
82688	Pentachloronitrobenzene (CC)	8.5 (M) nc	NA	380 nc	8.5 (M) nc	NA	380 nc	86 (CC) nc	NA	560 nc
109660	Pentane	40 (M) nc	36 (M) nc	35,000 nc	40 (M) nc	2,200 (M) nc	35,000 nc	1,400 (GW) nc	40,000 nc	51,000 nc
109682	2-Pentene (I)	NA	NA	NA	NA	NA	NA	NA	NA	NA
335671	Perfluorooctanoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA
85018	Phenanthrene (CC)	7.7E-02 (M) nc	NA	3.5 nc	7.7E-02 (M) nc	NA	3.5 nc	0.68 (M) (CC) nc	NA	5.1 nc
110894	Piperidine (CC)	45,000 nc	NA	2.4E+05 nc	45,000 nc	NA	2.4E+05 nc	2.4E+05 (CC) nc	NA	3.6E+05 nc
1336363	Polychlorinated biphenyls (PCBs) (J,T,DD,CC)	3.1E-02 (M) ca	NA	8.5 ca	3.1E-02 (M) ca	NA	8.5 ca	0.97 (CC) ca	NA	20 ca
79094	Propionic acid	1.2E+06 nc	2.2E+05 nc	10,000 nc	1.1E+06 nc	3.5E+07 nc	10,000 nc	1.0E+09 (S) sol	3.5E+07 nc	15,000 nc
71238	Propyl alcohol (I,DD)	2,700 (DD) dev	40,000 (DD) dev	24,000 (DD) dev	2,700 (DD) dev	8.1E+06 (DD) dev	24,000 (DD) dev	7.8E+08 (DD) dev	3.6E+07 (DD) dev	24,000 (DD) dev
103651	n-Propylbenzene (I,DD)	43 (DD) dev	1,800 (DD) dev	33,000 (DD) dev	43 (DD) dev	89,000 (DD) dev	33,000 (DD) dev	52,000 (S) (DD) sol	89,000 (DD) dev	33,000 (DD) dev
129000	Pyrene	140 (S) sol	2.5E+07 nc	3,500 nc	140 (S) sol	1.2E+09 nc	3,500 nc	140 (S) sol	2.2E+10 nc	5,100 nc
110861	Pyridine (I,KK)	600 nc	540 nc	120 nc	520 nc	49,000 nc	120 nc	3.3E+06 nc	8.7E+05 nc	180 nc
100425	Styrene	33 ca	150 ca	1,500 ca	29 ca	9,900 ca	1,500 ca	3.1E+05 (S) sol	2.8E+05 ca	3,500 ca
95943	1,2,4,5-Tetrachlorobenzene (DD)	3.1 nc	70 (M) nc	35 nc	2.5 nc	3,900 nc	35 nc	600 (S) sol	69,000 nc	51 nc
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin (O,DD,CC)	3.8E-07 (M) ca	NA	1.9E-05 ca	3.8E-07 (M) ca	NA	1.9E-05 ca	6.3E-06 (M) ca	NA	4.5E-05 ca
630206	1,1,1,2-Tetrachloroethane	3.1 ca	3.2 (M) ca	110 ca	2.6 ca	270 ca	110 ca	50,000 ca	7,500 ca	270 ca
79345	1,1,2,2-Tetrachloroethane	2.4 ca	2.7 (M) ca	15 ca	2.0 ca	220 ca	15 ca	26,000 ca	6,300 ca	34 ca
127184	Tetrachloroethylene (KK,EE,FF)	1.5 (FF) st	6.2 (M) st	1,400 st	1.5 (FF) st	490 st	1,400 st	40,000 st	5,900 st	1,400 st
109999	Tetrahydrofuran (DD)	45,000 nc	13,000 nc	70,000 nc	41,000 nc	2.1E+06 nc	70,000 nc	2.7E+08 nc	3.7E+07 nc	1.0E+05 nc
632224	1,1,3,3-Tetramethylurea (CC)	2,700 nc	NA	28 nc	2,700 nc	NA	28 nc	16,000 (CC) nc	NA	41 nc

RE:0614R1F15U2N1F5, 123456

CAS No.	Hazardous Substance	VI Tier 1			VI Tier 2			VI Tier 3A		
		Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Nonresidential µg/l	Soil Nonresidential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Nonresidential µg/m3
509148	Tetranitromethane (CC)	2.7E-04 (M) ca	NA	5.6E-02 ca	2.7E-04 (M) ca	NA	5.6E-02 ca	6.2E-03 (M) (CC) ca	NA	0.13 ca
108883	Toluene (I,EE,FF)	300 (FF) st	3,700 nc	1.7E+05 nc	300 (FF) st	2.6E+05 nc	1.7E+05 nc	5.3E+05 (S) sol	2.8E+05 st	2.5E+05 st
2303175	Triallate (DD,CC)	530 (DD) dev	NA	6,700 (DD) dev	530 (DD) dev	NA	6,700 (DD) dev	3,500 (DD) (CC) dev	NA	6,700 (DD) dev
102829	Tributylamine	170 nc	3,300 nc	240 nc	130 nc	1.8E+05 nc	240 nc	1.4E+05 (S) sol	5.3E+05 nc	360 nc
87616	1,2,3-Trichlorobenzene	58 nc	830 nc	940 nc	48 nc	48,000 nc	940 nc	18,000 (S) sol	8.5E+05 nc	1,400 nc
120821	1,2,4-Trichlorobenzene	3.8 (M) nc	53 (M) nc	70 nc	3.1 (M) nc	3,100 nc	70 nc	34,000 nc	54,000 nc	100 nc
71556	1,1,1-Trichloroethane	180 (EE) (FF) st	450 st	1.7E+05 st	180 (EE) (FF) st	40,000 st	1.7E+05 st	1.3E+06 (S) sol	2.4E+05 st	2.3E+05 st
79005	1,1,2-Trichloroethane	4.7E-04 (M) nc	3.7E-04 (M) nc	7.0E-03 nc	4.0E-04 (M) nc	3.5E-02 (M) nc	7.0E-03 nc	3.7 nc	0.62 (M) nc	1.0E-02 nc
79016	Trichloroethylene (DD,KK,MM,NN)	7.3E-02 (M) (DD) dev	0.33 (M) (DD) dev	67 (DD) dev	7.3E-02 (M) (DD) dev	30 (M) (DD) dev	67 (DD) dev	2,700 (DD) dev	360 (DD) dev	67 (DD) dev
75694	Trichlorofluoromethane	22 nc	19 (M) nc	15,000 nc	21 nc	1,400 nc	15,000 nc	84,000 nc	24,000 nc	22,000 nc
96184	1,2,3-Trichloropropane	1.9 nc	2.6 (M) nc	10 nc	1.6 nc	200 nc	10 nc	13,000 nc	3,600 nc	15 nc
76131	1,1,2-Trichloro-1,2,2-trifluoroethane	840 nc	860 nc	6.6E+05 nc	830 nc	56,000 nc	6.6E+05 nc	1.7E+05 (S) sol	2.8E+05 nc	9.7E+05 nc
1582098	Trifluralin (CC)	180 (S) sol	NA	1.0E+05 nc	180 (S) sol	NA	1.0E+05 nc	15,000 (S) (CC) sol	NA	1.5E+05 nc
540841	2,2,4-Trimethyl pentane	160 nc	130 (M) nc	1.2E+05 nc	160 nc	7,900 nc	1.2E+05 nc	2,400 (S) (GW) sol	30,000 nc	1.8E+05 nc
107404	2,4,4-Trimethyl-2-pentene (I)	NA	NA	NA	NA	NA	NA	NA	NA	NA
526738	1,2,3-Trimethylbenzene (I)	43 nc	270 nc	2,100 nc	35 nc	16,000 nc	2,100 nc	75,000 (S) sol	98,000 nc	3,100 nc
95636	1,2,4-Trimethylbenzene (I)	25 nc	150 nc	2,100 nc	21 nc	9,100 nc	2,100 nc	57,000 (S) sol	73,000 nc	3,100 nc
108678	1,3,5-Trimethylbenzene (I)	18 nc	100 nc	2,100 nc	16 nc	6,300 nc	2,100 nc	48,000 (S) sol	61,000 nc	3,100 nc
126727	tris(2,3-Dibromopropyl)phosphate (CC)	7.4E-02 (M) ca	NA	1.6 ca	7.4E-02 (M) ca	NA	1.6 ca	1.2 (M) (CC) ca	NA	3.8 ca
108054	Vinyl acetate (I,DD)	690 nc	160 (M) nc	7,000 nc	610 nc	29,000 nc	7,000 nc	5.1E+06 nc	5.1E+05 nc	10,000 nc
75014	Vinyl chloride (KK,LL,MM)	0.12 (M) mut	8.2E-02 (M) mut	54 (MM) mut	0.11 (M) mut	7.2 (M) mut	54 (MM) mut	4,200 ca	720 ca	450 ca
1330207	Xylenes (I,J)	75 nc	280 nc	7,600 nc	66 nc	19,000 nc	7,600 nc	1.1E+05 (S) sol	87,000 nc	11,000 nc

RE:0614R1F15U2N1F5, 123456		VI Tier 1			VI Tier 2			VI Tier 3A		
CAS No.	Hazardous Substance	Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Nonresidential µg/l	Soil Nonresidential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Nonresidential µg/m3

NOTE: All notes or footnotes identified above are detailed in the proposed rule generic cleanup criteria table footnotes (R 299.49). The proposed rules are available at:

http://www.michigan.gov/documents/deq/deq-rrd-2015-094EQ10-5-2016CriteriaRulesHighlightedChanges_599568_7.pdf

NOTE: This calculator is provided for evaulation purposes only of the proposed generic volatilization to indoor air criteria. Results may not be used for pathway compliance determinations. Results do not represent DEQ-approved site-specific criteria. Therefore, submittals to the DEQ may not rely upon calculator results. The calculator was developed from the Proposed Rules using Microsoft® Excel 2016 and may not work on other programs or on other versions of Excel. Sample results will be provided to assist in verifying the calculator results from your system.

I AGREE	By identifying that you agree, You are certifying that you have read and understand that the calculator is a tool that implements the proposed rules and any results generated by it are only for demonstration purposes.

ALL ORANGE BOXES MUST BE FILLED IN

PROJECT NAME:	Test Site #2
ADDRESS:	Any Street 2
SITE ID:	B132465

DATE: 1/26/2018

	VI Tier 2		VI Tier 3A	
Depth to groundwater?	3.5	m	3.5	m
Res or non res	Residential	--	Nonresidential	--
Building type	House	--	> 50,000	--
Foundation	Basement	--	Basement (NR unoccupied)	--
Soil type verification	Lab Methods		Lab Methods	
USDA soil texture	Clay loam		Clay loam	
USDA soil texture symbol	CL	--	CL	--
County	Alger	--	Alger	--
System temp	8.5	^{o}C	8.5	^{o}C
Information				
Depth below grade of water table	350.0	cm	350.0	cm
Depth below grade of flooring	200.0	cm	200.0	cm
Footings/utilities depth below floor	100.0	cm	100.0	cm
Capillary Zone	46.9	cm	46.9	cm
R299.27(1)(l)(i) Cap Zone to structure	103.1	cm	103.1	cm
R299.27(1)(l)(ii) GW to foundation	50.0	cm	50.0	cm
Groundwater method?	**GW**	--	**GW**	cm
Building Information				
Length (m)	10	m	20	m
Width (m)	10	m	20	m
Height (m)	2.44	m	3.66	m
Air Exchange Rate (hr^{-1})	0.25	hr^{-1}	1.50	hr^{-1}

Parameters for Clay loam			
Dry bulk density	ρ_b	1.48	g/cm^3
Soil total porosity	n^V	0.442	unitless
Soil water-filled porosity	$\theta_w{}^A$	0.168	cm^3/cm^3
Air-filled porosity	$\theta_a{}^V$	0.274	cm^3/cm^3
Residual soil water content	θ_r	0.079	cm^3/cm^3
Soil saturated hydraulic conductivity	K_S	0.34	cm/hr
van Genuchten shape parameter	M	0.29	unitless
Mean particle diameter	D	0.016	cm

FORM CHECK	
VI Tier 2	FORM COMPLETE
VI Tier 3A	FORM COMPLETE

VI Tier 2 GW calculated via:
GW: Rule 27(13)a
VI Tier 3A GW calculated via:
GW: Rule 27(13)a

Date:	1/26/2018
PROJECT NAME:	Test Site #2
ADDRESS:	Any Street 2
SITE ID:	B132465

NOTE: This calculator is provided for evaulation purposes only of the proposed generic volatilization to indoor air criteria. Results may not be used for pathway compliance determinations. Results do not represent DEQ-approved site-specific criteria. Therefore, submittals to the DEQ may not rely upon calculator results. The calculator was developed from the Proposed Rules using Microsoft® Excel 2016 and may not work on other programs or on other versions of Excel. Sample results will be provided to assist in verifying the calculator results from your system.

	VI Tier 2	VI Tier 3A
Depth to groundwater?	350 cm	--
Res or non res:	Residential	Nonresidential
Building type:	House	> 50,000
Foundation:	Basement	Basement (NR unoccupied)
Soil type verification:	Lab Methods	Lab Methods
USDA soil texture:	Clay loam	--
USDA soil texture symbol:	CL	--
County:	Alger	--
Groundwater source:	GW	GW

RE:0702R1F13.5U4N2F6, B132465

		VI Tier 1			VI Tier 2			VI Tier 3A		
CAS No.	Hazardous Substance	Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Nonresidential µg/l	Soil Nonresidential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Nonresidential µg/m3
83329	Acenaphthene	3,900 (S) sol	2.0E+05 nc	7,300 nc	3,900 (S) sol	2.2E+07 nc	7,300 nc	3,900 (S) sol	8.3E+08 nc	11,000 nc
208968	Acenaphthylene (CC)	65 nc	NA	7,300 nc	65 (CC) nc	NA	7,300 nc	1,000 (CC) nc	NA	11,000 nc
75070	Acetaldehyde (I)	190 nc	34 (M) nc	310 nc	95,000 nc	11,000 nc	310 nc	3.5E+06 nc	4.0E+05 nc	460 nc
64197	Acetic acid	3.6E+06 nc	6.5E+05 nc	8,700 nc	6.7E+08 nc	3.5E+07 nc	8,700 nc	1.0E+09 (S) sol	3.5E+07 nc	13,000 nc
67641	Acetone (I,EE,FF)	50,000 (FF) st	2.6E+05 st	1.0E+06 st	6.8E+08 st	3.7E+07 st	1.0E+06 st	1.0E+09 (S) sol	3.7E+07 st	1.0E+06 st
75058	Acetonitrile	2,800 nc	620 (M) nc	2,100 nc	1.4E+06 nc	1.7E+05 nc	2,100 nc	5.3E+07 nc	6.4E+06 nc	3,100 nc
98862	Acetophenone (DD)	8,700 (DD) dev	6.2E+05 (DD) dev	1.1E+05 (DD) dev	6.1E+06 (S) (DD) sol	8.4E+05 (DD) dev	1.1E+05 (DD) dev	6.1E+06 (S) (DD) sol	8.4E+05 (DD) dev	1.1E+05 (DD) dev
107028	Acrolein (I)	0.25 (M) nc	4.6E-02 (M) nc	0.70 nc	130 nc	15 (M) nc	0.70 nc	4,800 nc	550 nc	1.0 nc
79107	Acrylic acid (DD)	1,400 nc	260 nc	7.0 nc	4.5E+05 nc	53,000 nc	7.0 nc	1.4E+07 nc	1.6E+06 nc	10 nc
107131	Acrylonitrile (I)	4.6 ca	1.2 (M) ca	12 ca	2,400 ca	300 ca	12 ca	1.4E+05 ca	18,000 ca	29 ca
309002	Aldrin	0.61 ca	520 ca	0.17 ca	17 (S) sol	57,000 ca	0.17 ca	17 (S) sol	3.5E+06 ca	0.41 ca

RE:0702R1F13.5U4N2F6, B132465

CAS No.	Hazardous Substance	VI Tier 1			VI Tier 2			VI Tier 3A		
		Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Nonresidential µg/l	Soil Nonresidential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Nonresidential µg/m3
7664417	Ammonia (EE,FF)	1,900 (FF) nc	NA	17,000 nc	1.7E+07 nc	NA	17,000 nc	4.8E+08 (S) sol	NA	40,000 st
994058	t-Amyl methyl ether (TAME) (CC)	3.9 (M) nc	NA	2,200 nc	3.9 (M) (CC) nc	NA	2,200 nc	150 (CC) nc	NA	3,200 nc
120127	Anthracene	43 (S) sol	1.3E+07 nc	35,000 nc	43 (S) sol	1.3E+09 nc	35,000 nc	43 (S) sol	5.2E+10 nc	51,000 nc
103333	Azobenzene (CC)	1.8 (M) ca	NA	27 ca	1.8 (M) (CC) ca	NA	27 ca	33 (CC) ca	NA	64 ca
71432	Benzene (I,KK)	1.0 ca	1.7 (M) ca	110 ca	650 ca	200 ca	110 ca	34,000 ca	12,000 ca	260 ca
56553	Benzo(a)anthracene (Q,MM)	9.4 (S) sol	1.6E+05 mut	5.8 (MM) mut	9.4 (S) sol	1.8E+07 mut	5.8 (MM) mut	9.4 (S) sol	2.7E+09 ca	33 ca
100447	Benzyl chloride	2.5 (M) ca	12 (M) ca	17 ca	1,400 ca	1,300 ca	17 ca	82,000 ca	79,000 ca	40 ca
111444	bis-2-Chloroethylether (I)	6.8 ca	3.4 (M) ca	2.6 ca	3,700 ca	640 ca	2.6 ca	2.2E+05 ca	39,000 ca	6.0 ca
108861	Bromobenzene (I)	62 nc	160 nc	2,100 nc	42,000 nc	19,000 nc	2,100 nc	4.5E+05 (S) sol	2.3E+05 nc	3,100 nc
75274	Bromodichloromethane (DD)	1.2 ca	0.61 (M) ca	48 ca	760 ca	110 ca	48 ca	37,000 nc	5,900 nc	100 nc
75252	Bromoform	89 ca	45 (M) ca	770 ca	51,000 ca	8,100 ca	770 ca	2.9E+06 ca	3.0E+05 ca	1,800 ca
74839	Bromomethane	2.1 (M) nc	0.90 (M) nc	350 nc	1,200 nc	150 (M) nc	350 nc	39,000 nc	5,800 nc	510 nc
71363	n-Butanol (I)	98,000 nc	20,000 nc	12,000 nc	5.2E+07 nc	2.5E+06 nc	12,000 nc	6.3E+07 (S) sol	2.5E+06 nc	18,000 nc
78933	2-Butanone (MEK) (I,DD,KK)	2,600 (DD) dev	31,000 (DD) dev	1.7E+05 (DD) dev	7.4E+07 (DD) dev	8.9E+06 (DD) dev	1.7E+05 (DD) dev	2.2E+08 (S) (DD) sol	9.3E+06 (DD) dev	1.7E+05 (DD) dev
123864	n-Butyl acetate	2,900 nc	1,100 nc	14,000 nc	1.6E+06 nc	2.3E+05 nc	14,000 nc	8.4E+06 (S) sol	5.9E+05 nc	20,000 nc
75650	t-Butyl alcohol (CC)	230 nc	NA	2,500 nc	230 (CC) nc	NA	2,500 nc	1,700 (CC) nc	NA	3,700 nc
104518	n-Butylbenzene	44 nc	550 nc	7,000 nc	12,000 (S) sol	36,000 nc	7,000 nc	12,000 (S) sol	36,000 nc	10,000 nc
135988	sec-Butylbenzene	270 nc	3,800 nc	14 nc	18,000 (S) sol	49,000 nc	14 nc	18,000 (S) sol	49,000 nc	20 nc
98066	t-Butylbenzene (I)	7.7E-02 (M) nc	0.64 (M) nc	14 nc	52 nc	65 nc	14 nc	1,500 nc	2,500 nc	20 nc
79925	Camphene (I,CC))	3.2 nc	NA	2,800 nc	3.2 (CC) nc	NA	2,800 nc	170 (CC) nc	NA	4,100 nc
75150	Carbon disulfide (I,R,DD)	92 nc	52 (M) nc	24,000 nc	49,000 nc	7,600 nc	24,000 nc	1.6E+06 nc	2.9E+05 nc	36,000 nc
56235	Carbon tetrachloride (KK)	0.41 (M) ca	0.31 (M) ca	150 ca	220 ca	39 (M) ca	150 ca	10,000 ca	2,400 ca	360 ca
57749	Chlordane (J,KK,EE)	18 st	13,000 st	6.7 st	56 (S) sol	1.4E+06 st	6.7 st	56 (S) sol	5.1E+07 st	9.3 st
108907	Chlorobenzene (I,KK)	33 nc	82 nc	1,700 nc	22,000 nc	9,400 nc	1,700 nc	5.0E+05 (S) sol	2.6E+05 nc	2,600 nc

RE:0702R1F13.5U4N2F6, B132465

CAS No.	Hazardous Substance	VI Tier 1 Groundwater Residential µg/l	VI Tier 1 Soil Residential µg/kg	VI Tier 1 SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	VI Tier 2 Groundwater Residential µg/l	VI Tier 2 Soil Residential µg/kg	VI Tier 2 SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	VI Tier 3A Groundwater Nonresidential µg/l	VI Tier 3A Soil Nonresidential µg/kg	VI Tier 3A SOIL VAPOR INCLUDING SUBSLAB Nonresidential µg/m3
75683	1-Chloro-1,1-difluoroethane	2,800 nc	2,400 nc	1.7E+06 nc	8.2E+05 nc	2.6E+05 nc	1.7E+06 nc	1.4E+06 (S) sol	9.8E+06 nc	2.6E+06 nc
75003	Chloroethane (DD)	620 nc	330 nc	1.4E+05 nc	3.4E+05 nc	50,000 nc	1.4E+05 nc	6.7E+06 (S) sol	1.9E+06 nc	2.0E+05 nc
110758	2-Chloroethyl vinyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA
67663	Chloroform (KK)	0.49 (M) ca	0.26 (M) ca	37 ca	320 ca	43 (M) ca	37 ca	16,000 ca	2,700 ca	87 ca
74873	Chloromethane (I)	15 nc	6.9 (M) nc	3,100 nc	8,000 nc	1,100 nc	3,100 nc	2.6E+05 nc	42,000 nc	4,600 nc
91587	beta-Chloronaphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA
95578	2-Chlorophenol (DD)	45 (DD) dev	12,000 (DD) dev	600 (DD) dev	1.9E+06 (DD) dev	1.3E+06 (DD) dev	600 (DD) dev	1.1E+07 (S) (DD) sol	7.3E+06 (DD) dev	600 (DD) dev
95498	o-Chlorotoluene (I)	50 nc	200 nc	2,800 nc	35,000 nc	22,000 nc	2,800 nc	3.7E+05 (S) sol	3.0E+05 nc	4,100 nc
74908	Cyanide, Hydrogen (P,R,DD)	9.0 nc	1.8 (M) nc	28 nc	4,400 nc	510 nc	28 nc	1.5E+05 nc	18,000 nc	41 nc
110827	Cyclohexane (DD)	290 nc	320 (M) nc	2.1E+05 nc	52,000 nc	31,000 nc	2.1E+05 nc	55,000 (S) sol	50,000 nc	3.1E+05 nc
108941	Cyclohexanone (CC)	2,300 nc	NA	24,000 nc	2,300 (CC) nc	NA	24,000 nc	18,000 (CC) nc	NA	36,000 nc
72559	4-4`-DDE	32 ca	39,000 ca	8.7 ca	40 (S) sol	4.3E+06 ca	8.7 ca	40 (S) sol	2.6E+08 ca	21 ca
117840	Di-n-octyl phthalate (CC)	22 (S) sol	NA	16,000 nc	270 (S) (CC) sol	NA	16,000 nc	5,100 (S) (CC) sol	NA	24,000 nc
123422	Diacetone alcohol (I)	2.9E+07 nc	5.2E+06 nc	83,000 nc	1.0E+09 (S) sol	3.5E+07 nc	83,000 nc	1.0E+09 (S) sol	3.5E+07 nc	1.2E+05 nc
132649	Dibenzofuran	3,100 (S) sol	7.1E+06 nc	140 nc	3,100 (S) sol	4.1E+08 nc	140 nc	3,100 (S) sol	1.1E+10 nc	200 nc
124481	Dibromochloromethane (MM)	0.78 (M) mut	0.40 (M) mut	14 (MM) mut	470 (MM) mut	68 (M) mut	14 (MM) mut	63,000 ca	10,000 ca	83 ca
96128	Dibromochloropropane (MM,CC)	4.5E-04 (M) mut	NA	6.2E-02 (MM) mut	4.5E-04 (MM) (M) (CC) mut	NA	6.2E-02 (MM) mut	3.1E-02 (M) (CC) mut	NA	0.36 ca
74953	Dibromomethane	8.8 nc	3.5 (M) nc	140 nc	5,100 nc	700 nc	140 nc	1.8E+05 nc	27,000 nc	200 nc
95501	1,2-Dichlorobenzene	370 nc	1,500 nc	10,000 nc	1.6E+05 (S) sol	1.3E+05 nc	10,000 nc	1.6E+05 (S) sol	1.3E+05 nc	15,000 nc
541731	1,3-Dichlorobenzene	2.6 nc	10 (M) nc	100 nc	1,800 nc	1,100 nc	100 nc	58,000 nc	43,000 nc	150 nc
106467	1,4-Dichlorobenzene (KK)	5.9 ca	23 (M) ca	220 ca	4,000 ca	2,600 ca	220 ca	81,000 (S) sol	1.6E+05 ca	510 ca
75718	Dichlorodifluoromethane	13 nc	12 (M) nc	11,000 nc	1,300 nc	1,200 nc	11,000 nc	41,000 nc	44,000 nc	17,000 nc
75343	1,1-Dichloroethane	4.7 ca	2.6 (M) ca	530 ca	3,000 ca	420 ca	530 ca	1.5E+05 ca	26,000 ca	1,200 ca
107062	1,2-Dichloroethane (I,KK)	1.4 ca	0.82 (M) ca	33 ca	830 ca	140 ca	33 ca	46,000 ca	8,300 ca	77 ca

RE:0702R1F13.5U4N2F6, B132465

CAS No.	Hazardous Substance	VI Tier 1 Groundwater Residential µg/l	VI Tier 1 Soil Residential µg/kg	VI Tier 1 SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	VI Tier 2 Groundwater Residential µg/l	VI Tier 2 Soil Residential µg/kg	VI Tier 2 SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	VI Tier 3A Groundwater Nonresidential µg/l	VI Tier 3A Soil Nonresidential µg/kg	VI Tier 3A SOIL VAPOR INCLUDING SUBSLAB Nonresidential µg/m3
75354	1,1-Dichloroethylene (I,KK)	18 nc	12 (M) nc	7,000 nc	8,100 nc	1,600 nc	7,000 nc	2.5E+05 nc	59,000 nc	10,000 nc
156592	cis-1,2-Dichloroethylene	3.4 nc	2.1 (M) nc	280 nc	2,100 nc	330 nc	280 nc	69,000 nc	12,000 nc	410 nc
156605	trans-1,2-Dichloroethylene (EE,FF)	27 (FF) st	39 (M) nc	9,000 nc	30,000 nc	5,400 nc	9,000 nc	1.9E+06 st	4.1E+05 st	26,000 st
78875	1,2-Dichloropropane (I)	2.6 nc	2.1 (M) nc	140 nc	1,700 nc	300 nc	140 nc	55,000 nc	12,000 nc	200 nc
542756	1,3-Dichloropropene (J)	3.3 ca	3.1 (M) ca	210 ca	2,200 ca	430 ca	210 ca	1.1E+05 ca	26,000 ca	500 ca
60571	Dieldrin	3.7 ca	770 ca	0.18 ca	200 (S) sol	86,000 ca	0.18 ca	200 (S) sol	5.3E+06 ca	0.43 ca
60297	Diethyl ether	1,200 nc	350 nc	35,000 nc	7.3E+05 nc	81,000 nc	35,000 nc	2.5E+07 nc	3.1E+06 nc	51,000 nc
108203	Diisopropyl ether (DD)	36 (DD) dev	190 (M) (DD) dev	23,000 (DD) dev	3.0E+05 (DD) dev	36,000 (DD) dev	23,000 (DD) dev	6.6E+06 (DD) dev	7.8E+05 (DD) dev	23,000 (DD) dev
108189	Diisopropylamine (I)	3,500 nc	2,900 nc	7,000 nc	1.9E+06 nc	4.3E+05 nc	7,000 nc	7.0E+07 nc	1.7E+07 nc	10,000 nc
127195	N,N-Dimethylacetamide	1.9E+07 nc	3.8E+06 nc	3,500 nc	4.8E+08 nc	3.9E+07 nc	3,500 nc	1.0E+09 (S) sol	3.9E+07 nc	5,100 nc
121697	N,N-Dimethylaniline (CC)	1.1 (M) ca	NA	71 ca	1.1 (M) (CC) ca	NA	71 ca	20 (CC) ca	NA	170 ca
68122	Dimethylformamide (I,CC)	2,700 nc	NA	240 nc	2,700 (CC) nc	NA	240 nc	17,000 (CC) nc	NA	360 nc
123911	1,4-Dioxane (I)	1,900 ca	360 (M) ca	170 ca	9.5E+05 ca	1.1E+05 ca	170 ca	5.7E+07 ca	6.8E+06 ca	400 ca
115297	Endosulfan (J)	NA	NA	NA	NA	NA	NA	NA	NA	NA
106898	Epichlorohydrin (I,CC)	0.99 (M) nc	NA	35 nc	0.99 (M) (CC) nc	NA	35 nc	8.3 (CC) nc	NA	51 nc
64175	Ethanol (I,DD,EE,FF)	1.0E+05 (FF) st	1.3E+06 (EE) st	6.3E+05 (EE) st	1.0E+09 (S) sol	3.5E+07 (EE) st	6.3E+05 (EE) st	1.0E+09 (S) sol	3.5E+07 (EE) st	6.3E+05 (EE) st
141786	Ethyl acetate (I)	910 nc	210 nc	2,400 nc	4.8E+05 nc	57,000 nc	2,400 nc	1.8E+07 nc	2.2E+06 nc	3,600 nc
637923	Ethyl-tert-butyl ether (ETBE) (CC)	22 nc	NA	13,000 nc	22 (CC) nc	NA	13,000 nc	870 (CC) nc	NA	19,000 nc
100414	Ethylbenzene (I)	2.8 ca	12 (M) ca	340 ca	1,900 ca	1,300 ca	340 ca	95,000 ca	80,000 ca	800 ca
106934	Ethylene dibromide	0.13 ca	7.4E-02 (M) ca	1.4 ca	74 ca	12 (M) ca	1.4 ca	4,200 ca	770 ca	3.3 ca
86737	Fluorene	1,700 (S) sol	4.7E+05 nc	4,900 nc	1,700 (S) sol	5.0E+07 nc	4,900 nc	1,700 (S) sol	1.9E+09 nc	7,200 nc
50000	Formaldehyde (DD,MM)	3,000 mut	530 (M) mut	27 (MM) mut	7.9E+05 (MM) mut	91,000 mut	27 (MM) mut	9.0E+07 ca	1.0E+07 ca	150 ca
64186	Formic acid (I,U)	2,500 nc	440 (M) nc	10 nc	5.5E+05 nc	64,000 nc	10 nc	1.6E+07 nc	1.8E+06 nc	15 nc
76448	Heptachlor (DD,KK)	0.25 ca	3,600 ca	0.65 ca	150 ca	3.8E+05 ca	0.65 ca	180 (S) sol	2.3E+07 ca	1.5 ca

RE:0702R1F13.5U4N2F6, B132465

CAS No.	Hazardous Substance	VI Tier 1 Groundwater Residential µg/l	VI Tier 1 Soil Residential µg/kg	VI Tier 1 SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	VI Tier 2 Groundwater Residential µg/l	VI Tier 2 Soil Residential µg/kg	VI Tier 2 SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	VI Tier 3A Groundwater Nonresidential µg/l	VI Tier 3A Soil Nonresidential µg/kg	VI Tier 3A SOIL VAPOR INCLUDING SUBSLAB Nonresidential µg/m3
1024573	Heptachlor epoxide (KK,CC)	1.4E-02 ca	NA	0.33 ca	1.4E-02 (CC) ca	NA	0.33 ca	0.28 (CC) ca	NA	0.77 ca
142825	n-Heptane	150 nc	130 nc	1.2E+05 nc	2,700 nc	11,000 nc	1.2E+05 nc	3,400 (S) (GW) sol	29,000 nc	1.8E+05 nc
87821	Hexabromobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
118741	Hexachlorobenzene (C-66) (KK)	0.11 (M) nc	6.7 (M) nc	1.2 nc	6.2 (S) sol	740 nc	1.2 nc	6.2 (S) sol	28,000 nc	1.8 nc
87683	Hexachlorobutadiene (C-46) (KK)	0.32 ca	2.5 (M) ca	39 ca	290 ca	260 ca	39 ca	3,200 (S) sol	5,600 ca	91 ca
77474	Hexachlorocyclopentadiene (C-56)	3.0E-02 (M) nc	0.32 (M) nc	7.0 nc	26 nc	34 (M) nc	7.0 nc	690 nc	1,300 nc	10 nc
67721	Hexachloroethane (KK)	1.5 (M) ca	3.2 (M) ca	85 ca	1,200 ca	380 ca	85 ca	50,000 (S) sol	24,000 ca	200 ca
110543	n-Hexane	29 nc	25 nc	24,000 nc	29 (GW) nc	2,200 nc	24,000 nc	1,500 (GW) nc	70,000 nc	36,000 nc
591786	2-Hexanone	660 nc	210 (M) nc	1,000 nc	3.5E+05 nc	49,000 nc	1,000 nc	1.3E+07 nc	1.1E+06 nc	1,500 nc
78831	Isobutyl alcohol (I)	4.0E+05 nc	79,000 nc	52,000 nc	8.5E+07 (S) sol	3.3E+06 nc	52,000 nc	8.5E+07 (S) sol	3.3E+06 nc	77,000 nc
67630	Isopropyl alcohol (I,DD)	53,000 nc	9,800 nc	7,000 nc	2.8E+07 nc	3.2E+06 nc	7,000 nc	1.0E+09 (S) sol	3.6E+07 nc	10,000 nc
98828	Isopropyl benzene	0.60 (M) ca	3.8 (M) ca	81 ca	420 ca	400 ca	81 ca	20,000 ca	25,000 ca	190 ca
58899	Lindane (KK)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Varies	Mercury (Total) (Z,DD,KK)	8.8E-02 nc	2.7E-02 nc	10 nc	58 nc	6.3 (M) nc	10 nc	60 (S) sol	240 nc	15 nc
74828	Methane (K)	NA	NA	8.4E+06 (GG)	NA	NA	NA	NA	NA	8.4E+06 (GG)
67561	Methanol (DD)	1.2E+05 (DD) dev	1.4E+06 (DD) dev	6.7E+05 (DD) dev	1.0E+09 (S) (DD) sol	3.5E+07 (DD) dev	6.7E+05 (DD) dev	1.0E+09 (S) (DD) sol	3.5E+07 (DD) dev	6.7E+05 (DD) dev
109864	2-Methoxyethanol (I,DD)	8,400 nc	1,500 nc	38 nc	2.7E+06 nc	3.1E+05 nc	38 nc	8.1E+07 nc	9.4E+06 nc	56 nc
109024	N-Methyl-morpholine (I)	NA	NA	NA	NA	NA	NA	NA	NA	NA
108101	4-Methyl-2-pentanone (MIBK) (I,DD)	720 (DD) dev	12,000 (DD) dev	1.0E+05 (DD) dev	1.9E+07 (S) (DD) sol	1.1E+06 (DD) dev	1.0E+05 (DD) dev	1.9E+07 (S) (DD) sol	1.1E+06 (DD) dev	1.0E+05 (DD) dev
1634044	Methyl-tert-butyl ether (MTBE)	250 ca	74 (M) ca	3,300 ca	1.4E+05 ca	17,000 ca	3,300 ca	8.1E+06 ca	1.0E+06 ca	7,700 ca
96377	Methylcyclopentane (I)	30 (M) nc	29 (M) nc	24,000 nc	2,500 nc	2,700 nc	24,000 nc	42,000 (S) sol	72,000 nc	36,000 nc
75092	Methylene chloride (MM)	79 (FF) st	130 nc	21,000 nc	1.8E+05 nc	23,000 nc	21,000 nc	5.9E+06 nc	8.9E+05 nc	31,000 nc
91576	2-Methylnaphthalene	66 nc	1,700 nc	350 nc	25,000 (S) sol	1.8E+05 nc	350 nc	25,000 (S) sol	7.0E+06 nc	510 nc
2385855	Mirex	NA	NA	NA	NA	NA	NA	NA	NA	NA

RE:0702R1F13.5U4N2F6, B132465

CAS No.	Hazardous Substance	VI Tier 1 Groundwater Residential µg/l	VI Tier 1 Soil Residential µg/kg	VI Tier 1 SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	VI Tier 2 Groundwater Residential µg/l	VI Tier 2 Soil Residential µg/kg	VI Tier 2 SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	VI Tier 3A Groundwater Nonresidential µg/l	VI Tier 3A Soil Nonresidential µg/kg	VI Tier 3A SOIL VAPOR INCLUDING SUBSLAB Nonresidential µg/m3
91203	Naphthalene	4.2 (M) ca	67 (M) ca	25 ca	2,400 ca	7,000 ca	25 ca	31,000 (S) sol	4.3E+05 ca	59 ca
98953	Nitrobenzene (I,KK)	68 ca	170 (M) ca	21 ca	36,000 ca	20,000 ca	21 ca	2.1E+06 (S) sol	1.0E+06 ca	50 ca
88755	2-Nitrophenol (CC)	0.12 (M) nc	NA	1.7 nc	0.12 (M) (CC) nc	NA	1.7 nc	1.0 (M) (CC) nc	NA	2.6 nc
608935	Pentachlorobenzene (CC)	8.6E-03 (M) nc	NA	3.5 nc	8.6E-03 (M) (CC) nc	NA	3.5 nc	0.27 (M) (CC) nc	NA	5.1 nc
82688	Pentachloronitrobenzene (CC)	8.5 (M) nc	NA	380 nc	8.5 (M) (CC) nc	NA	380 nc	120 (CC) nc	NA	560 nc
109660	Pentane	40 (M) nc	36 (M) nc	35,000 nc	40 (M) (GW) nc	3,100 (M) nc	35,000 nc	2,000 (GW) nc	1.2E+05 nc	51,000 nc
109682	2-Pentene (I)	NA	NA	NA	NA	NA	NA	NA	NA	NA
335671	Perfluorooctanoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA
85018	Phenanthrene (CC)	7.7E-02 (M) nc	NA	3.5 nc	7.7E-02 (M) (CC) nc	NA	3.5 nc	0.97 (M) (CC) nc	NA	5.1 nc
110894	Piperidine (CC)	45,000 nc	NA	2.4E+05 nc	45,000 (CC) nc	NA	2.4E+05 nc	3.3E+05 (CC) nc	NA	3.6E+05 nc
1336363	Polychlorinated biphenyls (PCBs) (J,T,DD,CC)	3.1E-02 (M) ca	NA	8.5 ca	3.1E-02 (M) (CC) ca	NA	8.5 ca	1.4 (CC) ca	NA	20 ca
79094	Propionic acid	1.2E+06 nc	2.2E+05 nc	10,000 nc	4.9E+08 nc	3.5E+07 nc	10,000 nc	1.0E+09 (S) sol	3.5E+07 nc	15,000 nc
71238	Propyl alcohol (I,DD)	2,700 (DD) dev	40,000 (DD) dev	24,000 (DD) dev	1.1E+08 (DD) dev	1.3E+07 (DD) dev	24,000 (DD) dev	1.0E+09 (S) (DD) sol	3.6E+07 (DD) dev	24,000 (DD) dev
103651	n-Propylbenzene (I,DD)	43 (DD) dev	1,800 (DD) dev	33,000 (DD) dev	52,000 (S) (DD) sol	89,000 (DD) dev	33,000 (DD) dev	52,000 (S) (DD) sol	89,000 (DD) dev	33,000 (DD) dev
129000	Pyrene	140 (S) sol	2.5E+07 nc	3,500 nc	140 (S) sol	2.7E+09 nc	3,500 nc	140 (S) sol	1.1E+11 nc	5,100 nc
110861	Pyridine (I,KK)	600 nc	540 nc	120 nc	3.1E+05 nc	78,000 nc	120 nc	1.2E+07 nc	3.0E+06 nc	180 nc
100425	Styrene	33 ca	150 ca	1,500 ca	22,000 ca	17,000 ca	1,500 ca	3.1E+05 (S) sol	2.9E+05 ca	3,500 ca
95943	1,2,4,5-Tetrachlorobenzene (DD)	3.1 nc	70 (M) nc	35 nc	600 (S) sol	7,400 nc	35 nc	600 (S) sol	2.8E+05 nc	51 nc
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin (O,DD,CC)	3.8E-07 (M) ca	NA	1.9E-05 ca	3.8E-07 (M) ca	NA	1.9E-05 ca	9.2E-06 (M) ca	NA	4.5E-05 ca
630206	1,1,1,2-Tetrachloroethane	3.1 ca	3.2 (M) ca	110 ca	2,100 ca	450 ca	110 ca	1.1E+05 ca	27,000 ca	270 ca
79345	1,1,2,2-Tetrachloroethane	2.4 ca	2.7 (M) ca	15 ca	1,300 ca	370 ca	15 ca	78,000 ca	23,000 ca	34 ca
127184	Tetrachloroethylene (KK,EE,FF)	1.5 (FF) st	6.2 (M) st	1,400 st	3,800 st	770 st	1,400 st	75,000 st	20,000 st	1,400 st
109999	Tetrahydrofuran (DD)	45,000 nc	13,000 nc	70,000 nc	2.3E+07 nc	3.1E+06 nc	70,000 nc	8.8E+08 nc	5.4E+07 nc	1.0E+05 nc
632224	1,1,3,3-Tetramethylurea (CC)	2,700 nc	NA	28 nc	2,700 (CC) nc	NA	28 nc	22,000 (CC) nc	NA	41 nc

RE:0702R1F13.5U4N2F6, B132465

CAS No.	Hazardous Substance	VI Tier 1			VI Tier 2			VI Tier 3A		
		Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Nonresidential µg/l	Soil Nonresidential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Nonresidential µg/m3
509148	Tetranitromethane (CC)	2.7E-04 (M) ca	NA	5.6E-02 ca	2.7E-04 (M) (CC) ca	NA	5.6E-02 ca	9.1E-03 (M) (CC) ca	NA	0.13 ca
108883	Toluene (I,EE,FF)	300 (FF) st	3,700 nc	1.7E+05 nc	5.3E+05 (S) sol	2.8E+05 nc	1.7E+05 nc	5.3E+05 (S) sol	2.8E+05 st	2.5E+05 st
2303175	Triallate (DD,CC)	530 (DD) dev	NA	6,700 (DD) dev	530 (DD) (CC) dev	NA	6,700 (DD) dev	5,000 (S) (DD) (CC) sol	NA	6,700 (DD) dev
102829	Tributylamine	170 nc	3,300 nc	240 nc	1.0E+05 nc	3.6E+05 nc	240 nc	1.4E+05 (S) sol	5.3E+05 nc	360 nc
87616	1,2,3-Trichlorobenzene	58 nc	830 nc	940 nc	18,000 (S) sol	88,000 nc	940 nc	18,000 (S) sol	3.4E+06 nc	1,400 nc
120821	1,2,4-Trichlorobenzene	3.8 (M) nc	53 (M) nc	70 nc	2,500 nc	5,500 nc	70 nc	49,000 (S) sol	1.3E+05 nc	100 nc
71556	1,1,1-Trichloroethane	180 (EE) (FF) st	450 st	1.7E+05 st	3.7E+05 st	60,000 st	1.7E+05 st	1.3E+06 (S) sol	2.4E+05 st	2.3E+05 st
79005	1,1,2-Trichloroethane	4.7E-04 (M) nc	3.7E-04 (M) nc	7.0E-03 nc	0.27 (M) nc	5.6E-02 (M) nc	7.0E-03 nc	9.7 nc	2.1 (M) nc	1.0E-02 nc
79016	Trichloroethylene (DD,KK,MM,NN)	7.3E-02 (M) (DD) dev	0.33 (M) (DD) dev	67 (DD) dev	260 (DD) dev	46 (M) (DD) dev	67 (DD) dev	5,500 (DD) dev	1,200 (DD) dev	67 (DD) dev
75694	Trichlorofluoromethane	22 nc	19 (M) nc	15,000 nc	5,300 nc	1,900 nc	15,000 nc	1.6E+05 nc	75,000 nc	22,000 nc
96184	1,2,3-Trichloropropane	1.9 nc	2.6 (M) nc	10 nc	1,100 nc	340 nc	10 nc	39,000 nc	13,000 nc	15 nc
76131	1,1,2-Trichloro-1,2,2-trifluoroethane	840 nc	860 nc	6.6E+05 nc	100,000 nc	80,000 nc	6.6E+05 nc	1.7E+05 (S) sol	2.8E+05 nc	9.7E+05 nc
1582098	Trifluralin (CC)	180 (S) sol	NA	1.0E+05 nc	1,100 (S) (CC) sol	NA	1.0E+05 nc	21,000 (S) (CC) sol	NA	1.5E+05 nc
540841	2,2,4-Trimethyl pentane	160 nc	130 (M) nc	1.2E+05 nc	1,800 nc	11,000 nc	1.2E+05 nc	2,400 (S) (GW) sol	30,000 nc	1.8E+05 nc
107404	2,4,4-Trimethyl-2-pentene (I)	NA	NA	NA	NA	NA	NA	NA	NA	NA
526738	1,2,3-Trimethylbenzene (I)	43 nc	270 nc	2,100 nc	31,000 nc	30,000 nc	2,100 nc	75,000 (S) sol	98,000 nc	3,100 nc
95636	1,2,4-Trimethylbenzene (I)	25 nc	150 nc	2,100 nc	18,000 nc	16,000 nc	2,100 nc	57,000 (S) sol	73,000 nc	3,100 nc
108678	1,3,5-Trimethylbenzene (I)	18 nc	100 nc	2,100 nc	13,000 nc	11,000 nc	2,100 nc	48,000 (S) sol	61,000 nc	3,100 nc
126727	tris(2,3-Dibromopropyl)phosphate (CC)	7.4E-02 (M) ca	NA	1.6 ca	7.4E-02 (M) (CC) ca	NA	1.6 ca	1.8 (M) (CC) ca	NA	3.8 ca
108054	Vinyl acetate (I,DD)	690 nc	160 (M) nc	7,000 nc	3.9E+05 nc	44,000 nc	7,000 nc	1.4E+07 nc	9.1E+05 nc	10,000 nc
75014	Vinyl chloride (KK,LL,MM)	0.12 (M) mut	8.2E-02 (M) mut	54 (MM) mut	49 (MM) mut	10 (M) mut	54 (MM) mut	8,700 ca	2,200 ca	450 ca
1330207	Xylenes (I,J)	75 nc	280 nc	7,600 nc	51,000 nc	31,000 nc	7,600 nc	1.1E+05 (S) sol	87,000 nc	11,000 nc

RE:0702R1F13.5U4N2F6, B132465

CAS No.	Hazardous Substance	VI Tier 1			VI Tier 2			VI Tier 3A		
		Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Residential µg/l	Soil Residential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Residential µg/m3	Groundwater Nonresidential µg/l	Soil Nonresidential µg/kg	SOIL VAPOR INCLUDING SUBSLAB Nonresidential µg/m3

NOTE: All notes or footnotes identified above are detailed in the proposed rule generic cleanup criteria table footnotes (R 299.49). The proposed rules are available at:

http://dmbinternet.state.mi.us/DMB/ORRDocs/ORR/1604_2015-094EQ_orr-draft.pdf