Risk Evaluation/ Corrective Action Program (RECAP)

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Welcome to the **Louisiana Department of Environmental Quality's Risk Evaluation/Corrective Action Program (RECAP) workbook**. This workbook contains all of the Management Option 2 (MO-2) equations, except for the Domenico model. There is a spreadsheet for each of the MO-2 exposure pathways. Each spreadsheet lists the equations used to calculate a RECAP Standard and contains the calculations of the RECAP Standards for all of the chemicals listed in the document for that exposure pathway. Within the spreadsheets are comment boxes for each equation. The comment box contains the parameter definitions and the default values for that equation. (Point the mouse at the cell and rick click into that cell that contains the red triangle in the upper right corner and click show comment. Click the comment box to highlight the box drag the edge of the box to enlarge the cell to read the contents.)

The spreadsheets are linked together for data that is common to most of the equations (e.g., the Slope Factor (SF) and Reference dose (RfD) values are contained in one spreadsheet, "SF&RfD"). Site-specific data that can be entered under MO-2 is highlighted in blue. Site-specific input values related to a specific exposure pathway are listed in that exposure pathway spreadsheet. Site-specific values are found in the "Soil properties", "Sd & DAF Summers", "Soil-PEF", "Soiles", "GWes", and "GWair" spreadsheets. The soil properties spreadsheet is the only spreadsheet that contains site-specific input values that can be changed that will effect many of the equations. Site size can be entered as the length and width.

At the bottom of each spreadsheet are several rows highlighted in blue for additional chemicals.

LDEQ RECAP
APPENDIX H: TABLE H1
CANCER SLOPE FACTORS AND REFERENCE DOSES

COMPOUND	CAS #	SF_o	REF	SF_i	REF	RfD_o	REF	RfD_i	REF	ABS
		$(mg/kg\text{-}day)^{-1}$		$(mg/kg\text{-}day)^{-1}$		mg/kg-day		mg/kg-day		unitless
Acenaphthene	83-32-9	*******		*******		6.00E-02	I	6.00E-02	*	0
Acenaphthylene	208-96-8	*******		*******		6.00E-02	S	6.00E-02	*	0
Acetone	67-64-1	*******		*******		1.00E-01	I	1.00E-01	*	0
Aldrin	309-00-2	1.70E+01	I	1.71E+01	I	3.00E-05	I	3.00E-05	*	0.1
Aniline	62-53-3	5.70E-03	I	5.70E-03	*	7.00E-03	E	2.86E-04	I	0.1
Anthracene	120-12-7	*******		*******		3.00E-01	I	3.00E-01	*	0
Antimony	7440-36-0	*******		*******		4.00E-04	I	4.00E-04	*	0
Arsenic	7440-38-2	1.50E+00	I	1.51E+01	I	3.00E-04	I	3.00E-04	*	0.03
Barium	7440-39-3	*******		*******		7.00E-02	I	1.43E-04	H	0
Benzene	71-43-2	2.90E-02	I	2.90E-02	I	4.00E-03	I	8.60E-03	I	0
Benz(a)anthracene	56-55-3	7.30E-01	E	3.10E-01	E	*******		*******		0.13
Benzo(a)pyrene	50-32-8	7.30E+00	I	3.10E+00	E	*******		*******		0.13
Benzo(b)fluoranthene	205-99-2	7.30E-01	E	3.10E-01	E	*******		*******		0.13
Benzo(k)fluoranthene	207-08-9	7.30E-02	E	3.10E-02	E	*******		*******		0.13
Beryllium	7440-41-7	*******		8.40E+00	I	2.00E-03	I	5.70E-06	I	0
Biphenyl,1,1-	92-52-4	*******		*******		5.00E-02	I	5.00E-02	*	0
Bis(2-chloroethyl)ether	111-44-4	1.10E+00	I	1.16E+00	I	*******		*******		0
Bis(2-chloroisopropyl)ether	108-60-1	7.00E-02	H	3.50E-02	H	4.00E-02	I	4.00E-02	*	0
Bis(2-ethyl-hexyl)phthalate	117-81-7	1.40E-02	I	1.40E-02	*	2.00E-02	I	2.00E-02	*	0.1
Bromodichloromethane	75-27-4	6.20E-02	I	6.20E-02	*	2.00E-02	I	2.00E-02	*	0
Bromoform	75-25-2	7.90E-03	I	3.85E-03	I	2.00E-02	I	2.00E-02	*	0
Bromomethane	74-83-9	*******		*******		1.40E-03	I	1.43E-03	I	0
Butyl benzyl phthalate	85-68-7	*******		*******		2.00E-01	I	2.00E-01	*	0.1
Cadmium	7440-43-9	*******		6.30E+00	I	5.00E-04	I,D	5.71E-05	W	0.001
Carbon Disulfide	75-15-0	*******		*******		1.00E-01	I	2.00E-01	I	0
Carbon Tetrachloride	56-23-5	1.30E-01	I	5.25E-02	I	7.00E-04	I	5.71E-04	W	0
Chlordane	57-74-9	3.50E-01	I	3.50E-01	I	5.00E-04	I	2.00E-04	I	0.04
Chloroaniline,p-	106-47-8	*******		*******		4.00E-03	I	4.00E-03	*	0.1
Chlorobenzene	108-90-7	*******		*******		2.00E-02	I	1.70E-02	E	0
Chlorodibromomethane	124-48-1	8.40E-02	I	8.40E-02	*	2.00E-02	I	2.00E-02	*	0
Chloroethane (Ethylchloride)	75-00-3	2.90E-03	E	2.90E-03	*	4.00E-01	E	2.86E+00	I	0
Chloroform	67-66-3	6.10E-03	W	8.05E-02	I	1.00E-02	I	8.60E-05	E	0
Chloromethane	74-87-3	1.30E-02	H	6.30E-03	H	8.60E-02	#	8.60E-02	E	0

NOTE: See end of Table for designation of letters and symbols.

LDEQ RECAP
APPENDIX H: TABLE H1
CANCER SLOPE FACTORS AND REFERENCE DOSES

COMPOUND	CAS #	SF_o	REF	SF_i	REF	RfD_o	REF	RfD_i	REF	ABS
		$(mg/kg\text{-}day)^{-1}$		$(mg/kg\text{-}day)^{-1}$		mg/kg-day		mg/kg-day		unitless
Chloronaphthalene,2-	91-58-7	*******		*******		8.00E-02	I	8.00E-02	*	0
Chlorophenol,2-	95-57-8	*******		*******		5.00E-03	I	5.00E-03	*	0
Chromium(III)	16065-83-1	*******		*******		1.50E+00	I	*******		0
Chromium(VI)	18540-29-9	*******		2.90E-02	I	3.00E-03	I	*******		0
Chrysene	218-01-9	7.30E-03	E	3.10E-03	E	*******		*******		0.13
Cobalt	7440-48-4	*******		*******		6.00E-02	E	5.70E-06	W	0
Copper	7440-50-8	*******		*******		4.00E-02	H	*******		0
Cyanide (free)	57-12-5	*******		*******		2.00E-02	I	*******		0.01
DDD	72-54-8	2.40E-01	I	2.40E-01	*	*******		*******		0.03
DDE	72-55-9	3.40E-01	I	3.40E-01	*	*******		*******		0.03
DDT	50-29-3	3.40E-01	I	3.40E-01	I	5.00E-04	I	5.00E-04	*	0.03
Dibenz(a,h)anthracene	53-70-3	7.30E+00	E	3.10E+00	E	*******		*******		0.13
Dibenzofuran	132-64-9	*******		*******		4.00E-03	E	4.00E-03	*	0
Dibromo-3-chloropropane,1,2-	96-12-8	1.40E+00	H	2.42E-03	H	5.71E-05	#	5.71E-05	I	0.1
Dichlorobenzene,1,2-	95-50-1	*******		*******		9.00E-02	I	5.70E-02	H	0
Dichlorobenzene,1,3-	541-73-1	*******		*******		9.00E-04	E	9.00E-04	*	0
Dichlorobenzene,1,4-	106-46-7	2.40E-02	H	2.40E-02	*	3.00E-02	E	2.29E-01	I	0
Dichlorobenzidine,3,3-	91-94-1	4.50E-01	I	4.50E-01	*	*******		*******		0.1
Dichloroethane,1,1-	75-34-3	*******		*******		1.00E-01	H	1.43E-01	H	0
Dichloroethane,1,2-	107-06-2	9.10E-02	I	9.10E-02	I	3.00E-03	*	2.90E-03	W	0
Dichloroethene,1,1-	75-35-4	*******		*******		5.00E-02	I	5.70E-02	I	0
Dichloroethene,cis,1,2-	156-59-2	*******		*******		1.00E-02	H	1.00E-02	*	0
Dichloroethene,trans,1,2-	156-60-5	*******		*******		2.00E-02	I	2.00E-02	*	0
Dichlorophenol,2,4-	120-83-2	*******		*******		3.00E-03	I	3.00E-03	*	0.1
Dichloropropane,1,2-	78-87-5	6.80E-02	H	6.80E-02	*	1.14E-03	*	1.14E-03	I	0
Dichloropropene,1,3-	542-75-6	1.00E-01	I	1.40E-02	I	3.00E-02	I	5.71E-03	I	0
Dieldrin	60-57-1	1.60E+01	I	1.61E+01	I	5.00E-05	I	5.00E-05	*	0.1
Diethylphthalate	84-66-2	*******		*******		8.00E-01	I	8.00E-01	*	0.1
Dimethylphenol,2,4-	105-67-9	*******		*******		2.00E-02	I	2.00E-02	*	0.1
Dimethylphthalate	131-11-3	*******		*******		1.00E+01	H	1.00E+01	*	0.1
Di-n-octylphthalate	117-84-0	*******		*******		4.00E-02	E	2.00E-02	*	0.1
Dinitrobenzene,1,3-	99-65-0	*******		*******		1.00E-04	I	1.00E-04	*	0.1
Dinitrophenol,2,4-	51-28-5	*******		*******		2.00E-03	I	2.00E-03	*	0.1

NOTE: See end of Table for designation of letters and symbols.

LDEQ RECAP
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CANCER SLOPE FACTORS AND REFERENCE DOSES

COMPOUND	CAS #	SF_o	REF	SF_i	REF	RfD_o	REF	RfD_i	REF	ABS
		$(mg/kg\text{-}day)^{-1}$		$(mg/kg\text{-}day)^{-1}$		mg/kg-day		mg/kg-day		unitless
Dinitrotoluene,2,6-	606-20-2	*******		*******		1.00E-03	H	1.00E-03	*	0.1
Dinitrotoluene,2,4-	121-14-2	*******		*******		2.00E-03	I	2.00E-03	*	0.1
Dinoseb	88-85-7	*******		*******		1.00E-03	I	1.00E-03	*	0.1
Endosulfan	115-29-7	*******		*******		6.00E-03	I	6.00E-03	*	0.1
Endrin	72-20-8	*******		*******		3.00E-04	I	3.00E-04	*	0.1
Ethyl benzene	100-41-4	*******		*******		1.00E-01	I	2.86E-01	I	0
Fluoranthene	206-44-0	*******		*******		4.00E-02	I	4.00E-02	*	0.13
Fluorene	86-73-7	*******		*******		4.00E-02	I	4.00E-02	*	0
Heptachlor	76-44-8	4.50E+00	I	4.55E+00	I	5.00E-04	I	5.00E-04	*	0.1
Heptachlor epoxide	1024-57-3	9.10E+00	I	9.10E+00	I	1.30E-05	I	1.30E-05	*	0.1
Hexachlorobenzene	118-74-1	1.60E+00	I	1.61E+00	I	8.00E-04	I	8.00E-04	*	0
Hexachlorobutadiene	87-68-3	7.80E-02	I	7.70E-02	I	2.00E-04	H	2.00E-04	*	0.1
Hexachlorocyclohexane,alpha	319-84-6	6.30E+00	I	6.30E+00	I	*******		*******		0.04
Hexachlorocyclohexane,beta	319-85-7	1.80E+00	I	1.80E+00	I	*******		*******		0.04
Hexachlorocyclohexane,gamma	58-89-9	1.30E+00	H	1.30E+00	*	3.00E-04	I	3.00E-04	*	0.04
Hexachlorocyclopentadiene	77-47-4	*******		*******		6.00E-03	I	5.70E-05	I	0
Hexachloroethane	67-72-1	1.40E-02	I	1.40E-02	I	1.00E-03	I	1.00E-03	*	0
Indeno(1,2,3-cd)pyrene	193-39-5	7.30E-01	E	3.10E-01	E	*******		*******		0.13
Isobutyl alcohol	78-83-1	*******		*******		3.00E-01	I	3.00E-01	*	0.1
Isophorone	78-59-1	9.50E-04	I	9.50E-04	*	2.00E-01	I	2.00E-01	*	0.1
Lead (inorganic)	7439-92-1	*******		*******		*******		*******		IEUBK
Mercury (inorganic)	7487-94-7	*******		*******		3.00E-04	I	8.57E-05	I	0
Methoxychlor	72-43-5	*******		*******		5.00E-03	I	5.00E-03	*	0.1
Methylene chloride	75-09-2	7.50E-03	I	1.64E-03	I	6.00E-02	I	8.57E-01	H	0
Methyl ethyl ketone	78-93-3	*******		*******		6.00E-01	I	2.86E-01	I	0
Methyl isobutyl ketone	108-10-1	*******		*******		8.00E-02	H	8.60E-01	I	0
Methylnaphthalene,2-	91-57-6	*******		*******		2.00E-02	S	8.60E-04	S	0
MTBE (methyl tert-butyl ether)	1634-04-4	*******		*******		8.57E-01	#	8.57E-01	I	0
Naphthalene	91-20-3	*******		*******		2.00E-02	I	8.60E-04	I	0
Nickel	7440-02-0	*******		*******		2.00E-02	I	*******		0
Nitrate	14797-55-8	*******		*******		1.60E+00	I	1.60E+00	*	0
Nitrite	14797-65-0	*******		*******		1.00E-01	I	1.00E-01	*	0
Nitroaniline,2-	88-74-4	*******		*******		3.00E-03	E	2.90E-05	E	0

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LDEQ RECAP
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CANCER SLOPE FACTORS AND REFERENCE DOSES

COMPOUND	CAS #	SF_o	REF	SF_i	REF	RfD_o	REF	RfD_i	REF	ABS
		$(mg/kg\text{-}day)^{-1}$		$(mg/kg\text{-}day)^{-1}$		mg/kg-day		mg/kg-day		unitless
Nitroaniline,3-	99-09-2	*******		*******		3.00E-03	O	3.00E-03	*	0
Nitroaniline,4-	100-01-6	*******		*******		3.00E-03	O	3.00E-03	*	0.1
Nitrobenzene	98-95-3	*******		*******		5.00E-04	I	5.71E-04	H	0
Nitrophenol,4-	100-02-7	*******		*******		8.00E-03	E	8.00E-03	*	0.1
Nitrosodi-n-propylamine,n-	621-64-7	7.00E+00	I	7.00E+00	*	*******		*******		0.1
N-nitrosodiphenylamine	86-30-6	4.90E-03	I	4.90E-03	*	*******		*******		0.1
Pentachlorophenol	87-86-5	1.20E-01	I	1.20E-01	*	3.00E-02	I	3.00E-02	*	0.25
Phenanthrene	85-01-8	*******		*******		3.00E-01	S	3.00E-01	*	0
Phenol	108-95-2	*******		*******		3.00E-01	I	3.00E-01	*	0
Polychlorinated biphenyls	1336-36-3	2.00E+00	I	2.00E+00	*	2.00E-05	I	2.00E-05	*	0.14
Pyrene	129-00-0	*******		*******		3.00E-02	I	3.00E-02	*	0
Selenium	7782-49-2	*******		*******		5.00E-03	I	*******		0
Silver	7440-22-4	*******		*******		5.00E-03	I	*******		0
Styrene	100-42-5	*******		*******		2.00E-01	I	2.86E-01	I	0
Tetrachlorobenzene,1,2,4,5-	95-94-3	*******		*******		3.00E-04	I	3.00E-04	*	0.1
Tetrachloroethane,1,1,1,2-	630-20-6	2.60E-02	I	2.59E-02	I	3.00E-02	I	3.00E-02	*	0
Tetrachloroethane,1,1,2,2-	79-34-5	2.00E-01	I	2.03E-01	I	6.00E-02	E	6.00E-02	*	0
Tetrachloroethylene	127-18-4	5.20E-02	E	2.03E-03	E	1.00E-02	I	1.10E-01	E	0
Tetrachlorophenol,2,3,4,6-	58-90-2	*******		*******		3.00E-02	I	3.00E-02	*	0.1
Thallium	7440-28-0	*******		*******		7.00E-05	H	*******		0
Toluene	108-88-3	*******		*******		2.00E-01	I	1.14E-01	I	0
Toxaphene	8001-35-2	1.10E+00	I	1.12E+00	I	*******		*******		0.1
Trichlorobenzene,1,2,4-	120-82-1	*******		*******		1.00E-02	I	5.70E-02	H	0
Trichloroethane,1,1,1-	71-55-6	*******		*******		3.50E-02	E	2.86E-01	E	0
Trichloroethane,1,1,2-	79-00-5	5.70E-02	I	5.60E-02	I	4.00E-03	I	4.00E-03	*	0
Trichloroethene	79-01-6	4.00E-01	E	4.00E-01	E	3.00E-04	E	1.14E-02	E	0
Trichlorofluoromethane	75-69-4	*******		*******		3.00E-01	I	2.00E-01	A	0
Trichlorophenol,2,4,5-	95-95-4	*******		*******		1.00E-01	I	1.00E-01	*	0.1
Trichlorophenol,2,4,6-	88-06-2	1.10E-02	I	1.10E-02	I	*******		*******		0.1
Vanadium	7440-62-2	*******		*******		7.00E-03	H	*******	*	0
Vinyl chloride	75-01-4	1.40E+00	I	3.10E-02	I	3.00E-03	I	2.90E-02	I	0
Xylene(mixed)	1330-20-7	*******		*******		2.00E-01	I	2.90E-02	I	0
Zinc	7440-66-6	*******		*******		3.00E-01	I	3.00E-01	*	0

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COMPOUND	CAS #	SF_o	REF	SF_i	REF	RfD_o	REF	RfD_i	REF	ABS
		$(mg/kg\text{-}day)^{-1}$		$(mg/kg\text{-}day)^{-1}$		mg/kg-day		mg/kg-day		unitless
Aliphatics C6-C8	NA	*******		*******		5.00E+00	T	5.30E+00	T	0
Aliphatics >C8-C10	NA	*******		*******		1.00E-01	T	2.90E-01	T	0
Aliphatics >C10-C12	NA	*******		*******		1.00E-01	T	3.00E-01	T	0
Aliphatics >C12-C16	NA	*******		*******		1.00E-01	T	3.00E-01	T	0
Aliphatics >C16-C35	NA	*******		*******		2.00E+00	T	2.00E+00	*	0.1
Aromatics >C8-C10	NA	*******		*******		4.00E-02	T	6.00E-02	T	0
Aromatics >C10-C12	NA	*******		*******		4.00E-02	T	6.00E-02	T	0
Aromatics >C12-C16	NA	*******		*******		4.00E-02	T	6.00E-02	T	0
Aromatics >C16-C21	NA	*******		*******		3.00E-02	T	3.00E-02	*	0.1
Aromatics >C21-C35	NA	*******		*******		3.00E-02	T	3.00E-02	*	0.1

I = Integrated Risk Information System (IRIS), EPA.
H = Health Effects Assessment Summary Tables (HEAST), EPA.
A = Health Effects Assessment Summary Tables Alternative, EPA Region III Risk-Based Concentration Table.
E = EPA-NCEA Regional Support provisional value, EPA Region III Risk-Based Concentration Table.
* = Inhalation toxicity not available, oral toxicity value used to assess inhalation exposure.
# = Oral toxicity value not available, inhalation toxicity value used to assess oral exposure.
O = EPA Region III Risk-Based Concentration Table.
W = Withdrawn from IRIS or HEAST.
T = TPH Criteria Working Group, 1997.
IEUBK = refer to IEUBK model guidelines.
D= Dermal RfD for cadmium is 2.5E-05 mg/kg-d (based on an oral absorption efficiency of 5%; RAGS-E, EPA 1999).
S = Surrogate (Acenaphthene for Acenaphthylene; Naphthalene for Methylnaphthalene, 2-; Anthracene for Phenanthrene) .

LDEQ RECAP
APPENDIX H: TABLE H2
CHEMICAL AND PHYSICAL PARAMETERS

COMPOUND	CAS #	MOL. WT	Koc	REF	H	REF	Da	REF	Dw	REF	S	REF
		g/g-mole	cm3/g		atm-m3/mol		cm2/s		cm2/s		mg/L	
Acenaphthene	83-32-9	154.2	4.90E+03	1	1.55E-04	1	4.21E-02	1	7.69E-06	1	4.24E+00	1
Acenaphthylene	208-96-8	152.2	2.00E+03	2	1.14E-04	2	4.39E-02	3	7.53E-06	3	1.60E+01	2
Acetone	67-64-1	58.08	5.75E-01	1	3.88E-05	1	1.24E-01	1	1.14E-05	1	1.00E+06	1
Aldrin	309-00-2	364.91	4.87E+04	1	1.70E-04	1	1.32E-02	1	4.86E-06	1	1.80E-01	1
Aniline	62-53-3	93.13	2.57E+01	5	1.90E-06	2	7.00E-02	3	8.30E-06	3	3.60E+04	2
Anthracene	120-12-7	178.23	2.35E+04	1	6.50E-05	1	3.24E-02	1	7.74E-06	1	4.30E-02	1
Antimony	7440-36-0	121.75	********	********	********	********	********	********	********	********	********	********
Arsenic	7440-38-2	74.92	********	********	********	********	********	********	********	********	********	********
Barium	7440-39-3	137.33	********	********	********	********	********	********	********	********	********	********
Benzene	71-43-2	78.11	6.17E+01	1	5.55E-03	1	8.80E-02	1	9.80E-06	1	1.75E+03	1
Benz(a)anthracene	56-55-3	228.29	3.58E+05	1	3.35E-06	1	5.10E-02	1	9.00E-06	1	9.40E-03	1
Benzo(a)pyrene	50-32-8	252.32	9.69E+05	1	1.13E-06	1	4.30E-02	1	9.00E-06	1	1.60E-03	1
Benzo(b)fluoranthene	205-99-2	252.32	1.23E+06	1	1.11E-04	1	2.26E-02	1	5.56E-06	1	1.50E-03	1
Benzo(k)fluoranthene	207-08-9	252.32	1.23E+06	1	8.29E-07	1	2.26E-02	1	5.56E-06	1	8.00E-04	1
Beryllium	7440-41-7	9.01	********	********	********	********	********	********	********	********	********	********
Biphenyl,1,1-	92-52-4	154.21	5.13E+03	5	3.00E-04	2	4.04E-02	9	8.15E-06	E	7.50E+00	2
Bis(2-chloroethyl)ether	111-44-4	143.01	7.59E+01	1	1.80E-05	1	6.92E-02	1	7.53E-06	1	1.70E+04	1
Bis(2-chloroisopropyl)ether	108-60-1	171.04	6.17E+01	4	1.13E-04	4	5.95E-02	E	6.62E-06	E	1.70E+03	4
Bis(2-ethyl-hexyl)phthalate	117-81-7	390.56	1.10E+05	1	1.02E-07	1	3.51E-02	1	3.66E-06	1	3.40E-01	1
Bromodichloromethane	75-27-4	163.83	5.50E+01	1	1.60E-03	1	2.98E-02	1	1.06E-05	1	6.70E+03	1
Bromoform	75-25-2	252.73	1.26E+02	1	5.35E-04	1	1.49E-02	1	1.03E-05	1	3.10E+03	1
Bromomethane	74-83-9	94.94	9.00E+00	1	6.20E-03	2	7.28E-02	3	1.21E-05	3	1.50E+04	2
Butyl benzyl phthalate	85-68-7	312.37	1.37E+04	1	1.26E-06	1	1.74E-02	1	4.83E-06	1	2.70E+00	1
Cadmium	7440-43-9	112.41	********	********	********	********	********	********	********	********	********	********
Carbon Disulfide	75-15-0	76.14	4.57E+01	1	3.03E-02	1	1.04E-01	1	1.00E-05	1	1.19E+03	1
Carbon Tetrachloride	56-23-5	153.82	1.52E+02	1	3.04E-02	1	7.80E-02	1	8.80E-06	1	7.93E+02	1
Chlordane	57-74-9	409.78	5.13E+04	1	4.86E-05	1	1.18E-02	1	4.37E-06	1	5.60E-02	1
Chloroaniline,p-	106-47-8	127.57	6.61E+01	1	3.31E-07	1	4.83E-02	1	1.01E-05	1	5.30E+03	1
Chlorobenzene	108-90-7	112.56	2.24E+02	1	3.70E-03	1	7.30E-02	1	8.70E-06	1	4.72E+02	1
Chlorodibromomethane	124-48-1	208.28	6.31E+01	1	7.83E-04	1	1.96E-02	1	1.05E-05	1	2.60E+03	1
Chloroethane (Ethylchloride)	75-00-3	64.51	3.24E+00	4	8.80E-03	2	2.71E-01	E	1.15E-05	E	5.70E+03	2
Chloroform	67-66-3	119.38	5.25E+01	1	3.67E-03	1	1.04E-01	1	1.00E-05	1	7.92E+03	1
Chloromethane	74-87-3	50.49	2.51E+01	4	8.80E-03	2	1.26E-01	E	6.50E-06	E	5.30E+03	1
Chloronaphthalene,2-	91-58-7	162.62	8.51E+03	4	3.10E-04	2	3.47E-02	3	8.80E-06	3	1.20E+01	2

NOTE: See end of Table for designation of numbers and letter.

LDEQ RECAP
APPENDIX H: TABLE H2
CHEMICAL AND PHYSICAL PARAMETERS

COMPOUND	CAS #	MOL. WT	Koc	REF	H	REF	Da	REF	Dw	REF	S	REF
		g/g-mole	cm3/g		atm-m3/mol		cm2/s		cm2/s		mg/L	
Chlorophenol,2-	95-57-8	128.56	3.63E+02	4	3.91E-04	1	5.01E-02	1	9.46E-06	1	2.20E+04	1
Chromium(III)	16065-83-1	52	********	********	********	********	********	********	********	********	********	********
Chromium(VI)	18540-29-97	52	********	********	********	********	********	********	********	********	********	********
Chrysene	218-01-9	228.29	3.98E+05	1	9.46E-05	1	2.48E-02	1	6.21E-06	1	1.60E-03	1
Cobalt	7440-48-4	58.93	********	********	********	********	********	********	********	********	********	********
Copper	7440-50-8	63.55	********	********	********	********	********	********	********	********	********	********
Cyanide (free)	57-12-5	26.01	********	********	********	********	********	********	********	********	********	********
DDD	72-54-8	320.04	4.58E+04	1	4.00E-06	1	1.69E-02	1	4.76E-06	1	9.00E-02	1
DDE	72-55-9	318.03	8.64E+04	1	2.10E-05	1	1.44E-02	1	5.87E-06	1	1.20E-01	1
DDT	50-29-3	354.49	6.78E+05	1	8.10E-06	1	1.37E-02	1	4.95E-06	1	2.50E-02	1
Dibenz(a,h)anthracene	53-70-3	278.35	1.79E+06	1	1.47E-08	1	2.02E-02	1	5.18E-06	1	2.50E-03	1
Dibenzofuran	132-64-9	168.19	8.13E+03	4	1.30E-05	2	2.67E-02	3	6.00E-06	3	3.10E+00	2
Dibromo-3-chloropropane,1,2-	96-12-8	236.33	8.80E+01	E	1.50E-04	2	2.12E-02	3	7.00E-06	3	1.20E+03	2
Dichlorobenzene,1,2-	95-50-1	147	3.79E+02	1	1.90E-03	1	6.90E-02	1	7.90E-06	1	1.56E+02	1
Dichlorobenzene,1,3-	541-73-1	147	1.70E+03	4	3.30E-03	2	6.42E-02	E	7.10E-06	E	1.30E+02	2
Dichlorobenzene,1,4-	106-46-7	147	6.16E+02	1	2.43E-03	1	6.90E-02	1	7.90E-06	1	7.38E+01	1
Dichlorobenzidine,3,3-	91-94-1	253.13	7.24E+02	1	4.00E-09	1	1.94E-02	1	6.74E-06	1	3.10E+00	1
Dichloroethane,1,1-	75-34-3	98.96	5.34E+01	1	5.62E-03	1	7.42E-02	1	1.05E-05	1	5.06E+03	1
Dichloroethane,1,2-	107-06-2	98.96	3.80E+01	1	9.79E-04	1	1.04E-01	1	9.90E-06	1	8.52E+03	1
Dichloroethene,1,1-	75-35-4	96.94	6.50E+01	1	2.61E-02	1	9.00E-02	1	1.04E-05	1	2.25E+03	1
Dichloroethene,cis,1,2-	156-59-2	96.94	3.55E+01	1	4.08E-03	1	7.36E-02	1	1.13E-05	1	3.50E+03	1
Dichloroethene,trans,1,2-	156-60-5	96.94	3.80E+01	1	9.38E-03	1	7.07E-02	E	1.19E-05	E	6.30E+03	1
Dichlorophenol,2,4-	120-83-2	163	8.71E+02	4	3.16E-06	1	3.46E-02	1	8.77E-06	1	4.50E+03	1
Dichloropropane,1,2-	78-87-5	112.99	4.70E+01	1	2.80E-03	1	7.82E-02	1	8.73E-06	1	2.80E+03	1
Dichloropropene,1,3-	542-75-6	110.98	4.57E+01	1	1.77E-03	1	6.26E-02	1	1.00E-05	1	2.80E+03	1
Dieldrin	60-57-1	380.91	2.55E+04	1	1.51E-05	1	1.25E-02	1	4.74E-06	1	1.95E-01	1
Diethylphthalate	84-66-2	222.24	8.22E+01	1	4.50E-07	1	2.56E-02	1	6.35E-06	1	1.08E+03	1
Dimethylphenol,2,4-	105-67-9	122.17	2.09E+02	1	2.00E-06	1	5.84E-02	1	8.69E-06	1	7.87E+03	1
Dimethylphthalate	131-11-3	194.19	4.26E+01	4	1.10E-07	2	5.68E-02	3	6.30E-06	3	4.00E+03	2
Di-n-octylphthalate	117-84-0	390.56	8.32E+07	1	6.68E-05	1	1.51E-02	1	3.58E-06	1	2.00E-02	1
Dinitrobenzene,1,3-	99-65-0	168.11	1.51E+02	5	3.70E-07	2	2.79E-01	3	9.10E-06	3	5.30E+02	2
Dinitrophenol,2,4-	51-28-5	184.11	1.78E+01	4	4.43E-07	1	2.73E-02	1	9.06E-06	1	2.79E+03	1
Dinitrotoluene,2,6-	606-20-2	182.14	6.92E+01	1	7.47E-07	1	3.27E-02	1	7.26E-06	1	1.82E+02	1
Dinitrotoluene,2,4-	121-14-2	182.14	9.55E+01	1	9.26E-08	1	2.03E-01	1	7.06E-06	1	2.70E+02	1

NOTE: See end of Table for designation of numbers and letter.

LDEQ RECAP
APPENDIX H: TABLE H2
CHEMICAL AND PHYSICAL PARAMETERS

COMPOUND	CAS #	MOL. WT	Koc	REF	H	REF	Da	REF	Dw	REF	S	REF
		g/g-mole	cm3/g		atm-m3/mol		cm2/s		cm2/s		mg/L	
Dinoseb	88-85-7	240.22	1.24E+02	8	4.60E-07	2	5.00E-02	E	5.60E-06	E	5.20E+01	2
Endosulfan	115-29-7	406.93	2.04E+03	1	1.12E-05	1	1.15E-02	1	4.55E-06	1	5.10E-01	1
Endrin	72-20-8	380.93	1.08E+04	1	7.52E-06	1	1.25E-02	1	4.74E-06	1	2.50E-01	1
Ethyl benzene	100-41-4	106.17	2.04E+02	1	7.88E-03	1	7.50E-02	1	7.80E-06	1	1.69E+02	1
Fluoranthene	206-44-0	202.26	4.91E+04	1	1.61E-05	1	3.02E-02	1	6.35E-06	1	2.06E-01	1
Fluorene	86-73-7	166.22	7.71E+03	1	6.36E-05	1	3.63E-02	1	7.88E-06	1	1.98E+00	1
Heptachlor	76-44-8	373.32	9.53E+03	1	1.48E+00	1	1.12E-02	1	5.69E-06	1	1.80E-01	1
Heptachlor epoxide	1024-57-3	389.32	8.32E+04	1	9.50E-06	1	1.32E-02	1	4.23E-06	1	2.00E-01	1
Hexachlorobenzene	118-74-1	284.78	8.00E+04	1	1.32E-03	1	5.42E-02	1	5.91E-06	1	6.20E+00	1
Hexachlorobutadiene	87-68-3	260.76	5.37E+04	1	8.15E-03	1	5.61E-02	1	6.16E-06	1	3.23E+00	1
Hexachlorocyclohexane,alpha	319-84-6	290.83	1.76E+03	1	1.06E-05	1	1.42E-02	1	7.34E-06	1	2.00E+00	1
Hexachlorocyclohexane,beta	319-85-7	290.83	2.14E+03	1	7.43E-07	1	1.42E-02	1	7.34E-06	1	2.40E-01	1
Hexachlorocyclohexane,gamma	58-89-9	290.83	1.35E+03	1	1.40E-05	1	1.42E-02	1	7.34E-06	1	6.80E+00	1
Hexachlorocyclopentadiene	77-47-4	272.77	2.00E+05	1	2.70E-02	1	1.61E-02	1	7.21E-06	1	1.80E+00	1
Hexachloroethane	67-72-1	236.74	1.78E+03	1	3.89E-03	1	2.50E-03	1	6.80E-06	1	5.00E+00	1
Indeno(1,2,3-cd)pyrene	193-39-5	276.34	3.47E+06	1	1.60E-06	1	1.90E-02	1	5.66E-06	1	2.20E-05	1
Isobutyl alcohol	78-83-1	74.12	2.20E+00	1	1.20E-05	2	9.00E-02	E	1.00E-05	E	8.50E+04	2
Isophorone	78-59-1	138.21	4.68E+01	1	6.64E-06	1	6.23E-02	1	6.76E-06	1	1.20E+04	1
Lead (inorganic)	7439-92-1	207.2	********	********	********	********	********	********	********	********	********	*******
Mercury (inorganic)	7487-94-7	200.59	********	********	********	********	********	********	********	********	********	*******
Methoxychlor	72-43-5	345.65	8.00E+04	1	1.58E-05	1	1.56E-02	1	4.46E-06	1	4.50E-02	1
Methylene chloride	75-09-2	84.93	6.16E+00	1	2.19E-03	1	1.01E-01	1	1.17E-05	1	1.30E+04	1
Methyl ethyl ketone	78-93-3	72.11	1.23E+00	4	5.60E-05	2	8.08E-02	E	9.80E-06	E	2.20E+05	2
Methyl isobutyl ketone	108-10-1	100.16	6.20E+00	4	1.40E-04	2	7.50E-02	3	7.80E-06	3	1.90E+04	2
Methylnaphthalene,2-	91-57-6	142.2	2.24E+03	3	5.80E-05	3	4.80E-02	3	7.84E-06	3	2.46E+01	2
MTBE (methyl tert-butyl ether)	1634-04-4	83.1	1.12E+01	6	5.87E-04	6	1.02E-01	3	1.05E-05	3	5.10E+04	6
Naphthalene	91-20-3	128.17	1.19E+03	1	4.83E-04	1	5.90E-02	1	7.50E-06	1	3.10E+01	1
Nickel	7440-02-0	58.69	********	********	********	********	********	********	********	********	********	*******
Nitrate	14797-55-8	62	********	********	********	********	********	********	********	********	********	*******
Nitrite	14797-65-0	46	********	********	********	********	********	********	********	********	********	*******
Nitroaniline,2-	88-74-4	138.13	1.70E+01	4	9.72E-05	4	6.60E-02	E	7.40E-06	E	1.26E+03	4
Nitroaniline,3-	99-09-2	138.13	1.82E+01	4	1.47E-07	2	6.60E-02	E	7.40E-06	E	1.20E+03	2
Nitroaniline,4-	100-01-6	138.13	1.20E+01	4	2.10E-09	2	4.73E-02	E	8.58E-06	E	7.30E+02	2
Nitrobenzene	98-95-3	123.11	1.19E+02	1	2.40E-05	1	7.60E-02	1	8.60E-06	1	2.09E+03	1

NOTE: See end of Table for designation of numbers and letter.

LDEQ RECAP
APPENDIX H: TABLE H2
CHEMICAL AND PHYSICAL PARAMETERS

COMPOUND	CAS #	MOL. WT	Koc	REF	H	REF	Da	REF	Dw	REF	S	REF
		g/g-mole	cm3/g		atm-m3/mol		cm2/s		cm2/s		mg/L	
Nitrophenol,4-	100-02-7	139.11	5.50E+01	4	4.20E-10	2	4.30E-02	3	9.60E-06	3	1.20E+04	2
Nitrosodi-n-propylamine,n-	621-64-7	130.19	2.40E+01	1	2.25E-06	1	5.45E-02	1	8.17E-06	1	9.89E+03	1
N-nitrosodiphenylamine	86-30-6	198.22	1.29E+03	1	5.00E-06	1	3.12E-02	1	6.35E-06	1	3.51E+01	1
Pentachlorophenol	87-86-5	266.34	8.91E+02	4	2.44E-08	1	5.60E-02	1	6.10E-06	1	1.95E+03	1
Phenanthrene	85-01-8	178.24	4.80E+03	2	2.33E-05	2	3.24E-02	E	7.74E-06	E	1.15E+00	2
Phenol	108-95-2	94.11	2.88E+01	1	3.97E-07	1	8.20E-02	1	9.10E-06	1	8.28E+04	1
Polychlorinated biphenyls	1336-36-3	290	3.09E+05	1	1.10E-03	2	4.56E-02	E	5.09E-06	E	3.10E-02	2
Pyrene	129-00-0	202.26	6.80E+04	1	1.10E-05	1	2.72E-02	1	7.24E-06	1	1.35E-01	1
Selenium	7782-49-2	78.96	********	********	********	********	********	********	********	********	********	********
Silver	7440-22-4	107.87	********	********	********	********	********	********	********	********	********	********
Styrene	100-42-5	104.15	9.12E+02	1	2.75E-03	1	7.10E-02	1	8.00E-06	1	3.10E+02	1
Tetrachlorobenzene,1,2,4,5-	95-94-3	215.89	5.25E+03	5	2.60E-03	2	2.11E-02	3	8.80E-06	3	6.00E-01	2
Tetrachloroethane,1,1,1,2-	630-20-6	167.85	5.40E+01	7	2.40E-03	7	6.00E-02	E	6.70E-06	E	1.10E+03	2
Tetrachloroethane,1,1,2,2-	79-34-5	167.85	7.90E+01	1	3.45E-04	1	7.10E-02	1	7.90E-06	1	2.97E+03	1
Tetrachloroethylene	127-18-4	165.83	2.65E+02	1	1.84E-02	1	7.20E-02	1	8.20E-06	1	2.00E+02	1
Tetrachlorophenol,2,3,4,6-	58-90-2	231.89	2.13E+02	1	4.40E-06	2	2.17E-02	1	7.10E-06	1	1.00E+03	2
Thallium	7440-28-0	204.38	********	********	********	********	********	********	********	********	********	********
Toluene	108-88-3	92.14	1.40E+02	1	6.64E-03	1	8.70E-02	1	8.60E-06	1	5.26E+02	1
Toxaphene	8001-35-2	413.2	9.58E+04	1	6.00E-06	1	1.16E-02	1	4.34E-06	1	7.40E-01	1
Trichlorobenzene,1,2,4-	120-82-1	181.45	1.66E+03	1	1.42E-03	1	3.00E-02	1	8.23E-06	1	3.00E+02	1
Trichloroethane,1,1,1-	71-55-6	133.4	1.35E+02	1	1.72E-02	1	7.80E-02	1	8.80E-06	1	1.33E+03	1
Trichloroethane,1,1,2-	79-00-5	133.4	7.50E+01	1	9.13E-04	1	7.80E-02	1	8.80E-06	1	4.42E+03	1
Trichloroethene	79-01-6	131.39	9.43E+01	1	1.03E-02	1	7.90E-02	1	9.10E-06	1	1.10E+03	1
Trichlorofluoromethane	75-69-4	137.37	1.59E+02	4	9.70E-02	2	8.70E-02	3	9.70E-06	3	1.10E+03	2
Trichlorophenol,2,4,5-	95-95-4	197.45	7.08E+02	4	4.33E-06	1	2.91E-02	1	7.03E-06	1	1.20E+03	1
Trichlorophenol,2,4,6-	88-06-2	197.45	1.07E+03	4	7.80E-06	1	3.18E-02	1	6.25E-06	1	8.00E+02	1
Vanadium	7440-62-2	50.94	********	********	********	********	********	********	********	********	********	********
Vinyl chloride	75-01-4	62.5	1.86E+01	1	2.70E-02	1	1.06E-01	1	1.23E-06	1	2.76E+03	1
Xylene(mixed)	1330-20-7	106.17	1.29E+02	4	7.60E-03	1	7.00E-02	1	7.80E-06	1	1.60E+02	1
Zinc	7440-66-6	65.38	********	********	********	********	********	********	********	********	********	********
Aliphatics C6-C8	NA	100	3.98E+03	10	1.22E+00	10	1.00E-01	10	1.00E-05	10	********	********
Aliphatics >C8-C10	NA	130	3.16E+04	10	1.95E+00	10	1.00E-01	10	1.00E-05	10	********	********
Aliphatics >C10-C12	NA	160	2.51E+05	10	2.93E+00	10	1.00E-01	10	1.00E-05	10	********	********
Aliphatics >C12-C16	NA	200	5.01E+06	10	1.27E+01	10	1.00E-01	10	1.00E-05	10	********	********

NOTE: See end of Table for designation of numbers and letter.

LDEQ RECAP
APPENDIX H: TABLE H2
CHEMICAL AND PHYSICAL PARAMETERS

COMPOUND	CAS #	MOL. WT	Koc	REF	H	REF	Da	REF	Dw	REF	S	REF
		g/g-mole	cm3/g		atm-m3/mol		cm2/s		cm2/s		mg/L	
Aliphatics >C16-C35	NA	270	6.31E+08	10	1.20E+02	10	1.00E-01	10	1.00E-05	10	********	*******
Aromatics >C8-C10	NA	120	1.58E+03	10	1.17E-02	10	1.00E-01	10	1.00E-05	10	********	*******
Aromatics >C10-C12	NA	130	2.51E+03	10	3.41E-03	10	1.00E-01	10	1.00E-05	10	********	*******
Aromatics >C12-C16	NA	150	5.01E+03	10	1.29E-03	10	1.00E-01	10	1.00E-05	10	********	*******
Aromatics >C16-C21	NA	190	1.58E+04	10	3.17E-04	10	1.00E-01	10	1.00E-05	10	********	*******
Aromatics >C21-C35	NA	240	1.26E+05	10	1.63E-05	10	1.00E-01	10	1.00E-05	10	********	*******

* If data on more than one isomer is available; then used most protective. If data available on only one isomer; then used that data.

1. Soil Screening Guidance, 1996.
2. Superfund Chemical Data Matrix, June 1996.
3. Air Emissions Models for Waste and Wastewater, EPA-453/R-94-080A, 1994.
4. Groundwater Chemicals Desk Reference, Montgomery, J. H., et.al., 1990.
5. Groundwater Chemicals Desk Reference, vol. II, Montgomery, J. H., et.al., 1991.
6. Handbook of Environmental Fate and Exposure Data for Organic Chemicals, vol. IV, 1991.
7. Handbook of Environmental Fate and Exposure Data for Organic Chemicals, vol. II, 1991.
8. Soil Chemistry of Hazardous Materials, 1988.
9. CHEMDAT 8, November, 1994.
10. Total Petroleum Hydrocarbon Criteria Workgroup, 1996.

E - Estimated.

LDEQ RECAP
APPENDIX H
TABLE H-4
QUANTITATION LIMITS USED IN RECAP

COMPOUND	Soil	GW
	mg/kg	mg/l
Acenaphthene		1.0E-02
Acenaphthylene		
Acetone		1.0E-01
Aldrin		1.9E-03
Aniline		1.0E-02
Anthracene		1.0E-02
Antimony		
Arsenic		
Barium		
Benzene		
Benz(a)anthracene		7.8E-03
Benzo(a)pyrene	3.3E-01	
Benzo(b)fluoranthene		4.8E-03
Benzo(k)fluoranthene		2.5E-03
Beryllium		
Biphenyl,1,1-		1.0E-04
Bis(2-chloroethyl)ether	3.3E-01	5.7E-03
Bis(2-chloroisopropyl)ether	8.0E-01	5.7E-03
Bis(2-ethyl-hexyl)phthalate		
Bromodichloromethane		
Bromoform		
Bromomethane		1.0E-02
Butyl benzyl phthalate		1.0E-02
Cadmium		
Carbon Disulfide		5.0E-03
Carbon Tetrachloride		
Chlordane		
Chloroaniline,p-		2.0E-02
Chlorobenzene		
Chlorodibromomethane		
Chloroethane (Ethylchloride)		1.0E-02
Chloroform		
Chloromethane	1.0E-01	1.0E-02
Chloronaphthalene,2-		1.0E-02
Chlorophenol,2-		1.0E-02
Chromium(III)		
Chromium(VI)		
Chrysene		1.5E-03
Cobalt		
Copper		
Cyanide (free)		
DDD		1.2E-05
DDE		5.0E-05
DDT		3.0E-04
Dibenz(a,h)anthracene	3.3E-01	2.5E-03
Dibenzofuran		1.0E-02
Dibromo-3-chloropropane,1,2-	1.0E-02	
Dichlorobenzene,1,2-		

LDEQ RECAP
APPENDIX H
TABLE H-4
QUANTITATION LIMITS USED IN RECAP

COMPOUND	Soil	GW
	mg/kg	mg/l
Dichlorobenzene,1,3-		1.0E-02
Dichlorobenzene,1,4-		
Dichlorobenzidine,3,3-		2.0E-02
Dichloroethane,1,1-		5.0E-03
Dichloroethane,1,2-		
Dichloroethene,1,1-		
Dichloroethene,cis,1,2-		
Dichloroethene,trans,1,2-		
Dichlorophenol,2,4-		1.0E-02
Dichloropropane,1,2-		
Dichloropropene,1,3-		5.0E-03
Dieldrin		2.5E-03
Diethylphthalate		1.0E-02
Dimethylphenol,2,4-		1.0E-02
Dimethylphthalate		1.0E-02
Di-n-octylphthalate		2.5E-03
Dinitrobenzene,1,3-	2.5E-01	1.0E-02
Dinitrophenol,2,4-	1.7E+00	5.0E-02
Dinitrotoluene,2,6-		1.0E-02
Dinitrotoluene,2,4-		1.0E-02
Dinoseb	1.4E-01	
Endosulfan		1.2E-04
Endrin		
Ethyl benzene		
Fluoranthene		1.0E-02
Fluorene		1.0E-02
Heptachlor		
Heptachlor epoxide		
Hexachlorobenzene	3.3E-01	
Hexachlorobutadiene		6.0E-04
Hexachlorocyclohexane,alpha		3.0E-05
Hexachlorocyclohexane,beta		6.0E-05
Hexachlorocyclohexane,gamma		
Hexachlorocyclopentadiene		
Hexachloroethane		1.0E-02
Indeno(1,2,3-cd)pyrene		3.7E-03
Isobutyl alcohol		
Isophorone		1.0E-02
Lead (inorganic)		
Mercury (inorganic)		
Methoxychlor		
Methylene chloride		
Methyl ethyl ketone		1.0E-01
Methyl isobutyl ketone		5.0E-02
Methylnaphthalene,2-		
MTBE (methyl tert-butyl ether)		
Naphthalene		1.0E-02
Nickel		1.5E-02

LDEQ RECAP
APPENDIX H
TABLE H-4
QUANTITATION LIMITS USED IN RECAP

COMPOUND	Soil	GW
	mg/kg	mg/l
Nitrate		
Nitrite		
Nitroaniline,2-	1.7E+00	5.0E-02
Nitroaniline,3-	1.7E+00	5.0E-02
Nitroaniline,4-	1.7E+00	5.0E-02
Nitrobenzene	3.3E-01	1.9E-03
Nitrophenol,4-		5.0E-02
Nitrosodi-n-propylamine,n-	3.3E-01	1.0E-02
N-nitrosodiphenylamine		1.0E-02
Pentachlorophenol	1.7E+00	
Phenanthrene		
Phenol		1.0E-02
Polychlorinated biphenyls		
Pyrene		1.0E-02
Selenium		
Silver		7.0E-03
Styrene		
Tetrachlorobenzene,1,2,4,5-		
Tetrachloroethane,1,1,1,2-		5.0E-03
Tetrachloroethane,1,1,2,2-		5.0E-04
Tetrachloroethylene		
Tetrachlorophenol,2,3,4,6-		
Thallium		
Toluene		
Toxaphene		
Trichlorobenzene,1,2,4-		
Trichloroethane,1,1,1-		
Trichloroethane,1,1,2-		
Trichloroethene		
Trichlorofluoromethane		
Trichlorophenol,2,4,5-		1.0E-02
Trichlorophenol,2,4,6-		1.0E-02
Vanadium		
Vinyl chloride		
Xylene(mixed)		
Zinc		2.0E-02
Aliphatics C6-C8		1.5E-01
Aliphatics >C8-C10		1.5E-01
Aliphatics >C10-C12		1.5E-01
Aliphatics >C12-C16		1.5E-01
Aliphatics >C16-C35		1.5E-01
Aromatics >C8-C10		1.5E-01
Aromatics >C10-C12		1.5E-01
Aromatics >C12-C16		1.5E-01
Aromatics >C16-C21		1.5E-01
Aromatics >C21-C35		1.5E-01

Soil properties		Management Option 2							
Revision Date: 08/04/2003									
Run date:	10/17/2003								
*****calculation inputs*****									
1.7	g/cm3		pb = dry soil bulk density						
0.358491	Lpore/Lsoil		n = total soil porosity						
0.21	Lwater/Lsoil		nw = water-filled soil porosity						
0.148491	Lair/Lsoil		na = air-filled soil porosity						
2.65	g/cm3		ps = soil particle density						
0.006	g/g		foc = fractional organic carbon in soil						
148	(ft) = L = length of the source at the water table								
148	(ft) = W = width of impacted area perpendicular to flow direction of aquifer								
0.5	Acres		AOI site area - input into Q/C equation below						
76.30616	g/m2-s per kg/m3		Q/C = inverse of mean concentration at center of square source						
Q/C Table									
site size	148*148	209*209	295*295	467*467	660*660	1143*1143			
site size	0.5 acre	1 acre	2 acre	5 acre	10 acre	30 acre			
Q/C value	76.3062	67.4304	59.872	51.4648	46.1707	39.2329			

Sd eqn & Summer's Model DAF

Revision Date: 08/04/2003

Run date: 10/17/2003

Sd = hadv + hdisp = thickness of the mixing zone

15.6 (ft)

hadv = B*[1 - exp((-I*L)/(B*Dv))]

0.81 (ft) = hadv = advective component of the plume depth

0.33 (ft/ft) = I = infiltration rate

60.00 (ft/yr) = Dv = horizontal Darcy velocity

20.00 (ft) = B = thickness of the shallow water bearing zone

148.00 (ft) = L = length of the source at the water table

hdisp = (2*Az*L)

14.80 (ft) = hdisp = dispersive component of the plume depth

0.74 (ft) = Az = vertical dispersivity

148.00 (ft) = L = length of the source at the water table

Summer's Model DAF

DAF = Cl/Cgw = (Qa+Qp)/Qp

20.0 unitless

Qa = Dv*Sd*W

138577 (ft3/yr) = Qa = volumetric flow rate of groundwater

60.00 (ft/yr) = Dv = horizontal Darcy velocity

15.61 (ft) = Sd = hadv + hdisp = thickness of the mixing zone

148.00 (ft) = W = width of impacted area perpendicular to flow direction of aquifer

Qp = I*A

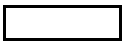
7301.33 (ft3/yr) = Qp = volumetric flow rate of infiltration (soil pore water) into the aquifer

0.33 (ft/yr) = I = infiltration rate

21904.00 (ft2) = A = area of the source

Max DF Domenico 440

(for use with SoilGW and GW values)



LDEQ RECAP
WORKSHEET 1
GW 1 AND 2
(mg/l)

Derivation of Management Option 1, 2, & 3 **Groundwater Classification 1 & 2**
Revision Date: 08/04/2003 Run date: 10/17/2003

C(mg/l)-Vol GW1&2 = (TR*ATc*365)/(EFni*((SFi*Kw*IRAadj)+(SFo*IRWadj)))
C(mg/l)-NVol GW1&2 = (TR*ATc*365)/(EFni*(SFo*IRWadj))
N(mg/l)-Vol GW1&2 = (THQ*BWa*ATnni*365)/(EFni*EDni*(((IRAa/RfDi)*Kw)+(IRWa/RfDo)))
N(mg/l)-NVol GW1&2 = (THQ*BWa*ATnni*365)/(EFni*EDni*(IRWa/RfDo))

						MCL or						
	MCL					min value	GW1		GW2		FOR CAL	FOR CAL
COMPOUND	(mg/l)	C(mg/l)-V	C(mg/l)-NV	N(mg/l)-V	N(mg/l)-NV	(C or N)	(mg/l)		(mg/l)		SOILGW1	SOILGW2
Acenaphthene		NA		3.65E-01		3.7E-01	3.7E-01	N	3.7E-01	X DF 2	3.7E-01	3.7E-01
Acenaphthylene		NA		3.65E-01		3.7E-01	3.7E-01	N	3.7E-01	X DF 2	3.7E-01	3.7E-01
Acetone		NA		6.08E-01		6.1E-01	6.1E-01	N	6.1E-01	X DF 2	6.1E-01	6.1E-01
Aldrin			3.90E-06		1.10E-03	3.9E-06	1.9E-03	Q	1.9E-03	F	1.9E-03	1.9E-03
Aniline			1.16E-02		2.56E-01	1.2E-02	1.2E-02	C	1.2E-02	X DF 2	1.2E-02	1.2E-02
Anthracene		NA		1.83E+00		1.8E+00	1.8E+00	N	1.8E+00	X DF 2	4.3E-02	4.3E-02
Antimony	6.00E-03		NA		1.46E-02	6.0E-03	6.0E-03	MCL	6.0E-03	X DF 2	6.0E-03	6.0E-03
Arsenic	1.00E-02		4.42E-05		1.10E-02	1.0E-02	1.0E-02	MCL	1.0E-02	X DF 2	1.0E-02	1.0E-02
Barium	2.00E+00		NA		2.56E+00	2.0E+00	2.0E+00	MCL	2.0E+00	X DF 2	2.0E+00	2.0E+00
Benzene	5.00E-03	3.81E-04		4.39E-02		5.0E-03	5.0E-03	MCL	5.0E-03	X DF 2	5.0E-03	5.0E-03
Benz(a)anthracene			9.09E-05		NA	9.1E-05	7.8E-03	Q	9.1E-05	X DF 2	7.8E-03	9.1E-05
Benzo(a)pyrene	2.00E-04		9.09E-06		NA	2.0E-04	2.0E-04	MCL	2.0E-04	X DF 2	2.0E-04	2.0E-04
Benzo(b)fluoranthene			9.09E-05		NA	9.1E-05	4.8E-03	Q	9.1E-05	X DF 2	1.5E-03	9.1E-05
Benzo(k)fluoranthene			9.09E-04		NA	9.1E-04	2.5E-03	Q	9.1E-04	X DF 2	8.0E-04	8.0E-04
Beryllium	4.00E-03		NA		7.30E-02	4.0E-03	4.0E-03	MCL	4.0E-03	X DF 2	4.0E-03	4.0E-03
Biphenyl,1,1-		NA		3.04E-01		3.0E-01	3.0E-01	N	3.0E-01	X DF 2	3.0E-01	3.0E-01
Bis(2-chloroethyl)ether		9.62E-06		NA		9.6E-06	5.7E-03	Q	5.7E-03	F	5.7E-03	5.7E-03
Bis(2-chloroisopropyl)ether		2.71E-04		2.43E-01		2.7E-04	5.7E-03	Q	2.7E-04	X DF 2	5.7E-03	2.7E-04
Bis(2-ethyl-hexyl)phthalate	6.00E-03		4.74E-03		7.30E-01	6.0E-03	6.0E-03	MCL	6.0E-03	X DF 2	6.0E-03	6.0E-03
Bromodichloromethane	1.00E-01	1.78E-04		1.22E-01		1.0E-01	1.0E-01	MCL	1.0E-01	X DF 2	1.0E-01	1.0E-01
Bromoform	1.00E-01	2.44E-03		1.22E-01		1.0E-01	1.0E-01	MCL	1.0E-01	X DF 2	1.0E-01	1.0E-01
Bromomethane		NA		8.67E-03		8.7E-03	1.0E-02	Q	8.7E-03	X DF 2	1.0E-02	8.7E-03
Butyl benzyl phthalate			NA		7.30E+00	7.3E+00	7.3E+00	N	7.3E+00	X DF 2	2.7E+00	2.7E+00
Cadmium	5.00E-03		NA		1.83E-02	5.0E-03	5.0E-03	MCL	5.0E-03	X DF 2	5.0E-03	5.0E-03

LDEQ RECAP
WORKSHEET 1
GW 1 AND 2
(mg/l)

Derivation of Management Option 1, 2, & 3 **Groundwater Classification 1 & 2**
Revision Date: 08/04/2003 Run date: 10/17/2003

C(mg/l)-Vol GW1&2 = (TR*ATc*365)/(EFni*((SFi*Kw*IRAadj)+(SFo*IRWadj)))
C(mg/l)-NVol GW1&2 = (TR*ATc*365)/(EFni*(SFo*IRWadj))
N(mg/l)-Vol GW1&2 = (THQ*BWa*ATnni*365)/(EFni*EDni*(((IRAa/RfDi)*Kw)+(IRWa/RfDo)))
N(mg/l)-NVol GW1&2 = (THQ*BWa*ATnni*365)/(EFni*EDni*(IRWa/RfDo))

						MCL or						
	MCL					min value	GW1		GW2		FOR CAL	FOR CAL
COMPOUND	(mg/l)	C(mg/l)-V	C(mg/l)-NV	N(mg/l)-V	N(mg/l)-NV	(C or N)	(mg/l)		(mg/l)		SOILGW1	SOILGW2
Carbon Disulfide		NA		1.04E+00		1.0E+00	1.0E+00	N	1.0E+00	X DF 2	1.0E+00	1.0E+00
Carbon Tetrachloride	5.00E-03	1.69E-04		3.58E-03		5.0E-03	5.0E-03	MCL	5.0E-03	X DF 2	5.0E-03	5.0E-03
Chlordane	2.00E-03		1.90E-04		1.83E-02	2.0E-03	2.0E-03	MCL	2.0E-03	X DF 2	2.0E-03	2.0E-03
Chloroaniline,p-			NA		1.46E-01	1.5E-01	1.5E-01	N	1.5E-01	X DF 2	1.5E-01	1.5E-01
Chlorobenzene	1.00E-01	NA		1.06E-01		1.0E-01	1.0E-01	MCL	1.0E-01	X DF 2	1.0E-01	1.0E-01
Chlorodibromomethane	1.00E-01	1.32E-04		1.22E-01		1.0E-01	1.0E-01	MCL	1.0E-01	X DF 2	1.0E-01	1.0E-01
Chloroethane (Ethylchloride)		3.81E-03		8.59E+00		3.8E-03	1.0E-02	Q	3.8E-03	X DF 2	1.0E-02	3.8E-03
Chloroform	1.00E-01	1.62E-04		6.27E-04		1.0E-01	1.0E-01	MCL	1.0E-01	X DF 2	1.0E-01	1.0E-01
Chloromethane		1.49E-03		5.23E-01		1.5E-03	1.0E-02	Q	1.5E-03	X DF 2	1.0E-02	1.5E-03
Chloronaphthalene,2-		NA		4.87E-01		4.9E-01	4.9E-01	N	4.9E-01	X DF 2	4.9E-01	4.9E-01
Chlorophenol,2-		NA		3.04E-02		3.0E-02	3.0E-02	N	3.0E-02	X DF 2	3.0E-02	3.0E-02
Chromium(III)	1.00E-01		NA		5.48E+01	1.0E-01	1.0E-01	MCL	1.0E-01	X DF 2	1.0E-01	1.0E-01
Chromium(VI)	1.00E-01		NA		1.10E-01	1.0E-01	1.0E-01	MCL	1.0E-01	X DF 2	1.0E-01	1.0E-01
Chrysene			9.09E-03		NA	9.1E-03	9.1E-03	C	9.1E-03	X DF 2	1.6E-03	1.6E-03
Cobalt			NA		2.19E+00	2.2E+00	2.2E+00	N	2.2E+00	X DF 2	2.2E+00	2.2E+00
Copper	1.30E+00		NA		1.46E+00	1.3E+00	1.3E+00	MCL	1.3E+00	X DF 2	1.3E+00	1.3E+00
Cyanide (free)	2.00E-01		NA		7.30E-01	2.0E-01	2.0E-01	MCL	2.0E-01	X DF 2	2.0E-01	2.0E-01
DDD			2.77E-04		NA	2.8E-04	2.8E-04	C	2.8E-04	X DF 2	2.8E-04	2.8E-04
DDE			1.95E-04		NA	2.0E-04	2.0E-04	C	2.0E-04	X DF 2	2.0E-04	2.0E-04
DDT			1.95E-04		1.83E-02	2.0E-04	3.0E-04	Q	2.0E-04	X DF 2	3.0E-04	2.0E-04
Dibenz(a,h)anthracene			9.09E-06		NA	9.1E-06	2.5E-03	Q	9.1E-06	X DF 2	2.5E-03	9.1E-06
Dibenzofuran		NA		2.43E-02		2.4E-02	2.4E-02	N	2.4E-02	X DF 2	2.4E-02	2.4E-02
Dibromo-3-chloropropane,1,2-	2.00E-04		4.74E-05		2.08E-03	2.0E-04	2.0E-04	MCL	2.0E-04	X DF 2	2.0E-04	2.0E-04
Dichlorobenzene,1,2-	6.00E-01	NA		3.69E-01		6.0E-01	6.0E-01	MCL	6.0E-01	X DF 2	6.0E-01	6.0E-01

LDEQ RECAP
WORKSHEET 1
GW 1 AND 2
(mg/l)

Derivation of Management Option 1, 2, & 3 **Groundwater Classification 1 & 2**
Revision Date: 08/04/2003 Run date: 10/17/2003

C(mg/l)-Vol GW1&2 = (TR*ATc*365)/(EFni*((SFi*Kw*IRAadj)+(SFo*IRWadj)))
C(mg/l)-NVol GW1&2 = (TR*ATc*365)/(EFni*(SFo*IRWadj))
N(mg/l)-Vol GW1&2 = (THQ*BWa*ATnni*365)/(EFni*EDni*(((IRAa/RfDi)*Kw)+(IRWa/RfDo)))
N(mg/l)-NVol GW1&2 = (THQ*BWa*ATnni*365)/(EFni*EDni*(IRWa/RfDo))

						MCL or						
	MCL					min value	GW1		GW2		FOR CAL	FOR CAL
COMPOUND	(mg/l)	C(mg/l)-V	C(mg/l)-NV	N(mg/l)-V	N(mg/l)-NV	(C or N)	(mg/l)		(mg/l)		SOILGW1	SOILGW2
Dichlorobenzene,1,3-		NA		5.48E-03		5.5E-03	1.0E-02	Q	5.5E-03	X DF 2	1.0E-02	5.5E-03
Dichlorobenzene,1,4-	7.50E-02	4.61E-04		6.62E-01		7.5E-02	7.5E-02	MCL	7.5E-02	X DF 2	7.5E-02	7.5E-02
Dichlorobenzidine,3,3-			1.47E-04		NA	1.5E-04	2.0E-02	Q	1.5E-04	X DF 2	2.0E-02	1.5E-04
Dichloroethane,1,1-		NA		8.12E-01		8.1E-01	8.1E-01	N	8.1E-01	X DF 2	8.1E-01	8.1E-01
Dichloroethane,1,2-	5.00E-03	1.22E-04		1.77E-02		5.0E-03	5.0E-03	MCL	5.0E-03	X DF 2	5.0E-03	5.0E-03
Dichloroethene,1,1-	7.00E-03	NA		3.39E-01		7.0E-03	7.0E-03	MCL	7.0E-03	X DF 2	7.0E-03	7.0E-03
Dichloroethene,cis,1,2-	7.00E-02	NA		6.08E-02		7.0E-02	7.0E-02	MCL	7.0E-02	X DF 2	7.0E-02	7.0E-02
Dichloroethene,trans,1,2-	1.00E-01	NA		1.22E-01		1.0E-01	1.0E-01	MCL	1.0E-01	X DF 2	1.0E-01	1.0E-01
Dichlorophenol,2,4-			NA		1.10E-01	1.1E-01	1.1E-01	N	1.1E-01	X DF 2	1.1E-01	1.1E-01
Dichloropropane,1,2-	5.00E-03	1.63E-04		6.94E-03		5.0E-03	5.0E-03	MCL	5.0E-03	X DF 2	5.0E-03	5.0E-03
Dichloropropene,1,3-		3.90E-04		4.02E-02		3.9E-04	5.0E-03	Q	3.9E-04	X DF 2	5.0E-03	3.9E-04
Dieldrin			4.15E-06		1.83E-03	4.1E-06	2.5E-03	Q	2.5E-03	F	2.5E-03	2.5E-03
Diethylphthalate			NA		2.92E+01	2.9E+01	2.9E+01	N	2.9E+01	X DF 2	2.9E+01	2.9E+01
Dimethylphenol,2,4-			NA		7.30E-01	7.3E-01	7.3E-01	N	7.3E-01	X DF 2	7.3E-01	7.3E-01
Dimethylphthalate			NA		3.65E+02	3.7E+02	3.7E+02	N	3.7E+02	X DF 2	3.7E+02	3.7E+02
Di-n-octylphthalate			NA		1.46E+00	1.5E+00	1.5E+00	N	1.5E+00	X DF 2	2.0E-02	2.0E-02
Dinitrobenzene,1,3-			NA		3.65E-03	3.7E-03	1.0E-02	Q	3.7E-03	X DF 2	1.0E-02	3.7E-03
Dinitrophenol,2,4-			NA		7.30E-02	7.3E-02	7.3E-02	N	7.3E-02	X DF 2	7.3E-02	7.3E-02
Dinitrotoluene,2,6-			NA		3.65E-02	3.7E-02	3.7E-02	N	3.7E-02	X DF 2	3.7E-02	3.7E-02
Dinitrotoluene,2,4-			NA		7.30E-02	7.3E-02	7.3E-02	N	7.3E-02	X DF 2	7.3E-02	7.3E-02
Dinoseb	7.00E-03		NA		3.65E-02	7.0E-03	7.0E-03	MCL	7.0E-03	X DF 2	7.0E-03	7.0E-03
Endosulfan			NA		2.19E-01	2.2E-01	2.2E-01	N	2.2E-01	X DF 2	2.2E-01	2.2E-01
Endrin	2.00E-03		NA		1.10E-02	2.0E-03	2.0E-03	MCL	2.0E-03	X DF 2	2.0E-03	2.0E-03
Ethyl benzene	7.00E-01	NA		1.33E+00		7.0E-01	7.0E-01	MCL	7.0E-01	X DF 2	7.0E-01	7.0E-01

LDEQ RECAP
WORKSHEET 1
GW 1 AND 2
(mg/l)

Derivation of Management Option 1, 2, & 3 **Groundwater Classification 1 & 2**
Revision Date: 08/04/2003 Run date: 10/17/2003

C(mg/l)-Vol GW1&2 = (TR*ATc*365)/(EFni*((SFi*Kw*IRAadj)+(SFo*IRWadj)))
C(mg/l)-NVol GW1&2 = (TR*ATc*365)/(EFni*(SFo*IRWadj))
N(mg/l)-Vol GW1&2 = (THQ*BWa*ATnni*365)/(EFni*EDni*(((IRAa/RfDi)*Kw)+(IRWa/RfDo)))
N(mg/l)-NVol GW1&2 = (THQ*BWa*ATnni*365)/(EFni*EDni*(IRWa/RfDo))

						MCL or						
	MCL					min value	GW1		GW2		FOR CAL	FOR CAL
COMPOUND	(mg/l)	C(mg/l)-V	C(mg/l)-NV	N(mg/l)-V	N(mg/l)-NV	(C or N)	(mg/l)		(mg/l)		SOILGW1	SOILGW2
Fluoranthene			NA		1.46E+00	1.5E+00	1.5E+00	N	1.5E+00	X DF 2	2.1E-01	2.1E-01
Fluorene		NA		2.43E-01		2.4E-01	2.4E-01	N	2.4E-01	X DF 2	2.4E-01	2.4E-01
Heptachlor	4.00E-04		1.47E-05		1.83E-02	4.0E-04	4.0E-04	MCL	4.0E-04	X DF 2	4.0E-04	4.0E-04
Heptachlor epoxide	2.00E-04		7.29E-06		4.75E-04	2.0E-04	2.0E-04	MCL	2.0E-04	X DF 2	2.0E-04	2.0E-04
Hexachlorobenzene	1.00E-03	6.88E-06		4.87E-03		1.0E-03	1.0E-03	MCL	1.0E-03	X DF 2	1.0E-03	1.0E-03
Hexachlorobutadiene			8.51E-04		7.30E-03	8.5E-04	8.5E-04	C	8.5E-04	X DF 2	8.5E-04	8.5E-04
Hexachlorocyclohexane,alpha			1.05E-05		NA	1.1E-05	3.0E-05	Q	1.1E-05	X DF 2	3.0E-05	1.1E-05
Hexachlorocyclohexane,beta			3.69E-05		NA	3.7E-05	6.0E-05	Q	3.7E-05	X DF 2	6.0E-05	3.7E-05
Hexachlorocyclohexane,gamma	2.00E-04		5.10E-05		1.10E-02	2.0E-04	2.0E-04	MCL	2.0E-04	X DF 2	2.0E-04	2.0E-04
Hexachlorocyclopentadiene	5.00E-02	NA		4.15E-04		5.0E-02	5.0E-02	MCL	5.0E-02	X DF 2	5.0E-02	5.0E-02
Hexachloroethane		7.90E-04		6.08E-03		7.9E-04	1.0E-02	Q	7.9E-04	X DF 2	1.0E-02	7.9E-04
Indeno(1,2,3-cd)pyrene			9.09E-05		NA	9.1E-05	3.7E-03	Q	9.1E-05	X DF 2	2.2E-05	2.2E-05
Isobutyl alcohol			NA		1.10E+01	1.1E+01	1.1E+01	N	1.1E+01	X DF 2	1.1E+01	1.1E+01
Isophorone			6.99E-02		7.30E+00	7.0E-02	7.0E-02	C	7.0E-02	X DF 2	7.0E-02	7.0E-02
Lead (inorganic)	1.50E-02		NA		NA	1.5E-02	1.5E-02	MCL	1.5E-02	X DF 2	1.5E-02	1.5E-02
Mercury (inorganic)	2.00E-03		NA		1.10E-02	2.0E-03	2.0E-03	MCL	2.0E-03	X DF 2	2.0E-03	2.0E-03
Methoxychlor	4.00E-02		NA		1.83E-01	4.0E-02	4.0E-02	MCL	4.0E-02	X DF 2	4.0E-02	4.0E-02
Methylene chloride	5.00E-03	4.23E-03		1.62E+00		5.0E-03	5.0E-03	MCL	5.0E-03	X DF 2	5.0E-03	5.0E-03
Methyl ethyl ketone		NA		1.91E+00		1.9E+00	1.9E+00	N	1.9E+00	X DF 2	1.9E+00	1.9E+00
Methyl isobutyl ketone		NA		1.99E+00		2.0E+00	2.0E+00	N	2.0E+00	X DF 2	2.0E+00	2.0E+00
Methylnaphthalene,2-				6.22E-03		6.2E-03	6.2E-03	N	6.2E-03	X DF 2	6.2E-03	6.2E-03
MTBE (methyl tert-butyl ether)	2.00E-02	NA		5.21E+00		2.0E-02	2.0E-02	MCL	2.0E-02	X DF 2	2.0E-02	2.0E-02
Naphthalene		NA		6.22E-03		6.2E-03	1.0E-02	Q	6.2E-03	X DF 2	1.0E-02	6.2E-03
Nickel			NA		7.30E-01	7.3E-01	7.3E-01	N	7.3E-01	X DF 2	7.3E-01	7.3E-01

LDEQ RECAP
WORKSHEET 1
GW 1 AND 2
(mg/l)

Derivation of Management Option 1, 2, & 3 **Groundwater Classification 1 & 2**
Revision Date: 08/04/2003 Run date: 10/17/2003

C(mg/l)-Vol GW1&2 = (TR*ATc*365)/(EFni*((SFi*Kw*IRAadj)+(SFo*IRWadj)))
C(mg/l)-NVol GW1&2 = (TR*ATc*365)/(EFni*(SFo*IRWadj))
N(mg/l)-Vol GW1&2 = (THQ*BWa*ATnni*365)/(EFni*EDni*(((IRAa/RfDi)*Kw)+(IRWa/RfDo)))
N(mg/l)-NVol GW1&2 = (THQ*BWa*ATnni*365)/(EFni*EDni*(IRWa/RfDo))

						MCL or						
	MCL					min value	GW1		GW2		FOR CAL	FOR CAL
COMPOUND	(mg/l)	C(mg/l)-V	C(mg/l)-NV	N(mg/l)-V	N(mg/l)-NV	(C or N)	(mg/l)		(mg/l)		SOILGW1	SOILGW2
Nitrate	1.00E+01		NA		5.84E+01	1.0E+01	1.0E+01	MCL	1.0E+01	X DF 2	1.0E+01	1.0E+01
Nitrite	1.00E+00		NA		3.65E+00	1.0E+00	1.0E+00	MCL	1.0E+00	X DF 2	1.0E+00	1.0E+00
Nitroaniline,2-		NA		2.11E-04		2.1E-04	5.0E-02	Q	2.1E-04	X DF 2	5.0E-02	2.1E-04
Nitroaniline,3-		NA		1.83E-02		1.8E-02	5.0E-02	Q	1.8E-02	X DF 2	5.0E-02	1.8E-02
Nitroaniline,4-			NA		1.10E-01	1.1E-01	1.1E-01	N	1.1E-01	X DF 2	1.1E-01	1.1E-01
Nitrobenzene		NA		3.39E-03		3.4E-03	3.4E-03	N	3.4E-03	X DF 2	3.4E-03	3.4E-03
Nitrophenol,4-			NA		2.92E-01	2.9E-01	2.9E-01	N	2.9E-01	X DF 2	2.9E-01	2.9E-01
Nitrosodi-n-propylamine,n-			9.48E-06		NA	9.5E-06	1.0E-02	Q	1.0E-02	F	1.0E-02	1.0E-02
N-nitrosodiphenylamine			1.35E-02		NA	1.4E-02	1.4E-02	C	1.4E-02	X DF 2	1.4E-02	1.4E-02
Pentachlorophenol	1.00E-03		5.53E-04		1.10E+00	1.0E-03	1.0E-03	MCL	1.0E-03	X DF 2	1.0E-03	1.0E-03
Phenanthrene				1.83E+00		1.8E+00	1.8E+00	N	1.8E+00	X DF 2	1.2E+00	1.2E+00
Phenol		NA		1.83E+00		1.8E+00	1.8E+00	N	1.8E+00	X DF 2	1.8E+00	1.8E+00
Polychlorinated biphenyls	5.00E-04		3.32E-05		7.30E-04	5.0E-04	5.0E-04	MCL	5.0E-04	X DF 2	5.0E-04	5.0E-04
Pyrene		NA		1.83E-01		1.8E-01	1.8E-01	N	1.8E-01	X DF 2	1.4E-01	1.4E-01
Selenium	5.00E-02		NA		1.83E-01	5.0E-02	5.0E-02	MCL	5.0E-02	X DF 2	5.0E-02	5.0E-02
Silver			NA		1.83E-01	1.8E-01	1.8E-01	N	1.8E-01	X DF 2	1.8E-01	1.8E-01
Styrene	1.00E-01	NA		1.62E+00		1.0E-01	1.0E-01	MCL	1.0E-01	X DF 2	1.0E-01	1.0E-01
Tetrachlorobenzene,1,2,4,5-			NA		1.10E-02	1.1E-02	1.1E-02	N	1.1E-02	X DF 2	1.1E-02	1.1E-02
Tetrachloroethane,1,1,1,2-		4.27E-04		1.83E-01		4.3E-04	5.0E-03	Q	4.3E-04	X DF 2	5.0E-03	4.3E-04
Tetrachloroethane,1,1,2,2-		5.46E-05		3.65E-01		5.5E-05	5.0E-04	Q	5.5E-05	X DF 2	5.0E-04	5.5E-05
Tetrachloroethylene	5.00E-03	1.07E-03		2.51E-01		5.0E-03	5.0E-03	MCL	5.0E-03	X DF 2	5.0E-03	5.0E-03
Tetrachlorophenol,2,3,4,6-			NA		1.10E+00	1.1E+00	1.1E+00	N	1.1E+00	X DF 2	1.1E+00	1.1E+00
Thallium	2.00E-03		NA		2.56E-03	2.0E-03	2.0E-03	MCL	2.0E-03	X DF 2	2.0E-03	2.0E-03
Toluene	1.00E+00	NA		7.47E-01		1.0E+00	1.0E+00	MCL	1.0E+00	X DF 2	1.0E+00	1.0E+00

LDEQ RECAP
WORKSHEET 1
GW 1 AND 2
(mg/l)

Derivation of Management Option 1, 2, & 3 **Groundwater Classification 1 & 2**
Revision Date: 08/04/2003 Run date: 10/17/2003

C(mg/l)-Vol GW1&2 = (TR*ATc*365)/(EFni*((SFi*Kw*IRAadj)+(SFo*IRWadj)))
C(mg/l)-NVol GW1&2 = (TR*ATc*365)/(EFni*(SFo*IRWadj))
N(mg/l)-Vol GW1&2 = (THQ*BWa*ATnni*365)/(EFni*EDni*(((IRAa/RfDi)*Kw)+(IRWa/RfDo)))
N(mg/l)-NVol GW1&2 = (THQ*BWa*ATnni*365)/(EFni*EDni*(IRWa/RfDo))

COMPOUND	MCL (mg/l)	C(mg/l)-V	C(mg/l)-NV	N(mg/l)-V	N(mg/l)-NV	MCL or min value (C or N)	GW1 (mg/l)		GW2 (mg/l)		FOR CAL SOILGW1	FOR CAL SOILGW2
Toxaphene	3.00E-03		6.03E-05		NA	3.0E-03	3.0E-03	MCL	3.0E-03	X DF 2	3.0E-03	3.0E-03
Trichlorobenzene,1,2,4-	7.00E-02	NA		1.94E-01		7.0E-02	7.0E-02	MCL	7.0E-02	X DF 2	7.0E-02	7.0E-02
Trichloroethane,1,1,1-	2.00E-01	NA		7.93E-01		2.0E-01	2.0E-01	MCL	2.0E-01	X DF 2	2.0E-01	2.0E-01
Trichloroethane,1,1,2-	5.00E-03	1.97E-04		2.43E-02		5.0E-03	5.0E-03	MCL	5.0E-03	X DF 2	5.0E-03	5.0E-03
Trichloroethene	5.00E-03	2.77E-05		9.68E-03		5.0E-03	5.0E-03	MCL	5.0E-03	X DF 2	5.0E-03	5.0E-03
Trichlorofluoromethane		NA		1.29E+00		1.3E+00	1.3E+00	N	1.3E+00	X DF 2	1.3E+00	1.3E+00
Trichlorophenol,2,4,5-			NA		3.65E+00	3.7E+00	3.7E+00	N	3.7E+00	X DF 2	3.7E+00	3.7E+00
Trichlorophenol,2,4,6-			6.03E-03		NA	6.0E-03	1.0E-02	Q	6.0E-03	X DF 2	1.0E-02	6.0E-03
Vanadium			NA		2.56E-01	2.6E-01	2.6E-01	N	2.6E-01	X DF 2	2.6E-01	2.6E-01
Vinyl chloride	2.00E-03	4.27E-05		NA		2.0E-03	2.0E-03	MCL	2.0E-03	X DF 2	2.0E-03	2.0E-03
Xylene(mixed)	1.00E+01	NA		2.06E-01		1.0E+01	1.0E+01	MCL	1.0E+01	X DF 2	1.0E+01	1.0E+01
Zinc			NA		1.10E+01	1.1E+01	1.1E+01	N	1.1E+01	X DF 2	1.1E+01	1.1E+01
Aliphatics C6-C8		NA		3.19E+01		3.2E+01	3.2E+01	N	3.2E+01	X DF 2	3.2E+01	3.2E+01
Aliphatics >C8-C10		NA		1.34E+00		1.3E+00	1.3E+00	N	1.3E+00	X DF 2	1.3E+00	1.3E+00
Aliphatics >C10-C12		NA		1.37E+00		1.4E+00	1.4E+00	N	1.4E+00	X DF 2	1.4E+00	1.4E+00
Aliphatics >C12-C16		NA		1.37E+00		1.4E+00	1.4E+00	N	1.4E+00	X DF 2	1.4E+00	1.4E+00
Aliphatics >C16-C35			NA		7.30E+01	7.3E+01	7.3E+01	N	7.3E+01	X DF 2	7.3E+01	7.3E+01
Aromatics >C8-C10		NA		3.37E-01		3.4E-01	3.4E-01	N	3.4E-01	X DF 2	3.4E-01	3.4E-01
Aromatics >C10-C12		NA		3.37E-01		3.4E-01	3.4E-01	N	3.4E-01	X DF 2	3.4E-01	3.4E-01
Aromatics >C12-C16		NA		3.37E-01		3.4E-01	3.4E-01	N	3.4E-01	X DF 2	3.4E-01	3.4E-01
Aromatics >C16-C21			NA		1.10E+00	1.1E+00	1.1E+00	N	1.1E+00	X DF 2	1.1E+00	1.1E+00
Aromatics >C21-C35			NA		1.10E+00	1.1E+00	1.1E+00	N	1.1E+00	X DF 2	1.1E+00	1.1E+00

LDEQ RECAP
WORKSHEET 1
GW 1 AND 2
(mg/l)

Derivation of Management Option 1, 2, & 3 **Groundwater Classification 1 & 2**
Revision Date: 08/04/2003 Run date: 10/17/2003

C(mg/l)-Vol GW1&2 = (TR*ATc*365)/(EFni*((SFi*Kw*IRAadj)+(SFo*IRWadj)))
C(mg/l)-NVol GW1&2 = (TR*ATc*365)/(EFni*(SFo*IRWadj))
N(mg/l)-Vol GW1&2 = (THQ*BWa*ATnni*365)/(EFni*EDni*(((IRAa/RfDi)*Kw)+(IRWa/RfDo)))
N(mg/l)-NVol GW1&2 = (THQ*BWa*ATnni*365)/(EFni*EDni*(IRWa/RfDo))

						MCL or						
	MCL					min value	GW1		GW2		FOR CAL	FOR CAL
COMPOUND	(mg/l)	C(mg/l)-V	C(mg/l)-NV	N(mg/l)-V	N(mg/l)-NV	(C or N)	(mg/l)		(mg/l)		SOILGW1	SOILGW2
TPH-GRO (C6-C10)							3.4E-01		3.4E-01			
TPH-DRO (C10-C28)							3.4E-01		3.4E-01			
TPH-ORO (>C28)							1.1E+00		1.1E+00			

*MTBE - The value listed in the MCL column is the EPA taste/odor advisory value.

LDEQ RECAP
WORKSHEET 2
GW 3NDW
(mg/l)

Derivation of Management Option 1, 2, & 3 **Groundwater Classification 3-Non-Drinking Water**
Revision Date: 08/04/2003 Run date: 10/17/2003

C (mg/l) GW3NDW = (TR*BWa) / (SFo*(IRWndw+BCF*IRF))
N (mg/l) GW3NDW = (THQ*RfDo*BWa) / (IRWndw+BCF*IRF)

	LAC 33:IX.	LAC 33:IX.					LAC(NDW) or max	
	1113(HHNDW)	1113(HHDW)	MCL	BCF			(LAC,MCL, (MIN C, N))	
COMPOUND	(mg/L)	(mg/L)	(mg/l)	(l/kg)	C (mg/l)	N (mg/l)	(mg/l)	
Acenaphthene				3.87E+02	NA	5.36E-01	5.4E-01	(*2)N
Acenaphthylene				2.69E+02	NA	7.68E-01	7.7E-01	(*2)N
Acetone				3.87E-01	NA	7.24E+01	7.2E+01	(*2)N
Aldrin	4.00E-08	4.00E-08					4.0E-08	(*1)LAC(NDW)
Aniline				3.27E+00	7.95E-02	3.17E+00	8.0E-02	(*2)C
Anthracene				9.20E+03	NA	1.14E-01	1.1E-01	(*2)N
Antimony			6.00E-03	9.00E-01	NA	2.62E-01	2.6E-01	(*2)N
Arsenic		5.00E-02	1.00E-02	4.00E+00	2.76E-04	1.24E-01	5.0E-02	LAC(DW)
Barium			2.00E+00	1.00E+00	NA	4.50E+01	4.5E+01	(*2)N
Benzene	1.25E-02	1.10E-03	5.00E-03				1.3E-02	(*1)LAC(NDW)
Benz(a)anthracene				1.26E+04	3.80E-07	NA	3.8E-07	(*2)C
Benzo(a)pyrene			2.00E-04	8.29E+04	5.78E-09	NA	2.0E-04	MCL
Benzo(b)fluoranthene				3.03E+04	1.58E-07	NA	1.6E-07	(*2)C
Benzo(k)fluoranthene				3.03E+04	1.58E-06	NA	1.6E-06	(*2)C
Beryllium			4.00E-03	1.90E+01	NA	2.99E-01	3.0E-01	(*2)N
Biphenyl,1,1-				6.46E+02	NA	2.69E-01	2.7E-01	(*2)N
Bis(2-chloroethyl)ether				1.10E+01	2.06E-04	NA	2.1E-04	(*2)C
Bis(2-chloroisopropyl)ether				5.57E+01	8.31E-04	2.33E+00	8.3E-04	(*2)C
Bis(2-ethyl-hexyl)phthalate			6.00E-03	2.15E+04	1.16E-05	3.26E-03	6.0E-03	MCL
Bromodichloromethane	3.30E-03	2.00E-04	1.00E-01				3.3E-03	(*1)LAC(NDW)
Bromoform	3.47E-02	3.90E-03	1.00E-01				3.5E-02	(*1)LAC(NDW)
Bromomethane				4.81E+00	NA	5.29E-01	5.3E-01	(*2)N
Butyl benzyl phthalate				6.63E+02	NA	1.05E+00	1.0E+00	(*2)N
Cadmium		1.00E-02	5.00E-03	3.77E+03	NA	4.64E-04	1.0E-02	LAC(DW)
Carbon Disulfide				1.95E+01	NA	1.46E+01	1.5E+01	(*2)N
Carbon Tetrachloride	1.20E-03	2.20E-04	5.00E-03				1.2E-03	(*1)LAC(NDW)
Chlordane	1.90E-07	1.90E-07	2.00E-03				1.9E-07	(*1)LAC(NDW)
Chloroaniline,p-				1.64E+01	NA	6.71E-01	6.7E-01	(*2)N

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Chlorobenzene			1.00E-01	9.42E+01	NA	7.10E-01	7.1E-01	(*2)N
Chlorodibromomethane	5.08E-03	3.90E-04	1.00E-01				5.1E-03	(*1)LAC(NDW)
Chloroethane (Ethylchloride)				6.82E+00	NA	1.24E+02	1.2E+02	(*2)N
Chloroform	7.00E-02	5.30E-03	1.00E-01				7.0E-02	(*1)LAC(NDW)
Chloromethane				2.89E+00	3.67E-02	NA	3.7E-02	(*2)C
Chloronaphthalene,2-				7.69E+02	NA	3.62E-01	3.6E-01	(*2)N
Chlorophenol,2-	1.26E-01	1.00E-04					1.3E-01	(*1)LAC(NDW)
Chromium(III)		5.00E-02	1.00E-01	1.00E+00	NA	9.63E+02	9.6E+02	(*2)N
Chromium(VI)		5.00E-02	1.00E-01	1.00E+00	NA	1.93E+00	1.9E+00	(*2)N
Chrysene				1.26E+04	3.80E-05	NA	3.8E-05	(*2)C
Cobalt				1.00E+00	NA	3.85E+01	3.9E+01	(*2)N
Copper		1.00E+00	1.30E+00	2.26E+04	NA	6.19E-03	1.3E+00	MCL
Cyanide (free)	1.28E+01	6.64E-01	2.00E-01				1.3E+01	(*1)LAC(NDW)
DDD	2.70E-07	2.70E-07					2.7E-07	(*1)LAC(NDW)
DDE	1.90E-07	1.90E-07					1.9E-07	(*1)LAC(NDW)
DDT	1.90E-07	1.90E-07					1.9E-07	(*1)LAC(NDW)
Dibenz(a,h)anthracene				7.28E+04	6.59E-09	NA	6.6E-09	(*2)C
Dibenzofuran				9.16E+02	NA	1.52E-02	1.5E-02	(*2)N
Dibromo-3-chloropropane,1,2-			2.00E-04	3.30E+01	6.68E-05	5.34E-03	2.0E-04	MCL
Dichlorobenzene,1,2-			6.00E-01	8.90E+01	NA	3.37E+00	3.4E+00	(*2)N
Dichlorobenzene,1,3-				6.60E+01	NA	4.47E-02	4.5E-02	(*2)N
Dichlorobenzene,1,4-			7.50E-02	6.00E+01	2.26E-03	1.63E+00	7.5E-02	MCL
Dichlorobenzidine,3,3-				5.07E+02	1.52E-05	NA	1.5E-05	(*2)C
Dichloroethane,1,1-				1.37E+01	NA	1.93E+01	1.9E+01	(*2)N
Dichloroethane,1,2-	6.80E-03	3.60E-04	5.00E-03				6.8E-03	(*1)LAC(NDW)
Dichloroethene,1,1-	5.80E-04	5.00E-05	7.00E-03				5.8E-04	(*1)LAC(NDW)
Dichloroethene,cis,1,2-			7.00E-02	1.64E+01	NA	1.68E+00	1.7E+00	(*2)N
Dichloroethene,trans,1,2-			1.00E-01	2.32E+01	NA	2.53E+00	2.5E+00	(*2)N
Dichlorophenol,2,4-	2.33E-01	3.00E-04					2.3E-01	(*1)LAC(NDW)
Dichloropropane,1,2-			5.00E-03	1.95E+01	2.15E-03	1.67E-01	5.0E-03	MCL
Dichloropropene,1,3-	1.63E-01	9.86E-03					1.6E-01	(*1)LAC(NDW)
Dieldrin	5.00E-08	5.00E-08					5.0E-08	(*1)LAC(NDW)
Diethylphthalate				1.17E+02	NA	2.31E+01	2.3E+01	(*2)N
Dimethylphenol,2,4-				1.50E+02	NA	4.53E-01	4.5E-01	(*2)N

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Dimethylphthalate				5.70E+01	NA	5.70E+02	5.7E+02	(*2)N
Di-n-octylphthalate				1.13E+02	NA	1.19E+00	1.2E+00	(*2)N
Dinitrobenzene,1,3-				8.13E+00	NA	2.78E-02	2.8E-02	(*2)N
Dinitrophenol,2,4-				9.68E+00	NA	4.95E-01	5.0E-01	(*2)N
Dinitrotoluene,2,6-				1.64E+01	NA	1.68E-01	1.7E-01	(*2)N
Dinitrotoluene,2,4-				1.95E+01	NA	2.92E-01	2.9E-01	(*2)N
Dinoseb			7.00E-03	1.34E+02	NA	2.53E-02	2.5E-02	(*2)N
Endosulfan	6.40E-04	4.70E-04					6.4E-04	(*1)LAC(NDW)
Endrin	2.60E-04	2.60E-04	2.00E-03				2.6E-04	(*1)LAC(NDW)
Ethyl benzene	8.10E+00	2.39E+00	7.00E-01				8.1E+00	(*1)LAC(NDW)
Fluoranthene				4.43E+03	NA	3.16E-02	3.2E-02	(*2)N
Fluorene				1.80E+03	NA	7.76E-02	7.8E-02	(*2)N
Heptachlor	7.00E-08	7.00E-08	4.00E-04				7.0E-08	(*1)LAC(NDW)
Heptachlor epoxide			2.00E-04	2.33E+00	5.67E-05	6.71E-03	2.0E-04	MCL
Hexachlorobenzene	2.50E-07	2.50E-07	1.00E-03				2.5E-07	(*1)LAC(NDW)
Hexachlorobutadiene	1.10E-04	9.00E-05					1.1E-04	(*1)LAC(NDW)
Hexachlorocyclohexane,alpha				2.12E+02	2.57E-06	NA	2.6E-06	(*2)C
Hexachlorocyclohexane,beta				2.93E+02	6.54E-06	NA	6.5E-06	(*2)C
Hexachlorocyclohexane,gamma	2.00E-04	1.10E-04	2.00E-04				2.0E-04	(*1)LAC(NDW)
Hexachlorocyclopentadiene			5.00E-02	7.48E+03	NA	2.81E-03	5.0E-02	MCL
Hexachloroethane				1.39E+02	1.74E-03	2.44E-02	1.7E-03	(*2)C
Indeno(1,2,3-cd)pyrene				7.28E+04	6.59E-08	NA	6.6E-08	(*2)C
Isobutyl alcohol				2.19E+00	NA	1.58E+02	1.6E+02	(*2)N
Isophorone				7.00E+00	3.22E-01	6.11E+01	3.2E-01	(*2)C
Lead (inorganic)		5.00E-02	1.50E-02		NA	NA	5.0E-02	LAC(DW)
Mercury (inorganic)		2.00E-03	2.00E-03	8.57E+04	NA	1.23E-05	2.0E-03	LAC(DW)
Methoxychlor			4.00E-02	7.07E+04	NA	2.48E-04	4.0E-02	MCL
Methylene chloride	8.70E-02	4.40E-03	5.00E-03				8.7E-02	(*1)LAC(NDW)
Methyl ethyl ketone				9.61E-01	NA	3.88E+02	3.9E+02	(*2)N
Methyl isobutyl ketone				4.81E+00	NA	3.02E+01	3.0E+01	(*2)N
Methylnaphthalene,2-				2.60E+03	NA	2.69E-02	2.7E-02	(*2)N
MTBE (methyl tert-butyl ether)			2.00E-02	1.00E+00	NA	5.50E+02	5.5E+02	(*2)N
Naphthalene				3.10E+02	NA	2.23E-01	2.2E-01	(*2)N
Nickel				8.00E-01	NA	1.33E+01	1.3E+01	(*2)N

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Nitrate			1.00E+01	1.00E+00	NA	1.03E+03	1.0E+03	(*2)N
Nitrite			1.00E+00	1.00E+00	NA	6.42E+01	6.4E+01	(*2)N
Nitroaniline,2-				1.64E+01	NA	5.04E-01	5.0E-01	(*2)N
Nitroaniline,3-				6.82E+00	NA	9.32E-01	9.3E-01	(*2)N
Nitroaniline,4-				6.82E+00	NA	9.32E-01	9.3E-01	(*2)N
Nitrobenzene				1.37E+01	NA	9.64E-02	9.6E-02	(*2)N
Nitrophenol,4-				1.64E+01	NA	1.34E+00	1.3E+00	(*2)N
Nitrosodi-n-propylamine,n-				6.82E+00	4.44E-05	NA	4.4E-05	(*2)C
N-nitrosodiphenylamine				2.17E+02	3.23E-03	NA	3.2E-03	(*2)C
Pentachlorophenol			1.00E-03	6.40E+02	4.53E-05	1.63E-01	1.0E-03	MCL
Phenanthrene				5.10E+03	NA	2.06E-01	2.1E-01	(*2)N
Phenol				8.13E+00	NA	8.35E+01	8.3E+01	(*2)N
Polychlorinated biphenyls	1.00E-08	1.00E-08	5.00E-04				1.0E-08	(*1)LAC(NDW)
Pyrene				6.90E+01	NA	1.43E+00	1.4E+00	(*2)N
Selenium			5.00E-02	5.69E+03	NA	3.07E-03	5.0E-02	MCL
Silver				2.80E+01	NA	5.39E-01	5.4E-01	(*2)N
Styrene			1.00E-01	9.42E+01	NA	7.10E+00	7.1E+00	(*2)N
Tetrachlorobenzene,1,2,4,5-				1.85E+03	NA	5.66E-04	5.7E-04	(*2)N
Tetrachloroethane,1,1,1,2-				5.57E+01	2.24E-03	1.75E+00	2.2E-03	(*2)C
Tetrachloroethane,1,1,2,2-	1.80E-03	1.60E-04					1.8E-03	(*1)LAC(NDW)
Tetrachloroethylene	2.50E-03	6.50E-04	5.00E-03				2.5E-03	(*1)LAC(NDW)
Tetrachlorophenol,2,3,4,6-				5.88E+02	NA	1.77E-01	1.8E-01	(*2)N
Thallium			2.00E-03	1.30E+02	NA	1.82E-03	2.0E-03	MCL
Toluene	4.62E+01	6.10E+00	1.00E+00				4.6E+01	(*1)LAC(NDW)
Toxaphene	2.40E-07	2.40E-07	3.00E-03				2.4E-07	(*1)LAC(NDW)
Trichlorobenzene,1,2,4-			7.00E-02	1.82E+02	NA	1.88E-01	1.9E-01	(*2)N
Trichloroethane,1,1,1-		2.00E-01	2.00E-01	9.00E+00	NA	9.11E+00	9.1E+00	(*2)N
Trichloroethane,1,1,2-	6.90E-03	5.60E-04	5.00E-03				6.9E-03	(*1)LAC(NDW)
Trichloroethene	2.10E-02	2.80E-03	5.00E-03				2.1E-02	(*1)LAC(NDW)
Trichlorofluoromethane				4.68E+01	NA	2.05E+01	2.0E+01	(*2)N
Trichlorophenol,2,4,5-				5.42E+02	NA	6.40E-01	6.4E-01	(*2)N
Trichlorophenol,2,4,6-				3.82E+02	8.23E-04	NA	8.2E-04	(*2)C
Vanadium				1.00E+00	NA	4.50E+00	4.5E+00	(*2)N
Vinyl chloride	3.58E-02	1.90E-03	2.00E-03				3.6E-02	(*1)LAC(NDW)

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Xylene(mixed)			1.00E+01	1.59E+02	NA	4.28E+00	1.0E+01	MCL
Zinc		5.00E+00		1.26E+02	NA	8.05E+00	8.0E+00	(*2)N
Aliphatics C6-C8				0.00E+00	NA	3.93E+03	3.9E+03	(*2)N
Aliphatics >C8-C10				0.00E+00	NA	7.87E+01	7.9E+01	(*2)N
Aliphatics >C10-C12				0.00E+00	NA	7.87E+01	7.9E+01	(*2)N
Aliphatics >C12-C16				0.00E+00	NA	7.87E+01	7.9E+01	(*2)N
Aliphatics >C16-C35				0.00E+00	NA	1.57E+03	1.6E+03	(*2)N
Aromatics >C8-C10				0.00E+00	NA	3.15E+01	3.1E+01	(*2)N
Aromatics >C10-C12				0.00E+00	NA	3.15E+01	3.1E+01	(*2)N
Aromatics >C12-C16				0.00E+00	NA	3.15E+01	3.1E+01	(*2)N
Aromatics >C16-C21				0.00E+00	NA	2.36E+01	2.4E+01	(*2)N
Aromatics >C21-C35				0.00E+00	NA	2.36E+01	2.4E+01	(*2)N
TPH-GRO (C6-C10)							3.1E+01	
TPH-DRO (C10-C28)							2.4E+01	
TPH-ORO (>C28)							2.4E+01	

References: Data hierarchy is based on (*1) then (*2).

(*1) Louisiana Administrative Code 33.IX.1113, Table 1 (HHNDW)

(*2) The maximum value of LAC 33.IX1113 (DW), MCL, or the minimum of
human health non-drinking water criteria calculated in accordance with "Human Health Numerical Criteria Derivations for Toxic Substances", LDEQ-OWR, June 23, 1994; (N=non-carcinogen, C=carcinogen)

Notes:

* BCF values from the Superfund Chemical Data Matrix, June 1996

* BCF values not found in the Superfund Chemical Data Matrix are estimated below

*MTBE - The value listed in the MCL column is the EPA taste/odor advisory value.

LDEQ RECAP
WORKSHEET 2
GW 3NDW
(mg/l)

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Estimation of BCF from Kow:
log BCF = 0.76 log Kow - 0.23
(from the Handbook of Chemical Property Estimation Methods, Lyman, Reehl, and Rosenblatt,
American Chemical Society, Washington, DC, 1990)

					log Kow	log BCF	BCF	
Acenaphthylene					3.5	2.43	2.69E+02	
Acetone					-2.4E-01	-0.4124	3.87E-01	
Aniline					9.8E-01	0.5148	3.27E+00	
Barium (ionic)							1.00E+00	(1)
Benz(a)anthracene					5.7E+00	4.102	1.26E+04	
Benzo(b)fluoranthene					6.2E+00	4.482	3.03E+04	
Benzo(k)fluoranthene					6.2E+00	4.482	3.03E+04	
Biphenyl, 1,1-					4.0E+00	2.81	6.46E+02	
Bis(2-chloroisopropyl)ether					2.6E+00	1.746	5.57E+01	
Bromomethane					1.2E+00	0.682	4.81E+00	
Carbon disulfide					2.0E+00	1.29	1.95E+01	
Chloroaniline, p-					1.9E+00	1.214	1.64E+01	
Chlorobenzene					2.9E+00	1.974	9.42E+01	
Chloroethane (ethylchloride)					1.4E+00	0.834	6.82E+00	
Chloromethane(Methyl chloride)					9.1E-01	0.4616	2.89E+00	
Chloronaphthalene, 2-					4.1E+00	2.886	7.69E+02	
Chromium (III)							1.00E+00	(1)
Chromium (VI)							1.00E+00	(1)
Chrysene					5.7E+00	4.102	1.26E+04	
Cobalt							1.00E+00	(1)
Dibenz(a,h)anthracene					6.7E+00	4.862	7.28E+04	
Dibenzofuran					4.2E+00	2.962	9.16E+02	
Dibromo-3-chloropropane,1,2-					2.3E+00	1.518	3.30E+01	
Dichloroethane, 1,1-					1.8E+00	1.138	1.37E+01	
Dichloroethene, cis, 1,2-					1.9E+00	1.214	1.64E+01	
Dichloroethene, trans, 1,2-					2.1E+00	1.366	2.32E+01	

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Dichloropropane, 1,2-					2.0E+00	1.29	1.95E+01	
Dinitrobenzene, 1,3-					1.5E+00	0.91	8.13E+00	
Dinitrophenol, 2,4-					1.6E+00	0.986	9.68E+00	
Dinitrotoluene, 2,6-					1.9E+00	1.214	1.64E+01	
Dinitrotoluene, 2,4-					2.0E+00	1.29	1.95E+01	
Dinoseb					3.1E+00	2.126	1.34E+02	
Fluroanthene					5.1E+00	3.646	4.43E+03	
Hexachlorocyclopentadiene					5.4E+00	3.874	7.48E+03	
Indeno(1,2,3-cd)pyrene					6.7E+00	4.862	7.28E+04	
Isobutyl alcohol					7.5E-01	0.34	2.19E+00	
Methyl ethyl ketone					2.8E-01	-0.0172	9.61E-01	
Methyl isobutyl ketone					1.2E+00	0.682	4.81E+00	
MTBE							1.00E+00	(1)
Nitrate							1.00E+00	(1)
Nitrite							1.00E+00	(1)
Nitroaniline, 2-					1.9E+00	1.214	1.64E+01	
Nitroaniline, 3-					1.4E+00	0.834	6.82E+00	
Nitroaniline, 4-					1.4E+00	0.834	6.82E+00	
Nitrobenzene					1.8E+00	1.138	1.37E+01	
Nitrophenol, 4-					1.9E+00	1.214	1.64E+01	
Nitrosodi-n-propylamine, n-					1.4E+00	0.834	6.82E+00	
Phenol					1.5E+00	0.91	8.13E+00	
Styrene					2.9E+00	1.974	9.42E+01	
Tetrachlorobenzene,1,2,4,5-					4.6E+00	3.266	1.85E+03	
Tetrachloroethane,1,1,1,2-					2.6E+00	1.746	5.57E+01	
Trichlorofluoromethane					2.5E+00	1.67	4.68E+01	
Trichlorophenol, 2,4,5-					3.9E+00	2.734	5.42E+02	
Trichlorophenol, 2,4,6-					3.7E+00	2.582	3.82E+02	
Vanadium							1.00E+00	(1)
Xylene (mixed)					3.2E+00	2.202	1.59E+02	
Aliphatics C6-C8							0.00E+00	(2)
Aliphatics >C8-C10							0.00E+00	(2)
Aliphatics >C10-C12							0.00E+00	(2)
Aliphatics >C12-C16							0.00E+00	(2)

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Aliphatics >C16-C35							0.00E+00	(2)
Aromatics >C8-C10							0.00E+00	(2)
Aromatics >C10-C12							0.00E+00	(2)
Aromatics >C12-C16							0.00E+00	(2)
Aromatics >C16-C21							0.00E+00	(2)
Aromatics >C21-C35							0.00E+00	(2)

Notes:

log Kow values from the Superfund Data Matrix, June 1996

(1) Data on this chemical could not be found. Therefore, assume BCF = 1

Xylene (mixed) Kow is the highest value of m,o,p xylene Kow values.

(2) Research has shown that this chemical does not bioconcentrate.

Estimation of Kow from Koc:

log Koc = 0.0784 + (0.7919 * log Kow)

(p 141 Soil Screening Guidance: Technical Background Document, May 1996)

LDEQ RECAP
WORKSHEET 3
GW 3DW
(mg/l)

Derivation of Management Option 1, 2, & 3 **Groundwater Classification 3-Drinking Water**
Revision Date: 08/04/2003 Run date: 10/17/2003

C (mg/l) GW3DW = (TR*BWa) / (SFo*(IRWa+IRWndw+BCF*IRF))
N (mg/l) GW3DW = (THQ*RfDo*BWa) / (IRWa+IRWndw+BCF*IRF)

	LAC 33:IX.					LAC, MCL or	
	1113(HHDW)	MCL	BCF			min (C,N)	
COMPOUND	(mg/L)	(mg/l)	(l/kg)	C (mg/l)	N (mg/l)	(mg/l)	
Acenaphthene			3.87E+02	NA	4.27E-01	4.3E-01	(*3)N
Acenaphthylene			2.69E+02	NA	5.62E-01	5.6E-01	(*3)N
Acetone			3.87E-01	NA	3.34E+00	3.3E+00	(*3)N
Aldrin	4.00E-08					4.0E-08	(*1)LAC
Aniline			3.27E+00	5.70E-03	2.27E-01	5.7E-03	(*3)C
Anthracene			9.20E+03	NA	1.13E-01	1.1E-01	(*3)N
Antimony		6.00E-03				6.0E-03	(*2)MCL
Arsenic	5.00E-02	1.00E-02				5.0E-02	(*1)LAC
Barium		2.00E+00				2.0E+00	(*2)MCL
Benzene	1.10E-03	5.00E-03				1.1E-03	(*1)LAC
Benz(a)anthracene			1.26E+04	3.77E-07	NA	3.8E-07	(*3)C
Benzo(a)pyrene		2.00E-04				2.0E-04	(*2)MCL
Benzo(b)fluoranthene			3.03E+04	1.58E-07	NA	1.6E-07	(*3)C
Benzo(k)fluoranthene			3.03E+04	1.58E-06	NA	1.6E-06	(*3)C
Beryllium		4.00E-03				4.0E-03	(*2)MCL
Biphenyl,1,1-			6.46E+02	NA	2.33E-01	2.3E-01	(*3)N
Bis(2-chloroethyl)ether			1.10E+01	2.76E-05	NA	2.8E-05	(*3)C
Bis(2-chloroisopropyl)ether			5.57E+01	3.12E-04	8.74E-01	3.1E-04	(*3)C
Bis(2-ethyl-hexyl)phthalate		6.00E-03	2.15E+04	1.16E-05	3.24E-03	6.0E-03	(*2)MCL
Bromodichloromethane	2.00E-04	1.00E-01				2.0E-04	(*1)LAC
Bromoform	3.90E-03	1.00E-01				3.9E-03	(*1)LAC
Bromomethane			4.81E+00	NA	4.48E-02	4.5E-02	(*3)N
Butyl benzyl phthalate			6.63E+02	NA	9.12E-01	9.1E-01	(*3)N
Cadmium	1.00E-02	5.00E-03				1.0E-02	(*1)LAC
Carbon Disulfide			1.95E+01	NA	2.82E+00	2.8E+00	(*3)N
Carbon Tetrachloride	2.20E-04	5.00E-03				2.2E-04	(*1)LAC

LDEQ RECAP
WORKSHEET 3
GW 3DW
(mg/l)

Derivation of Management Option 1, 2, & 3 **Groundwater Classification 3-Drinking Water**
Revision Date: 08/04/2003 Run date: 10/17/2003

C (mg/l) GW3DW = (TR*BWa) / (SFo*(IRWa+IRWndw+BCF*IRF))
N (mg/l) GW3DW = (THQ*RfDo*BWa) / (IRWa+IRWndw+BCF*IRF)

	LAC 33:IX.					LAC, MCL or	
	1113(HHDW)	MCL	BCF			min (C,N)	
COMPOUND	(mg/L)	(mg/l)	(l/kg)	C (mg/l)	N (mg/l)	(mg/l)	
Chlordane	1.90E-07	2.00E-03				1.9E-07	(*1)LAC
Chloroaniline,p-			1.64E+01	NA	1.16E-01	1.2E-01	(*3)N
Chlorobenzene		1.00E-01				1.0E-01	(*2)MCL
Chlorodibromomethane	3.90E-04	1.00E-01				3.9E-04	(*1)LAC
Chloroethane (Ethylchloride)			6.82E+00	NA	1.26E+01	1.3E+01	(*3)N
Chloroform	5.30E-03	1.00E-01				5.3E-03	(*1)LAC
Chloromethane			2.89E+00	2.51E-03	NA	2.5E-03	(*3)C
Chloronaphthalene,2-			7.69E+02	NA	3.21E-01	3.2E-01	(*3)N
Chlorophenol,2-	1.00E-04					1.0E-04	(*1)LAC
Chromium(III)	5.00E-02	1.00E-01	1.00E+00	NA	4.98E+01	5.0E-02	(*1)LAC
Chromium(VI)	5.00E-02	1.00E-01				5.0E-02	(*1)LAC
Chrysene			1.26E+04	3.77E-05	NA	3.8E-05	(*3)C
Cobalt			1.00E+00	NA	1.99E+00	2.0E+00	(*3)N
Copper	1.00E+00	1.30E+00				1.0E+00	(*1)LAC
Cyanide (free)	6.64E-01	2.00E-01				6.6E-01	(*1)LAC
DDD	2.70E-07					2.7E-07	(*1)LAC
DDE	1.90E-07					1.9E-07	(*1)LAC
DDT	1.90E-07					1.9E-07	(*1)LAC
Dibenz(a,h)anthracene			7.28E+04	6.58E-09	NA	6.6E-09	(*3)C
Dibenzofuran			9.16E+02	NA	1.37E-02	1.4E-02	(*3)N
Dibromo-3-chloropropane,1,2-		2.00E-04	3.30E+01	1.82E-05	1.45E-03	2.0E-04	(*2)MCL
Dichlorobenzene,1,2-		6.00E-01				6.0E-01	(*2)MCL
Dichlorobenzene,1,3-			6.60E+01	NA	1.85E-02	1.8E-02	(*3)N
Dichlorobenzene,1,4-		7.50E-02				7.5E-02	(*2)MCL
Dichlorobenzidine,3,3-			5.07E+02	1.27E-05	NA	1.3E-05	(*3)C
Dichloroethane,1,1-			1.37E+01	NA	2.96E+00	3.0E+00	(*3)N

LDEQ RECAP
WORKSHEET 3
GW 3DW
(mg/l)

Derivation of Management Option 1, 2, & 3 **Groundwater Classification 3-Drinking Water**
Revision Date: 08/04/2003 Run date: 10/17/2003

C (mg/l) GW3DW = (TR*BWa) / (SFo*(IRWa+IRWndw+BCF*IRF))
N (mg/l) GW3DW = (THQ*RfDo*BWa) / (IRWa+IRWndw+BCF*IRF)

	LAC 33:IX.					LAC, MCL or	
	1113(HHDW)	MCL	BCF			min (C,N)	
COMPOUND	(mg/L)	(mg/l)	(l/kg)	C (mg/l)	N (mg/l)	(mg/l)	
Dichloroethane,1,2-	3.60E-04	5.00E-03				3.6E-04	(*1)LAC
Dichloroethene,1,1-	5.00E-05	7.00E-03				5.0E-05	(*1)LAC
Dichloroethene,cis,1,2-		7.00E-02				7.0E-02	(*2)MCL
Dichloroethene,trans,1,2-		1.00E-01				1.0E-01	(*2)MCL
Dichlorophenol,2,4-	3.00E-04					3.0E-04	(*1)LAC
Dichloropropane,1,2-		5.00E-03				5.0E-03	(*2)MCL
Dichloropropene,1,3-	9.86E-03					9.9E-03	(*1)LAC
Dieldrin	5.00E-08					5.0E-08	(*1)LAC
Diethylphthalate			1.17E+02	NA	1.26E+01	1.3E+01	(*3)N
Dimethylphenol,2,4-			1.50E+02	NA	2.75E-01	2.8E-01	(*3)N
Dimethylphthalate			5.70E+01	NA	2.17E+02	2.2E+02	(*3)N
Di-n-octylphthalate			1.13E+02	NA	6.44E-01	6.4E-01	(*3)N
Dinitrobenzene,1,3-			8.13E+00	NA	3.11E-03	3.1E-03	(*3)N
Dinitrophenol,2,4-			9.68E+00	NA	6.13E-02	6.1E-02	(*3)N
Dinitrotoluene,2,6-			1.64E+01	NA	2.90E-02	2.9E-02	(*3)N
Dinitrotoluene,2,4-			1.95E+01	NA	5.65E-02	5.6E-02	(*3)N
Dinoseb		7.00E-03				7.0E-03	(*2)MCL
Endosulfan	4.70E-04					4.7E-04	(*1)LAC
Endrin	2.60E-04	2.00E-03				2.6E-04	(*1)LAC
Ethyl benzene	2.39E+00	7.00E-01				2.4E+00	(*1)LAC
Fluoranthene			4.43E+03	NA	3.09E-02	3.1E-02	(*3)N
Fluorene			1.80E+03	NA	7.35E-02	7.4E-02	(*3)N
Heptachlor	7.00E-08	4.00E-04				7.0E-08	(*1)LAC
Heptachlor epoxide		2.00E-04				2.0E-04	(*2)MCL
Hexachlorobenzene	2.50E-07	1.00E-03				2.5E-07	(*1)LAC
Hexachlorobutadiene	9.00E-05					9.0E-05	(*1)LAC

LDEQ RECAP
WORKSHEET 3
GW 3DW
(mg/l)

Derivation of Management Option 1, 2, & 3 **Groundwater Classification 3-Drinking Water**
Revision Date: 08/04/2003 Run date: 10/17/2003

C (mg/l) GW3DW = (TR*BWa) / (SFo*(IRWa+IRWndw+BCF*IRF))
N (mg/l) GW3DW = (THQ*RfDo*BWa) / (IRWa+IRWndw+BCF*IRF)

	LAC 33:IX. 1113(HHDW)	MCL	BCF			LAC, MCL or min (C,N)	
COMPOUND	**(mg/L)**	**(mg/l)**	**(l/kg)**	**C (mg/l)**	**N (mg/l)**	**(mg/l)**	
Hexachlorocyclohexane,alpha			2.12E+02	1.76E-06	NA	1.8E-06	(*3)C
Hexachlorocyclohexane,beta			2.93E+02	4.89E-06	NA	4.9E-06	(*3)C
Hexachlorocyclohexane,gamma	1.10E-04	2.00E-04				1.1E-04	(*1)LAC
Hexachlorocyclopentadiene		5.00E-02				5.0E-02	(*2)MCL
Hexachloroethane			1.39E+02	1.03E-03	1.44E-02	1.0E-03	(*3)C
Indeno(1,2,3-cd)pyrene			7.28E+04	6.58E-08	NA	6.6E-08	(*3)C
Isobutyl alcohol			2.19E+00	NA	9.85E+00	9.8E+00	(*3)N
Isophorone			7.00E+00	3.31E-02	6.28E+00	3.3E-02	(*3)C
Lead (inorganic)	5.00E-02	1.50E-02				5.0E-02	(*1)LAC
Mercury (inorganic)	2.00E-03	2.00E-03				2.0E-03	(*1)LAC
Methoxychlor		4.00E-02				4.0E-02	(*2)MCL
Methylene chloride	4.40E-03	5.00E-03				4.4E-03	(*1)LAC
Methyl ethyl ketone			9.61E-01	NA	1.99E+01	2.0E+01	(*3)N
Methyl isobutyl ketone			4.81E+00	NA	2.56E+00	2.6E+00	(*3)N
Methylnaphthalene,2-			2.60E+03	NA	2.59E-02	2.6E-02	(*3)N
MTBE (methyl tert-butyl ether)		2.00E-02		NA	2.87E+01	2.0E-02	(*2)MCL
Naphthalene			3.10E+02	NA	1.69E-01	1.7E-01	(*3)N
Nickel			8.00E-01	NA	6.65E-01	6.7E-01	(*3)N
Nitrate		1.00E+01				1.0E+01	(*2)MCL
Nitrite		1.00E+00				1.0E+00	(*2)MCL
Nitroaniline,2-			1.64E+01	NA	8.69E-02	8.7E-02	(*3)N
Nitroaniline,3-			6.82E+00	NA	9.44E-02	9.4E-02	(*3)N
Nitroaniline,4-			6.82E+00	NA	9.44E-02	9.4E-02	(*3)N
Nitrobenzene			1.37E+01	NA	1.48E-02	1.5E-02	(*3)N
Nitrophenol,4-			1.64E+01	NA	2.32E-01	2.3E-01	(*3)N
Nitrosodi-n-propylamine,n-			6.82E+00	4.49E-06	NA	4.5E-06	(*3)C

LDEQ RECAP
WORKSHEET 3
GW 3DW
(mg/l)

Derivation of Management Option 1, 2, & 3 **Groundwater Classification 3-Drinking Water**
Revision Date: 08/04/2003 Run date: 10/17/2003

C (mg/l) GW3DW = (TR*BWa) / (SFo*(IRWa+IRWndw+BCF*IRF))
N (mg/l) GW3DW = (THQ*RfDo*BWa) / (IRWa+IRWndw+BCF*IRF)

	LAC 33:IX. 1113(HHDW)	MCL	BCF			LAC, MCL or min (C,N)	
COMPOUND	**(mg/L)**	**(mg/l)**	**(l/kg)**	**C (mg/l)**	**N (mg/l)**	**(mg/l)**	
N-nitrosodiphenylamine			2.17E+02	2.22E-03	NA	2.2E-03	(*3)C
Pentachlorophenol		1.00E-03				1.0E-03	(*2)MCL
Phenanthrene			5.10E+03	NA	2.02E-01	2.0E-01	(*3)N
Phenol			8.13E+00	NA	9.33E+00	9.3E+00	(*3)N
Polychlorinated biphenyls	1.00E-08	5.00E-04				1.0E-08	(*1)LAC
Pyrene			6.90E+01	NA	6.05E-01	6.1E-01	(*3)N
Selenium		5.00E-02				5.0E-02	(*2)MCL
Silver			2.80E+01	NA	1.32E-01	1.3E-01	(*3)N
Styrene		1.00E-01				1.0E-01	(*2)MCL
Tetrachlorobenzene,1,2,4,5-			1.85E+03	NA	5.37E-04	5.4E-04	(*3)N
Tetrachloroethane,1,1,1,2-			5.57E+01	8.41E-04	6.56E-01	8.4E-04	(*3)C
Tetrachloroethane,1,1,2,2-	1.60E-04					1.6E-04	(*1)LAC
Tetrachloroethylene	6.50E-04	5.00E-03				6.5E-04	(*1)LAC
Tetrachlorophenol,2,3,4,6-			5.88E+02	NA	1.52E-01	1.5E-01	(*3)N
Thallium		2.00E-03				2.0E-03	(*2)MCL
Toluene	6.10E+00	1.00E+00				6.1E+00	(*1)LAC
Toxaphene	2.40E-07	3.00E-03				2.4E-07	(*1)LAC
Trichlorobenzene,1,2,4-		7.00E-02				7.0E-02	(*2)MCL
Trichloroethane,1,1,1-	2.00E-01	2.00E-01				2.0E-01	(*1)LAC
Trichloroethane,1,1,2-	5.60E-04	5.00E-03				5.6E-04	(*1)LAC
Trichloroethene	2.80E-03	5.00E-03				2.8E-03	(*1)LAC
Trichlorofluoromethane			4.68E+01	NA	6.94E+00	6.9E+00	(*3)N
Trichlorophenol,2,4,5-			5.42E+02	NA	5.41E-01	5.4E-01	(*3)N
Trichlorophenol,2,4,6-			3.82E+02	6.54E-04	NA	6.5E-04	(*3)C
Vanadium			1.00E+00	NA	2.32E-01	2.3E-01	(*3)N
Vinyl chloride	1.90E-03	2.00E-03				1.9E-03	(*1)LAC

LDEQ RECAP
WORKSHEET 3
GW 3DW
(mg/l)

Derivation of Management Option 1, 2, & 3 **Groundwater Classification 3-Drinking Water**
Revision Date: 08/04/2003 Run date: 10/17/2003

C (mg/l) GW3DW = (TR*BWa) / (SFo*(IRWa+IRWndw+BCF*IRF))
N (mg/l) GW3DW = (THQ*RfDo*BWa) / (IRWa+IRWndw+BCF*IRF)

	LAC 33:IX.					LAC, MCL or	
	1113(HHDW)	MCL	BCF			min (C,N)	
COMPOUND	(mg/L)	(mg/l)	(l/kg)	C (mg/l)	N (mg/l)	(mg/l)	
Xylene(mixed)		1.00E+01				1.0E+01	(*2)MCL
Zinc	5.00E+00					5.0E+00	(*1)LAC
Aliphatics C6-C8			0.00E+00	NA	1.68E+02	1.7E+02	(*3)N
Aliphatics >C8-C10			0.00E+00	NA	3.35E+00	3.4E+00	(*3)N
Aliphatics >C10-C12			0.00E+00	NA	3.35E+00	3.4E+00	(*3)N
Aliphatics >C12-C16			0.00E+00	NA	3.35E+00	3.4E+00	(*3)N
Aliphatics >C16-C35			0.00E+00	NA	6.70E+01	6.7E+01	(*3)N
Aromatics >C8-C10			0.00E+00	NA	1.34E+00	1.3E+00	(*3)N
Aromatics >C10-C12			0.00E+00	NA	1.34E+00	1.3E+00	(*3)N
Aromatics >C12-C16			0.00E+00	NA	1.34E+00	1.3E+00	(*3)N
Aromatics >C16-C21			0.00E+00	NA	1.01E+00	1.0E+00	(*3)N
Aromatics >C21-C35			0.00E+00	NA	1.01E+00	1.0E+00	(*3)N
TPH-GRO (C6-C10)						1.3E+00	
TPH-DRO (C10-C28)						1.0E+00	
TPH-ORO (>C28)						1.0E+00	

References: Data hierarchy is based on (*1), (*2), and then (*3).
(*1) Louisiana Administrative Code 33.IX.1113, Table 1
Metals criteria are hardness-dependent. Listed criteria assume a hardness value of 50 mg/L.
Site specific criteria may be calculated using the natural logarithm formulas at LAC 33:IX.1113, Table 1.
Drinking water supply is a raw water source which may require treatment before use. Defined at LAC 33:IX.1105.
(*2) EPA's Maximum Contaminant Level (MCL) for drinking water
(*3) Human health public water water supply criteria calculated in accordance with "Human Health Numerical Criteria Derivations for Toxic Substances", LDEQ-OWR, June 23, 1994; (N=non-carcinogen, C=carcinogen)
*MTBE - The value listed in the MCL column is the EPA taste/odor advisory value.

LDEQ RECAP
WORKSHEET 4
SOILni
(mg/kg)

Derivation of Management Option 1 & 2 **Soil-Nonindustrial**
Revision Date: 08/04/2003 Run date: 10/17/2003

DA = ((na^(10/3)*Da*H*41+nw^(10/3)*Dw)/n^2)/(pb*Koc*foc+nw+na*H*41)
VFnic = (Q\C*1e-4*(3.14*DA*Tnic)^0.5)/(2*pb*DA)
VFnia = (Q\C*1e-4*(3.14*DA*Tnia)^0.5)/(2*pb*DA)

Soilni-C-O = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFi*(IRAadj/VFnia)+SFo*1e-6*ABS*IRDadj))
Soilni-C-I = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFo*1e-6*ABS*IRDadj))
Soilni-N-O = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(IRAc/RfDi)*(1/VFnic)+(SAc/RfDo)*AFc*ABS*1e-6))
Soilni-N-I = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(SAc/RfDo)*AFc*ABS*1e-6)))

COMPOUND	DA (cm2/s)	VFnic (m3/kg)	VFnia (m3/kg)	Soilni C-O (mg/kg)	Soilni C-I (mg/kg)	Soilni N-O (mg/kg)	Soilni N-I (mg/kg)	min value (C or N)	Soilni (mg/kg)	
Acenaphthene	7.85E-08	1.95E+05		NA		3.74E+03		3.7E+03	3.7E+03	N
Acenaphthylene	1.50E-07	1.41E+05		NA		3.47E+03		3.5E+03	3.5E+03	N
Acetone	1.46E-05	1.43E+04		NA		1.74E+03		1.7E+03	1.7E+03	N
Aldrin	2.92E-09	1.01E+06	2.27E+06	2.77E-02		1.77E+00		2.8E-02	2.8E-02	C
Aniline	9.09E-07	5.74E+04	1.29E+05	5.44E+01		2.42E+01		2.4E+01	2.4E+01	N
Anthracene	6.24E-09	6.93E+05		NA		2.19E+04		2.2E+04	2.2E+04	N
Antimony	NA	NA			NA		3.13E+01	3.1E+01	3.1E+01	N
Arsenic	NA	NA			3.90E-01		2.16E+01	3.9E-01	3.9E-01	C
Barium	NA	NA			NA		5.48E+03	5.5E+03	5.5E+03	N
Benzene	3.10E-04	3.11E+03	6.96E+03	1.49E+00		3.69E+01		1.5E+00	1.5E+00	C
Benz(a)anthracene	1.31E-10	4.77E+06	1.07E+07	6.20E-01		NA		6.2E-01	6.2E-01	C
Benzo(a)pyrene	4.17E-11	8.47E+06	1.90E+07	6.21E-02		NA		6.2E-02	3.3E-01	Q
Benzo(b)fluoranthene	1.30E-10	4.81E+06	1.08E+07	6.20E-01		NA		6.2E-01	6.2E-01	C
Benzo(k)fluoranthene	1.98E-11	1.23E+07	2.75E+07	6.21E+00		NA		6.2E+00	6.2E+00	C
Beryllium					NA		1.56E+02	1.6E+02	1.6E+02	N
Biphenyl,1,1-	1.34E-07	1.49E+05		NA		2.93E+03		2.9E+03	2.9E+03	N
Bis(2-chloroethyl)ether	1.03E-06	5.40E+04	1.21E+05	3.16E-01		NA		3.2E-01	3.3E-01	Q
Bis(2-chloroisopropyl)ether	4.76E-06	2.51E+04	5.62E+04	4.92E+00		1.04E+03		4.9E+00	4.9E+00	C
Bis(2-ethyl-hexyl)phthalate	1.41E-10	4.60E+06	1.03E+07	3.45E+01		1.21E+03		3.5E+01	3.5E+01	C
Bromodichloromethane	3.44E-05	9.34E+03	2.09E+04	1.84E+00		2.46E+02		1.8E+00	1.8E+00	C
Bromoform	3.24E-06	3.04E+04	6.81E+04	4.80E+01		5.92E+02		4.8E+01	4.8E+01	C
Bromomethane	7.37E-04	2.02E+03		NA		4.33E+00		4.3E+00	4.3E+00	N

LDEQ RECAP
WORKSHEET 4
SOILni
(mg/kg)

Derivation of Management Option 1 & 2 **Soil-Nonindustrial**
Revision Date: 08/04/2003 Run date: 10/17/2003

DA = ((na^(10/3)*Da*H*41+nw^(10/3)*Dw)/n^2)/(pb*Koc*foc+nw+na*H*41)
VFnic = (Q\C*1e-4*(3.14*DA*Tnic)^0.5)/(2*pb*DA)
VFnia = (Q\C*1e-4*(3.14*DA*Tnia)^0.5)/(2*pb*DA)

Soilni-C-O = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFi*(IRAadj/VFnia)+SFo*1e-6*ABS*IRDadj))
Soilni-C-I = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFo*1e-6*ABS*IRDadj))
Soilni-N-O = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(IRAc/RfDi)*(1/VFnic)+(SAc/RfDo)*AFc*ABS*1e-6))
Soilni-N-I = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(SAc/RfDo)*AFc*ABS*1e-6)))

COMPOUND	DA (cm2/s)	VFnic (m3/kg)	VFnia (m3/kg)	Soilni C-O (mg/kg)	Soilni C-I (mg/kg)	Soilni N-O (mg/kg)	Soilni N-I (mg/kg)	min value (C or N)	Soilni (mg/kg)	
Butyl benzyl phthalate	1.56E-09	1.38E+06		NA		1.19E+04		1.2E+04	1.2E+04	N
Cadmium	NA	NA			NA		3.90E+01	3.9E+01	3.9E+01	N
Carbon Disulfide	2.03E-03	1.22E+03		NA		3.63E+02		3.6E+02	3.6E+02	N
Carbon Tetrachloride	6.74E-04	2.11E+03	4.72E+03	5.32E-01		1.82E+00		5.3E-01	5.3E-01	C
Chlordane	9.64E-10	1.76E+06	3.95E+06	1.59E+00		3.31E+01		1.6E+00	1.6E+00	C
Chloroaniline,p-	4.99E-07	7.74E+04		NA		1.62E+02		1.6E+02	1.6E+02	N
Chlorobenzene	5.95E-05	7.09E+03		NA		1.68E+02		1.7E+02	1.7E+02	N
Chlorodibromomethane	1.04E-05	1.70E+04	3.80E+04	2.15E+00		3.96E+02		2.2E+00	2.2E+00	C
Chloroethane (Ethylchloride)	4.45E-03	8.20E+02	1.84E+03	4.13E+00		3.29E+03		4.1E+00	4.1E+00	C
Chloroform	2.76E-04	3.30E+03	7.38E+03	6.05E-01		4.43E-01		4.4E-01	4.4E-01	N
Chloromethane	1.18E-03	1.59E+03	3.57E+03	3.49E+00		2.08E+02		3.5E+00	3.5E+00	C
Chloronaphthalene,2-	7.27E-08	2.03E+05		NA		5.02E+03		5.0E+03	5.0E+03	N
Chlorophenol,2-	2.87E-06	3.23E+04		NA		1.53E+02		1.5E+02	1.5E+02	N
Chromium(III)	NA	NA			NA		1.17E+05	1.2E+05	1.2E+05	N
Chromium(VI)	NA	NA			NA		2.35E+02	2.3E+02	2.3E+02	N
Chrysene	3.85E-10	2.79E+06	6.25E+06	6.19E+01		NA		6.2E+01	6.2E+01	C
Cobalt	NA	NA			NA		4.69E+03	4.7E+03	4.7E+03	N
Copper	NA	NA			NA		3.13E+03	3.1E+03	3.1E+03	N
Cyanide (free)	NA	NA			NA		1.52E+03	1.5E+03	1.5E+03	N
DDD	5.16E-10	2.41E+06	5.39E+06	2.40E+00		NA		2.4E+00	2.4E+00	C
DDE	4.75E-10	2.51E+06	5.62E+06	1.69E+00		NA		1.7E+00	1.7E+00	C

LDEQ RECAP
WORKSHEET 4
SOILni
(mg/kg)

Derivation of Management Option 1 & 2 **Soil-Nonindustrial**
Revision Date: 08/04/2003 Run date: 10/17/2003

DA = ((na^(10/3)*Da*H*41+nw^(10/3)*Dw)/n^2)/(pb*Koc*foc+nw+na*H*41)
VFnic = (Q\C*1e-4*(3.14*DA*Tnic)^0.5)/(2*pb*DA)
VFnia = (Q\C*1e-4*(3.14*DA*Tnia)^0.5)/(2*pb*DA)

Soilni-C-O = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFi*(IRAadj/VFnia)+SFo*1e-6*ABS*IRDadj))
Soilni-C-I = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFo*1e-6*ABS*IRDadj))
Soilni-N-O = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(IRAc/RfDi)*(1/VFnic)+(SAc/RfDo)*AFc*ABS*1e-6))
Soilni-N-I = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(SAc/RfDo)*AFc*ABS*1e-6)))

COMPOUND	DA (cm2/s)	VFnic (m3/kg)	VFnia (m3/kg)	Soilni C-O (mg/kg)	Soilni C-I (mg/kg)	Soilni N-O (mg/kg)	Soilni N-I (mg/kg)	min value (C or N)	Soilni (mg/kg)	
DDT	3.95E-11	8.70E+06	1.95E+07	1.71E+00		3.59E+01		1.7E+00	1.7E+00	C
Dibenz(a,h)anthracene	1.22E-11	1.57E+07	3.51E+07	6.21E-02		NA		6.2E-02	3.3E-01	Q
Dibenzofuran	5.40E-09	7.45E+05		NA		2.93E+02		2.9E+02	2.9E+02	N
Dibromo-3-chloropropane,1,2-	1.86E-06	4.02E+04	8.99E+04	3.47E-01		1.77E+00		3.5E-01	3.5E-01	C
Dichlorobenzene,1,2-	1.78E-05	1.30E+04		NA		9.93E+02		9.9E+02	9.9E+02	N
Dichlorobenzene,1,3-	6.69E-06	2.12E+04		NA		2.09E+01		2.1E+01	2.1E+01	N
Dichlorobenzene,1,4-	1.43E-05	1.45E+04	3.24E+04	6.71E+00		1.62E+03		6.7E+00	6.7E+00	C
Dichlorobenzidine,3,3-	3.80E-08	2.81E+05	6.29E+05	9.69E-01		NA		9.7E-01	9.7E-01	C
Dichloroethane,1,1-	2.93E-04	3.20E+03		NA		6.55E+02		6.6E+02	6.6E+02	N
Dichloroethane,1,2-	9.40E-05	5.64E+03	1.26E+04	8.15E-01		2.31E+01		8.2E-01	8.2E-01	C
Dichloroethene,1,1-	1.26E-03	1.54E+03	3.45E+03	NA		1.33E+02		1.3E+02	1.3E+02	N
Dichloroethene,cis,1,2-	2.79E-04	3.28E+03		NA		4.81E+01		4.8E+01	4.8E+01	N
Dichloroethene,trans,1,2-	5.61E-04	2.31E+03		NA		6.91E+01		6.9E+01	6.9E+01	N
Dichlorophenol,2,4-	4.80E-08	2.50E+05		NA		1.59E+02		1.6E+02	1.6E+02	N
Dichloropropane,1,2-	1.72E-04	4.17E+03	9.35E+03	8.32E-01		6.87E+00		8.3E-01	8.3E-01	C
Dichloropropene,1,3-	8.98E-05	5.77E+03	1.29E+04	3.13E+00		5.05E+01		3.1E+00	3.1E+00	C
Dieldrin	1.18E-09	1.59E+06	3.57E+06	2.98E-02		2.98E+00		3.0E-02	3.0E-02	C
Diethylphthalate	2.65E-07	1.06E+05		NA		3.57E+04		3.6E+04	3.6E+04	N
Dimethylphenol,2,4-	1.87E-07	1.27E+05		NA		9.34E+02		9.3E+02	9.3E+02	N
Dimethylphthalate	4.24E-07	8.40E+04		NA		4.17E+05		4.2E+05	4.2E+05	N
Di-n-octylphthalate	8.38E-13	5.98E+07		NA		2.44E+03		2.4E+03	2.4E+03	N

LDEQ RECAP
WORKSHEET 4
SOILni
(mg/kg)

Derivation of Management Option 1 & 2 **Soil-Nonindustrial**
Revision Date: 08/04/2003 Run date: 10/17/2003

DA = ((na^(10/3)*Da*H*41+nw^(10/3)*Dw)/n^2)/(pb*Koc*foc+nw+na*H*41)
VFnic = (Q\C*1e-4*(3.14*DA*Tnic)^0.5)/(2*pb*DA)
VFnia = (Q\C*1e-4*(3.14*DA*Tnia)^0.5)/(2*pb*DA)

Soilni-C-O = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFi*(IRAadj/VFnia)+SFo*1e-6*ABS*IRDadj))
Soilni-C-I = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFo*1e-6*ABS*IRDadj))
Soilni-N-O = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(IRAc/RfDi)*(1/VFnic)+(SAc/RfDo)*AFc*ABS*1e-6))
Soilni-N-I = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(SAc/RfDo)*AFc*ABS*1e-6)))

COMPOUND	DA (cm2/s)	VFnic (m3/kg)	VFnia (m3/kg)	Soilni C-O (mg/kg)	Soilni C-I (mg/kg)	Soilni N-O (mg/kg)	Soilni N-I (mg/kg)	min value (C or N)	Soilni (mg/kg)	
Dinitrobenzene,1,3-	2.55E-07	1.08E+05		NA		4.49E+00		4.5E+00	4.5E+00	N
Dinitrophenol,2,4-	1.01E-06	5.45E+04		NA		7.12E+01		7.1E+01	7.1E+01	N
Dinitrotoluene,2,6-	3.54E-07	9.19E+04		NA		4.29E+01		4.3E+01	4.3E+01	N
Dinitrotoluene,2,4-	2.64E-07	1.06E+05		NA		8.94E+01		8.9E+01	8.9E+01	N
Dinoseb	1.71E-07	1.32E+05		NA		4.72E+01		4.7E+01	4.7E+01	N
Endosulfan	1.27E-08	4.86E+05		NA		3.39E+02		3.4E+02	3.4E+02	N
Endrin	2.31E-09	1.14E+06		NA		1.77E+01		1.8E+01	1.8E+01	N
Ethyl benzene	1.40E-04	4.63E+03		NA		1.64E+03		1.6E+03	1.6E+03	N
Fluoranthene	1.08E-09	1.67E+06		NA		2.24E+03		2.2E+03	2.2E+03	N
Fluorene	2.05E-08	3.82E+05		NA		2.77E+03		2.8E+03	2.8E+03	N
Heptachlor	8.62E-05	5.90E+03	1.32E+04	1.63E-02		4.01E+00		1.6E-02	1.6E-02	C
Heptachlor epoxide	2.95E-10	3.19E+06	7.13E+06	5.29E-02		7.85E-01		5.3E-02	5.3E-02	C
Hexachlorobenzene	4.88E-08	2.48E+05	5.55E+05	3.41E-01		5.21E+01		3.4E-01	3.4E-01	C
Hexachlorobutadiene	4.62E-07	8.05E+04	1.80E+05	4.45E+00		8.23E+00		4.5E+00	4.5E+00	C
Hexachlorocyclohexane,alpha	2.19E-08	3.70E+05	8.28E+05	8.18E-02		NA		8.2E-02	8.2E-02	C
Hexachlorocyclohexane,beta	1.45E-08	4.54E+05	1.02E+06	2.91E-01		NA		2.9E-01	2.9E-01	C
Hexachlorocyclohexane,gamma	3.04E-08	3.14E+05	7.04E+05	3.90E-01		1.85E+01		3.9E-01	3.9E-01	C
Hexachlorocyclopentadiene	1.18E-07	1.59E+05		NA		1.38E+01		1.4E+01	1.4E+01	N
Hexachloroethane	3.08E-07	9.85E+04	2.21E+05	3.18E+01		5.19E+01		3.2E+01	3.2E+01	C
Indeno(1,2,3-cd)pyrene	7.32E-12	2.02E+07	4.53E+07	6.21E-01		NA		6.2E-01	6.2E-01	C
Isobutyl alcohol	4.41E-06	2.61E+04		NA		7.33E+03		7.3E+03	7.3E+03	N

LDEQ RECAP
WORKSHEET 4
SOILni
(mg/kg)

Derivation of Management Option 1 & 2 **Soil-Nonindustrial**
Revision Date: 08/04/2003 Run date: 10/17/2003

DA = ((na^(10/3)*Da*H*41+nw^(10/3)*Dw)/n^2)/(pb*Koc*foc+nw+na*H*41)
VFnic = (Q\C*1e-4*(3.14*DA*Tnic)^0.5)/(2*pb*DA)
VFnia = (Q\C*1e-4*(3.14*DA*Tnia)^0.5)/(2*pb*DA)

Soilni-C-O = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFi*(IRAadj/VFnia)+SFo*1e-6*ABS*IRDadj))
Soilni-C-I = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFo*1e-6*ABS*IRDadj))
Soilni-N-O = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(IRAc/RfDi)*(1/VFnic)+(SAc/RfDo)*AFc*ABS*1e-6))
Soilni-N-I = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(SAc/RfDo)*AFc*ABS*1e-6)))

COMPOUND	DA (cm2/s)	VFnic (m3/kg)	VFnia (m3/kg)	Soilni C-O (mg/kg)	Soilni C-I (mg/kg)	Soilni N-O (mg/kg)	Soilni N-I (mg/kg)	min value (C or N)	Soilni (mg/kg)	
Isophorone	7.54E-07	6.30E+04	1.41E+05	3.37E+02		7.54E+03		3.4E+02	3.4E+02	C
Lead (inorganic)	NA	NA		NA	NA	NA	NA	NA	NA	
Mercury (inorganic)	NA	NA			NA		2.35E+01	2.3E+01	2.3E+01	N
Methoxychlor	4.01E-10	2.73E+06		NA		3.01E+02		3.0E+02	3.0E+02	N
Methylene chloride	4.29E-04	2.64E+03	5.92E+03	1.87E+01		2.02E+03		1.9E+01	1.9E+01	C
Methyl ethyl ketone	1.31E-05	1.51E+04		NA		5.91E+03		5.9E+03	5.9E+03	N
Methyl isobutyl ketone	2.24E-05	1.16E+04		NA		4.46E+03		4.5E+03	4.5E+03	N
Methylnaphthalene,2-	8.13E-08	1.92E+05		NA		2.22E+02		2.2E+02	2.2E+02	N
MTBE (methyl tert-butyl ether)	1.02E-04	5.41E+03		NA		6.54E+03		6.5E+03	6.5E+03	N
Naphthalene	1.30E-06	4.80E+04		NA		6.20E+01		6.2E+01	6.2E+01	N
Nickel	NA	NA			NA		1.56E+03	1.6E+03	1.6E+03	N
Nitrate	NA	NA			NA		1.25E+05	1.3E+05	1.3E+05	N
Nitrite	NA	NA			NA		7.82E+03	7.8E+03	7.8E+03	N
Nitroaniline,2-	1.01E-05	1.72E+04		NA		7.80E-01		7.8E-01	1.7E+00	Q
Nitroaniline,3-	8.15E-07	6.06E+04		NA		1.29E+02		1.3E+02	1.3E+02	N
Nitroaniline,4-	1.11E-06	5.20E+04		NA		1.05E+02		1.0E+02	1.0E+02	N
Nitrobenzene	9.67E-07	5.56E+04		NA		2.19E+01		2.2E+01	2.2E+01	N
Nitrophenol,4-	5.33E-07	7.49E+04		NA		3.21E+02		3.2E+02	3.2E+02	N
Nitrosodi-n-propylamine,n-	9.19E-07	5.71E+04	1.28E+05	4.42E-02		NA		4.4E-02	3.3E-01	Q
N-nitrosodiphenylamine	2.68E-08	3.34E+05	7.49E+05	9.05E+01		NA		9.0E+01	9.0E+01	C
Pentachlorophenol	2.82E-08	3.26E+05	7.30E+05	2.78E+00		1.27E+03		2.8E+00	2.8E+00	C

LDEQ RECAP
WORKSHEET 4
SOILni
(mg/kg)

Derivation of Management Option 1 & 2 **Soil-Nonindustrial**
Revision Date: 08/04/2003 Run date: 10/17/2003

DA = ((na^(10/3)*Da*H*41+nw^(10/3)*Dw)/n^2)/(pb*Koc*foc+nw+na*H*41)
VFnic = (Q\C*1e-4*(3.14*DA*Tnic)^0.5)/(2*pb*DA)
VFnia = (Q\C*1e-4*(3.14*DA*Tnia)^0.5)/(2*pb*DA)

Soilni-C-O = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFi*(IRAadj/VFnia)+SFo*1e-6*ABS*IRDadj))
Soilni-C-I = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFo*1e-6*ABS*IRDadj))
Soilni-N-O = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(IRAc/RfDi)*(1/VFnic)+(SAc/RfDo)*AFc*ABS*1e-6))
Soilni-N-I = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(SAc/RfDo)*AFc*ABS*1e-6)))

COMPOUND	DA (cm2/s)	VFnic (m3/kg)	VFnia (m3/kg)	Soilni C-O (mg/kg)	Soilni C-I (mg/kg)	Soilni N-O (mg/kg)	Soilni N-I (mg/kg)	min value (C or N)	Soilni (mg/kg)	
Phenanthrene	1.52E-08	4.43E+05		NA		2.11E+04		2.1E+04	2.1E+04	N
Phenol	8.09E-07	6.08E+04		NA		1.29E+04		1.3E+04	1.3E+04	N
Polychlorinated biphenyls	8.87E-09	5.81E+05	1.30E+06	2.11E-01		1.06E+00		2.1E-01	2.1E-01	C
Pyrene	6.85E-10	2.09E+06		NA		2.29E+03		2.3E+03	2.3E+03	N
Selenium	NA	NA			NA		3.91E+02	3.9E+02	3.9E+02	N
Silver	NA	NA			NA		3.91E+02	3.9E+02	3.9E+02	N
Styrene	1.14E-05	1.62E+04		NA		4.96E+03		5.0E+03	5.0E+03	N
Tetrachlorobenzene,1,2,4,5-	5.71E-07	7.24E+04		NA		1.19E+01		1.2E+01	1.2E+01	N
Tetrachloroethane,1,1,1,2-	1.03E-04	5.39E+03	1.21E+04	2.75E+00		2.28E+02		2.7E+00	2.7E+00	C
Tetrachloroethane,1,1,2,2-	1.36E-05	1.48E+04	3.32E+04	8.10E-01		1.07E+03		8.1E-01	8.1E-01	C
Tetrachloroethylene	2.42E-04	3.52E+03	7.87E+03	8.33E+00		3.41E+02		8.3E+00	8.3E+00	C
Tetrachlorophenol,2,3,4,6-	1.50E-07	1.41E+05		NA		1.44E+03		1.4E+03	1.4E+03	N
Thallium	NA	NA			NA		5.48E+00	5.5E+00	5.5E+00	N
Toluene	1.91E-04	3.96E+03		NA		6.76E+02		6.8E+02	6.8E+02	N
Toxaphene	2.30E-10	3.61E+06	8.09E+06	4.38E-01		NA		4.4E-01	4.4E-01	C
Trichlorobenzene,1,2,4-	1.39E-06	4.63E+04		NA		6.58E+02		6.6E+02	6.6E+02	N
Trichloroethane,1,1,1-	4.39E-04	2.61E+03		NA		8.19E+02		8.2E+02	8.2E+02	N
Trichloroethane,1,1,2-	4.06E-05	8.59E+03	1.92E+04	1.90E+00		4.59E+01		1.9E+00	1.9E+00	C
Trichloroethene	3.65E-04	2.86E+03	6.42E+03	9.98E-02		1.61E+01		1.0E-01	1.0E-01	C
Trichlorofluoromethane	1.93E-03	1.25E+03		NA		3.84E+02		3.8E+02	3.8E+02	N
Trichlorophenol,2,4,5-	4.99E-08	2.45E+05		NA		5.27E+03		5.3E+03	5.3E+03	N

LDEQ RECAP
WORKSHEET 4
SOILni
(mg/kg)

Derivation of Management Option 1 & 2 **Soil-Nonindustrial**
Revision Date: 08/04/2003 Run date: 10/17/2003

DA = ((na^(10/3)*Da*H*41+nw^(10/3)*Dw)/n^2)/(pb*Koc*foc+nw+na*H*41)
VFnic = (Q\C*1e-4*(3.14*DA*Tnic)^0.5)/(2*pb*DA)
VFnia = (Q\C*1e-4*(3.14*DA*Tnia)^0.5)/(2*pb*DA)

Soilni-C-O = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFi*(IRAadj/VFnia)+SFo*1e-6*ABS*IRDadj))
Soilni-C-I = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFo*1e-6*ABS*IRDadj))
Soilni-N-O = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(IRAc/RfDi)*(1/VFnic)+(SAc/RfDo)*AFc*ABS*1e-6))
Soilni-N-I = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(SAc/RfDo)*AFc*ABS*1e-6)))

COMPOUND	DA (cm2/s)	VFnic (m3/kg)	VFnia (m3/kg)	Soilni C-O (mg/kg)	Soilni C-I (mg/kg)	Soilni N-O (mg/kg)	Soilni N-I (mg/kg)	min value (C or N)	Soilni (mg/kg)	
Trichlorophenol,2,4,6-	3.64E-08	2.87E+05	6.42E+05	3.97E+01		NA		4.0E+01	4.0E+01	C
Vanadium	NA	NA			NA		5.48E+02	5.5E+02	5.5E+02	N
Vinyl chloride	2.81E-03	1.03E+03	2.31E+03	2.38E-01		NA		2.4E-01	2.4E-01	C
Xylene(mixed)	1.87E-04	4.00E+03		NA		1.79E+02		1.8E+02	1.8E+02	N
Zinc	NA	NA			NA		2.35E+04	2.3E+04	2.3E+04	N
Aliphatics C6-C8	1.40E-03	1.46E+03		NA		1.18E+04		1.2E+04	1.0E+04	O,T
Aliphatics >C8-C10	3.22E-04	3.05E+03		NA		1.18E+03		1.2E+03	1.2E+03	N
Aliphatics >C10-C12	6.28E-05	6.90E+03		NA		2.29E+03		2.3E+03	2.3E+03	N
Aliphatics >C12-C16	1.37E-05	1.48E+04		NA		3.68E+03		3.7E+03	3.7E+03	N
Aliphatics >C16-C35	1.03E-06	5.40E+04		NA		7.09E+04		7.1E+04	1.0E+04	O,T
Aromatics >C8-C10	3.94E-05	8.72E+03		NA		6.49E+02		6.5E+02	6.5E+02	N
Aromatics >C10-C12	7.31E-06	2.02E+04		NA		1.18E+03		1.2E+03	1.2E+03	N
Aromatics >C12-C16	1.40E-06	4.63E+04		NA		1.82E+03		1.8E+03	1.8E+03	N
Aromatics >C16-C21	1.11E-07	1.64E+05		NA		1.48E+03		1.5E+03	1.5E+03	N
Aromatics >C21-C35	1.04E-09	1.70E+06		NA		1.79E+03		1.8E+03	1.8E+03	N
TPH-GRO (C6-C10)								6.5E+02	6.5E+02	
TPH-DRO (C10-C28)								6.5E+02	6.5E+02	
TPH-ORO (>C28)								1.8E+03	1.8E+03	

LDEQ RECAP
WORKSHEET 5
SOILi
(mg/kg)

Derivation of Management Option 1 & 2 **Soil-Industrial**
Revision Date: 08/04/2003 Run date: 10/17/2003

DA = ((na^(10/3)*Da*H*41+nw^(10/3)*Dw)/n^2)/(pb*Koc*foc+nw+na*H*41)
VFi = (Q\C*1e-4*(3.14*DA*Ti)^0.5)/(2*pb*DA)

Soili-C-O = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFi*(IRAa/VFi)+SFo*SAai*AFai*ABS*1e-6))
Soili-C-I = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFo*SAai*AFai*ABS*1e-6))
Soili-N-O = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(IRAa/RfDi)*(1/VFi)+(SAai/RfDo)*AFai*ABS*1e-6))
Soili-N-I = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(SAai/RfDo)*AFai*ABS*1e-6)))

	DA	VFi	Soili	Soili	Soili	Soili	min value	Soili	
COMPOUND	**(cm2/s)**	**(m3/kg)**	**C-O (mg/kg)**	**C-I (mg/kg)**	**N-O (mg/kg)**	**N-I (mg/kg)**	**(C or N)**	**(mg/kg)**	
Acenaphthene	7.85E-08	3.99E+05	NA		6.12E+04		6.1E+04	6.1E+04	N
Acenaphthylene	1.50E-07	2.89E+05	NA		5.14E+04		5.1E+04	5.1E+04	N
Acetone	1.46E-05	2.93E+04	NA		1.39E+04		1.4E+04	1.4E+04	N
Aldrin	2.92E-09	2.07E+06	1.34E-01		2.44E+01		1.3E-01	1.3E-01	C
Aniline	9.09E-07	1.17E+05	1.75E+02		1.67E+02		1.7E+02	1.7E+02	N
Anthracene	6.24E-09	1.42E+06	NA		4.78E+05		4.8E+05	4.8E+05	N
Antimony	NA	NA		NA		8.18E+02	8.2E+02	8.2E+02	N
Arsenic	NA	NA		2.73E+00		4.39E+02	2.7E+00	2.7E+00	C
Barium	NA	NA		NA		1.43E+05	1.4E+05	1.4E+05	N
Benzene	3.10E-04	6.35E+03	3.08E+00		2.70E+02		3.1E+00	3.1E+00	C
Benz(a)anthracene	1.31E-10	9.75E+06	2.87E+00		NA		2.9E+00	2.9E+00	C
Benzo(a)pyrene	4.17E-11	1.73E+07	2.88E-01		NA		2.9E-01	3.3E-01	Q
Benzo(b)fluoranthene	1.30E-10	9.82E+06	2.87E+00		NA		2.9E+00	2.9E+00	C
Benzo(k)fluoranthene	1.98E-11	2.51E+07	2.88E+01		NA		2.9E+01	2.9E+01	C
Beryllium	NA	NA		NA		4.09E+03	4.1E+03	4.1E+03	N
Biphenyl,1,1-	1.34E-07	3.05E+05	NA		4.42E+04		4.4E+04	4.4E+04	N
Bis(2-chloroethyl)ether	1.03E-06	1.10E+05	1.08E+00		NA		1.1E+00	1.1E+00	C
Bis(2-chloroisopropyl)ether	4.76E-06	5.12E+04	1.67E+01		9.28E+03		1.7E+01	1.7E+01	C
Bis(2-ethyl-hexyl)phthalate	1.41E-10	9.40E+06	1.73E+02		1.73E+04		1.7E+02	1.7E+02	C
Bromodichloromethane	3.44E-05	1.91E+04	4.20E+00		1.86E+03		4.2E+00	4.2E+00	C
Bromoform	3.24E-06	6.21E+04	1.75E+02		5.50E+03		1.8E+02	1.8E+02	C
Bromomethane	7.37E-04	4.12E+03	NA		2.98E+01		3.0E+01	3.0E+01	N

LDEQ RECAP
WORKSHEET 5
SOILi
(mg/kg)

Derivation of Management Option 1 & 2 **Soil-Industrial**
Revision Date: 08/04/2003 Run date: 10/17/2003

DA = ((na^(10/3)*Da*H*41+nw^(10/3)*Dw)/n^2)/(pb*Koc*foc+nw+na*H*41)
VFi = (Q\C*1e-4*(3.14*DA*Ti)^0.5)/(2*pb*DA)

Soili-C-O = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFi*(IRAa/VFi)+SFo*SAai*AFai*ABS*1e-6))
Soili-C-I = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFo*SAai*AFai*ABS*1e-6))
Soili-N-O = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(IRAa/RfDi)*(1/VFi)+(SAai/RfDo)*AFai*ABS*1e-6))
Soili-N-I = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(SAai/RfDo)*AFai*ABS*1e-6)))

	DA	VFi	Soili	Soili	Soili	Soili	min value	Soili	
COMPOUND	**(cm2/s)**	**(m3/kg)**	**C-O (mg/kg)**	**C-I (mg/kg)**	**N-O (mg/kg)**	**N-I (mg/kg)**	**(C or N)**	**(mg/kg)**	
Butyl benzyl phthalate	1.56E-09	2.83E+06	NA		1.66E+05		1.7E+05	1.7E+05	N
Cadmium	NA	NA		NA		1.01E+03	1.0E+03	1.0E+03	N
Carbon Disulfide	2.03E-03	2.48E+03	NA		2.51E+03		2.5E+03	2.5E+03	N
Carbon Tetrachloride	6.74E-04	4.30E+03	1.14E+00		1.25E+01		1.1E+00	1.1E+00	C
Chlordane	9.64E-10	3.60E+06	9.98E+00		5.66E+02		1.0E+01	1.0E+01	C
Chloroaniline,p-	4.99E-07	1.58E+05	NA		1.69E+03		1.7E+03	1.7E+03	N
Chlorobenzene	5.95E-05	1.45E+04	NA		1.22E+03		1.2E+03	1.2E+03	N
Chlorodibromomethane	1.04E-05	3.46E+04	5.43E+00		3.26E+03		5.4E+00	5.4E+00	C
Chloroethane (Ethylchloride)	4.45E-03	1.68E+03	8.23E+00		2.38E+04		8.2E+00	8.2E+00	C
Chloroform	2.76E-04	6.73E+03	1.20E+00		2.96E+00		1.2E+00	1.2E+00	C
Chloromethane	1.18E-03	3.25E+03	7.27E+00		1.42E+03		7.3E+00	7.3E+00	C
Chloronaphthalene,2-	7.27E-08	4.15E+05	NA		8.32E+04		8.3E+04	8.3E+04	N
Chlorophenol,2-	2.87E-06	6.60E+04	NA		1.45E+03		1.4E+03	1.4E+03	N
Chromium(III)				NA		3.07E+06	3.1E+06	1.0E+06	O
Chromium(VI)				NA		6.13E+03	6.1E+03	6.1E+03	N
Chrysene	3.85E-10	5.70E+06	2.86E+02		NA		2.9E+02	2.9E+02	C
Cobalt	NA	NA		NA		1.23E+05	1.2E+05	1.2E+05	N
Copper	NA	NA		NA		8.18E+04	8.2E+04	8.2E+04	N
Cyanide (free)	NA	NA		NA		3.61E+04	3.6E+04	3.6E+04	N
DDD	5.16E-10	4.92E+06	1.61E+01		NA		1.6E+01	1.6E+01	C
DDE	4.75E-10	5.13E+06	1.14E+01		NA		1.1E+01	1.1E+01	C
DDT	3.95E-11	1.78E+07	1.19E+01		7.20E+02		1.2E+01	1.2E+01	C

LDEQ RECAP
WORKSHEET 5
SOILi
(mg/kg)

Derivation of Management Option 1 & 2 **Soil-Industrial**
Revision Date: 08/04/2003 Run date: 10/17/2003

DA = ((na^(10/3)*Da*H*41+nw^(10/3)*Dw)/n^2)/(pb*Koc*foc+nw+na*H*41)
VFi = (Q\C*1e-4*(3.14*DA*Ti)^0.5)/(2*pb*DA)

Soili-C-O = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFi*(IRAa/VFi)+SFo*SAai*AFai*ABS*1e-6))
Soili-C-I = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFo*SAai*AFai*ABS*1e-6))
Soili-N-O = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(IRAa/RfDi)*(1/VFi)+(SAai/RfDo)*AFai*ABS*1e-6))
Soili-N-I = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(SAai/RfDo)*AFai*ABS*1e-6)))

	DA	VFi	Soili	Soili	Soili	Soili	min value	Soili	
COMPOUND	**(cm2/s)**	**(m3/kg)**	**C-O (mg/kg)**	**C-I (mg/kg)**	**N-O (mg/kg)**	**N-I (mg/kg)**	**(C or N)**	**(mg/kg)**	
Dibenz(a,h)anthracene	1.22E-11	3.21E+07	2.88E-01		NA		2.9E-01	3.3E-01	Q
Dibenzofuran	5.40E-09	1.52E+06	NA		6.47E+03		6.5E+03	6.5E+03	N
Dibromo-3-chloropropane,1,2-	1.86E-06	8.20E+04	1.76E+00		1.62E+01		1.8E+00	1.8E+00	C
Dichlorobenzene,1,2-	1.78E-05	2.65E+04	NA		7.40E+03		7.4E+03	7.4E+03	N
Dichlorobenzene,1,3-	6.69E-06	4.32E+04	NA		1.79E+02		1.8E+02	1.8E+02	N
Dichlorobenzene,1,4-	1.43E-05	2.96E+04	1.64E+01		2.21E+04		1.6E+01	1.6E+01	C
Dichlorobenzidine,3,3-	3.80E-08	5.73E+05	4.21E+00		NA		4.2E+00	4.2E+00	C
Dichloroethane,1,1-	2.93E-04	6.53E+03	NA		4.66E+03		4.7E+03	4.7E+03	N
Dichloroethane,1,2-	9.40E-05	1.15E+04	1.76E+00		1.66E+02		1.8E+00	1.8E+00	C
Dichloroethene,1,1-	1.26E-03	3.15E+03	NA		9.09E+02		9.1E+02	9.1E+02	N
Dichloroethene,cis,1,2-	2.79E-04	6.69E+03	NA		3.36E+02		3.4E+02	3.4E+02	N
Dichloroethene,trans,1,2-	5.61E-04	4.72E+03	NA		4.77E+02		4.8E+02	4.8E+02	N
Dichlorophenol,2,4-	4.80E-08	5.10E+05	NA		1.98E+03		2.0E+03	2.0E+03	N
Dichloropropane,1,2-	1.72E-04	8.52E+03	1.76E+00		4.86E+01		1.8E+00	1.8E+00	C
Dichloropropene,1,3-	8.98E-05	1.18E+04	9.96E+00		3.42E+02		1.0E+01	1.0E+01	C
Dieldrin	1.18E-09	3.25E+06	1.46E-01		4.18E+01		1.5E-01	1.5E-01	C
Diethylphthalate	2.65E-07	2.17E+05	NA		3.93E+05		3.9E+05	3.9E+05	N
Dimethylphenol,2,4-	1.87E-07	2.59E+05	NA		1.06E+04		1.1E+04	1.1E+04	N
Dimethylphthalate	4.24E-07	1.72E+05	NA		4.40E+06		4.4E+06	1.0E+06	O
Di-n-octylphthalate	8.38E-13	1.22E+08	NA		3.51E+04		3.5E+04	3.5E+04	N
Dinitrobenzene,1,3-	2.55E-07	2.21E+05	NA		4.95E+01		5.0E+01	5.0E+01	N
Dinitrophenol,2,4-	1.01E-06	1.11E+05	NA		6.91E+02		6.9E+02	6.9E+02	N

LDEQ RECAP
WORKSHEET 5
SOILi
(mg/kg)

Derivation of Management Option 1 & 2 **Soil-Industrial**
Revision Date: 08/04/2003 Run date: 10/17/2003

DA = ((na^(10/3)*Da*H*41+nw^(10/3)*Dw)/n^2)/(pb*Koc*foc+nw+na*H*41)
VFi = (Q\C*1e-4*(3.14*DA*Ti)^0.5)/(2*pb*DA)

Soili-C-O = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFi*(IRAa/VFi)+SFo*SAai*AFai*ABS*1e-6))
Soili-C-I = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFo*SAai*AFai*ABS*1e-6))
Soili-N-O = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(IRAa/RfDi)*(1/VFi)+(SAai/RfDo)*AFai*ABS*1e-6))
Soili-N-I = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(SAai/RfDo)*AFai*ABS*1e-6)))

	DA	VFi	Soili	Soili	Soili	Soili	min value	Soili	
COMPOUND	**(cm2/s)**	**(m3/kg)**	**C-O (mg/kg)**	**C-I (mg/kg)**	**N-O (mg/kg)**	**N-I (mg/kg)**	**(C or N)**	**(mg/kg)**	
Dinitrotoluene,2,6-	3.54E-07	1.88E+05	NA		4.59E+02		4.6E+02	4.6E+02	N
Dinitrotoluene,2,4-	2.64E-07	2.17E+05	NA		9.83E+02		9.8E+02	9.8E+02	N
Dinoseb	1.71E-07	2.70E+05	NA		5.38E+02		5.4E+02	5.4E+02	N
Endosulfan	1.27E-08	9.93E+05	NA		4.50E+03		4.5E+03	4.5E+03	N
Endrin	2.31E-09	2.33E+06	NA		2.46E+02		2.5E+02	2.5E+02	N
Ethyl benzene	1.40E-04	9.45E+03	NA		1.29E+04		1.3E+04	1.3E+04	N
Fluoranthene	1.08E-09	3.40E+06	NA		2.89E+04		2.9E+04	2.9E+04	N
Fluorene	2.05E-08	7.81E+05	NA		5.41E+04		5.4E+04	5.4E+04	N
Heptachlor	8.62E-05	1.20E+04	3.54E-02		2.88E+01		3.5E-02	3.5E-02	C
Heptachlor epoxide	2.95E-10	6.51E+06	2.64E-01		1.12E+01		2.6E-01	2.6E-01	C
Hexachlorobenzene	4.88E-08	5.06E+05	1.99E+00		9.13E+02		2.0E+00	2.0E+00	C
Hexachlorobutadiene	4.62E-07	1.64E+05	1.55E+01		8.60E+01		1.6E+01	1.6E+01	C
Hexachlorocyclohexane,alpha	2.19E-08	7.55E+05	4.42E-01		NA		4.4E-01	4.4E-01	C
Hexachlorocyclohexane,beta	1.45E-08	9.27E+05	1.62E+00		NA		1.6E+00	1.6E+00	C
Hexachlorocyclohexane,gamma	3.04E-08	6.42E+05	2.05E+00		2.85E+02		2.0E+00	2.0E+00	C
Hexachlorocyclopentadiene	1.18E-07	3.25E+05	NA		9.41E+01		9.4E+01	9.4E+01	N
Hexachloroethane	3.08E-07	2.01E+05	1.37E+02		6.84E+02		1.4E+02	1.4E+02	C
Indeno(1,2,3-cd)pyrene	7.32E-12	4.13E+07	2.88E+00		NA		2.9E+00	2.9E+00	C
Isobutyl alcohol	4.41E-06	5.32E+04	NA		6.23E+04		6.2E+04	6.2E+04	N
Isophorone	7.54E-07	1.29E+05	1.11E+03		7.53E+04		1.1E+03	1.1E+03	C
Lead (inorganic)	NA	NA	NA	NA	NA	NA	NA	0.0E+00	Q
Mercury (inorganic)	NA	NA		NA		6.13E+02	6.1E+02	6.1E+02	N

LDEQ RECAP
WORKSHEET 5
SOILi
(mg/kg)

Derivation of Management Option 1 & 2 **Soil-Industrial**
Revision Date: 08/04/2003 Run date: 10/17/2003

DA = ((na^(10/3)*Da*H*41+nw^(10/3)*Dw)/n^2)/(pb*Koc*foc+nw+na*H*41)
VFi = (Q\C*1e-4*(3.14*DA*Ti)^0.5)/(2*pb*DA)

Soili-C-O = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFi*(IRAa/VFi)+SFo*SAai*AFai*ABS*1e-6))
Soili-C-I = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFo*SAai*AFai*ABS*1e-6))
Soili-N-O = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(IRAa/RfDi)*(1/VFi)+(SAai/RfDo)*AFai*ABS*1e-6))
Soili-N-I = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(SAai/RfDo)*AFai*ABS*1e-6)))

	DA	VFi	Soili	Soili	Soili	Soili	min value	Soili	
COMPOUND	**(cm2/s)**	**(m3/kg)**	**C-O (mg/kg)**	**C-I (mg/kg)**	**N-O (mg/kg)**	**N-I (mg/kg)**	**(C or N)**	**(mg/kg)**	
Methoxychlor	4.01E-10	5.58E+06	NA		4.27E+03		4.3E+03	4.3E+03	N
Methylene chloride	4.29E-04	5.39E+03	4.43E+01		1.98E+04		4.4E+01	4.4E+01	C
Methyl ethyl ketone	1.31E-05	3.09E+04	NA		4.35E+04		4.4E+04	4.4E+04	N
Methyl isobutyl ketone	2.24E-05	2.36E+04	NA		6.35E+04		6.3E+04	6.3E+04	N
Methylnaphthalene,2-	8.13E-08	3.92E+05	NA		1.65E+03		1.7E+03	1.7E+03	N
MTBE (methyl tert-butyl ether)	1.02E-04	1.10E+04	NA		4.71E+04		4.7E+04	4.7E+04	N
Naphthalene	1.30E-06	9.80E+04	NA		4.26E+02		4.3E+02	4.3E+02	N
Nickel	NA	NA		NA		4.09E+04	4.1E+04	4.1E+04	N
Nitrate	NA	NA		NA		3.27E+06	3.3E+06	1.0E+06	O
Nitrite	NA	NA		NA		2.04E+05	2.0E+05	2.0E+05	N
Nitroaniline,2-	1.01E-05	3.52E+04	NA		5.22E+00		5.2E+00	5.2E+00	N
Nitroaniline,3-	8.15E-07	1.24E+05	NA		1.45E+03		1.4E+03	1.4E+03	N
Nitroaniline,4-	1.11E-06	1.06E+05	NA		1.01E+03		1.0E+03	1.0E+03	N
Nitrobenzene	9.67E-07	1.14E+05	NA		2.50E+02		2.5E+02	2.5E+02	N
Nitrophenol,4-	5.33E-07	1.53E+05	NA		3.31E+03		3.3E+03	3.3E+03	N
Nitrosodi-n-propylamine,n-	9.19E-07	1.17E+05	1.42E-01		NA		1.4E-01	3.3E-01	Q
N-nitrosodiphenylamine	2.68E-08	6.83E+05	4.02E+02		NA		4.0E+02	4.0E+02	C
Pentachlorophenol	2.82E-08	6.66E+05	9.73E+00		1.25E+04		9.7E+00	9.7E+00	C
Phenanthrene	1.52E-08	9.06E+05	NA		4.25E+05		4.3E+05	4.3E+05	N
Phenol	8.09E-07	1.24E+05	NA		1.45E+05		1.5E+05	1.5E+05	N
Polychlorinated biphenyls	8.87E-09	1.19E+06	8.98E-01		1.28E+01		9.0E-01	9.0E-01	C
Pyrene	6.85E-10	4.27E+06	NA		5.61E+04		5.6E+04	5.6E+04	N

LDEQ RECAP
WORKSHEET 5
SOILi
(mg/kg)

Derivation of Management Option 1 & 2 **Soil-Industrial**
Revision Date: 08/04/2003 Run date: 10/17/2003

DA = ((na^(10/3)*Da*H*41+nw^(10/3)*Dw)/n^2)/(pb*Koc*foc+nw+na*H*41)
VFi = (Q\C*1e-4*(3.14*DA*Ti)^0.5)/(2*pb*DA)

Soili-C-O = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFi*(IRAa/VFi)+SFo*SAai*AFai*ABS*1e-6))
Soili-C-I = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFo*SAai*AFai*ABS*1e-6))
Soili-N-O = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(IRAa/RfDi)*(1/VFi)+(SAai/RfDo)*AFai*ABS*1e-6))
Soili-N-I = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(SAai/RfDo)*AFai*ABS*1e-6)))

	DA	VFi	Soili	Soili	Soili	Soili	min value	Soili	
COMPOUND	**(cm2/s)**	**(m3/kg)**	**C-O (mg/kg)**	**C-I (mg/kg)**	**N-O (mg/kg)**	**N-I (mg/kg)**	**(C or N)**	**(mg/kg)**	
Selenium	NA	NA		NA		1.02E+04	1.0E+04	1.0E+04	N
Silver	NA	NA		NA		1.02E+04	1.0E+04	1.0E+04	N
Styrene	1.14E-05	3.32E+04	NA		4.33E+04		4.3E+04	4.3E+04	N
Tetrachlorobenzene,1,2,4,5-	5.71E-07	1.48E+05	NA		1.22E+02		1.2E+02	1.2E+02	N
Tetrachloroethane,1,1,1,2-	1.03E-04	1.10E+04	5.92E+00		1.64E+03		5.9E+00	5.9E+00	C
Tetrachloroethane,1,1,2,2-	1.36E-05	3.03E+04	1.99E+00		8.63E+03		2.0E+00	2.0E+00	C
Tetrachloroethylene	2.42E-04	7.18E+03	3.47E+01		3.37E+03		3.5E+01	3.5E+01	C
Tetrachlorophenol,2,3,4,6-	1.50E-07	2.89E+05	NA		1.66E+04		1.7E+04	1.7E+04	N
Thallium	NA	NA		NA		1.43E+02	1.4E+02	1.4E+02	N
Toluene	1.91E-04	8.10E+03	NA		4.66E+03		4.7E+03	4.7E+03	N
Toxaphene	2.30E-10	7.38E+06	2.19E+00		NA		2.2E+00	2.2E+00	C
Trichlorobenzene,1,2,4-	1.39E-06	9.47E+04	NA		1.17E+04		1.2E+04	1.2E+04	N
Trichloroethane,1,1,1-	4.39E-04	5.34E+03	NA		7.03E+03		7.0E+03	7.0E+03	N
Trichloroethane,1,1,2-	4.06E-05	1.76E+04	4.29E+00		3.44E+02		4.3E+00	4.3E+00	C
Trichloroethene	3.65E-04	5.85E+03	2.06E-01		2.19E+02		2.1E-01	2.1E-01	C
Trichlorofluoromethane	1.93E-03	2.55E+03	NA		2.59E+03		2.6E+03	2.6E+03	N
Trichlorophenol,2,4,5-	4.99E-08	5.00E+05	NA		6.55E+04		6.6E+04	6.6E+04	N
Trichlorophenol,2,4,6-	3.64E-08	5.86E+05	1.73E+02		NA		1.7E+02	1.7E+02	C
Vanadium	NA	NA		NA		1.43E+04	1.4E+04	1.4E+04	N
Vinyl chloride	2.81E-03	2.11E+03	7.87E-01		NA		7.9E-01	7.9E-01	C
Xylene(mixed)	1.87E-04	8.17E+03	NA		1.21E+03		1.2E+03	1.2E+03	N
Zinc	NA	NA		NA		6.13E+05	6.1E+05	6.1E+05	N

LDEQ RECAP
WORKSHEET 5
SOILi
(mg/kg)

Derivation of Management Option 1 & 2 **Soil-Industrial**
Revision Date: 08/04/2003 Run date: 10/17/2003

DA = ((na^(10/3)*Da*H*41+nw^(10/3)*Dw)/n^2)/(pb*Koc*foc+nw+na*H*41)
VFi = (Q\C*1e-4*(3.14*DA*Ti)^0.5)/(2*pb*DA)

Soili-C-O = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFi*(IRAa/VFi)+SFo*SAai*AFai*ABS*1e-6))
Soili-C-I = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFo*SAai*AFai*ABS*1e-6))
Soili-N-O = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(IRAa/RfDi)*(1/VFi)+(SAai/RfDo)*AFai*ABS*1e-6))
Soili-N-I = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(SAai/RfDo)*AFai*ABS*1e-6)))

	DA	VFi	Soili	Soili	Soili	Soili	min value	Soili	
COMPOUND	**(cm2/s)**	**(m3/kg)**	**C-O (mg/kg)**	**C-I (mg/kg)**	**N-O (mg/kg)**	**N-I (mg/kg)**	**(C or N)**	**(mg/kg)**	
Aliphatics C6-C8	1.40E-03	2.99E+03	NA		8.03E+04		8.0E+04	1.0E+04	O,T
Aliphatics >C8-C10	3.22E-04	6.23E+03	NA		8.83E+03		8.8E+03	8.8E+03	N
Aliphatics >C10-C12	6.28E-05	1.41E+04	NA		1.96E+04		2.0E+04	1.0E+04	O,T
Aliphatics >C12-C16	1.37E-05	3.02E+04	NA		3.77E+04		3.8E+04	1.0E+04	O,T
Aliphatics >C16-C35	1.03E-06	1.10E+05	NA		6.87E+05		6.9E+05	1.0E+04	O,T
Aromatics >C8-C10	3.94E-05	1.78E+04	NA		5.12E+03		5.1E+03	5.1E+03	N
Aromatics >C10-C12	7.31E-06	4.13E+04	NA		1.10E+04		1.1E+04	1.0E+04	O,T
Aromatics >C12-C16	1.40E-06	9.45E+04	NA		2.14E+04		2.1E+04	1.0E+04	O,T
Aromatics >C16-C21	1.11E-07	3.36E+05	NA		1.75E+04		1.7E+04	1.0E+04	O,T
Aromatics >C21-C35	1.04E-09	3.47E+06	NA		2.52E+04		2.5E+04	1.0E+04	O,T
TPH-GRO (C6-C10)							5.1E+03	5.1E+03	
TPH-DRO (C10-C28)							5.1E+03	5.1E+03	
TPH-ORO (>C28)							2.5E+04	1.0E+04	

LDEQ RECAP
WORKSHEET 6
SOILGW and SOILsat
(mg/kg)

Derivation of Management Option 1 & 2 **SoilGW & Soilsat**
Revision Date: 08/04/2003 Run date: 10/17/2003

SoilGW1 = DFsummers*(GW1*(pb*Koc*foc+nw+na*H*41))/(pb)
SoilGW2 = DFsummers*(GW2*(pb*Koc*foc+nw+na*H*41))/(pb)
SoilGW3NDW =DFsummers* (GW3NDW*(pb*Koc*foc+nw+na*H*41))/(pb)
SoilGW3DW =DFsummers* (GW3DW*(pb*Koc*foc+nw+na*H*41))/(pb)

Soilsat = S*(Koc*foc*pb+nw+H*41*na)/pb

	SoilGW1	SoilGW2	SoilGW3DW	SoilGW3NDW	Soilsat
COMPOUND	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**
Acenaphthene	2.2E+02	2.2E+02	2.5E+02	3.2E+02	NA
Acenaphthylene	8.8E+01	8.8E+01	1.4E+02	1.9E+02	NA
Acetone	1.5E+00	1.5E+00	8.5E+00	1.8E+02	1.3E+05
Aldrin	1.1E+01	1.1E+01	1.1E+01	1.1E+01	NA
Aniline	6.5E-02	6.5E-02	3.2E-02	4.4E-01	1.0E+04
Anthracene	1.2E+02	1.2E+02	1.2E+02	1.2E+02	NA
Antimony	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA
Benzene	5.1E-02	5.1E-02	1.1E-02	1.3E-01	9.0E+02
Benz(a)anthracene	3.3E+02	3.9E+00	1.6E-02	1.6E-02	NA
Benzo(a)pyrene	2.3E+01	2.3E+01	2.3E+01	2.3E+01	NA
Benzo(b)fluoranthene	2.2E+02	1.3E+01	1.3E+01	1.3E+01	NA
Benzo(k)fluoranthene	1.2E+02	1.2E+02	1.2E+02	1.2E+02	NA
Beryllium	NA	NA	NA	NA	NA
Biphenyl,1,1-	1.9E+02	1.9E+02	1.4E+02	1.7E+02	2.3E+02
Bis(2-chloroethyl)ether	6.6E-02	6.6E-02	3.2E-04	2.4E-03	9.8E+03
Bis(2-chloroisopropyl)ether	5.6E-02	2.7E-03	3.1E-03	8.2E-03	8.4E+02
Bis(2-ethyl-hexyl)phthalate	7.9E+01	7.9E+01	7.9E+01	7.9E+01	2.2E+02
Bromodichloromethane	9.2E-01	9.2E-01	9.2E-01	3.0E-02	3.1E+03
Bromoform	1.8E+00	1.8E+00	6.9E-02	6.1E-01	2.7E+03
Bromomethane	4.0E-02	3.5E-02	1.8E-01	2.1E+00	3.0E+03
Butyl benzyl phthalate	4.4E+03	4.4E+03	1.5E+03	1.7E+03	2.2E+02

LDEQ RECAP
WORKSHEET 6
SOILGW and SOILsat
(mg/kg)

Derivation of Management Option 1 & 2 **SoilGW & Soilsat**
Revision Date: 08/04/2003 Run date: 10/17/2003

SoilGW1 = DFsummers*(GW1*(pb*Koc*foc+nw+na*H*41))/(pb)
SoilGW2 = DFsummers*(GW2*(pb*Koc*foc+nw+na*H*41))/(pb)
SoilGW3NDW =DFsummers* (GW3NDW*(pb*Koc*foc+nw+na*H*41))/(pb)
SoilGW3DW =DFsummers* (GW3DW*(pb*Koc*foc+nw+na*H*41))/(pb)

Soilsat = S*(Koc*foc*pb+nw+H*41*na)/pb

	SoilGW1	**SoilGW2**	**SoilGW3DW**	**SoilGW3NDW**	**Soilsat**
COMPOUND	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**
Cadmium	NA	NA	NA	NA	NA
Carbon Disulfide	1.1E+01	1.1E+01	2.9E+01	1.5E+02	6.0E+02
Carbon Tetrachloride	1.1E-01	1.1E-01	5.0E-03	2.7E-02	9.1E+02
Chlordane	1.2E+01	1.2E+01	1.2E+01	1.2E+01	NA
Chloroaniline,p-	1.5E+00	1.5E+00	1.2E+00	7.0E+00	NA
Chlorobenzene	3.0E+00	3.0E+00	3.0E+00	2.1E+01	7.0E+02
Chlorodibromomethane	1.0E+00	1.0E+00	3.9E-03	5.1E-02	1.3E+03
Chloroethane (Ethylchloride)	3.5E-02	1.3E-02	4.4E+01	4.3E+02	9.9E+02
Chloroform	9.0E-01	9.0E-01	4.8E-02	6.3E-01	3.6E+03
Chloromethane	6.1E-02	9.1E-03	1.5E-02	2.2E-01	1.6E+03
Chloronaphthalene,2-	5.0E+02	5.0E+02	3.3E+02	3.7E+02	NA
Chlorophenol,2-	1.4E+00	1.4E+00	4.6E-03	5.8E+00	5.1E+04
Chromium(III)	NA	NA	NA	NA	NA
Chromium(VI)	NA	NA	NA	NA	NA
Chrysene	7.6E+01	7.6E+01	1.8E+00	1.8E+00	NA
Cobalt	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA
Cyanide (free)	NA	NA	NA	NA	NA
DDD	1.5E+00	1.5E+00	1.5E+00	1.5E+00	NA
DDE	2.0E+00	2.0E+00	2.0E+00	2.0E+00	NA
DDT	2.4E+01	1.6E+01	1.6E+01	1.6E+01	NA
Dibenz(a,h)anthracene	5.4E+02	2.0E+00	2.0E+00	2.0E+00	NA
Dibenzofuran	2.4E+01	2.4E+01	1.3E+01	1.5E+01	1.5E+02

LDEQ RECAP
WORKSHEET 6
SOILGW and SOILsat
(mg/kg)

Derivation of Management Option 1 & 2 **SoilGW & Soilsat**
Revision Date: 08/04/2003 Run date: 10/17/2003

SoilGW1 = DFsummers*(GW1*(pb*Koc*foc+nw+na*H*41))/(pb)
SoilGW2 = DFsummers*(GW2*(pb*Koc*foc+nw+na*H*41))/(pb)
SoilGW3NDW =DFsummers* (GW3NDW*(pb*Koc*foc+nw+na*H*41))/(pb)
SoilGW3DW =DFsummers* (GW3DW*(pb*Koc*foc+nw+na*H*41))/(pb)

Soilsat = S*(Koc*foc*pb+nw+H*41*na)/pb

	SoilGW1	SoilGW2	SoilGW3DW	SoilGW3NDW	Soilsat
COMPOUND	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**
Dibromo-3-chloropropane,1,2-	2.6E-03	2.6E-03	2.6E-03	2.6E-03	7.8E+02
Dichlorobenzene,1,2-	2.9E+01	2.9E+01	2.9E+01	1.6E+02	3.8E+02
Dichlorobenzene,1,3-	2.1E+00	1.1E+00	3.8E+00	9.2E+00	1.3E+03
Dichlorobenzene,1,4-	5.7E+00	5.7E+00	5.7E+00	5.7E+00	NA
Dichlorobenzidine,3,3-	1.8E+00	1.3E-02	1.1E-03	1.4E-03	NA
Dichloroethane,1,1-	7.5E+00	7.5E+00	2.7E+01	1.8E+02	2.3E+03
Dichloroethane,1,2-	3.5E-02	3.5E-02	2.6E-03	4.8E-02	3.0E+03
Dichloroethene,1,1-	8.5E-02	8.5E-02	6.1E-04	7.0E-03	1.4E+03
Dichloroethene,cis,1,2-	4.9E-01	4.9E-01	4.9E-01	1.2E+01	1.2E+03
Dichloroethene,trans,1,2-	7.7E-01	7.7E-01	7.7E-01	1.9E+01	2.4E+03
Dichlorophenol,2,4-	1.2E+01	1.2E+01	3.2E-02	2.5E+01	NA
Dichloropropane,1,2-	4.2E-02	4.2E-02	4.2E-02	4.2E-02	1.2E+03
Dichloropropene,1,3-	4.0E-02	3.2E-03	8.0E-02	1.3E+00	1.1E+03
Dieldrin	7.6E+00	7.6E+00	7.6E+00	7.6E+00	NA
Diethylphthalate	3.6E+02	3.6E+02	1.6E+02	2.8E+02	6.7E+02
Dimethylphenol,2,4-	2.0E+01	2.0E+01	7.6E+00	1.2E+01	NA
Dimethylphthalate	2.8E+03	2.8E+03	1.6E+03	4.3E+03	1.5E+03
Di-n-octylphthalate	2.0E+05	2.0E+05	2.0E+05	2.0E+05	1.0E+04
Dinitrobenzene,1,3-	2.1E-01	7.5E-02	6.4E-02	5.7E-01	5.5E+02
Dinitrophenol,2,4-	3.4E-01	3.4E-01	2.8E-01	2.3E+00	NA
Dinitrotoluene,2,6-	3.9E-01	3.9E-01	3.1E-01	1.8E+00	NA
Dinitrotoluene,2,4-	1.0E+00	1.0E+00	7.9E-01	4.1E+00	NA
Dinoseb	1.2E-01	1.2E-01	1.2E-01	4.4E-01	NA

LDEQ RECAP
WORKSHEET 6
SOILGW and SOILsat
(mg/kg)

Derivation of Management Option 1 & 2 **SoilGW & Soilsat**
Revision Date: 08/04/2003 Run date: 10/17/2003

SoilGW1 = DFsummers*(GW1*(pb*Koc*foc+nw+na*H*41))/(pb)
SoilGW2 = DFsummers*(GW2*(pb*Koc*foc+nw+na*H*41))/(pb)
SoilGW3NDW =DFsummers* (GW3NDW*(pb*Koc*foc+nw+na*H*41))/(pb)
SoilGW3DW =DFsummers* (GW3DW*(pb*Koc*foc+nw+na*H*41))/(pb)

Soilsat = S*(Koc*foc*pb+nw+H*41*na)/pb

	SoilGW1	SoilGW2	SoilGW3DW	SoilGW3NDW	Soilsat
COMPOUND	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**
Endosulfan	5.4E+01	5.4E+01	5.4E+01	1.6E-01	NA
Endrin	2.6E+00	2.6E+00	3.4E-01	3.4E-01	NA
Ethyl benzene	1.9E+01	1.9E+01	6.6E+01	2.2E+02	2.3E+02
Fluoranthene	1.2E+03	1.2E+03	1.8E+02	1.9E+02	NA
Fluorene	2.3E+02	2.3E+02	6.8E+01	7.2E+01	NA
Heptachlor	5.0E-01	5.0E-01	5.0E-01	5.0E-01	NA
Heptachlor epoxide	2.0E+00	2.0E+00	2.0E+00	2.0E+00	NA
Hexachlorobenzene	9.6E+00	9.6E+00	9.6E+00	9.6E+00	NA
Hexachlorobutadiene	5.5E+00	5.5E+00	5.8E-01	7.1E-01	1.0E+03
Hexachlorocyclohexane,alpha	6.4E-03	2.2E-03	3.7E-04	5.5E-04	NA
Hexachlorocyclohexane,beta	1.6E-02	9.5E-03	1.3E-03	1.7E-03	NA
Hexachlorocyclohexane,gamma	3.3E-02	3.3E-02	1.8E-02	3.3E-02	NA
Hexachlorocyclopentadiene	1.2E+03	1.2E+03	1.2E+03	1.2E+03	2.2E+03
Hexachloroethane	2.2E+00	1.7E-01	2.2E-01	3.8E-01	NA
Indeno(1,2,3-cd)pyrene	9.2E+00	9.2E+00	9.2E+00	9.2E+00	NA
Isobutyl alcohol	3.0E+01	3.0E+01	2.7E+01	4.3E+02	1.2E+04
Isophorone	5.6E-01	5.6E-01	2.7E-01	2.6E+00	4.9E+03
Lead (inorganic)	NA	NA	NA	NA	NA
Mercury (inorganic)	NA	NA	NA	NA	NA
Methoxychlor	3.8E+02	3.8E+02	3.8E+02	3.8E+02	NA
Methylene chloride	1.7E-02	1.7E-02	1.5E-02	2.9E-01	2.2E+03
Methyl ethyl ketone	5.0E+00	5.0E+00	5.2E+01	1.0E+03	2.9E+04
Methyl isobutyl ketone	6.4E+00	6.4E+00	8.3E+00	9.7E+01	3.1E+03

LDEQ RECAP
WORKSHEET 6
SOILGW and SOILsat
(mg/kg)

Derivation of Management Option 1 & 2 **SoilGW & Soilsat**
Revision Date: 08/04/2003 Run date: 10/17/2003

SoilGW1 = DFsummers*(GW1*(pb*Koc*foc+nw+na*H*41))/(pb)
SoilGW2 = DFsummers*(GW2*(pb*Koc*foc+nw+na*H*41))/(pb)
SoilGW3NDW =DFsummers* (GW3NDW*(pb*Koc*foc+nw+na*H*41))/(pb)
SoilGW3DW =DFsummers* (GW3DW*(pb*Koc*foc+nw+na*H*41))/(pb)

Soilsat = S*(Koc*foc*pb+nw+H*41*na)/pb

	SoilGW1	SoilGW2	SoilGW3DW	SoilGW3NDW	Soilsat
COMPOUND	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**
Methylnaphthalene,2-	1.7E+00	1.7E+00	7.0E+00	7.3E+00	NA
MTBE (methyl tert-butyl ether)	7.7E-02	7.7E-02	7.7E-02	2.1E+03	9.8E+03
Naphthalene	1.5E+00	9.0E-01	2.5E+01	3.2E+01	NA
Nickel	NA	NA	NA	NA	NA
Nitrate	NA	NA	NA	NA	NA
Nitrite	NA	NA	NA	NA	NA
Nitroaniline,2-	2.3E-01	9.5E-04	3.9E-01	2.3E+00	2.8E+02
Nitroaniline,3-	2.3E-01	8.5E-02	4.4E-01	4.3E+00	2.8E+02
Nitroaniline,4-	4.3E-01	4.3E-01	3.7E-01	3.6E+00	1.4E+02
Nitrobenzene	5.7E-02	5.7E-02	2.5E-01	1.6E+00	1.8E+03
Nitrophenol,4-	2.6E+00	2.6E+00	2.1E+00	1.2E+01	5.4E+03
Nitrosodi-n-propylamine,n-	5.3E-02	5.3E-02	5.3E-02	2.4E-04	NA
N-nitrosodiphenylamine	2.1E+00	2.1E+00	3.5E-01	5.1E-01	NA
Pentachlorophenol	1.1E-01	1.1E-01	1.1E-01	1.1E-01	NA
Phenanthrene	6.6E+02	6.6E+02	1.2E+02	1.2E+02	NA
Phenol	1.1E+01	1.1E+01	5.5E+01	4.9E+02	NA
Polychlorinated biphenyls	1.9E+01	1.9E+01	1.9E+01	1.9E+01	5.7E+01
Pyrene	1.1E+03	1.1E+03	1.1E+03	1.1E+03	NA
Selenium	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA
Styrene	1.1E+01	1.1E+01	1.1E+01	7.9E+02	1.7E+03
Tetrachlorobenzene,1,2,4,5-	6.9E+00	6.9E+00	3.4E-01	3.6E-01	1.9E+01
Tetrachloroethane,1,1,1,2-	4.6E-02	3.9E-03	7.7E-03	2.0E-02	5.0E+02

LDEQ RECAP
WORKSHEET 6
SOILGW and SOILsat
(mg/kg)

Derivation of Management Option 1 & 2 **SoilGW & Soilsat**
Revision Date: 08/04/2003 Run date: 10/17/2003

SoilGW1 = DFsummers*(GW1*(pb*Koc*foc+nw+na*H*41))/(pb)
SoilGW2 = DFsummers*(GW2*(pb*Koc*foc+nw+na*H*41))/(pb)
SoilGW3NDW =DFsummers* (GW3NDW*(pb*Koc*foc+nw+na*H*41))/(pb)
SoilGW3DW =DFsummers* (GW3DW*(pb*Koc*foc+nw+na*H*41))/(pb)

Soilsat = S*(Koc*foc*pb+nw+H*41*na)/pb

	SoilGW1	SoilGW2	SoilGW3DW	SoilGW3NDW	Soilsat
COMPOUND	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**
Tetrachloroethane,1,1,2,2-	6.0E-03	6.5E-04	1.9E-03	2.2E-02	1.8E+03
Tetrachloroethylene	1.8E-01	1.8E-01	2.3E-02	8.9E-02	3.6E+02
Tetrachlorophenol,2,3,4,6-	3.1E+01	3.1E+01	4.2E+00	5.0E+00	1.4E+03
Thallium	NA	NA	NA	NA	NA
Toluene	2.0E+01	2.0E+01	1.2E+02	9.1E+02	5.2E+02
Toxaphene	3.4E+01	3.4E+01	3.4E+01	3.4E+01	NA
Trichlorobenzene,1,2,4-	1.4E+01	1.4E+01	1.4E+01	3.8E+01	NA
Trichloroethane,1,1,1-	4.0E+00	4.0E+00	4.0E+00	1.8E+02	1.3E+03
Trichloroethane,1,1,2-	5.8E-02	5.8E-02	6.5E-03	8.0E-02	2.5E+03
Trichloroethene	7.3E-02	7.3E-02	4.1E-02	3.0E-01	8.0E+02
Trichlorofluoromethane	3.7E+01	3.7E+01	2.0E+02	5.8E+02	1.6E+03
Trichlorophenol,2,4,5-	3.2E+02	3.2E+02	4.7E+01	5.6E+01	NA
Trichlorophenol,2,4,6-	1.3E+00	7.9E-01	8.6E-02	1.1E-01	NA
Vanadium	NA	NA	NA	NA	NA
Vinyl chloride	1.3E-02	1.3E-02	1.3E-02	2.4E-01	9.2E+02
Xylene(mixed)	1.8E+02	1.8E+02	1.8E+02	1.8E+02	1.5E+02
Zinc	NA	NA	NA	NA	NA
Aliphatics C6-C8	1.8E+04	1.8E+04	9.5E+04	2.2E+06	NA
Aliphatics >C8-C10	5.3E+03	5.3E+03	1.3E+04	3.1E+05	NA
Aliphatics >C10-C12	4.2E+04	4.2E+04	1.0E+05	2.4E+06	NA
Aliphatics >C12-C16	8.2E+05	8.2E+05	2.0E+06	4.7E+07	NA
Aliphatics >C16-C35	5.5E+09	5.5E+09	5.1E+09	1.2E+11	NA
Aromatics >C8-C10	6.5E+01	6.5E+01	2.6E+02	6.1E+03	NA

LDEQ RECAP
WORKSHEET 6
SOILGW and SOILsat
(mg/kg)

Derivation of Management Option 1 & 2 **SoilGW & Soilsat**
Revision Date: 08/04/2003 Run date: 10/17/2003

SoilGW1 = DFsummers*(GW1*(pb*Koc*foc+nw+na*H*41))/(pb)
SoilGW2 = DFsummers*(GW2*(pb*Koc*foc+nw+na*H*41))/(pb)
SoilGW3NDW =DFsummers* (GW3NDW*(pb*Koc*foc+nw+na*H*41))/(pb)
SoilGW3DW =DFsummers* (GW3DW*(pb*Koc*foc+nw+na*H*41))/(pb)

Soilsat = S*(Koc*foc*pb+nw+H*41*na)/pb

	SoilGW1	**SoilGW2**	**SoilGW3DW**	**SoilGW3NDW**	**Soilsat**
COMPOUND	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**
Aromatics >C10-C12	1.0E+02	1.0E+02	4.1E+02	9.6E+03	NA
Aromatics >C12-C16	2.0E+02	2.0E+02	8.1E+02	1.9E+04	NA
Aromatics >C16-C21	2.1E+03	2.1E+03	1.9E+03	4.5E+04	NA
Aromatics >C21-C35	1.7E+04	1.7E+04	1.5E+04	3.6E+05	NA
TPH-GRO (C6-C10)	6.5E+01	6.5E+01	2.6E+02	6.1E+03	
TPH-DRO (C10-C28)	6.5E+01	6.5E+01	2.6E+02	6.1E+03	
TPH-ORO (>C28)	1.7E+04	1.7E+04	1.5E+04	3.6E+05	

LDEQ RECAP
WORKSHEET 9
SOILni-PEF
(mg/kg)

Soil with particulate emissions-Nonindustrial			Derivation of Management Option 2 R$					
Revision Date: 08/04/2003			Run date:	10/17/2003				
INPUTS TO SOIL PATICULATE EMISSION MODEL-NONINDUSTRIAL					Site-Specific			
equivalent threshold value of windspeed at 7m				Ut =	11.32	m/s		
mean annual windspeed				Um =	4.69	m/s		
inverse of mean concentration at enter of source (g/m2-s per kg/m3)				Q/C =	enter in soil properties spreadsheet			
fraction of vegetative cover				V =	0.5	unitless		
function dependent on Um/Ut - See Below				F(x) =	0.194	unitless		
x = 0.886*(Ut/Um)								
for x<0.5	F(x) =	1.91						
for 0.5<x<0.8	F(x) =	2.06 - 0.33*x						
for 0.8<x<1	F(x) =	2.6 - x						
for 1<x<2	F(x) =	2.9 - 1.3*x						
for x>2	F(x) =	0.18*(8*x^3 + 12*x) e^(-x^2)						
PEFni = Q/C*3600/(0.036*(1-V)*(Um/Ut)^3*F(x))								
DA & VF calculations are in the Soilni worksheet								
Soilni-PEF-C-O = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFi*IRAadj*(1/VFnia+1/PEFni)+SFo*1e-6*ABS*IRDadj))								
Soilni-PEF-C-I = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFi*IRAadj/PEFni+SFo*1e-6*ABS*IRDadj))								
Soilni-PEF-N-O = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(IRAc/RfDi)*(1/VFnic+1/PEFni)+(SAc/RfDo)*AFc*ABS*1e-6))								
Soilni-PEF-N-I = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(IRAc/RfDi)*(1/PEFni)+(SAc/RfDo)*AFc*ABS*1e-6))								
	PEFni	Soilni-PEF	Soilni-PEF	Soilni-PEF	Soilni-PEF	min value		
COMPOUND	(m3/kg)	C-O (mg/kg)	C-I (mg/kg)	N-O (mg/kg)	N-I (mg/kg)	(C or N)		
Acenaphthene	1.11E+09	#VALUE!		3.74E+03		3.7E+03		
Acenaphthylene	1.11E+09	#VALUE!		3.47E+03		3.5E+03		
Acetone	1.11E+09	#VALUE!		1.74E+03		1.7E+03		
Aldrin	1.11E+09	2.77E-02		1.77E+00		2.8E-02		
Aniline	1.11E+09	5.44E+01		2.42E+01		2.4E+01		
Anthracene	1.11E+09	#VALUE!		2.19E+04		2.2E+04		
Antimony	1.11E+09		#VALUE!		3.13E+01	3.1E+01		
Arsenic	1.11E+09		3.90E-01		2.16E+01	3.9E-01		
Barium	1.11E+09		#VALUE!		5.36E+03	5.4E+03		
Benzene	1.11E+09	1.49E+00		3.69E+01		1.5E+00		
Benz(a)anthracene	1.11E+09	6.20E-01		#VALUE!		6.2E-01		
Benzo(a)pyrene	1.11E+09	6.21E-02		#VALUE!		6.2E-02		
Benzo(b)fluoranthene	1.11E+09	6.20E-01		#VALUE!		6.2E-01		
Benzo(k)fluoranthene	1.11E+09	6.21E+00		#VALUE!		6.2E+00		
Beryllium	1.11E+09		#VALUE!		1.54E+02	1.5E+02		
Biphenyl,1,1-	1.11E+09	#VALUE!		2.93E+03		2.9E+03		
Bis(2-chloroethyl)ether	1.11E+09	3.16E-01		#VALUE!		3.2E-01		
Bis(2-chloroisopropyl)ether	1.11E+09	4.92E+00		1.04E+03		4.9E+00		
Bis(2-ethyl-hexyl)phthalate	1.11E+09	3.45E+01		1.21E+03		3.5E+01		
Bromodichloromethane	1.11E+09	1.84E+00		2.46E+02		1.8E+00		
Bromoform	1.11E+09	4.80E+01		5.92E+02		4.8E+01		
Bromomethane	1.11E+09	#VALUE!		4.33E+00		4.3E+00		

LDEQ RECAP
WORKSHEET 9
SOILni-PEF
(mg/kg)

Soil with particulate emissions-Nonindustrial			Derivation of Management Option 2 R$					
Revision Date: 08/04/2003			Run date:	10/17/2003				
INPUTS TO SOIL PATICULATE EMISSION MODEL-NONINDUSTRIAL					Site-Specific			
equivalent threshold value of windspeed at 7m				Ut =	11.32	m/s		
mean annual windspeed				Um =	4.69	m/s		
inverse of mean concentration at enter of source (g/m2-s per kg/m3)				Q/C =	enter in soil properties spreadsheet			
fraction of vegetative cover				V =	0.5	unitless		
function dependent on Um/Ut - See Below				F(x) =	0.194	unitless		
x = 0.886*(Ut/Um)								
for x<0.5	F(x) =	1.91						
for 0.5<x<0.8	F(x) =	2.06 - 0.33*x						
for 0.8<x<1	F(x) =	2.6 - x						
for 1<x<2	F(x) =	2.9 - 1.3*x						
for x>2	F(x) =	0.18*(8*x^3 + 12*x) e^(-x^2)						
PEFni = Q/C*3600/(0.036*(1-V)*(Um/Ut)^3*F(x))								
DA & VF calculations are in the Soilni worksheet								
Soilni-PEF-C-O = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFi*IRAadj*(1/VFnia+1/PEFni)+SFo*1e-6*ABS*IRDadj))								
Soilni-PEF-C-I = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFi*IRAadj/PEFni+SFo*1e-6*ABS*IRDadj))								
Soilni-PEF-N-O = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(IRAc/RfDi)*(1/VFnic+1/PEFni)+(SAc/RfDo)*AFc*ABS*1e-6))								
Soilni-PEF-N-I = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(IRAc/RfDi)*(1/PEFni)+(SAc/RfDo)*AFc*ABS*1e-6))								
	PEFni	Soilni-PEF	Soilni-PEF	Soilni-PEF	Soilni-PEF	min value		
COMPOUND	(m3/kg)	C-O (mg/kg)	C-I (mg/kg)	N-O (mg/kg)	N-I (mg/kg)	(C or N)		
Butyl benzyl phthalate	1.11E+09	#VALUE!		1.19E+04		1.2E+04		
Cadmium	1.11E+09		#VALUE!		3.90E+01	3.9E+01		
Carbon Disulfide	1.11E+09	#VALUE!		3.63E+02		3.6E+02		
Carbon Tetrachloride	1.11E+09	5.32E-01		1.82E+00		5.3E-01		
Chlordane	1.11E+09	1.59E+00		3.31E+01		1.6E+00		
Chloroaniline,p-	1.11E+09	#VALUE!		1.62E+02		1.6E+02		
Chlorobenzene	1.11E+09	#VALUE!		1.68E+02		1.7E+02		
Chlorodibromomethane	1.11E+09	2.15E+00		3.96E+02		2.2E+00		
Chloroethane (Ethylchloride)	1.11E+09	4.13E+00		3.29E+03		4.1E+00		
Chloroform	1.11E+09	6.05E-01		4.43E-01		4.4E-01		
Chloromethane	1.11E+09	3.49E+00		2.08E+02		3.5E+00		
Chloronaphthalene,2-	1.11E+09	#VALUE!		5.02E+03		5.0E+03		
Chlorophenol,2-	1.11E+09	#VALUE!		1.53E+02		1.5E+02		
Chromium(III)	1.11E+09		#VALUE!		#VALUE!	#VALUE!		
Chromium(VI)	1.11E+09		#VALUE!		#VALUE!	#VALUE!		
Chrysene	1.11E+09	6.19E+01		#VALUE!		6.2E+01		
Cobalt	1.11E+09		#VALUE!		3.18E+03	3.2E+03		
Copper	1.11E+09		#VALUE!		#VALUE!	#VALUE!		
Cyanide (free)	1.11E+09		#VALUE!		#VALUE!	#VALUE!		
DDD	1.11E+09	2.40E+00		#VALUE!		2.4E+00		
DDE	1.11E+09	1.69E+00		#VALUE!		1.7E+00		
DDT	1.11E+09	1.71E+00		3.59E+01		1.7E+00		

LDEQ RECAP
WORKSHEET 9
SOILni-PEF
(mg/kg)

Soil with particulate emissions-Nonindustrial			Derivation of Management Option 2 R$					
Revision Date: 08/04/2003			Run date:	10/17/2003				
INPUTS TO SOIL PATICULATE EMISSION MODEL-NONINDUSTRIAL					Site-Specific			
equivalent threshold value of windspeed at 7m				Ut =	11.32	m/s		
mean annual windspeed				Um =	4.69	m/s		
inverse of mean concentration at enter of source (g/m2-s per kg/m3)				Q/C =	enter in soil properties spreadsheet			
fraction of vegetative cover				V =	0.5	unitless		
function dependent on Um/Ut - See Below				F(x) =	0.194	unitless		
x = 0.886*(Ut/Um)								
for x<0.5	F(x) =	1.91						
for 0.5<x<0.8	F(x) =	2.06 - 0.33*x						
for 0.8<x<1	F(x) =	2.6 - x						
for 1<x<2	F(x) =	2.9 - 1.3*x						
for x>2	F(x) =	0.18*(8*x^3 + 12*x) e^(-x^2)						
PEFni = Q/C*3600/(0.036*(1-V)*(Um/Ut)^3*F(x))								
DA & VF calculations are in the Soilni worksheet								
Soilni-PEF-C-O = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFi*IRAadj*(1/VFnia+1/PEFni)+SFo*1e-6*ABS*IRDadj))								
Soilni-PEF-C-I = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFi*IRAadj/PEFni+SFo*1e-6*ABS*IRDadj))								
Soilni-PEF-N-O = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(IRAc/RfDi)*(1/VFnic+1/PEFni)+(SAc/RfDo)*AFc*ABS*1e-6))								
Soilni-PEF-N-I = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(IRAc/RfDi)*(1/PEFni)+(SAc/RfDo)*AFc*ABS*1e-6))								
	PEFni	Soilni-PEF	Soilni-PEF	Soilni-PEF	Soilni-PEF	min value		
COMPOUND	(m3/kg)	C-O (mg/kg)	C-I (mg/kg)	N-O (mg/kg)	N-I (mg/kg)	(C or N)		
Dibenz(a,h)anthracene	1.11E+09	6.21E-02		#VALUE!		6.2E-02		
Dibenzofuran	1.11E+09	#VALUE!		2.93E+02		2.9E+02		
Dibromo-3-chloropropane,1,2-	1.11E+09	3.47E-01		1.77E+00		3.5E-01		
Dichlorobenzene,1,2-	1.11E+09	#VALUE!		9.93E+02		9.9E+02		
Dichlorobenzene,1,3-	1.11E+09	#VALUE!		2.09E+01		2.1E+01		
Dichlorobenzene,1,4-	1.11E+09	6.71E+00		1.62E+03		6.7E+00		
Dichlorobenzidine,3,3-	1.11E+09	9.68E-01		#VALUE!		9.7E-01		
Dichloroethane,1,1-	1.11E+09	#VALUE!		6.55E+02		6.6E+02		
Dichloroethane,1,2-	1.11E+09	8.15E-01		2.31E+01		8.2E-01		
Dichloroethene,1,1-	1.11E+09	#VALUE!		1.33E+02		1.3E+02		
Dichloroethene,cis,1,2-	1.11E+09	#VALUE!		4.81E+01		4.8E+01		
Dichloroethene,trans,1,2-	1.11E+09	#VALUE!		6.91E+01		6.9E+01		
Dichlorophenol,2,4-	1.11E+09	#VALUE!		1.59E+02		1.6E+02		
Dichloropropane,1,2-	1.11E+09	8.32E-01		6.87E+00		8.3E-01		
Dichloropropene,1,3-	1.11E+09	3.13E+00		5.05E+01		3.1E+00		
Dieldrin	1.11E+09	2.98E-02		2.98E+00		3.0E-02		
Diethylphthalate	1.11E+09	#VALUE!		3.57E+04		3.6E+04		
Dimethylphenol,2,4-	1.11E+09	#VALUE!		9.34E+02		9.3E+02		
Dimethylphthalate	1.11E+09	#VALUE!		4.17E+05		4.2E+05		
Di-n-octylphthalate	1.11E+09	#VALUE!		2.44E+03		2.4E+03		
Dinitrobenzene,1,3-	1.11E+09	#VALUE!		4.49E+00		4.5E+00		
Dinitrophenol,2,4-	1.11E+09	#VALUE!		7.12E+01		7.1E+01		

LDEQ RECAP
WORKSHEET 9
SOILni-PEF
(mg/kg)

Soil with particulate emissions-Nonindustrial			Derivation of Management Option 2 R$					
Revision Date: 08/04/2003			Run date:	10/17/2003				
INPUTS TO SOIL PATICULATE EMISSION MODEL-NONINDUSTRIAL					Site-Specific			
equivalent threshold value of windspeed at 7m				Ut =	11.32	m/s		
mean annual windspeed				Um =	4.69	m/s		
inverse of mean concentration at enter of source (g/m2-s per kg/m3)				Q/C =	enter in soil properties spreadsheet			
fraction of vegetative cover				V =	0.5	unitless		
function dependent on Um/Ut - See Below				F(x) =	0.194	unitless		
x = 0.886*(Ut/Um)								
for x<0.5	F(x) =	1.91						
for 0.5<x<0.8	F(x) =	2.06 - 0.33*x						
for 0.8<x<1	F(x) =	2.6 - x						
for 1<x<2	F(x) =	2.9 - 1.3*x						
for x>2	F(x) =	0.18*(8*x^3 + 12*x) e^(-x^2)						
PEFni = Q/C*3600/(0.036*(1-V)*(Um/Ut)^3*F(x))								
DA & VF calculations are in the Soilni worksheet								
Soilni-PEF-C-O = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFi*IRAadj*(1/VFnia+1/PEFni)+SFo*1e-6*ABS*IRDadj))								
Soilni-PEF-C-I = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFi*IRAadj/PEFni+SFo*1e-6*ABS*IRDadj))								
Soilni-PEF-N-O = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(IRAc/RfDi)*(1/VFnic+1/PEFni)+(SAc/RfDo)*AFc*ABS*1e-6))								
Soilni-PEF-N-I = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(IRAc/RfDi)*(1/PEFni)+(SAc/RfDo)*AFc*ABS*1e-6))								
	PEFni	Soilni-PEF	Soilni-PEF	Soilni-PEF	Soilni-PEF	min value		
COMPOUND	(m3/kg)	C-O (mg/kg)	C-I (mg/kg)	N-O (mg/kg)	N-I (mg/kg)	(C or N)		
Dinitrotoluene,2,6-	1.11E+09	#VALUE!		4.29E+01		4.3E+01		
Dinitrotoluene,2,4-	1.11E+09	#VALUE!		8.94E+01		8.9E+01		
Dinoseb	1.11E+09	#VALUE!		4.72E+01		4.7E+01		
Endosulfan	1.11E+09	#VALUE!		3.39E+02		3.4E+02		
Endrin	1.11E+09	#VALUE!		1.77E+01		1.8E+01		
Ethyl benzene	1.11E+09	#VALUE!		1.64E+03		1.6E+03		
Fluoranthene	1.11E+09	#VALUE!		2.24E+03		2.2E+03		
Fluorene	1.11E+09	#VALUE!		2.77E+03		2.8E+03		
Heptachlor	1.11E+09	1.63E-02		4.01E+00		1.6E-02		
Heptachlor epoxide	1.11E+09	5.29E-02		7.85E-01		5.3E-02		
Hexachlorobenzene	1.11E+09	3.41E-01		5.21E+01		3.4E-01		
Hexachlorobutadiene	1.11E+09	4.45E+00		8.23E+00		4.5E+00		
Hexachlorocyclohexane,alpha	1.11E+09	8.18E-02		#VALUE!		8.2E-02		
Hexachlorocyclohexane,beta	1.11E+09	2.91E-01		#VALUE!		2.9E-01		
Hexachlorocyclohexane,gamma	1.11E+09	3.90E-01		1.85E+01		3.9E-01		
Hexachlorocyclopentadiene	1.11E+09	#VALUE!		1.38E+01		1.4E+01		
Hexachloroethane	1.11E+09	3.18E+01		5.19E+01		3.2E+01		
Indeno(1,2,3-cd)pyrene	1.11E+09	6.21E-01		#VALUE!		6.2E-01		
Isobutyl alcohol	1.11E+09	#VALUE!		7.33E+03		7.3E+03		
Isophorone	1.11E+09	3.37E+02		7.54E+03		3.4E+02		
Lead (inorganic)	1.11E+09		#VALUE!		#VALUE!	#VALUE!		
Mercury (inorganic)	1.11E+09		#VALUE!		2.35E+01	2.3E+01		

LDEQ RECAP
WORKSHEET 9
SOILni-PEF
(mg/kg)

Soil with particulate emissions-Nonindustrial			Derivation of Management Option 2 R$					
Revision Date: 08/04/2003			Run date:	10/17/2003				
INPUTS TO SOIL PATICULATE EMISSION MODEL-NONINDUSTRIAL					Site-Specific			
equivalent threshold value of windspeed at 7m				Ut =	11.32	m/s		
mean annual windspeed				Um =	4.69	m/s		
inverse of mean concentration at enter of source (g/m2-s per kg/m3)				Q/C =	enter in soil properties spreadsheet			
fraction of vegetative cover				V =	0.5	unitless		
function dependent on Um/Ut - See Below				F(x) =	0.194	unitless		
x = 0.886*(Ut/Um)								
for x<0.5	F(x) =	1.91						
for 0.5<x<0.8	F(x) =	2.06 - 0.33*x						
for 0.8<x<1	F(x) =	2.6 - x						
for 1<x<2	F(x) =	2.9 - 1.3*x						
for x>2	F(x) =	0.18*(8*x^3 + 12*x) e^(-x^2)						
PEFni = Q/C*3600/(0.036*(1-V)*(Um/Ut)^3*F(x))								
DA & VF calculations are in the Soilni worksheet								
Soilni-PEF-C-O = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFi*IRAadj*(1/VFnia+1/PEFni)+SFo*1e-6*ABS*IRDadj))								
Soilni-PEF-C-I = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFi*IRAadj/PEFni+SFo*1e-6*ABS*IRDadj))								
Soilni-PEF-N-O = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(IRAc/RfDi)*(1/VFnic+1/PEFni)+(SAc/RfDo)*AFc*ABS*1e-6))								
Soilni-PEF-N-I = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(IRAc/RfDi)*(1/PEFni)+(SAc/RfDo)*AFc*ABS*1e-6))								
	PEFni	Soilni-PEF	Soilni-PEF	Soilni-PEF	Soilni-PEF	min value		
COMPOUND	(m3/kg)	C-O (mg/kg)	C-I (mg/kg)	N-O (mg/kg)	N-I (mg/kg)	(C or N)		
Methoxychlor	1.11E+09	#VALUE!		3.01E+02		3.0E+02		
Methylene chloride	1.11E+09	1.87E+01		2.02E+03		1.9E+01		
Methyl ethyl ketone	1.11E+09	#VALUE!		5.91E+03		5.9E+03		
Methyl isobutyl ketone	1.11E+09	#VALUE!		4.46E+03		4.5E+03		
Methylnaphthalene,2-	1.11E+09	#VALUE!		2.22E+02		2.2E+02		
MTBE (methyl tert-butyl ether)	1.11E+09	#VALUE!		6.54E+03		6.5E+03		
Naphthalene	1.11E+09	#VALUE!		6.20E+01		6.2E+01		
Nickel	1.11E+09		#VALUE!		#VALUE!	#VALUE!		
Nitrate	1.11E+09		#VALUE!		1.25E+05	1.3E+05		
Nitrite	1.11E+09		#VALUE!		7.82E+03	7.8E+03		
Nitroaniline,2-	1.11E+09	#VALUE!		7.80E-01		7.8E-01		
Nitroaniline,3-	1.11E+09	#VALUE!		1.29E+02		1.3E+02		
Nitroaniline,4-	1.11E+09	#VALUE!		1.05E+02		1.0E+02		
Nitrobenzene	1.11E+09	#VALUE!		2.19E+01		2.2E+01		
Nitrophenol,4-	1.11E+09	#VALUE!		3.21E+02		3.2E+02		
Nitrosodi-n-propylamine,n-	1.11E+09	4.42E-02		#VALUE!		4.4E-02		
N-nitrosodiphenylamine	1.11E+09	9.05E+01		#VALUE!		9.0E+01		
Pentachlorophenol	1.11E+09	2.78E+00		1.27E+03		2.8E+00		
Phenanthrene	1.11E+09	#VALUE!		2.11E+04		2.1E+04		
Phenol	1.11E+09	#VALUE!		1.29E+04		1.3E+04		
Polychlorinated biphenyls	1.11E+09	2.11E-01		1.06E+00		2.1E-01		
Pyrene	1.11E+09	#VALUE!		2.29E+03		2.3E+03		

LDEQ RECAP
WORKSHEET 9
SOILni-PEF
(mg/kg)

Soil with particulate emissions-Nonindustrial			Derivation of Management Option 2 R$					
Revision Date: 08/04/2003			Run date:	10/17/2003				
INPUTS TO SOIL PATICULATE EMISSION MODEL-NONINDUSTRIAL					Site-Specific			
equivalent threshold value of windspeed at 7m				Ut =	11.32	m/s		
mean annual windspeed				Um =	4.69	m/s		
inverse of mean concentration at enter of source (g/m2-s per kg/m3)				Q/C =	enter in soil properties spreadsheet			
fraction of vegetative cover				V =	0.5	unitless		
function dependent on Um/Ut - See Below				F(x) =	0.194	unitless		
x = 0.886*(Ut/Um)								
for x<0.5	F(x) =	1.91						
for 0.5<x<0.8	F(x) =	2.06 - 0.33*x						
for 0.8<x<1	F(x) =	2.6 - x						
for 1<x<2	F(x) =	2.9 - 1.3*x						
for x>2	F(x) =	0.18*(8*x^3 + 12*x) e^(-x^2)						
PEFni = Q/C*3600/(0.036*(1-V)*(Um/Ut)^3*F(x))								
DA & VF calculations are in the Soilni worksheet								
Soilni-PEF-C-O = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFi*IRAadj*(1/VFnia+1/PEFni)+SFo*1e-6*ABS*IRDadj))								
Soilni-PEF-C-I = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFi*IRAadj/PEFni+SFo*1e-6*ABS*IRDadj))								
Soilni-PEF-N-O = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(IRAc/RfDi)*(1/VFnic+1/PEFni)+(SAc/RfDo)*AFc*ABS*1e-6))								
Soilni-PEF-N-I = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(IRAc/RfDi)*(1/PEFni)+(SAc/RfDo)*AFc*ABS*1e-6))								
	PEFni	Soilni-PEF	Soilni-PEF	Soilni-PEF	Soilni-PEF	min value		
COMPOUND	(m3/kg)	C-O (mg/kg)	C-I (mg/kg)	N-O (mg/kg)	N-I (mg/kg)	(C or N)		
Selenium	1.11E+09		#VALUE!		#VALUE!	#VALUE!		
Silver	1.11E+09		#VALUE!		#VALUE!	#VALUE!		
Styrene	1.11E+09	#VALUE!		4.96E+03		5.0E+03		
Tetrachlorobenzene,1,2,4,5-	1.11E+09	#VALUE!		1.19E+01		1.2E+01		
Tetrachloroethane,1,1,1,2-	1.11E+09	2.75E+00		2.28E+02		2.7E+00		
Tetrachloroethane,1,1,2,2-	1.11E+09	8.10E-01		1.07E+03		8.1E-01		
Tetrachloroethylene	1.11E+09	8.33E+00		3.41E+02		8.3E+00		
Tetrachlorophenol,2,3,4,6-	1.11E+09	#VALUE!		1.44E+03		1.4E+03		
Thallium	1.11E+09		#VALUE!		#VALUE!	#VALUE!		
Toluene	1.11E+09	#VALUE!		6.76E+02		6.8E+02		
Toxaphene	1.11E+09	4.38E-01		#VALUE!		4.4E-01		
Trichlorobenzene,1,2,4-	1.11E+09	#VALUE!		6.58E+02		6.6E+02		
Trichloroethane,1,1,1-	1.11E+09	#VALUE!		8.19E+02		8.2E+02		
Trichloroethane,1,1,2-	1.11E+09	1.90E+00		4.59E+01		1.9E+00		
Trichloroethene	1.11E+09	9.98E-02		1.61E+01		1.0E-01		
Trichlorofluoromethane	1.11E+09	#VALUE!		3.84E+02		3.8E+02		
Trichlorophenol,2,4,5-	1.11E+09	#VALUE!		5.27E+03		5.3E+03		
Trichlorophenol,2,4,6-	1.11E+09	3.97E+01		#VALUE!		4.0E+01		
Vanadium	1.11E+09		#VALUE!		#VALUE!	#VALUE!		
Vinyl chloride	1.11E+09	2.38E-01		3.91E+01		2.4E-01		
Xylene(mixed)	1.11E+09	#VALUE!		1.79E+02		1.8E+02		
Zinc	1.11E+09		#VALUE!		2.35E+04	2.3E+04		

LDEQ RECAP
WORKSHEET 9
SOILni-PEF
(mg/kg)

Soil with particulate emissions-Nonindustrial			Derivation of Management Option 2 R$					
Revision Date: 08/04/2003			Run date:	10/17/2003				
INPUTS TO SOIL PATICULATE EMISSION MODEL-NONINDUSTRIAL					Site-Specific			
equivalent threshold value of windspeed at 7m				Ut =	11.32	m/s		
mean annual windspeed				Um =	4.69	m/s		
inverse of mean concentration at enter of source (g/m2-s per kg/m3)				Q/C =	enter in soil properties spreadsheet			
fraction of vegetative cover				V =	0.5	unitless		
function dependent on Um/Ut - See Below				F(x) =	0.194	unitless		
x = 0.886*(Ut/Um)								
for x<0.5	F(x) =	1.91						
for 0.5<x<0.8	F(x) =	2.06 - 0.33*x						
for 0.8<x<1	F(x) =	2.6 - x						
for 1<x<2	F(x) =	2.9 - 1.3*x						
for x>2	F(x) =	0.18*(8*x^3 + 12*x) e^(-x^2)						
PEFni = Q/C*3600/(0.036*(1-V)*(Um/Ut)^3*F(x))								
DA & VF calculations are in the Soilni worksheet								
Soilni-PEF-C-O = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFi*IRAadj*(1/VFnia+1/PEFni)+SFo*1e-6*ABS*IRDadj))								
Soilni-PEF-C-I = (TR*ATc*365)/(EFni*(SFo*1e-6*IRSadj+SFi*IRAadj/PEFni+SFo*1e-6*ABS*IRDadj))								
Soilni-PEF-N-O = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(IRAc/RfDi)*(1/VFnic+1/PEFni)+(SAc/RfDo)*AFc*ABS*1e-6))								
Soilni-PEF-N-I = (THQ*BWc*ATnc*365)/(EFni*EDc*((IRSc/RfDo)*1e-6+(IRAc/RfDi)*(1/PEFni)+(SAc/RfDo)*AFc*ABS*1e-6))								
	PEFni	Soilni-PEF	Soilni-PEF	Soilni-PEF	Soilni-PEF	min value		
COMPOUND	(m3/kg)	C-O (mg/kg)	C-I (mg/kg)	N-O (mg/kg)	N-I (mg/kg)	(C or N)		
Aliphatics C6-C8	1.11E+09	#VALUE!		1.18E+04		1.2E+04		
Aliphatics >C8-C10	1.11E+09	#VALUE!		1.18E+03		1.2E+03		
Aliphatics >C10-C12	1.11E+09	#VALUE!		2.29E+03		2.3E+03		
Aliphatics >C12-C16	1.11E+09	#VALUE!		3.68E+03		3.7E+03		
Aliphatics >C16-C35	1.11E+09	#VALUE!		7.09E+04		7.1E+04		
Aromatics >C8-C10	1.11E+09	#VALUE!		6.49E+02		6.5E+02		
Aromatics >C10-C12	1.11E+09	#VALUE!		1.18E+03		1.2E+03		
Aromatics >C12-C16	1.11E+09	#VALUE!		1.82E+03		1.8E+03		
Aromatics >C16-C21	1.11E+09	#VALUE!		1.48E+03		1.5E+03		
Aromatics >C21-C35	1.11E+09	#VALUE!		1.79E+03		1.8E+03		
TPH-GRO (C6-C10)						6.5E+02		
TPH-DRO (C10-C28)						6.5E+02		
TPH-ORO (>C28)						1.8E+03		

LDEQ RECAP
WORKSHEET 10
SOILi-PEF
(mg/kg)

Soil with particulate emissions-Industrial			Derivation of Management Option 2 RS				
Revision Date: 08/04/2003			Run date:	10/17/2003			
INPUTS TO SOIL PATICULATE EMISSION MODEL-INDUSTRIAL					Site-Specific		
equivalent threshold value of windspeed at 7m				Ut =	11.32	m/s	
mean annual windspeed				Um =	4.69	m/s	
inverse of mean concentration at enter of source (g/m2-s per kg/m3)				Q/C =	enter in soil properties spreadsheet		
fraction of vegetative cover				V =	0	unitless	
function dependent on Um/Ut - See Below				F(x) =	0.194	unitless	
x = 0.886*(Ut/Um)							
for x<0.5	F(x) =	1.91					
for 0.5<x<0.8	F(x) =	2.06 - 0.33*x					
for 0.8<x<1	F(x) =	2.6 - x					
for 1<x<2	F(x) =	2.9 - 1.3*x					
for x>2	F(x) =	0.18*(8*x^3 + 12*x) e^(-x^2)					
PEFi = Q/C*3600/(0.036*(1-V)*(Um/Ut)^3*F(x))							
DA & VF calculations are in the Soili worksheet							
Soili-PEF-C-O = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFi*IRAa*(1/VFi+1/PEFi)+SFo*SAai*AFai*ABS*1e-6))							
Soili-PEF-C-I = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFi*IRAa/PEFi+SFo*SAai*AFai*ABS*1e-6))							
Soili-PEF-N-O = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(IRAa/RfDi)*(1/VFi+1/PEFi)+(SAai/RfDo)*AFai*ABS*1e-6))							
Soili-PEF-N-I = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(IRAa/RfDi)*(1/PEFi)+(SAai/RfDo)*AFai*ABS*1e-6))							
	PEFi	Soili-PEF	Soili-PEF	Soili-PEF	Soili-PEF	min value	
COMPOUND	(m3/kg)	C-O (mg/kg)	C-I (mg/kg)	N-O (mg/kg)	N-I (mg/kg)	(C or N)	
Acenaphthene	5.53E+08	#VALUE!		6.12E+04		6.1E+04	
Acenaphthylene	5.53E+08	#VALUE!		5.14E+04		5.1E+04	
Acetone	5.53E+08	#VALUE!		1.39E+04		1.4E+04	
Aldrin	5.53E+08	1.34E-01		2.44E+01		1.3E-01	
Aniline	5.53E+08	1.75E+02		1.67E+02		1.7E+02	
Anthracene	5.53E+08	#VALUE!		4.78E+05		4.8E+05	
Antimony	5.53E+08		#VALUE!		8.17E+02	8.2E+02	
Arsenic	5.53E+08	#VALUE!	2.72E+00		4.39E+02	2.7E+00	
Barium	5.53E+08	#VALUE!	#VALUE!		1.06E+05	1.1E+05	
Benzene	5.53E+08	3.08E+00		2.70E+02		3.1E+00	
Benz(a)anthracene	5.53E+08	2.87E+00		#VALUE!		2.9E+00	
Benzo(a)pyrene	5.53E+08	2.88E-01		#VALUE!		2.9E-01	
Benzo(b)fluoranthene	5.53E+08	2.87E+00		#VALUE!		2.9E+00	
Benzo(k)fluoranthene	5.53E+08	2.88E+01		#VALUE!		2.9E+01	
Beryllium	5.53E+08		#VALUE!		3.26E+03	3.3E+03	
Biphenyl,1,1-	5.53E+08	#VALUE!		4.42E+04		4.4E+04	
Bis(2-chloroethyl)ether	5.53E+08	1.08E+00		#VALUE!		1.1E+00	
Bis(2-chloroisopropyl)ether	5.53E+08	1.67E+01		9.28E+03		1.7E+01	
Bis(2-ethyl-hexyl)phthalate	5.53E+08	1.73E+02		1.73E+04		1.7E+02	
Bromodichloromethane	5.53E+08	4.20E+00		1.86E+03		4.2E+00	
Bromoform	5.53E+08	1.75E+02		5.50E+03		1.8E+02	
Bromomethane	5.53E+08	#VALUE!		2.98E+01		3.0E+01	

LDEQ RECAP
WORKSHEET 10
SOILi-PEF
(mg/kg)

Soil with particulate emissions-Industrial			Derivation of Management Option 2 RS				
Revision Date: 08/04/2003			Run date:	10/17/2003			
INPUTS TO SOIL PATICULATE EMISSION MODEL-INDUSTRIAL					Site-Specific		
equivalent threshold value of windspeed at 7m				Ut =	11.32	m/s	
mean annual windspeed				Um =	4.69	m/s	
inverse of mean concentration at enter of source (g/m2-s per kg/m3)				Q/C =	enter in soil properties spreadsheet		
fraction of vegetative cover				V =	0	unitless	
function dependent on Um/Ut - See Below				F(x) =	0.194	unitless	
x = 0.886*(Ut/Um)							
for x<0.5	F(x) =	1.91					
for 0.5<x<0.8	F(x) =	2.06 - 0.33*x					
for 0.8<x<1	F(x) =	2.6 - x					
for 1<x<2	F(x) =	2.9 - 1.3*x					
for x>2	F(x) =	0.18*(8*x^3 + 12*x) e^(-x^2)					
PEFi = Q/C*3600/(0.036*(1-V)*(Um/Ut)^3*F(x))							
DA & VF calculations are in the Soili worksheet							
Soili-PEF-C-O = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFi*IRAa*(1/VFi+1/PEFi)+SFo*SAai*AFai*ABS*1e-6))							
Soili-PEF-C-I = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFi*IRAa/PEFi+SFo*SAai*AFai*ABS*1e-6))							
Soili-PEF-N-O = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(IRAa/RfDi)*(1/VFi+1/PEFi)+(SAai/RfDo)*AFai*ABS*1e-6))							
Soili-PEF-N-I = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(IRAa/RfDi)*(1/PEFi)+(SAai/RfDo)*AFai*ABS*1e-6))							
	PEFi	Soili-PEF	Soili-PEF	Soili-PEF	Soili-PEF	min value	
COMPOUND	(m3/kg)	C-O (mg/kg)	C-I (mg/kg)	N-O (mg/kg)	N-I (mg/kg)	(C or N)	
Butyl benzyl phthalate	5.53E+08	#VALUE!		1.66E+05		1.7E+05	
Cadmium	5.53E+08		#VALUE!		1.00E+03	1.0E+03	
Carbon Disulfide	5.53E+08	#VALUE!		2.51E+03		2.5E+03	
Carbon Tetrachloride	5.53E+08	1.14E+00		1.25E+01		1.1E+00	
Chlordane	5.53E+08	9.97E+00		5.65E+02		1.0E+01	
Chloroaniline,p-	5.53E+08	#VALUE!		1.69E+03		1.7E+03	
Chlorobenzene	5.53E+08	#VALUE!		1.22E+03		1.2E+03	
Chlorodibromomethane	5.53E+08	5.43E+00		3.26E+03		5.4E+00	
Chloroethane (Ethylchloride)	5.53E+08	8.23E+00		2.38E+04		8.2E+00	
Chloroform	5.53E+08	1.20E+00		2.96E+00		1.2E+00	
Chloromethane	5.53E+08	7.27E+00		1.42E+03		7.3E+00	
Chloronaphthalene,2-	5.53E+08	#VALUE!		8.32E+04		8.3E+04	
Chlorophenol,2-	5.53E+08	#VALUE!		1.45E+03		1.4E+03	
Chromium(III)	5.53E+08		#VALUE!		#VALUE!	#VALUE!	
Chromium(VI)	5.53E+08		#VALUE!		#VALUE!	#VALUE!	
Chrysene	5.53E+08	2.85E+02		#VALUE!		2.9E+02	
Cobalt	5.53E+08		#VALUE!		1.42E+04	1.4E+04	
Copper	5.53E+08		#VALUE!		#VALUE!	#VALUE!	
Cyanide (free)	5.53E+08		#VALUE!		#VALUE!	#VALUE!	
DDD	5.53E+08	1.61E+01		#VALUE!		1.6E+01	
DDE	5.53E+08	1.14E+01		#VALUE!		1.1E+01	
DDT	5.53E+08	1.19E+01		7.20E+02		1.2E+01	

LDEQ RECAP
WORKSHEET 10
SOILi-PEF
(mg/kg)

Soil with particulate emissions-Industrial			Derivation of Management Option 2 RS				
Revision Date: 08/04/2003			Run date:	10/17/2003			
INPUTS TO SOIL PATICULATE EMISSION MODEL-INDUSTRIAL					Site-Specific		
equivalent threshold value of windspeed at 7m				Ut =	11.32	m/s	
mean annual windspeed				Um =	4.69	m/s	
inverse of mean concentration at enter of source (g/m2-s per kg/m3)				Q/C =	enter in soil properties spreadsheet		
fraction of vegetative cover				V =	0	unitless	
function dependent on Um/Ut - See Below				F(x) =	0.194	unitless	
x = 0.886*(Ut/Um)							
for x<0.5	F(x) =	1.91					
for 0.5<x<0.8	F(x) =	2.06 - 0.33*x					
for 0.8<x<1	F(x) =	2.6 - x					
for 1<x<2	F(x) =	2.9 - 1.3*x					
for x>2	F(x) =	0.18*(8*x^3 + 12*x) e^(-x^2)					
PEFi = Q/C*3600/(0.036*(1-V)*(Um/Ut)^3*F(x))							
DA & VF calculations are in the Soili worksheet							
Soili-PEF-C-O = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFi*IRAa*(1/VFi+1/PEFi)+SFo*SAai*AFai*ABS*1e-6))							
Soili-PEF-C-I = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFi*IRAa/PEFi+SFo*SAai*AFai*ABS*1e-6))							
Soili-PEF-N-O = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(IRAa/RfDi)*(1/VFi+1/PEFi)+(SAai/RfDo)*AFai*ABS*1e-6))							
Soili-PEF-N-I = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(IRAa/RfDi)*(1/PEFi)+(SAai/RfDo)*AFai*ABS*1e-6))							
	PEFi	Soili-PEF	Soili-PEF	Soili-PEF	Soili-PEF	min value	
COMPOUND	(m3/kg)	C-O (mg/kg)	C-I (mg/kg)	N-O (mg/kg)	N-I (mg/kg)	(C or N)	
Dibenz(a,h)anthracene	5.53E+08	2.88E-01		#VALUE!		2.9E-01	
Dibenzofuran	5.53E+08	#VALUE!		6.47E+03		6.5E+03	
Dibromo-3-chloropropane,1,2-	5.53E+08	1.76E+00		1.62E+01		1.8E+00	
Dichlorobenzene,1,2-	5.53E+08	#VALUE!		7.40E+03		7.4E+03	
Dichlorobenzene,1,3-	5.53E+08	#VALUE!		1.79E+02		1.8E+02	
Dichlorobenzene,1,4-	5.53E+08	1.64E+01		2.21E+04		1.6E+01	
Dichlorobenzidine,3,3-	5.53E+08	4.21E+00		#VALUE!		4.2E+00	
Dichloroethane,1,1-	5.53E+08	#VALUE!		4.66E+03		4.7E+03	
Dichloroethane,1,2-	5.53E+08	1.76E+00		1.66E+02		1.8E+00	
Dichloroethene,1,1-	5.53E+08	#VALUE!		9.09E+02		9.1E+02	
Dichloroethene,cis,1,2-	5.53E+08	#VALUE!		3.36E+02		3.4E+02	
Dichloroethene,trans,1,2-	5.53E+08	#VALUE!		4.77E+02		4.8E+02	
Dichlorophenol,2,4-	5.53E+08	#VALUE!		1.98E+03		2.0E+03	
Dichloropropane,1,2-	5.53E+08	1.76E+00		4.86E+01		1.8E+00	
Dichloropropene,1,3-	5.53E+08	9.96E+00		3.42E+02		1.0E+01	
Dieldrin	5.53E+08	1.46E-01		4.18E+01		1.5E-01	
Diethylphthalate	5.53E+08	#VALUE!		3.93E+05		3.9E+05	
Dimethylphenol,2,4-	5.53E+08	#VALUE!		1.06E+04		1.1E+04	
Dimethylphthalate	5.53E+08	#VALUE!		4.39E+06		4.4E+06	
Di-n-octylphthalate	5.53E+08	#VALUE!		3.51E+04		3.5E+04	
Dinitrobenzene,1,3-	5.53E+08	#VALUE!		4.95E+01		5.0E+01	
Dinitrophenol,2,4-	5.53E+08	#VALUE!		6.91E+02		6.9E+02	

LDEQ RECAP
WORKSHEET 10
SOILi-PEF
(mg/kg)

Soil with particulate emissions-Industrial			Derivation of Management Option 2 RS				
Revision Date: 08/04/2003			Run date:	10/17/2003			
INPUTS TO SOIL PATICULATE EMISSION MODEL-INDUSTRIAL					Site-Specific		
equivalent threshold value of windspeed at 7m				Ut =	11.32	m/s	
mean annual windspeed				Um =	4.69	m/s	
inverse of mean concentration at enter of source (g/m2-s per kg/m3)				Q/C =	enter in soil properties spreadsheet		
fraction of vegetative cover				V =	0	unitless	
function dependent on Um/Ut - See Below				F(x) =	0.194	unitless	
x = 0.886*(Ut/Um)							
for x<0.5	F(x) =	1.91					
for 0.5<x<0.8	F(x) =	2.06 - 0.33*x					
for 0.8<x<1	F(x) =	2.6 - x					
for 1<x<2	F(x) =	2.9 - 1.3*x					
for x>2	F(x) =	0.18*(8*x^3 + 12*x) e^(-x^2)					
PEFi = Q/C*3600/(0.036*(1-V)*(Um/Ut)^3*F(x))							
DA & VF calculations are in the Soili worksheet							
Soili-PEF-C-O = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFi*IRAa*(1/VFi+1/PEFi)+SFo*SAai*AFai*ABS*1e-6))							
Soili-PEF-C-I = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFi*IRAa/PEFi+SFo*SAai*AFai*ABS*1e-6))							
Soili-PEF-N-O = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(IRAa/RfDi)*(1/VFi+1/PEFi)+(SAai/RfDo)*AFai*ABS*1e-6))							
Soili-PEF-N-I = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(IRAa/RfDi)*(1/PEFi)+(SAai/RfDo)*AFai*ABS*1e-6))							
	PEFi	Soili-PEF	Soili-PEF	Soili-PEF	Soili-PEF	min value	
COMPOUND	(m3/kg)	C-O (mg/kg)	C-I (mg/kg)	N-O (mg/kg)	N-I (mg/kg)	(C or N)	
Dinitrotoluene,2,6-	5.53E+08	#VALUE!		4.59E+02		4.6E+02	
Dinitrotoluene,2,4-	5.53E+08	#VALUE!		9.83E+02		9.8E+02	
Dinoseb	5.53E+08	#VALUE!		5.38E+02		5.4E+02	
Endosulfan	5.53E+08	#VALUE!		4.50E+03		4.5E+03	
Endrin	5.53E+08	#VALUE!		2.46E+02		2.5E+02	
Ethyl benzene	5.53E+08	#VALUE!		1.29E+04		1.3E+04	
Fluoranthene	5.53E+08	#VALUE!		2.88E+04		2.9E+04	
Fluorene	5.53E+08	#VALUE!		5.40E+04		5.4E+04	
Heptachlor	5.53E+08	3.54E-02		2.88E+01		3.5E-02	
Heptachlor epoxide	5.53E+08	2.64E-01		1.12E+01		2.6E-01	
Hexachlorobenzene	5.53E+08	1.99E+00		9.13E+02		2.0E+00	
Hexachlorobutadiene	5.53E+08	1.55E+01		8.60E+01		1.6E+01	
Hexachlorocyclohexane,alpha	5.53E+08	4.41E-01		#VALUE!		4.4E-01	
Hexachlorocyclohexane,beta	5.53E+08	1.62E+00		#VALUE!		1.6E+00	
Hexachlorocyclohexane,gamma	5.53E+08	2.05E+00		2.85E+02		2.0E+00	
Hexachlorocyclopentadiene	5.53E+08	#VALUE!		9.40E+01		9.4E+01	
Hexachloroethane	5.53E+08	1.37E+02		6.84E+02		1.4E+02	
Indeno(1,2,3-cd)pyrene	5.53E+08	2.88E+00		#VALUE!		2.9E+00	
Isobutyl alcohol	5.53E+08	#VALUE!		6.23E+04		6.2E+04	
Isophorone	5.53E+08	1.11E+03		7.53E+04		1.1E+03	
Lead (inorganic)	5.53E+08		#VALUE!		#VALUE!	#VALUE!	
Mercury (inorganic)	5.53E+08		#VALUE!		6.12E+02	6.1E+02	

LDEQ RECAP
WORKSHEET 10
SOILi-PEF
(mg/kg)

Soil with particulate emissions-Industrial			Derivation of Management Option 2 RS				
Revision Date: 08/04/2003			Run date:	10/17/2003			
INPUTS TO SOIL PATICULATE EMISSION MODEL-INDUSTRIAL					Site-Specific		
equivalent threshold value of windspeed at 7m				Ut =	11.32	m/s	
mean annual windspeed				Um =	4.69	m/s	
inverse of mean concentration at enter of source (g/m2-s per kg/m3)				Q/C =	enter in soil properties spreadsheet		
fraction of vegetative cover				V =	0	unitless	
function dependent on Um/Ut - See Below				F(x) =	0.194	unitless	
x = 0.886*(Ut/Um)							
for x<0.5	F(x) =	1.91					
for 0.5<x<0.8	F(x) =	2.06 - 0.33*x					
for 0.8<x<1	F(x) =	2.6 - x					
for 1<x<2	F(x) =	2.9 - 1.3*x					
for x>2	F(x) =	0.18*(8*x^3 + 12*x) e^(-x^2)					
PEFi = Q/C*3600/(0.036*(1-V)*(Um/Ut)^3*F(x))							
DA & VF calculations are in the Soili worksheet							
Soili-PEF-C-O = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFi*IRAa*(1/VFi+1/PEFi)+SFo*SAai*AFai*ABS*1e-6))							
Soili-PEF-C-I = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFi*IRAa/PEFi+SFo*SAai*AFai*ABS*1e-6))							
Soili-PEF-N-O = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(IRAa/RfDi)*(1/VFi+1/PEFi)+(SAai/RfDo)*AFai*ABS*1e-6))							
Soili-PEF-N-I = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(IRAa/RfDi)*(1/PEFi)+(SAai/RfDo)*AFai*ABS*1e-6))							
	PEFi	Soili-PEF	Soili-PEF	Soili-PEF	Soili-PEF	min value	
COMPOUND	(m3/kg)	C-O (mg/kg)	C-I (mg/kg)	N-O (mg/kg)	N-I (mg/kg)	(C or N)	
Methoxychlor	5.53E+08	#VALUE!		4.27E+03		4.3E+03	
Methylene chloride	5.53E+08	4.43E+01		1.98E+04		4.4E+01	
Methyl ethyl ketone	5.53E+08	#VALUE!		4.35E+04		4.4E+04	
Methyl isobutyl ketone	5.53E+08	#VALUE!		6.35E+04		6.3E+04	
Methylnaphthalene,2-	5.53E+08	#VALUE!		1.65E+03		1.7E+03	
MTBE (methyl tert-butyl ether)	5.53E+08	#VALUE!		4.71E+04		4.7E+04	
Naphthalene	5.53E+08	#VALUE!		4.26E+02		4.3E+02	
Nickel	5.53E+08		#VALUE!		#VALUE!	#VALUE!	
Nitrate	5.53E+08		#VALUE!		3.27E+06	3.3E+06	
Nitrite	5.53E+08		#VALUE!		2.04E+05	2.0E+05	
Nitroaniline,2-	5.53E+08	#VALUE!		5.22E+00		5.2E+00	
Nitroaniline,3-	5.53E+08	#VALUE!		1.45E+03		1.4E+03	
Nitroaniline,4-	5.53E+08	#VALUE!		1.01E+03		1.0E+03	
Nitrobenzene	5.53E+08	#VALUE!		2.50E+02		2.5E+02	
Nitrophenol,4-	5.53E+08	#VALUE!		3.31E+03		3.3E+03	
Nitrosodi-n-propylamine,n-	5.53E+08	1.42E-01		#VALUE!		1.4E-01	
N-nitrosodiphenylamine	5.53E+08	4.02E+02		#VALUE!		4.0E+02	
Pentachlorophenol	5.53E+08	9.73E+00		1.25E+04		9.7E+00	
Phenanthrene	5.53E+08	#VALUE!		4.25E+05		4.3E+05	
Phenol	5.53E+08	#VALUE!		1.45E+05		1.5E+05	
Polychlorinated biphenyls	5.53E+08	8.98E-01		1.28E+01		9.0E-01	
Pyrene	5.53E+08	#VALUE!		5.60E+04		5.6E+04	

LDEQ RECAP
WORKSHEET 10
SOILi-PEF
(mg/kg)

Soil with particulate emissions-Industrial			Derivation of Management Option 2 RS				
Revision Date: 08/04/2003			Run date:	10/17/2003			
INPUTS TO SOIL PATICULATE EMISSION MODEL-INDUSTRIAL					Site-Specific		
equivalent threshold value of windspeed at 7m				Ut =	11.32	m/s	
mean annual windspeed				Um =	4.69	m/s	
inverse of mean concentration at enter of source (g/m2-s per kg/m3)				Q/C =	enter in soil properties spreadsheet		
fraction of vegetative cover				V =	0	unitless	
function dependent on Um/Ut - See Below				F(x) =	0.194	unitless	
x = 0.886*(Ut/Um)							
for x<0.5	F(x) =	1.91					
for 0.5<x<0.8	F(x) =	2.06 - 0.33*x					
for 0.8<x<1	F(x) =	2.6 - x					
for 1<x<2	F(x) =	2.9 - 1.3*x					
for x>2	F(x) =	0.18*(8*x^3 + 12*x) e^(-x^2)					
PEFi = Q/C*3600/(0.036*(1-V)*(Um/Ut)^3*F(x))							
DA & VF calculations are in the Soili worksheet							
Soili-PEF-C-O = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFi*IRAa*(1/VFi+1/PEFi)+SFo*SAai*AFai*ABS*1e-6))							
Soili-PEF-C-I = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFi*IRAa/PEFi+SFo*SAai*AFai*ABS*1e-6))							
Soili-PEF-N-O = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(IRAa/RfDi)*(1/VFi+1/PEFi)+(SAai/RfDo)*AFai*ABS*1e-6))							
Soili-PEF-N-I = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(IRAa/RfDi)*(1/PEFi)+(SAai/RfDo)*AFai*ABS*1e-6))							
	PEFi	Soili-PEF	Soili-PEF	Soili-PEF	Soili-PEF	min value	
COMPOUND	(m3/kg)	C-O (mg/kg)	C-I (mg/kg)	N-O (mg/kg)	N-I (mg/kg)	(C or N)	
Selenium	5.53E+08		#VALUE!		#VALUE!	#VALUE!	
Silver	5.53E+08		#VALUE!		#VALUE!	#VALUE!	
Styrene	5.53E+08	#VALUE!		4.33E+04		4.3E+04	
Tetrachlorobenzene,1,2,4,5-	5.53E+08	#VALUE!		1.22E+02		1.2E+02	
Tetrachloroethane,1,1,1,2-	5.53E+08	5.92E+00		1.64E+03		5.9E+00	
Tetrachloroethane,1,1,2,2-	5.53E+08	1.98E+00		8.63E+03		2.0E+00	
Tetrachloroethylene	5.53E+08	3.47E+01		3.37E+03		3.5E+01	
Tetrachlorophenol,2,3,4,6-	5.53E+08	#VALUE!		1.65E+04		1.7E+04	
Thallium	5.53E+08		#VALUE!		#VALUE!	#VALUE!	
Toluene	5.53E+08	#VALUE!		4.66E+03		4.7E+03	
Toxaphene	5.53E+08	2.19E+00		#VALUE!		2.2E+00	
Trichlorobenzene,1,2,4-	5.53E+08	#VALUE!		1.17E+04		1.2E+04	
Trichloroethane,1,1,1-	5.53E+08	#VALUE!		7.03E+03		7.0E+03	
Trichloroethane,1,1,2-	5.53E+08	4.29E+00		3.44E+02		4.3E+00	
Trichloroethene	5.53E+08	2.06E-01		2.19E+02		2.1E-01	
Trichlorofluoromethane	5.53E+08	#VALUE!		2.59E+03		2.6E+03	
Trichlorophenol,2,4,5-	5.53E+08	#VALUE!		6.55E+04		6.6E+04	
Trichlorophenol,2,4,6-	5.53E+08	1.73E+02		#VALUE!		1.7E+02	
Vanadium	5.53E+08		#VALUE!		#VALUE!	#VALUE!	
Vinyl chloride	5.53E+08	7.86E-01		2.98E+02		7.9E-01	
Xylene(mixed)	5.53E+08	#VALUE!		1.21E+03		1.2E+03	
Zinc	5.53E+08		#VALUE!		6.13E+05	6.1E+05	

LDEQ RECAP
WORKSHEET 10
SOILi-PEF
(mg/kg)

Soil with particulate emissions-Industrial			Derivation of Management Option 2 RS				
Revision Date: 08/04/2003			Run date:	10/17/2003			
INPUTS TO SOIL PATICULATE EMISSION MODEL-INDUSTRIAL					Site-Specific		
equivalent threshold value of windspeed at 7m				Ut =	11.32	m/s	
mean annual windspeed				Um =	4.69	m/s	
inverse of mean concentration at enter of source (g/m2-s per kg/m3)				Q/C =	enter in soil properties spreadsheet		
fraction of vegetative cover				V =	0	unitless	
function dependent on Um/Ut - See Below				F(x) =	0.194	unitless	
x = 0.886*(Ut/Um)							
for x<0.5	F(x) =	1.91					
for 0.5<x<0.8	F(x) =	2.06 - 0.33*x					
for 0.8<x<1	F(x) =	2.6 - x					
for 1<x<2	F(x) =	2.9 - 1.3*x					
for x>2	F(x) =	0.18*(8*x^3 + 12*x) e^(-x^2)					
PEFi = Q/C*3600/(0.036*(1-V)*(Um/Ut)^3*F(x))							
DA & VF calculations are in the Soili worksheet							
Soili-PEF-C-O = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFi*IRAa*(1/VFi+1/PEFi)+SFo*SAai*AFai*ABS*1e-6))							
Soili-PEF-C-I = (TR*BWa*ATc*365)/(EFi*EDi*(SFo*1e-6*IRSi+SFi*IRAa/PEFi+SFo*SAai*AFai*ABS*1e-6))							
Soili-PEF-N-O = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(IRAa/RfDi)*(1/VFi+1/PEFi)+(SAai/RfDo)*AFai*ABS*1e-6))							
Soili-PEF-N-I = (THQ*BWa*ATni*365)/(EFi*EDi*((IRSi/RfDo)*1e-6+(IRAa/RfDi)*(1/PEFi)+(SAai/RfDo)*AFai*ABS*1e-6))							
	PEFi	Soili-PEF	Soili-PEF	Soili-PEF	Soili-PEF	min value	
COMPOUND	(m3/kg)	C-O (mg/kg)	C-I (mg/kg)	N-O (mg/kg)	N-I (mg/kg)	(C or N)	
Aliphatics C6-C8	5.53E+08	#VALUE!		8.03E+04		8.0E+04	
Aliphatics >C8-C10	5.53E+08	#VALUE!		8.83E+03		8.8E+03	
Aliphatics >C10-C12	5.53E+08	#VALUE!		1.96E+04		2.0E+04	
Aliphatics >C12-C16	5.53E+08	#VALUE!		3.77E+04		3.8E+04	
Aliphatics >C16-C35	5.53E+08	#VALUE!		6.87E+05		6.9E+05	
Aromatics >C8-C10	5.53E+08	#VALUE!		5.12E+03		5.1E+03	
Aromatics >C10-C12	5.53E+08	#VALUE!		1.10E+04		1.1E+04	
Aromatics >C12-C16	5.53E+08	#VALUE!		2.14E+04		2.1E+04	
Aromatics >C16-C21	5.53E+08	#VALUE!		1.75E+04		1.7E+04	
Aromatics >C21-C35	5.53E+08	#VALUE!		2.52E+04		2.5E+04	
TPH-GRO (C6-C10)						5.1E+03	
TPH-DRO (C10-C28)						5.1E+03	
TPH-ORO (>C28)						2.5E+04	

LDEQ RECAP
WORKSHEET 11
SOILesni
(mg/kg)

Subsurface soil located beneath enclosed structure - Nonindustrial					Derivation of Management Option 2 RS				
Revision Date: 08/04/2003					Run date:	10/17/2003			
INPUTS TO SUBSURFACE SOIL BENEATH ENCLOSED-STRUCTURE MODEL-NONINDUSTRIAL						Site-Specific			
volumetric air content in foundation/wall cracks					nacrack =	0.14849057	cm3-air/cm3-total vol		
volumetric water content in foundation/wall cracks					nwcrack =	0.21	cm3-water/cm3-total vol		
total porosity of foundation/wall cracks					nf =	0.35849057	cm3/cm3		
bgs depth to contaminated subsurface soils					Ls =	100	cm		
enclosed-structure air exchange rate					ER =	0.00014	1/s		
enclosed-structure volume/infiltration area ratio					Lb =	200	cm		
enclosed-structure foundation or wall thickness					Lcrack =	15	cm		
areal fraction of cracks in foundation/walls					FC =	0.01	cm2-cracks/cm2-total area		
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2									
Dcrack = Da*nacrack^3.33/nf^2+Dw*1/(H*41)*nwcrack^3.33/nf^2									
VFsoilesni = [(H*41*pb/(nw+Koc*foc*pb+H*41*na))*(Ds/Ls)/(ER*Lb)]/[1+(Ds/Ls)/(ER*Lb)+(Ds/Ls)/((Dcrack/Lcrack)*FC)]*1000									
Cani C-O = (TR*ATc*365*1000)/(EFni*SFi*IRAadj)									
Cani N-O = (THQ*RfDi*BWa*ATnni*365*1000)/(IRAa*EFni*EDni)									
Soilesni = Cani*0.001/VFsoilesni									
	Ds	Dcrack	VFsoilesni	Cani	Cani	Soilesni	Soilesni	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(mg/m3/mg/kg	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/kg)	N-O(mg/kg)	(C or N)	
Acenaphthene	6.24E-04	6.24E-04	3.00E-06	#VALUE!	2.19E+02	#VALUE!	7.31E+04	7.3E+04	J
Acenaphthylene	6.65E-04	6.65E-04	5.73E-06	#VALUE!	2.19E+02	#VALUE!	3.82E+04	3.8E+04	J
Acetone	1.99E-03	1.99E-03	5.56E-04	#VALUE!	3.65E+02	#VALUE!	6.56E+02	6.6E+02	J
Aldrin									
Aniline									
Anthracene	5.65E-04	5.65E-04	2.38E-07	#VALUE!	1.10E+03	#VALUE!	4.60E+06	4.6E+06	J
Antimony									
Arsenic									
Barium									
Benzene	1.20E-03	1.20E-03	1.18E-02	1.20E+01		1.01E+00		1.0E+00	K
Benz(a)anthracene									
Benzo(a)pyrene									
Benzo(b)fluoranthene									
Benzo(k)fluoranthene									
Beryllium									
Biphenyl,1,1-	5.77E-04	5.77E-04	5.13E-06		2.38E+01		4.64E+03	4.6E+03	K
Bis(2-chloroethyl)ether	1.38E-03	1.38E-03	3.92E-05	3.00E-01		7.65E+00		7.6E+00	K
Bis(2-chloroisopropyl)ether	8.69E-04	8.69E-04	1.82E-04	1.90E-01	1.46E+02	1.04E+00	8.02E+02	1.0E+00	J
Bis(2-ethyl-hexyl)phthalate									
Bromodichloromethane	4.12E-04	4.12E-04	1.31E-03	1.07E-01	7.30E+01	8.16E-02	5.56E+01	8.2E-02	J
Bromoform	2.23E-04	2.23E-04	1.24E-04	1.72E+00	7.30E+01	1.39E+01	5.91E+02	1.4E+01	J
Bromomethane	9.90E-04	9.90E-04	2.81E-02	#VALUE!	5.22E+00	#VALUE!	1.86E-01	1.9E-01	J
Butyl benzyl phthalate									
Cadmium									
Carbon Disulfide	1.41E-03	1.41E-03	7.74E-02		7.14E+01		9.23E-01	9.2E-01	K
Carbon Tetrachloride	1.06E-03	1.06E-03	2.58E-02	6.67E+00		2.59E-01		2.6E-01	K
Chlordane									
Chloroaniline,p-									
Chlorobenzene	9.94E-04	9.94E-04	2.27E-03		1.10E+03		4.84E+02	4.8E+02	K
Chlorodibromomethane	2.80E-04	2.80E-04	3.98E-04	7.90E-02	7.30E+01	1.99E-01	1.84E+02	2.0E-01	J
Chloroethane (Ethylchloride)	3.68E-03	3.68E-03	1.70E-01		6.29E+04		3.70E+02	3.7E+02	K

LDEQ RECAP
WORKSHEET 11
SOILesni
(mg/kg)

Subsurface soil located beneath enclosed structure - Nonindustrial					Derivation of Management Option 2 RS				
Revision Date: 08/04/2003					Run date:	10/17/2003			
INPUTS TO SUBSURFACE SOIL BENEATH ENCLOSED-STRUCTURE MODEL-NONINDUSTRIAL						Site-Specific			
volumetric air content in foundation/wall cracks					nacrack =	0.14849057	cm3-air/cm3-total vol		
volumetric water content in foundation/wall cracks					nwcrack =	0.21	cm3-water/cm3-total vol		
total porosity of foundation/wall cracks					nf =	0.35849057	cm3/cm3		
bgs depth to contaminated subsurface soils					Ls =	100	cm		
enclosed-structure air exchange rate					ER =	0.00014	1/s		
enclosed-structure volume/infiltration area ratio					Lb =	200	cm		
enclosed-structure foundation or wall thickness					Lcrack =	15	cm		
areal fraction of cracks in foundation/walls					FC =	0.01	cm2-cracks/cm2-total area		
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2									
Dcrack = Da*nacrack^3.33/nf^2+Dw*1/(H*41)*nwcrack^3.33/nf^2									
VFsoilesni = [(H*41*pb/(nw+Koc*foc*pb+H*41*na))*(Ds/Ls)/(ER*Lb)]/[1+(Ds/Ls)/(ER*Lb)+(Ds/Ls)/((Dcrack/Lcrack)*FC)]*1000									
Cani C-O = (TR*ATc*365*1000)/(EFni*SFi*IRAadj)									
Cani N-O = (THQ*RfDi*BWa*ATnni*365*1000)/(IRAa*EFni*EDni)									
Soilesni = Cani*0.001/VFsoilesni									
	Ds	Dcrack	VFsoilesni	Cani	Cani	Soilesni	Soilesni	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(mg/m3/mg/kg	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/kg)	N-O(mg/kg)	(C or N)	
Chloroform	1.41E-03	1.41E-03	1.05E-02	4.30E+00		4.09E-01		4.1E-01	K
Chloromethane	1.71E-03	1.71E-03	4.51E-02	5.56E+01		1.23E+00		1.2E+00	K
Chloronaphthalene,2-	5.01E-04	5.01E-04	2.78E-06	#VALUE!	2.92E+02	#VALUE!	1.05E+05	1.1E+05	J
Chlorophenol,2-	7.06E-04	7.06E-04	1.10E-04	#VALUE!	1.83E+01	#VALUE!	1.66E+02	1.7E+02	J
Chromium(III)									
Chromium(VI)									
Chrysene									
Cobalt									
Copper									
Cyanide (free)									
DDD									
DDE									
DDT									
Dibenz(a,h)anthracene									
Dibenzofuran	8.47E-04	8.47E-04	2.06E-07	#VALUE!	1.46E+01	#VALUE!	7.08E+04	7.1E+04	J
Dibromo-3-chloropropane,1,2-									
Dichlorobenzene,1,2-	9.41E-04	9.41E-04	6.81E-04	#VALUE!	2.08E+02	#VALUE!	3.06E+02	3.1E+02	J
Dichlorobenzene,1,3-	8.74E-04	8.74E-04	2.55E-04	#VALUE!	3.29E+00	#VALUE!	1.29E+01	1.3E+01	J
Dichlorobenzene,1,4-	9.40E-04	9.40E-04	5.46E-04		1.43E+03		2.62E+03	2.6E+03	K
Dichlorobenzidine,3,3-									
Dichloroethane,1,1-	1.01E-03	1.01E-03	1.12E-02	#VALUE!	5.22E+02	#VALUE!	4.67E+01	4.7E+01	J
Dichloroethane,1,2-	1.42E-03	1.42E-03	3.59E-03	3.85E+00		1.07E+00		1.1E+00	K
Dichloroethene,1,1-	1.22E-03	1.22E-03	4.81E-02	#VALUE!	2.08E+02	#VALUE!	4.33E+00	4.3E+00	J
Dichloroethene,cis,1,2-	1.00E-03	1.00E-03	1.07E-02	#VALUE!	3.65E+01	#VALUE!	3.43E+00	3.4E+00	J
Dichloroethene,trans,1,2-	9.61E-04	9.61E-04	2.14E-02	#VALUE!	7.30E+01	#VALUE!	3.41E+00	3.4E+00	J
Dichlorophenol,2,4-									
Dichloropropane,1,2-	1.06E-03	1.06E-03	6.57E-03		8.26E+03		1.26E+03	1.3E+03	K
Dichloropropene,1,3-	8.56E-04	8.56E-04	3.43E-03		1.07E+02		3.12E+01	3.1E+01	K
Dieldrin									
Diethylphthalate									
Dimethylphenol,2,4-									

LDEQ RECAP
WORKSHEET 11
SOILesni
(mg/kg)

Subsurface soil located beneath enclosed structure - Nonindustrial					Derivation of Management Option 2 RS				
Revision Date: 08/04/2003					Run date:	10/17/2003			
INPUTS TO SUBSURFACE SOIL BENEATH ENCLOSED-STRUCTURE MODEL-NONINDUSTRIAL						Site-Specific			
volumetric air content in foundation/wall cracks					nacrack =	0.14849057	cm3-air/cm3-total vol		
volumetric water content in foundation/wall cracks					nwcrack =	0.21	cm3-water/cm3-total vol		
total porosity of foundation/wall cracks					nf =	0.35849057	cm3/cm3		
bgs depth to contaminated subsurface soils					Ls =	100	cm		
enclosed-structure air exchange rate					ER =	0.00014	1/s		
enclosed-structure volume/infiltration area ratio					Lb =	200	cm		
enclosed-structure foundation or wall thickness					Lcrack =	15	cm		
areal fraction of cracks in foundation/walls					FC =	0.01	cm2-cracks/cm2-total area		
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2									
Dcrack = Da*nacrack^3.33/nf^2+Dw*1/(H*41)*nwcrack^3.33/nf^2									
VFsoilesni = [(H*41*pb/(nw+Koc*foc*pb+H*41*na))*(Ds/Ls)/(ER*Lb)]/[1+(Ds/Ls)/(ER*Lb)+(Ds/Ls)/((Dcrack/Lcrack)*FC)]*1000									
Cani C-O = (TR*ATc*365*1000)/(EFni*SFi*IRAadj)									
Cani N-O = (THQ*RfDi*BWa*ATnni*365*1000)/(IRAa*EFni*EDni)									
Soilesni = Cani*0.001/VFsoilesni									
	Ds	Dcrack	VFsoilesni	Cani	Cani	Soilesni	Soilesni	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(mg/m3/mg/kg	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/kg)	N-O(mg/kg)	(C or N)	
Dimethylphthalate									
Di-n-octylphthalate									
Dinitrobenzene,1,3-									
Dinitrophenol,2,4-									
Dinitrotoluene,2,6-									
Dinitrotoluene,2,4-									
Dinoseb									
Endosulfan									
Endrin									
Ethyl benzene	1.02E-03	1.02E-03	5.34E-03		1.03E+04		1.93E+03	1.9E+03	K
Fluoranthene									
Fluorene	6.23E-04	6.23E-04	7.82E-07	#VALUE!	1.46E+02	#VALUE!	1.87E+05	1.9E+05	J
Heptachlor									
Heptachlor epoxide									
Hexachlorobenzene	7.41E-04	7.41E-04	1.86E-06	2.00E-01		1.07E+02		1.1E+02	K
Hexachlorobutadiene									
Hexachlorocyclohexane,alpha									
Hexachlorocyclohexane,beta									
Hexachlorocyclohexane,gamma									
Hexachlorocyclopentadiene	2.19E-04	2.19E-04	4.51E-06	#VALUE!	2.08E-01	#VALUE!	4.62E+01	4.6E+01	J
Hexachloroethane	3.58E-05	3.58E-05	1.18E-05	2.50E+01		2.12E+03		2.1E+03	K
Indeno(1,2,3-cd)pyrene									
Isobutyl alcohol									
Isophorone									
Lead (inorganic)									
Mercury (inorganic)									
Methoxychlor									
Methylene chloride	1.38E-03	1.38E-03	1.64E-02	2.13E+02		1.30E+01		1.3E+01	K
Methyl ethyl ketone	1.28E-03	1.28E-03	5.01E-04		1.40E+04		2.80E+04	2.8E+04	K
Methyl isobutyl ketone	1.08E-03	1.08E-03	8.56E-04		4.88E+03		5.70E+03	5.7E+03	K
Methylnaphthalene,2-	7.94E-04	7.94E-04	3.11E-06	#VALUE!	3.14E+00	#VALUE!	1.01E+03	1.0E+03	J

LDEQ RECAP
WORKSHEET 11
SOILesni
(mg/kg)

Subsurface soil located beneath enclosed structure - Nonindustrial					Derivation of Management Option 2 RS				
Revision Date: 08/04/2003					Run date:	10/17/2003			
INPUTS TO SUBSURFACE SOIL BENEATH ENCLOSED-STRUCTURE MODEL-NONINDUSTRIAL						Site-Specific			
volumetric air content in foundation/wall cracks					nacrack =	0.14849057	cm3-air/cm3-total vol		
volumetric water content in foundation/wall cracks					nwcrack =	0.21	cm3-water/cm3-total vol		
total porosity of foundation/wall cracks					nf =	0.35849057	cm3/cm3		
bgs depth to contaminated subsurface soils					Ls =	100	cm		
enclosed-structure air exchange rate					ER =	0.00014	1/s		
enclosed-structure volume/infiltration area ratio					Lb =	200	cm		
enclosed-structure foundation or wall thickness					Lcrack =	15	cm		
areal fraction of cracks in foundation/walls					FC =	0.01	cm2-cracks/cm2-total area		
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2									
Dcrack = Da*nacrack^3.33/nf^2+Dw*1/(H*41)*nwcrack^3.33/nf^2									
VFsoilesni = [(H*41*pb/(nw+Koc*foc*pb+H*41*na))*(Ds/Ls)/(ER*Lb)]/[1+(Ds/Ls)/(ER*Lb)+(Ds/Ls)/((Dcrack/Lcrack)*FC)]*1000									
Cani C-O = (TR*ATc*365*1000)/(EFni*SFi*IRAadj)									
Cani N-O = (THQ*RfDi*BWa*ATnni*365*1000)/(IRAa*EFni*EDni)									
Soilesni = Cani*0.001/VFsoilesni									
	Ds	Dcrack	VFsoilesni	Cani	Cani	Soilesni	Soilesni	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(mg/m3/mg/kg	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/kg)	N-O(mg/kg)	(C or N)	
MTBE (methyl tert-butyl ether)	1.40E-03	1.40E-03	3.91E-03	#VALUE!	3.13E+03	#VALUE!	8.00E+02	8.0E+02	J
Naphthalene	8.17E-04	8.17E-04	4.97E-05	#VALUE!	3.14E+00	#VALUE!	6.31E+01	6.3E+01	J
Nickel									
Nitrate									
Nitrite									
Nitroaniline,2-	9.76E-04	9.76E-04	3.84E-04	#VALUE!	1.06E-01	#VALUE!	2.75E-01	2.8E-01	J
Nitroaniline,3-	5.38E-02	5.38E-02	3.10E-05	#VALUE!	1.10E+01	#VALUE!	3.53E+02	3.5E+02	J
Nitroaniline,4-									
Nitrobenzene	1.41E-03	1.41E-03	3.69E-05		1.19E+02		3.22E+03	3.2E+03	K
Nitrophenol,4-									
Nitrosodi-n-propylamine,n-									
N-nitrosodiphenylamine									
Pentachlorophenol									
Phenanthrene	7.89E-04	7.89E-04	5.81E-07	#VALUE!	1.10E+03	#VALUE!	1.88E+06	1.9E+06	J
Phenol	2.52E-02	2.52E-02	3.09E-05	#VALUE!	1.10E+03	#VALUE!	3.55E+04	3.5E+04	J
Polychlorinated biphenyls									
Pyrene	1.06E-03	1.06E-03	2.62E-08	#VALUE!	1.10E+02	#VALUE!	4.19E+06	4.2E+06	J
Selenium									
Silver									
Styrene	9.67E-04	9.67E-04	4.34E-04		1.00E+03		2.30E+03	2.3E+03	K
Tetrachlorobenzene,1,2,4,5-									
Tetrachloroethane,1,1,1,2-	8.18E-04	8.18E-04	3.94E-03	1.00E-01		2.54E-02		2.5E-02	K
Tetrachloroethane,1,1,2,2-	9.88E-04	9.88E-04	5.21E-04	1.70E+00		3.26E+00		3.3E+00	K
Tetrachloroethylene	9.78E-04	9.78E-04	9.26E-03	1.10E+02		1.19E+01		1.2E+01	K
Tetrachlorophenol,2,3,4,6-									
Thallium									
Toluene	1.18E-03	1.18E-03	7.28E-03		4.00E+02		5.50E+01	5.5E+01	K
Toxaphene									
Trichlorobenzene,1,2,4-	4.13E-04	4.13E-04	5.33E-05	#VALUE!	2.08E+02	#VALUE!	3.91E+03	3.9E+03	J
Trichloroethane,1,1,1-	1.06E-03	1.06E-03	1.68E-02	#VALUE!	1.04E+03	#VALUE!	6.23E+01	6.2E+01	J
Trichloroethane,1,1,2-	1.07E-03	1.07E-03	1.55E-03	6.30E+00		4.07E+00		4.1E+00	K

LDEQ RECAP
WORKSHEET 11
SOILesni
(mg/kg)

Subsurface soil located beneath enclosed structure - Nonindustrial					Derivation of Management Option 2 RS				
Revision Date: 08/04/2003					Run date:	10/17/2003			
INPUTS TO SUBSURFACE SOIL BENEATH ENCLOSED-STRUCTURE MODEL-NONINDUSTRIAL						Site-Specific			
volumetric air content in foundation/wall cracks					nacrack =	0.14849057	cm3-air/cm3-total vol		
volumetric water content in foundation/wall cracks					nwcrack =	0.21	cm3-water/cm3-total vol		
total porosity of foundation/wall cracks					nf =	0.35849057	cm3/cm3		
bgs depth to contaminated subsurface soils					Ls =	100	cm		
enclosed-structure air exchange rate					ER =	0.00014	1/s		
enclosed-structure volume/infiltration area ratio					Lb =	200	cm		
enclosed-structure foundation or wall thickness					Lcrack =	15	cm		
areal fraction of cracks in foundation/walls					FC =	0.01	cm2-cracks/cm2-total area		
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2									
Dcrack = Da*nacrack^3.33/nf^2+Dw*1/(H*41)*nwcrack^3.33/nf^2									
VFsoilesni = [(H*41*pb/(nw+Koc*foc*pb+H*41*na))*(Ds/Ls)/(ER*Lb)]/[1+(Ds/Ls)/(ER*Lb)+(Ds/Ls)/((Dcrack/Lcrack)*FC)]*1000									
Cani C-O = (TR*ATc*365*1000)/(EFni*SFi*IRAadj)									
Cani N-O = (THQ*RfDi*BWa*ATnni*365*1000)/(IRAa*EFni*EDni)									
Soilesni = Cani*0.001/VFsoilesni									
	Ds	Dcrack	VFsoilesni	Cani	Cani	Soilesni	Soilesni	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(mg/m3/mg/kg	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/kg)	N-O(mg/kg)	(C or N)	
Trichloroethene	1.07E-03	1.07E-03	1.39E-02	5.90E+01		4.23E+00		4.2E+00	K
Trichlorofluoromethane	1.18E-03	1.18E-03	7.36E-02	#VALUE!	7.30E+02	#VALUE!	9.92E+00	9.9E+00	J
Trichlorophenol,2,4,5-									
Trichlorophenol,2,4,6-									
Vanadium									
Vinyl chloride	1.44E-03	1.44E-03	1.07E-01	1.20E+00		1.12E-02		1.1E-02	K
Xylene(mixed)	9.51E-04	9.51E-04	7.16E-03	#VALUE!	1.06E+02	#VALUE!	1.48E+01	1.5E+01	J
Zinc									
Aliphatics C6-C8	1.36E-03	1.36E-03	5.34E-02		1.93E+04		3.62E+02	3.6E+02	J
Aliphatics >C8-C10	1.36E-03	1.36E-03	1.23E-02		1.06E+03		8.60E+01	8.6E+01	J
Aliphatics >C10-C12	1.36E-03	1.36E-03	2.40E-03		1.10E+03		4.57E+02	4.6E+02	J
Aliphatics >C12-C16	1.36E-03	1.36E-03	5.24E-04		1.10E+03		2.09E+03	2.1E+03	J
Aliphatics >C16-C35									
Aromatics >C8-C10	1.36E-03	1.36E-03	1.50E-03		2.19E+02		1.46E+02	1.5E+02	J
Aromatics >C10-C12	1.36E-03	1.36E-03	2.79E-04		2.19E+02		7.84E+02	7.8E+02	J
Aromatics >C12-C16	1.37E-03	1.37E-03	5.34E-05		2.19E+02		4.10E+03	4.1E+03	J
Aromatics >C16-C21									
Aromatics >C21-C35									
TPH-GRO (C6-C10)					2.19E+02			8.6E+01	
TPH-DRO (C10-C28)									
TPH-ORO (>C28)									
J - Risk-based value calculated with one of the equations EQ 56 thru 59.									
K - Louisiana Toxic Air Pollutant Ambient Air Standards (LAC 33:III.5112 Table 51.2).									

LDEQ RECAP
WORKSHEET 12
SOILesi
(mg/kg)

Subsurface soil located beneath enclosed structure-Industrial					Derivation of Management Option 2 RS				
Revision Date: 08/04/2003					Run date:	10/17/2003			
INPUTS TO SUBSURFACE SOIL BENEATH ENCLOSED-STRUCTURE MODEL-INDUSTRIAL						Site-Specific			
volumetric air content in foundation/wall cracks					nacrack =	0.14849057	cm3-air/cm3-total vol		
volumetric water content in foundation/wall cracks					nwcrack =	0.21	cm3-water/cm3-total vol		
total porosity of foundation/wall cracks					nf =	0.35849057	cm3/cm3		
bgs depth to contaminated subsurface soils					Ls =	100	cm		
enclosed-structure air exahnge rate					ER =	0.00023	1/s		
enclosed-structure volume/infiltration area ratio					Lb =	300	cm		
enclosed-structure foundation or wall thickness					Lcrack =	15	cm		
areal fraction of cracks in foundation/walls					FC =	0.01	cm2-cracks/cm2-total area		
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2									
Dcrack = Da*nacrack^3.33/nf^2+Dw*1/(H*41)*nwcrack^3.33/nf^2									
VFsoilesi = [(H*41*pb/(nw+Koc*foc*pb+H*41*na))*(Ds/Ls)/(ER*Lb)]/[1+(Ds/Ls)/(ER*Lb)+(Ds/Ls)/((Dcrack/Lcrack)*FC)]*1000									
Cai C-O = (TR*BWa*ATc*365*1000)/(SFi*IRAa*EFi*EDi)									
Cai N-O = (THQ*RfDi*BWa*ATni*365*1000)/(IRAa*EFi*EDi)									
Soilesi = Cai*0.001/VFsoilesi									
	Ds	Dcrack	VFsoilesi	Cai	Cai	Soilesi	Soilesi	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(mg/m3/mg/kg	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/kg)	N-O(mg/kg)	(C or N)	
Acenaphthene	6.24E-04	6.24E-04	1.22E-06	#VALUE!	3.07E+02	#VALUE!	2.52E+05	2.5E+05	J
Acenaphthylene	6.65E-04	6.65E-04	2.32E-06	#VALUE!	3.07E+02	#VALUE!	1.32E+05	1.3E+05	J
Acetone	1.99E-03	1.99E-03	2.26E-04	#VALUE!	5.11E+02	#VALUE!	2.26E+03	2.3E+03	J
Aldrin									
Aniline									
Anthracene	5.65E-04	5.65E-04	9.66E-08	#VALUE!	1.53E+03	#VALUE!	1.59E+07	1.6E+07	J
Antimony									
Arsenic									
Barium									
Benzene	1.20E-03	1.20E-03	4.80E-03	1.20E+01		2.50E+00		2.5E+00	K
Benz(a)anthracene									
Benzo(a)pyrene									
Benzo(b)fluoranthene									
Benzo(k)fluoranthene									
Beryllium									
Biphenyl,1,1-	5.77E-04	5.77E-04	2.08E-06		2.38E+01		1.14E+04	1.1E+04	K
Bis(2-chloroethyl)ether	1.38E-03	1.38E-03	1.59E-05	3.00E-01		1.88E+01		1.9E+01	K
Bis(2-chloroisopropyl)ether	8.69E-04	8.69E-04	7.38E-05	4.09E-01	2.04E+02	5.54E+00	2.77E+03	5.5E+00	J
Bis(2-ethyl-hexyl)phthalate									
Bromodichloromethane	4.12E-04	4.12E-04	5.32E-04	2.31E-01	1.02E+02	4.33E-01	1.92E+02	4.3E-01	J
Bromoform	2.23E-04	2.23E-04	5.02E-05	3.72E+00	1.02E+02	7.41E+01	2.04E+03	7.4E+01	J
Bromomethane	9.90E-04	9.90E-04	1.14E-02	#VALUE!	7.31E+00	#VALUE!	6.40E-01	6.4E-01	J
Butyl benzyl phthalate									
Cadmium									
Carbon Disulfide	1.41E-03	1.41E-03	3.14E-02		7.14E+01		2.27E+00	2.3E+00	K
Carbon Tetrachloride	1.06E-03	1.06E-03	1.05E-02	6.67E+00		6.38E-01		6.4E-01	K
Chlordane									
Chloroaniline,p-									
Chlorobenzene	9.94E-04	9.94E-04	9.22E-04		1.10E+03		1.19E+03	1.2E+03	K
Chlorodibromomethane	2.80E-04	2.80E-04	1.61E-04	1.70E-01	1.02E+02	1.06E+00	6.33E+02	1.1E+00	J
Chloroethane (Ethylchloride)	3.68E-03	3.68E-03	6.89E-02		6.29E+04		9.12E+02	9.1E+02	K

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SOILesi
(mg/kg)

Subsurface soil located beneath enclosed structure-Industrial					Derivation of Management Option 2 RS				
Revision Date: 08/04/2003					Run date:	10/17/2003			
INPUTS TO SUBSURFACE SOIL BENEATH ENCLOSED-STRUCTURE MODEL-INDUSTRIAL						Site-Specific			
volumetric air content in foundation/wall cracks					nacrack =	0.14849057	cm3-air/cm3-total vol		
volumetric water content in foundation/wall cracks					nwcrack =	0.21	cm3-water/cm3-total vol		
total porosity of foundation/wall cracks					nf =	0.35849057	cm3/cm3		
bgs depth to contaminated subsurface soils					Ls =	100	cm		
enclosed-structure air exahnge rate					ER =	0.00023	1/s		
enclosed-structure volume/infiltration area ratio					Lb =	300	cm		
enclosed-structure foundation or wall thickness					Lcrack =	15	cm		
areal fraction of cracks in foundation/walls					FC =	0.01	cm2-cracks/cm2-total area		
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2									
Dcrack = Da*nacrack^3.33/nf^2+Dw*1/(H*41)*nwcrack^3.33/nf^2									
VFsoilesi = [(H*41*pb/(nw+Koc*foc*pb+H*41*na))*(Ds/Ls)/(ER*Lb)]/[1+(Ds/Ls)/(ER*Lb)+(Ds/Ls)/((Dcrack/Lcrack)*FC)]*1000									
Cai C-O = (TR*BWa*ATc*365*1000)/(SFi*IRAa*EFi*EDi)									
Cai N-O = (THQ*RfDi*BWa*ATni*365*1000)/(IRAa*EFi*EDi)									
Soilesi = Cai*0.001/VFsoilesi									
	Ds	Dcrack	VFsoilesi	Cai	Cai	Soilesi	Soilesi	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(mg/m3/mg/kg	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/kg)	N-O(mg/kg)	(C or N)	
Chloroform	1.41E-03	1.41E-03	4.27E-03	4.30E+00		1.01E+00		1.0E+00	K
Chloromethane	1.71E-03	1.71E-03	1.83E-02	5.56E+01		3.04E+00		3.0E+00	K
Chloronaphthalene,2-	5.01E-04	5.01E-04	1.13E-06	#VALUE!	4.09E+02	#VALUE!	3.63E+05	3.6E+05	J
Chlorophenol,2-	7.06E-04	7.06E-04	4.45E-05	#VALUE!	2.56E+01	#VALUE!	5.74E+02	5.7E+02	J
Chromium(III)									
Chromium(VI)									
Chrysene									
Cobalt									
Copper									
Cyanide (free)									
DDD									
DDE									
DDT									
Dibenz(a,h)anthracene									
Dibenzofuran	8.47E-04	8.47E-04	8.36E-08	#VALUE!	2.04E+01	#VALUE!	2.44E+05	2.4E+05	J
Dibromo-3-chloropropane,1,2-									
Dichlorobenzene,1,2-	9.41E-04	9.41E-04	2.76E-04	#VALUE!	2.91E+02	#VALUE!	1.05E+03	1.1E+03	J
Dichlorobenzene,1,3-	8.74E-04	8.74E-04	1.04E-04	#VALUE!	4.60E+00	#VALUE!	4.44E+01	4.4E+01	J
Dichlorobenzene,1,4-	9.40E-04	9.40E-04	2.22E-04		1.43E+03		6.45E+03	6.5E+03	K
Dichlorobenzidine,3,3-									
Dichloroethane,1,1-	1.01E-03	1.01E-03	4.54E-03	#VALUE!	7.31E+02	#VALUE!	1.61E+02	1.6E+02	J
Dichloroethane,1,2-	1.42E-03	1.42E-03	1.46E-03	3.85E+00		2.64E+00		2.6E+00	K
Dichloroethene,1,1-	1.22E-03	1.22E-03	1.95E-02	#VALUE!	2.91E+02		1.49E+01	1.5E+01	J
Dichloroethene,cis,1,2-	1.00E-03	1.00E-03	4.32E-03	#VALUE!	5.11E+01	#VALUE!	1.18E+01	1.2E+01	J
Dichloroethene,trans,1,2-	9.61E-04	9.61E-04	8.69E-03	#VALUE!	1.02E+02	#VALUE!	1.18E+01	1.2E+01	J
Dichlorophenol,2,4-									
Dichloropropane,1,2-	1.06E-03	1.06E-03	2.66E-03		8.26E+03		3.10E+03	3.1E+03	K
Dichloropropene,1,3-	8.56E-04	8.56E-04	1.39E-03		1.07E+02		7.69E+01	7.7E+01	K
Dieldrin									
Diethylphthalate									
Dimethylphenol,2,4-									

LDEQ RECAP
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SOILesi
(mg/kg)

Subsurface soil located beneath enclosed structure-Industrial					Derivation of Management Option 2 RS				
Revision Date: 08/04/2003					Run date:	10/17/2003			
INPUTS TO SUBSURFACE SOIL BENEATH ENCLOSED-STRUCTURE MODEL-INDUSTRIAL						Site-Specific			
volumetric air content in foundation/wall cracks					nacrack =	0.14849057	cm3-air/cm3-total vol		
volumetric water content in foundation/wall cracks					nwcrack =	0.21	cm3-water/cm3-total vol		
total porosity of foundation/wall cracks					nf =	0.35849057	cm3/cm3		
bgs depth to contaminated subsurface soils					Ls =	100	cm		
enclosed-structure air exahnge rate					ER =	0.00023	1/s		
enclosed-structure volume/infiltration area ratio					Lb =	300	cm		
enclosed-structure foundation or wall thickness					Lcrack =	15	cm		
areal fraction of cracks in foundation/walls					FC =	0.01	cm2-cracks/cm2-total area		
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2									
Dcrack = Da*nacrack^3.33/nf^2+Dw*1/(H*41)*nwcrack^3.33/nf^2									
VFsoilesi = [(H*41*pb/(nw+Koc*foc*pb+H*41*na))*(Ds/Ls)/(ER*Lb)]/[1+(Ds/Ls)/(ER*Lb)+(Ds/Ls)/((Dcrack/Lcrack)*FC)]*1000									
Cai C-O = (TR*BWa*ATc*365*1000)/(SFi*IRAa*EFi*EDi)									
Cai N-O = (THQ*RfDi*BWa*ATni*365*1000)/(IRAa*EFi*EDi)									
Soilesi = Cai*0.001/VFsoilesi									
	Ds	Dcrack	VFsoilesi	Cai	Cai	Soilesi	Soilesi	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(mg/m3/mg/kg	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/kg)	N-O(mg/kg)	(C or N)	
Dimethylphthalate									
Di-n-octylphthalate									
Dinitrobenzene,1,3-									
Dinitrophenol,2,4-									
Dinitrotoluene,2,6-									
Dinitrotoluene,2,4-									
Dinoseb									
Endosulfan									
Endrin									
Ethyl benzene	1.02E-03	1.02E-03	2.17E-03		1.03E+04		4.75E+03	4.8E+03	K
Fluoranthene									
Fluorene	6.23E-04	6.23E-04	3.17E-07	#VALUE!	2.04E+02	#VALUE!	6.44E+05	6.4E+05	J
Heptachlor									
Heptachlor epoxide									
Hexachlorobenzene	7.41E-04	7.41E-04	7.56E-07	2.00E-01		2.65E+02		2.6E+02	K
Hexachlorobutadiene									
Hexachlorocyclohexane,alpha									
Hexachlorocyclohexane,beta									
Hexachlorocyclohexane,gamma									
Hexachlorocyclopentadiene	2.19E-04	2.19E-04	1.83E-06	#VALUE!	2.91E-01	#VALUE!	1.59E+02	1.6E+02	J
Hexachloroethane	3.58E-05	3.58E-05	4.78E-06	2.50E+01		5.23E+03		5.2E+03	K
Indeno(1,2,3-cd)pyrene									
Isobutyl alcohol									
Isophorone									
Lead (inorganic)									
Mercury (inorganic)									
Methoxychlor									
Methylene chloride	1.38E-03	1.38E-03	6.65E-03	2.13E+02		3.20E+01		3.2E+01	K
Methyl ethyl ketone	1.28E-03	1.28E-03	2.03E-04		1.40E+04		6.89E+04	6.9E+04	K
Methyl isobutyl ketone	1.08E-03	1.08E-03	3.47E-04		4.88E+03		1.41E+04	1.4E+04	K
Methylnaphthalene,2-	7.94E-04	7.94E-04	1.26E-06	#VALUE!	4.39E+00	#VALUE!	3.49E+03	3.5E+03	J

LDEQ RECAP
WORKSHEET 12
SOILesi
(mg/kg)

Subsurface soil located beneath enclosed structure-Industrial					Derivation of Management Option 2 RS				
Revision Date: 08/04/2003					Run date:	10/17/2003			
INPUTS TO SUBSURFACE SOIL BENEATH ENCLOSED-STRUCTURE MODEL-INDUSTRIAL						Site-Specific			
volumetric air content in foundation/wall cracks					nacrack =	0.14849057	cm3-air/cm3-total vol		
volumetric water content in foundation/wall cracks					nwcrack =	0.21	cm3-water/cm3-total vol		
total porosity of foundation/wall cracks					nf =	0.35849057	cm3/cm3		
bgs depth to contaminated subsurface soils					Ls =	100	cm		
enclosed-structure air exahnge rate					ER =	0.00023	1/s		
enclosed-structure volume/infiltration area ratio					Lb =	300	cm		
enclosed-structure foundation or wall thickness					Lcrack =	15	cm		
areal fraction of cracks in foundation/walls					FC =	0.01	cm2-cracks/cm2-total area		
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2									
Dcrack = Da*nacrack^3.33/nf^2+Dw*1/(H*41)*nwcrack^3.33/nf^2									
VFsoilesi = [(H*41*pb/(nw+Koc*foc*pb+H*41*na))*(Ds/Ls)/(ER*Lb)]/[1+(Ds/Ls)/(ER*Lb)+(Ds/Ls)/((Dcrack/Lcrack)*FC)]*1000									
Cai C-O = (TR*BWa*ATc*365*1000)/(SFi*IRAa*EFi*EDi)									
Cai N-O = (THQ*RfDi*BWa*ATni*365*1000)/(IRAa*EFi*EDi)									
Soilesi = Cai*0.001/VFsoilesi									
	Ds	Dcrack	VFsoilesi	Cai	Cai	Soilesi	Soilesi	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(mg/m3/mg/kg	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/kg)	N-O(mg/kg)	(C or N)	
MTBE (methyl tert-butyl ether)	1.40E-03	1.40E-03	1.59E-03	#VALUE!	4.38E+03	#VALUE!	2.76E+03	2.8E+03	J
Naphthalene	8.17E-04	8.17E-04	2.02E-05	#VALUE!	4.39E+00	#VALUE!	2.18E+02	2.2E+02	J
Nickel									
Nitrate									
Nitrite									
Nitroaniline,2-	9.76E-04	9.76E-04	1.56E-04	#VALUE!	1.48E-01	#VALUE!	9.50E-01	9.5E-01	J
Nitroaniline,3-	5.38E-02	5.38E-02	1.26E-05	#VALUE!	1.53E+01	#VALUE!	1.22E+03	1.2E+03	J
Nitroaniline,4-									
Nitrobenzene	1.41E-03	1.41E-03	1.50E-05		1.19E+02		7.94E+03	7.9E+03	K
Nitrophenol,4-									
Nitrosodi-n-propylamine,n-									
N-nitrosodiphenylamine									
Pentachlorophenol									
Phenanthrene	7.89E-04	7.89E-04	2.36E-07	#VALUE!	1.53E+03	#VALUE!	6.50E+06	6.5E+06	J
Phenol	2.52E-02	2.52E-02	1.25E-05	#VALUE!	1.53E+03	#VALUE!	1.22E+05	1.2E+05	J
Polychlorinated biphenyls									
Pyrene	1.06E-03	1.06E-03	1.06E-08	#VALUE!	1.53E+02	#VALUE!	1.44E+07	1.4E+07	J
Selenium									
Silver									
Styrene	9.67E-04	9.67E-04	1.76E-04		1.00E+03		5.68E+03	5.7E+03	K
Tetrachlorobenzene,1,2,4,5-									
Tetrachloroethane,1,1,1,2-	8.18E-04	8.18E-04	1.60E-03	1.00E-01		6.26E-02		6.3E-02	K
Tetrachloroethane,1,1,2,2-	9.88E-04	9.88E-04	2.11E-04	1.70E+00		8.04E+00		8.0E+00	K
Tetrachloroethylene	9.78E-04	9.78E-04	3.76E-03	1.10E+02		2.93E+01		2.9E+01	K
Tetrachlorophenol,2,3,4,6-									
Thallium									
Toluene	1.18E-03	1.18E-03	2.95E-03		4.00E+02		1.35E+02	1.4E+02	K
Toxaphene									
Trichlorobenzene,1,2,4-	4.13E-04	4.13E-04	2.16E-05	#VALUE!	2.91E+02	#VALUE!	1.35E+04	1.3E+04	J
Trichloroethane,1,1,1-	1.06E-03	1.06E-03	6.80E-03	#VALUE!	1.46E+03	#VALUE!	2.15E+02	2.1E+02	J
Trichloroethane,1,1,2-	1.07E-03	1.07E-03	6.28E-04	6.30E+00		1.00E+01		1.0E+01	K

LDEQ RECAP
WORKSHEET 12
SOILesi
(mg/kg)

Subsurface soil located beneath enclosed structure-Industrial					Derivation of Management Option 2 RS				
Revision Date: 08/04/2003					Run date:	10/17/2003			
INPUTS TO SUBSURFACE SOIL BENEATH ENCLOSED-STRUCTURE MODEL-INDUSTRIAL						Site-Specific			
volumetric air content in foundation/wall cracks					nacrack =	0.14849057	cm3-air/cm3-total vol		
volumetric water content in foundation/wall cracks					nwcrack =	0.21	cm3-water/cm3-total vol		
total porosity of foundation/wall cracks					nf =	0.35849057	cm3/cm3		
bgs depth to contaminated subsurface soils					Ls =	100	cm		
enclosed-structure air exahnge rate					ER =	0.00023	1/s		
enclosed-structure volume/infiltration area ratio					Lb =	300	cm		
enclosed-structure foundation or wall thickness					Lcrack =	15	cm		
areal fraction of cracks in foundation/walls					FC =	0.01	cm2-cracks/cm2-total area		
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2									
Dcrack = Da*nacrack^3.33/nf^2+Dw*1/(H*41)*nwcrack^3.33/nf^2									
VFsoilesi = [(H*41*pb/(nw+Koc*foc*pb+H*41*na))*(Ds/Ls)/(ER*Lb)]/[1+(Ds/Ls)/(ER*Lb)+(Ds/Ls)/((Dcrack/Lcrack)*FC)]*1000									
Cai C-O = (TR*BWa*ATc*365*1000)/(SFi*IRAa*EFi*EDi)									
Cai N-O = (THQ*RfDi*BWa*ATni*365*1000)/(IRAa*EFi*EDi)									
Soilesi = Cai*0.001/VFsoilesi									
	Ds	Dcrack	VFsoilesi	Cai	Cai	Soilesi	Soilesi	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(mg/m3/mg/kg	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/kg)	N-O(mg/kg)	(C or N)	
Trichloroethene	1.07E-03	1.07E-03	5.65E-03	5.90E+01		1.04E+01		1.0E+01	K
Trichlorofluoromethane	1.18E-03	1.18E-03	2.99E-02	#VALUE!	1.02E+03	#VALUE!	3.42E+01	3.4E+01	J
Trichlorophenol,2,4,5-									
Trichlorophenol,2,4,6-									
Vanadium									
Vinyl chloride	1.44E-03	1.44E-03	4.35E-02	1.20E+00		2.76E-02		2.8E-02	K
Xylene(mixed)	9.51E-04	9.51E-04	2.90E-03	#VALUE!	1.48E+02	#VALUE!	5.10E+01	5.1E+01	J
Zinc									
Aliphatics C6-C8	1.36E-03	1.36E-03	2.17E-02		1.93E+04		8.92E+02	8.9E+02	J
Aliphatics >C8-C10	1.36E-03	1.36E-03	4.99E-03		1.06E+03		2.12E+02	2.1E+02	J
Aliphatics >C10-C12	1.36E-03	1.36E-03	9.73E-04		1.10E+03		1.12E+03	1.1E+03	J
Aliphatics >C12-C16	1.36E-03	1.36E-03	2.13E-04		1.10E+03		5.15E+03	5.2E+03	J
Aliphatics >C16-C35									
Aromatics >C8-C10	1.36E-03	1.36E-03	6.10E-04		2.19E+02		3.59E+02	3.6E+02	J
Aromatics >C10-C12	1.36E-03	1.36E-03	1.13E-04		2.19E+02		1.93E+03	1.9E+03	J
Aromatics >C12-C16	1.37E-03	1.37E-03	2.17E-05		2.19E+02		1.01E+04	1.0E+04	J
Aromatics >C16-C21									
Aromatics >C21-C35									
TPH-GRO (C6-C10)					2.19E+02			2.1E+02	
TPH-DRO (C10-C28)									
TPH-ORO (>C28)									
J - Risk-based value calculated with one of the equations EQ 56 thru 59.									
K - Louisiana Toxic Air Pollutant Ambient Air Standards (LAC 33:III.5112 Table 51.2).									

LDEQ RECAP
WORKSHEET 13
GWesni
(mg/l)

Groundwater located beneath enclosed structure-Non-industrial					Derivation of Management Option 2 RS						
Revision Date: 08/04/2003					Run date:	10/17/2003					
INPUTS TO GROUNDWATER BENEATH ENCLOSED-STRUCTURE MODEL-NONINDUSTRIAL						Site-Specific					
volumetric air content in foundation/wall cracks					nacrack =	0.14849057	cm3-air/cm3-total vol				
volumetric water content in foundation/wall cracks					nwcrack =	0.21	cm3-water/cm3-total vol				
total porosity of foundation/wall cracks					nf =	0.35849057	cm3/cm3				
volumetric air content in capillary fringe					nacap =	0.015	cm3-air/cm3-soil				
volumetric water content in capillary fringe					nwcap =	0.345	cm3-water/cm3-soil				
total porosity of capillary fringe soil					nc =	0.36	cm3/cm3				
thickness of capillary fringe					hcap =	5	cm				
thickness of vadose zone					hv =	295	cm				
depth to groundwater					Lgw =	300	cm				
enclosed-structure air exchange rate					ER =	0.00014	1/s				
enclosed-structure volume/infiltration area ratio					Lb =	200	cm				
areal fraction of cracks in foundation/walls					FC =	0.01	cm2-cracks/cm2-total area				
enclosed-structure foundation or wall thickness					Lcrack =	15	cm				
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2											
Dcrack = Da*nacrack^3.33/nf^2+Dw*1/(H*41)*nwcrack^3.33/nf^2											
Dcap = Da*nacap^3.33/nc^2+Dw*1/(H*41)*nwcap^3.33/nc^2											
Dws = (hcap+hv)/(hcap/Dcap+hv/Ds)											
VFgwesni = [H*41*(Dws/Lgw)/(ER*Lb)]/[1+(Dws/Lgw)/(ER*Lb)+(Dws/Lgw)/((Dcrack/Lcrack)*FC)]*1000											
Cani C-O = (TR*ATc*365*1000)/(EFni*SFi*IRAadj)											
Cani N-O= (THQ*RfDi*BWa*ATnni*365*1000)/(IRAa*EFni*EDni)											
GWesni = Cani*0.001/VFgwesni											
	Ds	Dcrack	Dcap	Dws	VFgwesni	Cani	Cani	GWesni	GWesni	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(cm2/s)	(cm2/s)	(mg/m3/mg/l)	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/l)	N-O(mg/l)	(C or N)	
Acenaphthene	6.24E-04	6.24E-04	2.70E-04	6.10E-04	7.84E-05	#VALUE!	2.19E+02	#VALUE!	2.79E+03	2.8E+03	J
Acenaphthylene	6.65E-04	6.65E-04	3.60E-04	6.56E-04	6.16E-05	#VALUE!	2.19E+02	#VALUE!	3.56E+03	3.6E+03	J
Acetone	1.99E-03	1.99E-03	1.60E-03	1.98E-03	6.28E-05	#VALUE!	3.65E+02	#VALUE!	5.81E+03	5.8E+03	J
Aldrin											
Aniline											
Anthracene	5.65E-04	5.65E-04	6.48E-04	5.66E-04	2.99E-05	#VALUE!	1.10E+03	#VALUE!	3.66E+04	3.7E+04	J
Antimony											
Arsenic											
Barium											
Benzene	1.20E-03	1.20E-03	1.02E-05	4.07E-04	4.08E-03	1.20E+01		2.94E+00		2.9E+00	K
Benz(a)anthracene											
Benzo(a)pyrene											
Benzo(b)fluoranthene											
Benzo(k)fluoranthene											
Beryllium											
Biphenyl,1,1-	5.77E-04	5.77E-04	1.48E-04	5.50E-04	1.40E-04		2.38E+01		1.70E+02	1.7E+02	K
Bis(2-chloroethyl)ether	1.38E-03	1.38E-03	2.28E-03	1.39E-03	2.02E-05	3.00E-01		1.48E+01		1.5E+01	K
Bis(2-chloroisopropyl)ether	8.69E-04	8.69E-04	3.19E-04	8.45E-04	7.95E-05	1.90E-01	1.46E+02	2.38E+00	1.84E+03	2.4E+00	J
Bis(2-ethyl-hexyl)phthalate											
Bromodichloromethane	4.12E-04	4.12E-04	3.62E-05	3.51E-04	5.21E-04	1.07E-01	7.30E+01	2.06E-01	1.40E+02	2.1E-01	J
Bromoform	2.23E-04	2.23E-04	1.05E-04	2.18E-04	9.65E-05	1.72E+00	7.30E+01	1.79E+01	7.56E+02	1.8E+01	J
Bromomethane	9.90E-04	9.90E-04	1.11E-05	4.01E-04	4.01E-03	#VALUE!	5.22E+00	#VALUE!	1.30E+00	1.3E+00	J
Butyl benzyl phthalate											
Cadmium											
Carbon Disulfide	1.41E-03	1.41E-03	2.47E-06	1.34E-04	1.35E-02		7.14E+01		5.30E+00	5.3E+00	K
Carbon Tetrachloride	1.06E-03	1.06E-03	2.08E-06	1.12E-04	1.09E-02	6.67E+00		6.14E-01		6.1E-01	K
Chlordane											
Chloroaniline,p-											
Chlorobenzene	9.94E-04	9.94E-04	1.33E-05	4.45E-04	2.48E-03		1.10E+03		4.43E+02	4.4E+02	K
Chlorodibromomethane	2.80E-04	2.80E-04	7.31E-05	2.68E-04	1.77E-04	7.90E-02	7.30E+01	4.46E-01	4.12E+02	4.5E-01	J
Chloroethane (Ethylchloride)	3.68E-03	3.68E-03	8.87E-06	4.66E-04	1.23E-02		6.29E+04		5.13E+03	5.1E+03	K
Chloroform	1.41E-03	1.41E-03	1.55E-05	5.65E-04	3.38E-03	4.30E+00		1.27E+00		1.3E+00	K
Chloromethane	1.71E-03	1.71E-03	4.84E-06	2.49E-04	6.19E-03	5.56E+01		8.98E+00		9.0E+00	K
Chloronaphthalene,2-	5.01E-04	5.01E-04	1.55E-04	4.83E-04	1.26E-04	#VALUE!	2.92E+02	#VALUE!	2.33E+03	2.3E+03	J
Chlorophenol,2-	7.06E-04	7.06E-04	1.32E-04	6.58E-04	2.22E-04	#VALUE!	1.83E+01	#VALUE!	8.23E+01	8.2E+01	J
Chromium(III)											

LDEQ RECAP
WORKSHEET 13
GWesni
(mg/l)

Groundwater located beneath enclosed structure-Non-industrial					Derivation of Management Option 2 RS						
Revision Date: 08/04/2003					Run date:	10/17/2003					
INPUTS TO GROUNDWATER BENEATH ENCLOSED-STRUCTURE MODEL-NONINDUSTRIAL						Site-Specific					
volumetric air content in foundation/wall cracks					nacrack =	0.14849057	cm3-air/cm3-total vol				
volumetric water content in foundation/wall cracks					nwcrack =	0.21	cm3-water/cm3-total vol				
total porosity of foundation/wall cracks					nf =	0.35849057	cm3/cm3				
volumetric air content in capillary fringe					nacap =	0.015	cm3-air/cm3-soil				
volumetric water content in capillary fringe					nwcap =	0.345	cm3-water/cm3-soil				
total porosity of capillary fringe soil					nc =	0.36	cm3/cm3				
thickness of capillary fringe					hcap =	5	cm				
thickness of vadose zone					hv =	295	cm				
depth to groundwater					Lgw =	300	cm				
enclosed-structure air exchange rate					ER =	0.00014	1/s				
enclosed-structure volume/infiltration area ratio					Lb =	200	cm				
areal fraction of cracks in foundation/walls					FC =	0.01	cm2-cracks/cm2-total area				
enclosed-structure foundation or wall thickness					Lcrack =	15	cm				
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2											
Dcrack = Da*nacrack^3.33/nf^2+Dw*1/(H*41)*nwcrack^3.33/nf^2											
Dcap = Da*nacap^3.33/nc^2+Dw*1/(H*41)*nwcap^3.33/nc^2											
Dws = (hcap+hv)/(hcap/Dcap+hv/Ds)											
VFgwesni = [H*41*(Dws/Lgw)/(ER*Lb)]/[1+(Dws/Lgw)/(ER*Lb)+(Dws/Lgw)/((Dcrack/Lcrack)*FC)]*1000											
Cani C-O = (TR*ATc*365*1000)/(EFni*SFi*IRAadj)											
Cani N-O= (THQ*RfDi*BWa*ATnni*365*1000)/(IRAa*EFni*EDni)											
GWesni = Cani*0.001/VFgwesni											
	Ds	Dcrack	Dcap	Dws	VFgwesni	Cani	Cani	GWesni	GWesni	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(cm2/s)	(cm2/s)	(mg/m3/mg/l)	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/l)	N-O(mg/l)	(C or N)	
Chromium(VI)											
Chrysene											
Cobalt											
Copper											
Cyanide (free)											
DDD											
DDE											
DDT											
Dibenz(a,h)anthracene											
Dibenzofuran	8.47E-04	8.47E-04	2.51E-03	8.57E-04	8.98E-06	#VALUE!	1.46E+01	#VALUE!	1.63E+03	1.6E+03	J
Dibromo-3-chloropropane,1,2-											
Dichlorobenzene,1,2-	9.41E-04	9.41E-04	2.31E-05	5.66E-04	1.31E-03	#VALUE!	2.08E+02	#VALUE!	1.59E+02	1.6E+02	J
Dichlorobenzene,1,3-	8.74E-04	8.74E-04	1.21E-05	4.00E-04	1.96E-03	#VALUE!	3.29E+00	#VALUE!	1.68E+00	1.7E+00	J
Dichlorobenzene,1,4-	9.40E-04	9.40E-04	1.81E-05	5.09E-04	1.63E-03		1.43E+03		8.78E+02	8.8E+02	K
Dichlorobenzidine,3,3-											
Dichloroethane,1,1-	1.01E-03	1.01E-03	1.06E-05	3.94E-04	3.66E-03	#VALUE!	5.22E+02	#VALUE!	1.43E+02	1.4E+02	J
Dichloroethane,1,2-	1.42E-03	1.42E-03	5.57E-05	1.01E-03	1.06E-03	3.85E+00		3.63E+00		3.6E+00	K
Dichloroethene,1,1-	1.22E-03	1.22E-03	2.75E-06	1.46E-04	1.16E-02	#VALUE!	2.08E+02	#VALUE!	1.79E+01	1.8E+01	J
Dichloroethene,cis,1,2-	1.00E-03	1.00E-03	1.55E-05	4.87E-04	2.83E-03	#VALUE!	3.65E+01	#VALUE!	1.29E+01	1.3E+01	J
Dichloroethene,trans,1,2-	9.61E-04	9.61E-04	7.36E-06	3.04E-04	5.39E-03	#VALUE!	7.30E+01	#VALUE!	1.35E+01	1.4E+01	J
Dichlorophenol,2,4-											
Dichloropropane,1,2-	1.06E-03	1.06E-03	1.75E-05	5.33E-04	2.08E-03		8.26E+03		3.97E+03	4.0E+03	K
Dichloropropene,1,3-	8.56E-04	8.56E-04	3.11E-05	5.94E-04	1.15E-03		1.07E+02		9.32E+01	9.3E+01	K
Dieldrin											
Diethylphthalate											
Dimethylphenol,2,4-											
Dimethylphthalate											
Di-n-octylphthalate											
Dinitrobenzene,1,3-											
Dinitrophenol,2,4-											
Dinitrotoluene,2,6-											
Dinitrotoluene,2,4-											
Dinoseb											
Endosulfan											
Endrin											
Ethyl benzene	1.02E-03	1.02E-03	5.87E-06	2.63E-04	4.42E-03		1.03E+04		2.33E+03	2.3E+03	K

LDEQ RECAP
WORKSHEET 13
GWesni
(mg/l)

Groundwater located beneath enclosed structure-Non-industrial					Derivation of Management Option 2 RS						
Revision Date: 08/04/2003					Run date:	10/17/2003					
INPUTS TO GROUNDWATER BENEATH ENCLOSED-STRUCTURE MODEL-NONINDUSTRIAL						Site-Specific					
volumetric air content in foundation/wall cracks					nacrack =	0.14849057	cm3-air/cm3-total vol				
volumetric water content in foundation/wall cracks					nwcrack =	0.21	cm3-water/cm3-total vol				
total porosity of foundation/wall cracks					nf =	0.35849057	cm3/cm3				
volumetric air content in capillary fringe					nacap =	0.015	cm3-air/cm3-soil				
volumetric water content in capillary fringe					nwcap =	0.345	cm3-water/cm3-soil				
total porosity of capillary fringe soil					nc =	0.36	cm3/cm3				
thickness of capillary fringe					hcap =	5	cm				
thickness of vadose zone					hv =	295	cm				
depth to groundwater					Lgw =	300	cm				
enclosed-structure air exchange rate					ER =	0.00014	1/s				
enclosed-structure volume/infiltration area ratio					Lb =	200	cm				
areal fraction of cracks in foundation/walls					FC =	0.01	cm2-cracks/cm2-total area				
enclosed-structure foundation or wall thickness					Lcrack =	15	cm				
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2											
Dcrack = Da*nacrack^3.33/nf^2+Dw*1/(H*41)*nwcrack^3.33/nf^2											
Dcap = Da*nacap^3.33/nc^2+Dw*1/(H*41)*nwcap^3.33/nc^2											
Dws = (hcap+hv)/(hcap/Dcap+hv/Ds)											
VFgwesni = [H*41*(Dws/Lgw)/(ER*Lb)]/[1+(Dws/Lgw)/(ER*Lb)+(Dws/Lgw)/((Dcrack/Lcrack)*FC)]*1000											
Cani C-O = (TR*ATc*365*1000)/(EFni*SFi*IRAadj)											
Cani N-O= (THQ*RfDi*BWa*ATnni*365*1000)/(IRAa*EFni*EDni)											
GWesni = Cani*0.001/VFgwesni											
	Ds	Dcrack	Dcap	Dws	VFgwesni	Cani	Cani	GWesni	GWesni	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(cm2/s)	(cm2/s)	(mg/m3/mg/l)	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/l)	N-O(mg/l)	(C or N)	
Fluoranthene											
Fluorene	6.23E-04	6.23E-04	6.74E-04	6.24E-04	3.22E-05	#VALUE!	1.46E+02	#VALUE!	4.53E+03	4.5E+03	J
Heptachlor											
Heptachlor epoxide											
Hexachlorobenzene	7.41E-04	7.41E-04	2.47E-05	4.99E-04	7.36E-04	2.00E-01		2.72E-01		2.7E-01	K
Hexachlorobutadiene											
Hexachlorocyclohexane,alpha											
Hexachlorocyclohexane,beta											
Hexachlorocyclohexane,gamma											
Hexachlorocyclopentadiene	2.19E-04	2.19E-04	1.56E-06	6.58E-05	3.46E-03	#VALUE!	2.08E-01	#VALUE!	6.01E-02	6.0E-02	J
Hexachloroethane	3.58E-05	3.58E-05	9.52E-06	3.42E-05	1.12E-04	2.50E+01		2.23E+02		2.2E+02	K
Indeno(1,2,3-cd)pyrene											
Isobutyl alcohol											
Isophorone											
Lead (inorganic)											
Mercury (inorganic)											
Methoxychlor											
Methylene chloride	1.38E-03	1.38E-03	2.97E-05	7.84E-04	2.18E-03	2.13E+02		9.77E+01		9.8E+01	K
Methyl ethyl ketone	1.28E-03	1.28E-03	9.52E-04	1.27E-03	5.83E-05		1.40E+04		2.40E+05	2.4E+05	K
Methyl isobutyl ketone	1.08E-03	1.08E-03	3.04E-04	1.03E-03	1.22E-04		4.88E+03		4.01E+04	4.0E+04	K
Methylnaphthalene,2-	7.94E-04	7.94E-04	7.36E-04	7.93E-04	3.74E-05	#VALUE!	3.14E+00	#VALUE!	8.38E+01	8.4E+01	J
MTBE (methyl tert-butyl ether)	1.40E-03	1.40E-03	9.80E-05	1.15E-03	6.46E-04	#VALUE!	3.13E+03	#VALUE!	4.84E+03	4.8E+03	J
Naphthalene	8.17E-04	8.17E-04	8.48E-05	7.15E-04	3.14E-04	#VALUE!	3.14E+00	#VALUE!	1.00E+01	1.0E+01	J
Nickel											
Nitrate											
Nitrite											
Nitroaniline,2-	9.76E-04	9.76E-04	4.15E-04	9.54E-04	7.69E-05	#VALUE!	1.06E-01	#VALUE!	1.38E+00	1.4E+00	J
Nitroaniline,3-	5.38E-02	5.38E-02	2.74E-01	5.45E-02	6.44E-06	#VALUE!	1.10E+01	#VALUE!	1.70E+03	1.7E+03	J
Nitroaniline,4-											
Nitrobenzene	1.41E-03	1.41E-03	1.95E-03	1.41E-03	2.75E-05		1.19E+02		4.33E+03	4.3E+03	K
Nitrophenol,4-											
Nitrosodi-n-propylamine,n-											
N-nitrosodiphenylamine											
Pentachlorophenol											
Phenanthrene	7.89E-04	7.89E-04	1.81E-03	7.96E-04	1.50E-05	#VALUE!	1.10E+03	#VALUE!	7.31E+04	7.3E+04	J
Phenol	2.52E-02	2.52E-02	1.25E-01	2.55E-02	8.15E-06	#VALUE!	1.10E+03	#VALUE!	1.34E+05	1.3E+05	J

LDEQ RECAP
WORKSHEET 13
GWesni
(mg/l)

Groundwater located beneath enclosed structure-Non-industrial					Derivation of Management Option 2 RS						
Revision Date: 08/04/2003					Run date:	10/17/2003					
INPUTS TO GROUNDWATER BENEATH ENCLOSED-STRUCTURE MODEL-NONINDUSTRIAL						Site-Specific					
volumetric air content in foundation/wall cracks					nacrack =	0.14849057	cm3-air/cm3-total vol				
volumetric water content in foundation/wall cracks					nwcrack =	0.21	cm3-water/cm3-total vol				
total porosity of foundation/wall cracks					nf =	0.35849057	cm3/cm3				
volumetric air content in capillary fringe					nacap =	0.015	cm3-air/cm3-soil				
volumetric water content in capillary fringe					nwcap =	0.345	cm3-water/cm3-soil				
total porosity of capillary fringe soil					nc =	0.36	cm3/cm3				
thickness of capillary fringe					hcap =	5	cm				
thickness of vadose zone					hv =	295	cm				
depth to groundwater					Lgw =	300	cm				
enclosed-structure air exchange rate					ER =	0.00014	1/s				
enclosed-structure volume/infiltration area ratio					Lb =	200	cm				
areal fraction of cracks in foundation/walls					FC =	0.01	cm2-cracks/cm2-total area				
enclosed-structure foundation or wall thickness					Lcrack =	15	cm				
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2											
Dcrack = Da*nacrack^3.33/nf^2+Dw*1/(H*41)*nwcrack^3.33/nf^2											
Dcap = Da*nacap^3.33/nc^2+Dw*1/(H*41)*nwcap^3.33/nc^2											
Dws = (hcap+hv)/(hcap/Dcap+hv/Ds)											
VFgwesni = [H*41*(Dws/Lgw)/(ER*Lb)]/[1+(Dws/Lgw)/(ER*Lb)+(Dws/Lgw)/((Dcrack/Lcrack)*FC)]*1000											
Cani C-O = (TR*ATc*365*1000)/(EFni*SFi*IRAadj)											
Cani N-O= (THQ*RfDi*BWa*ATnni*365*1000)/(IRAa*EFni*EDni)											
GWesni = Cani*0.001/VFgwesni											
	Ds	Dcrack	Dcap	Dws	VFgwesni	Cani	Cani	GWesni	GWesni	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(cm2/s)	(cm2/s)	(mg/m3/mg/l)	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/l)	N-O(mg/l)	(C or N)	
Polychlorinated biphenyls											
Pyrene	1.06E-03	1.06E-03	3.58E-03	1.07E-03	9.51E-06	#VALUE!	1.10E+02	#VALUE!	1.15E+04	1.2E+04	J
Selenium											
Silver											
Styrene	9.67E-04	9.67E-04	1.63E-05	4.90E-04	1.86E-03		1.00E+03		5.37E+02	5.4E+02	K
Tetrachlorobenzene,1,2,4,5-											
Tetrachloroethane,1,1,1,2-	8.18E-04	8.18E-04	1.56E-05	4.40E-04	1.40E-03	1.00E-01		7.16E-02		7.2E-02	K
Tetrachloroethane,1,1,2,2-	9.88E-04	9.88E-04	1.25E-04	8.86E-04	2.72E-04	1.70E+00		6.25E+00		6.2E+00	K
Tetrachloroethylene	9.78E-04	9.78E-04	2.89E-06	1.48E-04	7.56E-03	1.10E+02		1.45E+01		1.5E+01	K
Tetrachlorophenol,2,3,4,6-											
Thallium											
Toluene	1.18E-03	1.18E-03	7.61E-06	3.31E-04	4.47E-03		4.00E+02		8.95E+01	8.9E+01	K
Toxaphene											
Trichlorobenzene,1,2,4-	4.13E-04	4.13E-04	3.17E-05	3.44E-04	4.62E-04	#VALUE!	2.08E+02	#VALUE!	4.50E+02	4.5E+02	J
Trichloroethane,1,1,1-	1.06E-03	1.06E-03	3.29E-06	1.67E-04	7.84E-03	#VALUE!	1.04E+03	#VALUE!	1.33E+02	1.3E+02	J
Trichloroethane,1,1,2-	1.07E-03	1.07E-03	5.29E-05	8.10E-04	7.54E-04	6.30E+00		8.36E+00		8.4E+00	K
Trichloroethene	1.07E-03	1.07E-03	5.32E-06	2.47E-04	5.77E-03	5.90E+01		1.02E+01		1.0E+01	K
Trichlorofluoromethane	1.18E-03	1.18E-03	1.11E-06	6.31E-05	2.36E-02	#VALUE!	7.30E+02	#VALUE!	3.09E+01	3.1E+01	J
Trichlorophenol,2,4,5-											
Trichlorophenol,2,4,6-											
Vanadium											
Vinyl chloride	1.44E-03	1.44E-03	9.38E-07	5.42E-05	6.01E-03	1.20E+00		2.00E-01		2.0E-01	K
Xylene(mixed)	9.51E-04	9.51E-04	6.04E-06	2.64E-04	4.10E-03	#VALUE!	1.06E+02	#VALUE!	2.58E+01	2.6E+01	J
Zinc											
Aliphatics C6-C8	1.36E-03	1.36E-03	6.96E-07	4.05E-05	2.10E-01		1.93E+04		9.21E+01	9.2E+01	J
Aliphatics >C8-C10	1.36E-03	1.36E-03	6.79E-07	3.96E-05	3.29E-01		1.06E+03		3.22E+00	3.2E+00	J
Aliphatics >C10-C12	1.36E-03	1.36E-03	6.70E-07	3.91E-05	4.88E-01		1.10E+03		2.24E+00	2.2E+00	J
Aliphatics >C12-C16	1.36E-03	1.36E-03	6.56E-07	3.82E-05	2.08E+00		1.10E+03		5.27E-01	5.3E-01	J
Aliphatics >C16-C35											
Aromatics >C8-C10	1.36E-03	1.36E-03	5.30E-06	2.59E-04	7.57E-03		2.19E+02		2.89E+01	2.9E+01	J
Aromatics >C10-C12	1.36E-03	1.36E-03	1.66E-05	5.79E-04	3.08E-03		2.19E+02		7.11E+01	7.1E+01	J
Aromatics >C12-C16	1.37E-03	1.37E-03	4.28E-05	9.02E-04	1.32E-03		2.19E+02		1.66E+02	1.7E+02	J
Aromatics >C16-C21											
Aromatics >C21-C35											

LDEQ RECAP
WORKSHEET 13
GWesni
(mg/l)

Groundwater located beneath enclosed structure-Non-industrial					Derivation of Management Option 2 RS						
Revision Date: 08/04/2003					Run date:	10/17/2003					
INPUTS TO GROUNDWATER BENEATH ENCLOSED-STRUCTURE MODEL-NONINDUSTRIAL						Site-Specific					
volumetric air content in foundation/wall cracks					nacrack =	0.14849057	cm3-air/cm3-total vol				
volumetric water content in foundation/wall cracks					nwcrack =	0.21	cm3-water/cm3-total vol				
total porosity of foundation/wall cracks					nf =	0.35849057	cm3/cm3				
volumetric air content in capillary fringe					nacap =	0.015	cm3-air/cm3-soil				
volumetric water content in capillary fringe					nwcap =	0.345	cm3-water/cm3-soil				
total porosity of capillary fringe soil					nc =	0.36	cm3/cm3				
thickness of capillary fringe					hcap =	5	cm				
thickness of vadose zone					hv =	295	cm				
depth to groundwater					Lgw =	300	cm				
enclosed-structure air exchange rate					ER =	0.00014	1/s				
enclosed-structure volume/infiltration area ratio					Lb =	200	cm				
areal fraction of cracks in foundation/walls					FC =	0.01	cm2-cracks/cm2-total area				
enclosed-structure foundation or wall thickness					Lcrack =	15	cm				
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2											
Dcrack = Da*nacrack^3.33/nf^2+Dw*1/(H*41)*nwcrack^3.33/nf^2											
Dcap = Da*nacap^3.33/nc^2+Dw*1/(H*41)*nwcap^3.33/nc^2											
Dws = (hcap+hv)/(hcap/Dcap+hv/Ds)											
VFgwesni = [H*41*(Dws/Lgw)/(ER*Lb)]/[1+(Dws/Lgw)/(ER*Lb)+(Dws/Lgw)/((Dcrack/Lcrack)*FC)]*1000											
Cani C-O = (TR*ATc*365*1000)/(EFni*SFi*IRAadj)											
Cani N-O= (THQ*RfDi*BWa*ATnni*365*1000)/(IRAa*EFni*EDni)											
GWesni = Cani*0.001/VFgwesni											
	Ds	Dcrack	Dcap	Dws	VFgwesni	Cani	Cani	GWesni	GWesni	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(cm2/s)	(cm2/s)	(mg/m3/mg/l)	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/l)	N-O(mg/l)	(C or N)	
TPH-GRO (C6-C10)							2.19E+02			3.2E+00	
TPH-DRO (C10-C28)											
TPH-ORO (>C28)											
J - Risk-based value calculated with one of the equations EQ 56 thru 59.											
K - Louisiana Toxic Air Pollutant Ambient Air Standards (LAC 33:III.5112 Table 51.2).											

LDEQ RECAP
WORKSHEET 14
GWesi
(mg/l)

Groundwater located beneath enclosed structure-Industrial					Derivation of Management Option 2 RS						
Revision Date: 08/04/2003					Run date:	10/17/2003					
INPUTS TO GROUNDWATER BENEATH ENCLOSED-STRUCTURE MODEL-INDUSTRIAL						Site-Specific					
volumetric air content in foundation/wall cracks					nacrack =	0.14849057	cm3-air/cm3-total vol				
volumetric water content in foundation/wall cracks					nwcrack =	0.21	cm3-water/cm3-total vol				
total porosity of foundation/wall cracks					nf =	0.35849057	cm3/cm3				
volumetric air content in capillary fringe					nacap =	0.015	cm3-air/cm3-soil				
volumetric water content in capillary fringe					nwcap =	0.345	cm3-water/cm3-soil				
total porosity of capillary fringe soil					nc =	0.36	cm3/cm3				
thickness of capillary fringe					hcap =	5	cm				
thickness of vadose zone					hv =	295	cm				
depth to groundwater					Lgw =	300	cm				
enclosed-structure air exchange rate					ER =	0.00023	1/s				
enclosed-structure volume/infiltration area ratio					Lb =	300	cm				
areal fraction of cracks in foundation/walls					FC =	0.01	cm2-cracks/cm2-total area				
enclosed-structure foundation or wall thickness					Lcrack =	15	cm				
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2											
Dcrack = Da*nacrack^3.33/nf^2+Dw*1/(H*41)*nwcrack^3.33/nf^2											
Dcap = Da*nacap^3.33/nc^2+Dw*1/(H*41)*nwcap^3.33/nc^2											
Dws = (hcap+hv)/(hcap/Dcap+hv/Ds)											
VFgwesi = [H*41*(Dws/Lgw)/(ER*Lb)]/[1+(Dws/Lgw)/(ER*Lb)+(Dws/Lgw)/((Dcrack/Lcrack)*FC)]*1000											
Cai C-O = (TR*BWa*ATc*365*1000)/(SFi*IRAa*EFi*EDi)											
Cai N-O = (THQ*RfDi*BWa*ATni*365*1000)/(IRAa*EFi*EDi)											
GWesi = Cai*0.001/VFgwesi											
	Ds	Dcrack	Dcap	Dws	VFgwesi	Cai	Cai	GWesi	GWesi	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(cm2/s)	(cm2/s)	(mg/m3/mg/l)	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/l)	N-O(mg/l)	(C or N)	
Acenaphthene	6.24E-04	6.24E-04	2.70E-04	6.10E-04	3.18E-05	#VALUE!	3.07E+02	#VALUE!	9.64E+03	9.6E+03	J
Acenaphthylene	6.65E-04	6.65E-04	3.60E-04	6.56E-04	2.50E-05	#VALUE!	3.07E+02	#VALUE!	1.23E+04	1.2E+04	J
Acetone	1.99E-03	1.99E-03	1.60E-03	1.98E-03	2.55E-05	#VALUE!	5.11E+02	#VALUE!	2.00E+04	2.0E+04	J
Aldrin											
Aniline											
Anthracene	5.65E-04	5.65E-04	6.48E-04	5.66E-04	1.21E-05	#VALUE!	1.53E+03	#VALUE!	1.26E+05	1.3E+05	J
Antimony											
Arsenic											
Barium											
Benzene	1.20E-03	1.20E-03	1.02E-05	4.07E-04	1.66E-03	1.20E+01		7.25E+00		7.2E+00	K
Benz(a)anthracene											
Benzo(a)pyrene											
Benzo(b)fluoranthene											
Benzo(k)fluoranthene											
Beryllium											
Biphenyl,1,1-	5.77E-04	5.77E-04	1.48E-04	5.50E-04	5.67E-05		2.38E+01		4.20E+02	4.2E+02	K
Bis(2-chloroethyl)ether	1.38E-03	1.38E-03	2.28E-03	1.39E-03	8.20E-06	3.00E-01		3.66E+01		3.7E+01	K
Bis(2-chloroisopropyl)ether	8.69E-04	8.69E-04	3.19E-04	8.45E-04	3.23E-05	4.09E-01	2.04E+02	1.27E+01	6.33E+03	1.3E+01	J
Bis(2-ethyl-hexyl)phthalate											
Bromodichloromethane	4.12E-04	4.12E-04	3.62E-05	3.51E-04	2.11E-04	2.31E-01	1.02E+02	1.09E+00	4.84E+02	1.1E+00	J
Bromoform	2.23E-04	2.23E-04	1.05E-04	2.18E-04	3.92E-05	3.72E+00	1.02E+02	9.49E+01	2.61E+03	9.5E+01	J
Bromomethane	9.90E-04	9.90E-04	1.11E-05	4.01E-04	1.63E-03	#VALUE!	7.31E+00	#VALUE!	4.49E+00	4.5E+00	J
Butyl benzyl phthalate											
Cadmium											
Carbon Disulfide	1.41E-03	1.41E-03	2.47E-06	1.34E-04	5.47E-03		7.14E+01		1.31E+01	1.3E+01	K
Carbon Tetrachloride	1.06E-03	1.06E-03	2.08E-06	1.12E-04	4.41E-03	6.67E+00		1.51E+00		1.5E+00	K
Chlordane											
Chloroaniline,p-											
Chlorobenzene	9.94E-04	9.94E-04	1.33E-05	4.45E-04	1.01E-03		1.10E+03		1.09E+03	1.1E+03	K
Chlorodibromomethane	2.80E-04	2.80E-04	7.31E-05	2.68E-04	7.19E-05	1.70E-01	1.02E+02	2.37E+00	1.42E+03	2.4E+00	J
Chloroethane (Ethylchloride)	3.68E-03	3.68E-03	8.87E-06	4.66E-04	4.97E-03		6.29E+04		1.26E+04	1.3E+04	K
Chloroform	1.41E-03	1.41E-03	1.55E-05	5.65E-04	1.37E-03	4.30E+00		3.14E+00		3.1E+00	K
Chloromethane	1.71E-03	1.71E-03	4.84E-06	2.49E-04	2.51E-03	5.56E+01		2.21E+01		2.2E+01	K
Chloronaphthalene,2-	5.01E-04	5.01E-04	1.55E-04	4.83E-04	5.09E-05	#VALUE!	4.09E+02	#VALUE!	8.02E+03	8.0E+03	J
Chlorophenol,2-	7.06E-04	7.06E-04	1.32E-04	6.58E-04	9.00E-05	#VALUE!	2.56E+01	#VALUE!	2.84E+02	2.8E+02	J
Chromium(III)											

Groundwater located beneath enclosed structure-Industrial					Derivation of Management Option 2 RS						
Revision Date: 08/04/2003					Run date:	10/17/2003					
INPUTS TO GROUNDWATER BENEATH ENCLOSED-STRUCTURE MODEL-INDUSTRIAL						Site-Specific					
volumetric air content in foundation/wall cracks					nacrack =	0.14849057	cm3-air/cm3-total vol				
volumetric water content in foundation/wall cracks					nwcrack =	0.21	cm3-water/cm3-total vol				
total porosity of foundation/wall cracks					nf =	0.35849057	cm3/cm3				
volumetric air content in capillary fringe					nacap =	0.015	cm3-air/cm3-soil				
volumetric water content in capillary fringe					nwcap =	0.345	cm3-water/cm3-soil				
total porosity of capillary fringe soil					nc =	0.36	cm3/cm3				
thickness of capillary fringe					hcap =	5	cm				
thickness of vadose zone					hv =	295	cm				
depth to groundwater					Lgw =	300	cm				
enclosed-structure air exchange rate					ER =	0.00023	1/s				
enclosed-structure volume/infiltration area ratio					Lb =	300	cm				
areal fraction of cracks in foundation/walls					FC =	0.01	cm2-cracks/cm2-total area				
enclosed-structure foundation or wall thickness					Lcrack =	15	cm				
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2											
Dcrack = Da*nacrack^3.33/nf^2+Dw*1/(H*41)*nwcrack^3.33/nf^2											
Dcap = Da*nacap^3.33/nc^2+Dw*1/(H*41)*nwcap^3.33/nc^2											
Dws = (hcap+hv)/(hcap/Dcap+hv/Ds)											
VFgwesi = [H*41*(Dws/Lgw)/(ER*Lb)]/[1+(Dws/Lgw)/(ER*Lb)+(Dws/Lgw)/((Dcrack/Lcrack)*FC)]*1000											
Cai C-O = (TR*BWa*ATc*365*1000)/(SFi*IRAa*EFi*EDi)											
Cai N-O = (THQ*RfDi*BWa*ATni*365*1000)/(IRAa*EFi*EDi)											
GWesi = Cai*0.001/VFgwesi											
	Ds	Dcrack	Dcap	Dws	VFgwesi	Cai	Cai	GWesi	GWesi	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(cm2/s)	(cm2/s)	(mg/m3/mg/l)	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/l)	N-O(mg/l)	(C or N)	
Chromium(VI)											
Chrysene											
Cobalt											
Copper											
Cyanide (free)											
DDD											
DDE											
DDT											
Dibenz(a,h)anthracene											
Dibenzofuran	8.47E-04	8.47E-04	2.51E-03	8.57E-04	3.64E-06	#VALUE!	2.04E+01	#VALUE!	5.61E+03	5.6E+03	J
Dibromo-3-chloropropane,1,2-											
Dichlorobenzene,1,2-	9.41E-04	9.41E-04	2.31E-05	5.66E-04	5.32E-04	#VALUE!	2.91E+02	#VALUE!	5.48E+02	5.5E+02	J
Dichlorobenzene,1,3-	8.74E-04	8.74E-04	1.21E-05	4.00E-04	7.95E-04	#VALUE!	4.60E+00	#VALUE!	5.78E+00	5.8E+00	J
Dichlorobenzene,1,4-	9.40E-04	9.40E-04	1.81E-05	5.09E-04	6.61E-04		1.43E+03		2.16E+03	2.2E+03	K
Dichlorobenzidine,3,3-											
Dichloroethane,1,1-	1.01E-03	1.01E-03	1.06E-05	3.94E-04	1.49E-03	#VALUE!	7.31E+02	#VALUE!	4.92E+02	4.9E+02	J
Dichloroethane,1,2-	1.42E-03	1.42E-03	5.57E-05	1.01E-03	4.30E-04	3.85E+00		8.95E+00		8.9E+00	K
Dichloroethene,1,1-	1.22E-03	1.22E-03	2.75E-06	1.46E-04	4.72E-03	#VALUE!	2.91E+02	#VALUE!	6.17E+01	6.2E+01	J
Dichloroethene,cis,1,2-	1.00E-03	1.00E-03	1.55E-05	4.87E-04	1.15E-03	#VALUE!	5.11E+01	#VALUE!	4.45E+01	4.5E+01	J
Dichloroethene,trans,1,2-	9.61E-04	9.61E-04	7.36E-06	3.04E-04	2.19E-03	#VALUE!	1.02E+02	#VALUE!	4.67E+01	4.7E+01	J
Dichlorophenol,2,4-											
Dichloropropane,1,2-	1.06E-03	1.06E-03	1.75E-05	5.33E-04	8.44E-04		8.26E+03		9.79E+03	9.8E+03	K
Dichloropropene,1,3-	8.56E-04	8.56E-04	3.11E-05	5.94E-04	4.66E-04		1.07E+02		2.30E+02	2.3E+02	K
Dieldrin											
Diethylphthalate											
Dimethylphenol,2,4-											
Dimethylphthalate											
Di-n-octylphthalate											
Dinitrobenzene,1,3-											
Dinitrophenol,2,4-											
Dinitrotoluene,2,6-											
Dinitrotoluene,2,4-											
Dinoseb											
Endosulfan											
Endrin											
Ethyl benzene	1.02E-03	1.02E-03	5.87E-06	2.63E-04	1.79E-03		1.03E+04		5.75E+03	5.7E+03	K

LDEQ RECAP
WORKSHEET 14
GWesi
(mg/l)

Groundwater located beneath enclosed structure-Industrial					Derivation of Management Option 2 RS						
Revision Date: 08/04/2003					Run date:	10/17/2003					
INPUTS TO GROUNDWATER BENEATH ENCLOSED-STRUCTURE MODEL-INDUSTRIAL						Site-Specific					
volumetric air content in foundation/wall cracks					nacrack =	0.14849057	cm3-air/cm3-total vol				
volumetric water content in foundation/wall cracks					nwcrack =	0.21	cm3-water/cm3-total vol				
total porosity of foundation/wall cracks					nf =	0.35849057	cm3/cm3				
volumetric air content in capillary fringe					nacap =	0.015	cm3-air/cm3-soil				
volumetric water content in capillary fringe					nwcap =	0.345	cm3-water/cm3-soil				
total porosity of capillary fringe soil					nc =	0.36	cm3/cm3				
thickness of capillary fringe					hcap =	5	cm				
thickness of vadose zone					hv =	295	cm				
depth to groundwater					Lgw =	300	cm				
enclosed-structure air exchange rate					ER =	0.00023	1/s				
enclosed-structure volume/infiltration area ratio					Lb =	300	cm				
areal fraction of cracks in foundation/walls					FC =	0.01	cm2-cracks/cm2-total area				
enclosed-structure foundation or wall thickness					Lcrack =	15	cm				
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2											
Dcrack = Da*nacrack^3.33/nf^2+Dw*1/(H*41)*nwcrack^3.33/nf^2											
Dcap = Da*nacap^3.33/nc^2+Dw*1/(H*41)*nwcap^3.33/nc^2											
Dws = (hcap+hv)/(hcap/Dcap+hv/Ds)											
VFgwesi = [H*41*(Dws/Lgw)/(ER*Lb)]/[1+(Dws/Lgw)/(ER*Lb)+(Dws/Lgw)/((Dcrack/Lcrack)*FC)]*1000											
Cai C-O = (TR*BWa*ATc*365*1000)/(SFi*IRAa*EFi*EDi)											
Cai N-O = (THQ*RfDi*BWa*ATni*365*1000)/(IRAa*EFi*EDi)											
GWesi = Cai*0.001/VFgwesi											
	Ds	Dcrack	Dcap	Dws	VFgwesi	Cai	Cai	GWesi	GWesi	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(cm2/s)	(cm2/s)	(mg/m3/mg/l)	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/l)	N-O(mg/l)	(C or N)	
Fluoranthene											
Fluorene	6.23E-04	6.23E-04	6.74E-04	6.24E-04	1.31E-05	#VALUE!	2.04E+02	#VALUE!	1.56E+04	1.6E+04	J
Heptachlor											
Heptachlor epoxide											
Hexachlorobenzene	7.41E-04	7.41E-04	2.47E-05	4.99E-04	2.99E-04	2.00E-01		6.70E-01		6.7E-01	K
Hexachlorobutadiene											
Hexachlorocyclohexane,alpha											
Hexachlorocyclohexane,beta											
Hexachlorocyclohexane,gamma											
Hexachlorocyclopentadiene	2.19E-04	2.19E-04	1.56E-06	6.58E-05	1.41E-03	#VALUE!	2.91E-01	#VALUE!	2.07E-01	2.1E-01	J
Hexachloroethane	3.58E-05	3.58E-05	9.52E-06	3.42E-05	4.56E-05	2.50E+01		5.48E+02		5.5E+02	K
Indeno(1,2,3-cd)pyrene											
Isobutyl alcohol											
Isophorone											
Lead (inorganic)											
Mercury (inorganic)											
Methoxychlor											
Methylene chloride	1.38E-03	1.38E-03	2.97E-05	7.84E-04	8.84E-04	2.13E+02		2.41E+02		2.4E+02	K
Methyl ethyl ketone	1.28E-03	1.28E-03	9.52E-04	1.27E-03	2.37E-05		1.40E+04		5.92E+05	5.9E+05	K
Methyl isobutyl ketone	1.08E-03	1.08E-03	3.04E-04	1.03E-03	4.94E-05		4.88E+03		9.88E+04	9.9E+04	K
Methylnaphthalene,2-	7.94E-04	7.94E-04	7.36E-04	7.93E-04	1.52E-05	#VALUE!	4.39E+00	#VALUE!	2.89E+02	2.9E+02	J
MTBE (methyl tert-butyl ether)	1.40E-03	1.40E-03	9.80E-05	1.15E-03	2.62E-04	#VALUE!	4.38E+03	#VALUE!	1.67E+04	1.7E+04	J
Naphthalene	8.17E-04	8.17E-04	8.48E-05	7.15E-04	1.27E-04	#VALUE!	4.39E+00	#VALUE!	3.45E+01	3.5E+01	J
Nickel											
Nitrate											
Nitrite											
Nitroaniline,2-	9.76E-04	9.76E-04	4.15E-04	9.54E-04	3.12E-05	#VALUE!	1.48E-01	#VALUE!	4.75E+00	4.7E+00	J
Nitroaniline,3-	5.38E-02	5.38E-02	2.74E-01	5.45E-02	2.61E-06	#VALUE!	1.53E+01	#VALUE!	5.87E+03	5.9E+03	J
Nitroaniline,4-											
Nitrobenzene	1.41E-03	1.41E-03	1.95E-03	1.41E-03	1.12E-05		1.19E+02		1.07E+04	1.1E+04	K
Nitrophenol,4-											
Nitrosodi-n-propylamine,n-											
N-nitrosodiphenylamine											
Pentachlorophenol											
Phenanthrene	7.89E-04	7.89E-04	1.81E-03	7.96E-04	6.08E-06	#VALUE!	1.53E+03	#VALUE!	2.52E+05	2.5E+05	J
Phenol	2.52E-02	2.52E-02	1.25E-01	2.55E-02	3.31E-06	#VALUE!	1.53E+03	#VALUE!	4.64E+05	4.6E+05	J

LDEQ RECAP
WORKSHEET 14
GWesi
(mg/l)

Groundwater located beneath enclosed structure-Industrial					Derivation of Management Option 2 RS						
Revision Date: 08/04/2003					Run date:	10/17/2003					
INPUTS TO GROUNDWATER BENEATH ENCLOSED-STRUCTURE MODEL-INDUSTRIAL						Site-Specific					
volumetric air content in foundation/wall cracks					nacrack =	0.14849057	cm3-air/cm3-total vol				
volumetric water content in foundation/wall cracks					nwcrack =	0.21	cm3-water/cm3-total vol				
total porosity of foundation/wall cracks					nf =	0.35849057	cm3/cm3				
volumetric air content in capillary fringe					nacap =	0.015	cm3-air/cm3-soil				
volumetric water content in capillary fringe					nwcap =	0.345	cm3-water/cm3-soil				
total porosity of capillary fringe soil					nc =	0.36	cm3/cm3				
thickness of capillary fringe					hcap =	5	cm				
thickness of vadose zone					hv =	295	cm				
depth to groundwater					Lgw =	300	cm				
enclosed-structure air exchange rate					ER =	0.00023	1/s				
enclosed-structure volume/infiltration area ratio					Lb =	300	cm				
areal fraction of cracks in foundation/walls					FC =	0.01	cm2-cracks/cm2-total area				
enclosed-structure foundation or wall thickness					Lcrack =	15	cm				
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2											
Dcrack = Da*nacrack^3.33/nf^2+Dw*1/(H*41)*nwcrack^3.33/nf^2											
Dcap = Da*nacap^3.33/nc^2+Dw*1/(H*41)*nwcap^3.33/nc^2											
Dws = (hcap+hv)/(hcap/Dcap+hv/Ds)											
VFgwesi = [H*41*(Dws/Lgw)/(ER*Lb)]/[1+(Dws/Lgw)/(ER*Lb)+(Dws/Lgw)/((Dcrack/Lcrack)*FC)]*1000											
Cai C-O = (TR*BWa*ATc*365*1000)/(SFi*IRAa*EFi*EDi)											
Cai N-O = (THQ*RfDi*BWa*ATni*365*1000)/(IRAa*EFi*EDi)											
GWesi = Cai*0.001/VFgwesi											
	Ds	Dcrack	Dcap	Dws	VFgwesi	Cai	Cai	GWesi	GWesi	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(cm2/s)	(cm2/s)	(mg/m3/mg/l)	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/l)	N-O(mg/l)	(C or N)	
Polychlorinated biphenyls											
Pyrene	1.06E-03	1.06E-03	3.58E-03	1.07E-03	3.86E-06	#VALUE!	1.53E+02	#VALUE!	3.97E+04	4.0E+04	J
Selenium											
Silver											
Styrene	9.67E-04	9.67E-04	1.63E-05	4.90E-04	7.55E-04		1.00E+03		1.32E+03	1.3E+03	K
Tetrachlorobenzene,1,2,4,5-											
Tetrachloroethane,1,1,1,2-	8.18E-04	8.18E-04	1.56E-05	4.40E-04	5.67E-04	1.00E-01		1.76E-01		1.8E-01	K
Tetrachloroethane,1,1,2,2-	9.88E-04	9.88E-04	1.25E-04	8.86E-04	1.10E-04	1.70E+00		1.54E+01		1.5E+01	K
Tetrachloroethylene	9.78E-04	9.78E-04	2.89E-06	1.48E-04	3.07E-03	1.10E+02		3.59E+01		3.6E+01	K
Tetrachlorophenol,2,3,4,6-											
Thallium											
Toluene	1.18E-03	1.18E-03	7.61E-06	3.31E-04	1.81E-03		4.00E+02		2.20E+02	2.2E+02	K
Toxaphene											
Trichlorobenzene,1,2,4-	4.13E-04	4.13E-04	3.17E-05	3.44E-04	1.88E-04	#VALUE!	2.91E+02	#VALUE!	1.55E+03	1.6E+03	J
Trichloroethane,1,1,1-	1.06E-03	1.06E-03	3.29E-06	1.67E-04	3.18E-03	#VALUE!	1.46E+03	#VALUE!	4.60E+02	4.6E+02	J
Trichloroethane,1,1,2-	1.07E-03	1.07E-03	5.29E-05	8.10E-04	3.06E-04	6.30E+00		2.06E+01		2.1E+01	K
Trichloroethene	1.07E-03	1.07E-03	5.32E-06	2.47E-04	2.34E-03	5.90E+01		2.52E+01		2.5E+01	K
Trichlorofluoromethane	1.18E-03	1.18E-03	1.11E-06	6.31E-05	9.57E-03	#VALUE!	1.02E+03	#VALUE!	1.07E+02	1.1E+02	J
Trichlorophenol,2,4,5-											
Trichlorophenol,2,4,6-											
Vanadium											
Vinyl chloride	1.44E-03	1.44E-03	9.38E-07	5.42E-05	2.44E-03	1.20E+00		4.92E-01		4.9E-01	K
Xylene(mixed)	9.51E-04	9.51E-04	6.04E-06	2.64E-04	1.66E-03	#VALUE!	1.48E+02	#VALUE!	8.91E+01	8.9E+01	J
Zinc											
Aliphatics C6-C8	1.36E-03	1.36E-03	6.96E-07	4.05E-05	8.52E-02		1.93E+04		2.27E+02	2.3E+02	J
Aliphatics >C8-C10	1.36E-03	1.36E-03	6.79E-07	3.96E-05	1.33E-01		1.06E+03		7.93E+00	7.9E+00	J
Aliphatics >C10-C12	1.36E-03	1.36E-03	6.70E-07	3.91E-05	1.98E-01		1.10E+03		5.53E+00	5.5E+00	J
Aliphatics >C12-C16	1.36E-03	1.36E-03	6.56E-07	3.82E-05	8.43E-01		1.10E+03		1.30E+00	1.3E+00	J
Aliphatics >C16-C35											
Aromatics >C8-C10	1.36E-03	1.36E-03	5.30E-06	2.59E-04	3.07E-03		2.19E+02		7.13E+01	7.1E+01	J
Aromatics >C10-C12	1.36E-03	1.36E-03	1.66E-05	5.79E-04	1.25E-03		2.19E+02		1.75E+02	1.8E+02	J
Aromatics >C12-C16	1.37E-03	1.37E-03	4.28E-05	9.02E-04	5.36E-04		2.19E+02		4.09E+02	4.1E+02	J
Aromatics >C16-C21											
Aromatics >C21-C35											

LDEQ RECAP
WORKSHEET 14
GWesi
(mg/l)

Groundwater located beneath enclosed structure-Industrial					Derivation of Management Option 2 RS						
Revision Date: 08/04/2003					Run date:	10/17/2003					
INPUTS TO GROUNDWATER BENEATH ENCLOSED-STRUCTURE MODEL-INDUSTRIAL						Site-Specific					
volumetric air content in foundation/wall cracks					nacrack =	0.14849057	cm3-air/cm3-total vol				
volumetric water content in foundation/wall cracks					nwcrack =	0.21	cm3-water/cm3-total vol				
total porosity of foundation/wall cracks					nf =	0.35849057	cm3/cm3				
volumetric air content in capillary fringe					nacap =	0.015	cm3-air/cm3-soil				
volumetric water content in capillary fringe					nwcap =	0.345	cm3-water/cm3-soil				
total porosity of capillary fringe soil					nc =	0.36	cm3/cm3				
thickness of capillary fringe					hcap =	5	cm				
thickness of vadose zone					hv =	295	cm				
depth to groundwater					Lgw =	300	cm				
enclosed-structure air exchange rate					ER =	0.00023	1/s				
enclosed-structure volume/infiltration area ratio					Lb =	300	cm				
areal fraction of cracks in foundation/walls					FC =	0.01	cm2-cracks/cm2-total area				
enclosed-structure foundation or wall thickness					Lcrack =	15	cm				
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2											
Dcrack = Da*nacrack^3.33/nf^2+Dw*1/(H*41)*nwcrack^3.33/nf^2											
Dcap = Da*nacap^3.33/nc^2+Dw*1/(H*41)*nwcap^3.33/nc^2											
Dws = (hcap+hv)/(hcap/Dcap+hv/Ds)											
VFgwesi = [H*41*(Dws/Lgw)/(ER*Lb)]/[1+(Dws/Lgw)/(ER*Lb)+(Dws/Lgw)/((Dcrack/Lcrack)*FC)]*1000											
Cai C-O = (TR*BWa*ATc*365*1000)/(SFi*IRAa*EFi*EDi)											
Cai N-O = (THQ*RfDi*BWa*ATni*365*1000)/(IRAa*EFi*EDi)											
GWesi = Cai*0.001/VFgwesi											
	Ds	Dcrack	Dcap	Dws	VFgwesi	Cai	Cai	GWesi	GWesi	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(cm2/s)	(cm2/s)	(mg/m3/mg/l)	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/l)	N-O(mg/l)	(C or N)	
TPH-GRO (C6-C10)							2.19E+02			7.9E+00	
TPH-DRO (C10-C28)											
TPH-ORO (>C28)											
J - Risk-based value calculated with one of the equations EQ 56 thru 59.											
K - Louisiana Toxic Air Pollutant Ambient Air Standards (LAC 33:III.5112 Table 51.2).											

LDEQ RECAP
WORKSHEET 15
GWairni
(mg/l)

Volatile releases from groundwater to ambient air-Non-industrial					Derivation of Management Option 2 RS					
Revision Date: 08/04/2003					Run date:	10/17/2003				
INPUTS TO GROUNDWATER TO AMBIENT AIR MODEL-NONINDUSTRIAL						Site-Specific				
volumetric air content in capillary fringe					nacap =	0.015	cm3-air/cm3-soil			
volumetric water content in capillary fringe					nwcap =	0.345	cm3-water/cm3-soil			
total porosity of capillary fringe soil					nc =	0.36	cm3/cm3			
thickness of capillary fringe					hcap =	5	cm			
thickness of vadose zone					hv =	295	cm			
depth to groundwater					Lgw =	300	cm			
wind speed above ground surface in ambient mixing zone					Uair =	225	cm/s			
width of source area parallel to wind					W =	4511	cm			
ambient air mixing zone height					dair =	200	cm			
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2										
Dcap = Da*nacap^3.33/nc^2+Dw*1/(H*41)*nwcap^3.33/nc^2										
Dws = (hcap+hv)/(hcap/Dcap+hv/Ds)										
VFgwairni = (H*41*1000)/[1+(Uair*dair*Lgw)/(W*Dws)]										
Cani C-O = (TR*ATc*365*1000)/(EFni*SFi*IRAadj)										
Cani N-O = (THQ*RfDi*BWa*ATnni*365*1000)/(IRAa*EFni*EDni)										
GWairni = Cani*0.001/VFgwairni										
	Ds	Dcap	Dws	VFgwairni	Cani	Cani	GWairi	GWairi	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(cm2/s)	(mg/m3/mg/l)	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/l)	N-O(mg/l)	(C or N)	
Acenaphthene	6.24E-04	2.70E-04	6.10E-04	1.30E-06	#VALUE!	2.19E+02	#VALUE!	1.69E+05	1.7E+05	J
Acenaphthylene	6.65E-04	3.60E-04	6.56E-04	1.02E-06	#VALUE!	2.19E+02	#VALUE!	2.14E+05	2.1E+05	J
Acetone	1.99E-03	1.60E-03	1.98E-03	1.05E-06	#VALUE!	3.65E+02	#VALUE!	3.46E+05	3.5E+05	J
Aldrin										
Aniline										
Anthracene	5.65E-04	6.48E-04	5.66E-04	5.04E-07	#VALUE!	1.10E+03	#VALUE!	2.17E+06	2.2E+06	J
Antimony										
Arsenic										
Barium										
Benzene	1.20E-03	1.02E-05	4.07E-04	3.09E-05	1.20E+01		3.88E+02		3.9E+02	K
Benz(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(k)fluoranthene										
Beryllium										
Biphenyl,1,1-	5.77E-04	1.48E-04	5.50E-04	2.26E-06		2.38E+01		1.05E+04	1.1E+04	K
Bis(2-chloroethyl)ether	1.38E-03	2.28E-03	1.39E-03	3.42E-07	3.00E-01		8.76E+02		8.8E+02	K
Bis(2-chloroisopropyl)ether	8.69E-04	3.19E-04	8.45E-04	1.31E-06	1.90E-01	1.46E+02	1.45E+02	1.12E+05	1.4E+02	J
Bis(2-ethyl-hexyl)phthalate										
Bromodichloromethane	4.12E-04	3.62E-05	3.51E-04	7.69E-06	1.07E-01	7.30E+01	1.39E+01	9.49E+03	1.4E+01	J
Bromoform	2.23E-04	1.05E-04	2.18E-04	1.60E-06	1.72E+00	7.30E+01	1.08E+03	4.56E+04	1.1E+03	J
Bromomethane	9.90E-04	1.11E-05	4.01E-04	3.40E-05	#VALUE!	5.22E+00	#VALUE!	1.53E+02	1.5E+02	J
Butyl benzyl phthalate										
Cadmium										
Carbon Disulfide	1.41E-03	2.47E-06	1.34E-04	5.58E-05		7.14E+01		1.28E+03	1.3E+03	K
Carbon Tetrachloride	1.06E-03	2.08E-06	1.12E-04	4.66E-05	6.67E+00		1.43E+02		1.4E+02	K
Chlordane										
Chloroaniline,p-										
Chlorobenzene	9.94E-04	1.33E-05	4.45E-04	2.26E-05		1.10E+03		4.87E+04	4.9E+04	K
Chlorodibromomethane	2.80E-04	7.31E-05	2.68E-04	2.87E-06	7.90E-02	7.30E+01	2.75E+01	2.54E+04	2.8E+01	J
Chloroethane (Ethylchloride)	3.68E-03	8.87E-06	4.66E-04	5.62E-05		6.29E+04		1.12E+06	1.1E+06	K
Chloroform	1.41E-03	1.55E-05	5.65E-04	2.84E-05	4.30E+00		1.51E+02		1.5E+02	K
Chloromethane	1.71E-03	4.84E-06	2.49E-04	3.00E-05	5.56E+01		1.85E+03		1.9E+03	K

LDEQ RECAP
WORKSHEET 15
GWairni
(mg/l)

Volatile releases from groundwater to ambient air-Non-industrial					Derivation of Management Option 2 RS					
Revision Date: 08/04/2003					Run date:	10/17/2003				
INPUTS TO GROUNDWATER TO AMBIENT AIR MODEL-NONINDUSTRIAL						Site-Specific				
volumetric air content in capillary fringe					nacap =	0.015	cm3-air/cm3-soil			
volumetric water content in capillary fringe					nwcap =	0.345	cm3-water/cm3-soil			
total porosity of capillary fringe soil					nc =	0.36	cm3/cm3			
thickness of capillary fringe					hcap =	5	cm			
thickness of vadose zone					hv =	295	cm			
depth to groundwater					Lgw =	300	cm			
wind speed above ground surface in ambient mixing zone					Uair =	225	cm/s			
width of source area parallel to wind					W =	4511	cm			
ambient air mixing zone height					dair =	200	cm			
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2										
Dcap = Da*nacap^3.33/nc^2+Dw*1/(H*41)*nwcap^3.33/nc^2										
Dws = (hcap+hv)/(hcap/Dcap+hv/Ds)										
VFgwairni = (H*41*1000)/[1+(Uair*dair*Lgw)/(W*Dws)]										
Cani C-O = (TR*ATc*365*1000)/(EFni*SFi*IRAadj)										
Cani N-O = (THQ*RfDi*BWa*ATnni*365*1000)/(IRAa*EFni*EDni)										
GWairni = Cani*0.001/VFgwairni										
	Ds	Dcap	Dws	VFgwairni	Cani	Cani	GWairi	GWairi	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(cm2/s)	(mg/m3/mg/l)	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/l)	N-O(mg/l)	(C or N)	
Chloronaphthalene,2-	5.01E-04	1.55E-04	4.83E-04	2.05E-06	#VALUE!	2.92E+02	#VALUE!	1.42E+05	1.4E+05	J
Chlorophenol,2-	7.06E-04	1.32E-04	6.58E-04	3.52E-06	#VALUE!	1.83E+01	#VALUE!	5.18E+03	5.2E+03	J
Chromium(III)										
Chromium(VI)										
Chrysene										
Cobalt										
Copper										
Cyanide (free)										
DDD										
DDE										
DDT										
Dibenz(a,h)anthracene										
Dibenzofuran	8.47E-04	2.51E-03	8.57E-04	1.53E-07	#VALUE!	1.46E+01	#VALUE!	9.57E+04	9.6E+04	J
Dibromo-3-chloropropane,1,2-										
Dichlorobenzene,1,2-	9.41E-04	2.31E-05	5.66E-04	1.47E-05	#VALUE!	2.08E+02	#VALUE!	1.41E+04	1.4E+04	J
Dichlorobenzene,1,3-	8.74E-04	1.21E-05	4.00E-04	1.81E-05	#VALUE!	3.29E+00	#VALUE!	1.82E+02	1.8E+02	J
Dichlorobenzene,1,4-	9.40E-04	1.81E-05	5.09E-04	1.69E-05		1.43E+03		8.44E+04	8.4E+04	K
Dichlorobenzidine,3,3-										
Dichloroethane,1,1-	1.01E-03	1.06E-05	3.94E-04	3.03E-05	#VALUE!	5.22E+02	#VALUE!	1.72E+04	1.7E+04	J
Dichloroethane,1,2-	1.42E-03	5.57E-05	1.01E-03	1.35E-05	3.85E+00		2.84E+02		2.8E+02	K
Dichloroethene,1,1-	1.22E-03	2.75E-06	1.46E-04	5.21E-05	#VALUE!	2.08E+02	#VALUE!	3.99E+03	4.0E+03	J
Dichloroethene,cis,1,2-	1.00E-03	1.55E-05	4.87E-04	2.72E-05	#VALUE!	3.65E+01	#VALUE!	1.34E+03	1.3E+03	J
Dichloroethene,trans,1,2-	9.61E-04	7.36E-06	3.04E-04	3.91E-05	#VALUE!	7.30E+01	#VALUE!	1.87E+03	1.9E+03	J
Dichlorophenol,2,4-										
Dichloropropane,1,2-	1.06E-03	1.75E-05	5.33E-04	2.04E-05		8.26E+03		4.04E+05	4.0E+05	K
Dichloropropene,1,3-	8.56E-04	3.11E-05	5.94E-04	1.44E-05		1.07E+02		7.43E+03	7.4E+03	K
Dieldrin										
Diethylphthalate										
Dimethylphenol,2,4-										
Dimethylphthalate										
Di-n-octylphthalate										
Dinitrobenzene,1,3-										
Dinitrophenol,2,4-										

LDEQ RECAP
WORKSHEET 15
GWairni
(mg/l)

Volatile releases from groundwater to ambient air-Non-industrial					Derivation of Management Option 2 RS					
Revision Date: 08/04/2003					Run date:	10/17/2003				
INPUTS TO GROUNDWATER TO AMBIENT AIR MODEL-NONINDUSTRIAL						Site-Specific				
volumetric air content in capillary fringe					nacap =	0.015	cm3-air/cm3-soil			
volumetric water content in capillary fringe					nwcap =	0.345	cm3-water/cm3-soil			
total porosity of capillary fringe soil					nc =	0.36	cm3/cm3			
thickness of capillary fringe					hcap =	5	cm			
thickness of vadose zone					hv =	295	cm			
depth to groundwater					Lgw =	300	cm			
wind speed above ground surface in ambient mixing zone					Uair =	225	cm/s			
width of source area parallel to wind					W =	4511	cm			
ambient air mixing zone height					dair =	200	cm			
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2										
Dcap = Da*nacap^3.33/nc^2+Dw*1/(H*41)*nwcap^3.33/nc^2										
Dws = (hcap+hv)/(hcap/Dcap+hv/Ds)										
VFgwairni = (H*41*1000)/[1+(Uair*dair*Lgw)/(W*Dws)]										
Cani C-O = (TR*ATc*365*1000)/(EFni*SFi*IRAadj)										
Cani N-O = (THQ*RfDi*BWa*ATnni*365*1000)/(IRAa*EFni*EDni)										
GWairni = Cani*0.001/VFgwairni										
	Ds	Dcap	Dws	VFgwairni	Cani	Cani	GWairi	GWairi	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(cm2/s)	(mg/m3/mg/l)	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/l)	N-O(mg/l)	(C or N)	
Dinitrotoluene,2,6-										
Dinitrotoluene,2,4-										
Dinoseb										
Endosulfan										
Endrin										
Ethyl benzene	1.02E-03	5.87E-06	2.63E-04	2.84E-05		1.03E+04		3.63E+05	3.6E+05	K
Fluoranthene										
Fluorene	6.23E-04	6.74E-04	6.24E-04	5.43E-07	#VALUE!	1.46E+02	#VALUE!	2.69E+05	2.7E+05	J
Heptachlor										
Heptachlor epoxide										
Hexachlorobenzene	7.41E-04	2.47E-05	4.99E-04	9.03E-06	2.00E-01		2.21E+01		2.2E+01	K
Hexachlorobutadiene										
Hexachlorocyclohexane,alpha										
Hexachlorocyclohexane,beta										
Hexachlorocyclohexane,gamma										
Hexachlorocyclopentadiene	2.19E-04	1.56E-06	6.58E-05	2.43E-05	#VALUE!	2.08E-01	#VALUE!	8.55E+00	8.5E+00	J
Hexachloroethane	3.58E-05	9.52E-06	3.42E-05	1.82E-06	2.50E+01		1.37E+04		1.4E+04	K
Indeno(1,2,3-cd)pyrene										
Isobutyl alcohol										
Isophorone										
Lead (inorganic)										
Mercury (inorganic)										
Methoxychlor										
Methylene chloride	1.38E-03	2.97E-05	7.84E-04	2.35E-05	2.13E+02		9.04E+03		9.0E+03	K
Methyl ethyl ketone	1.28E-03	9.52E-04	1.27E-03	9.77E-07		1.40E+04		1.43E+07	1.4E+07	K
Methyl isobutyl ketone	1.08E-03	3.04E-04	1.03E-03	1.98E-06		4.88E+03		2.46E+06	2.5E+06	K
Methylnaphthalene,2-	7.94E-04	7.36E-04	7.93E-04	6.30E-07	#VALUE!	3.14E+00	#VALUE!	4.98E+03	5.0E+03	J
MTBE (methyl tert-butyl ether)	1.40E-03	9.80E-05	1.15E-03	9.24E-06	#VALUE!	3.13E+03	#VALUE!	3.39E+05	3.4E+05	J
Naphthalene	8.17E-04	8.48E-05	7.15E-04	4.73E-06	#VALUE!	3.14E+00	#VALUE!	6.64E+02	6.6E+02	J
Nickel										
Nitrate										
Nitrite										
Nitroaniline,2-	9.76E-04	4.15E-04	9.54E-04	1.27E-06	#VALUE!	1.06E-01	#VALUE!	8.33E+01	8.3E+01	J

LDEQ RECAP
WORKSHEET 15
GWairni
(mg/l)

Volatile releases from groundwater to ambient air-Non-industrial					Derivation of Management Option 2 RS					
Revision Date: 08/04/2003					Run date:	10/17/2003				
INPUTS TO GROUNDWATER TO AMBIENT AIR MODEL-NONINDUSTRIAL						Site-Specific				
volumetric air content in capillary fringe					nacap =	0.015	cm3-air/cm3-soil			
volumetric water content in capillary fringe					nwcap =	0.345	cm3-water/cm3-soil			
total porosity of capillary fringe soil					nc =	0.36	cm3/cm3			
thickness of capillary fringe					hcap =	5	cm			
thickness of vadose zone					hv =	295	cm			
depth to groundwater					Lgw =	300	cm			
wind speed above ground surface in ambient mixing zone					Uair =	225	cm/s			
width of source area parallel to wind					W =	4511	cm			
ambient air mixing zone height					dair =	200	cm			
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2										
Dcap = Da*nacap^3.33/nc^2+Dw*1/(H*41)*nwcap^3.33/nc^2										
Dws = (hcap+hv)/(hcap/Dcap+hv/Ds)										
VFgwairni = (H*41*1000)/[1+(Uair*dair*Lgw)/(W*Dws)]										
Cani C-O = (TR*ATc*365*1000)/(EFni*SFi*IRAadj)										
Cani N-O = (THQ*RfDi*BWa*ATnni*365*1000)/(IRAa*EFni*EDni)										
GWairni = Cani*0.001/VFgwairni										
	Ds	Dcap	Dws	VFgwairni	Cani	Cani	GWairi	GWairi	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(cm2/s)	(mg/m3/mg/l)	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/l)	N-O(mg/l)	(C or N)	
Nitroaniline,3-	5.38E-02	2.74E-01	5.45E-02	1.10E-07	#VALUE!	1.10E+01	#VALUE!	9.98E+04	1.0E+05	J
Nitroaniline,4-										
Nitrobenzene	1.41E-03	1.95E-03	1.41E-03	4.65E-07		1.19E+02		2.56E+05	2.6E+05	K
Nitrophenol,4-										
Nitrosodi-n-propylamine,n-										
N-nitrosodiphenylamine										
Pentachlorophenol										
Phenanthrene	7.89E-04	1.81E-03	7.96E-04	2.54E-07	#VALUE!	1.10E+03	#VALUE!	4.31E+06	4.3E+06	J
Phenol	2.52E-02	1.25E-01	2.55E-02	1.39E-07	#VALUE!	1.10E+03	#VALUE!	7.89E+06	7.9E+06	J
Polychlorinated biphenyls										
Pyrene	1.06E-03	3.58E-03	1.07E-03	1.62E-07	#VALUE!	1.10E+02	#VALUE!	6.77E+05	6.8E+05	J
Selenium										
Silver										
Styrene	9.67E-04	1.63E-05	4.90E-04	1.85E-05		1.00E+03		5.42E+04	5.4E+04	K
Tetrachlorobenzene,1,2,4,5-										
Tetrachloroethane,1,1,1,2-	8.18E-04	1.56E-05	4.40E-04	1.45E-05	1.00E-01		6.91E+00		6.9E+00	K
Tetrachloroethane,1,1,2,2-	9.88E-04	1.25E-04	8.86E-04	4.19E-06	1.70E+00		4.06E+02		4.1E+02	K
Tetrachloroethylene	9.78E-04	2.89E-06	1.48E-04	3.73E-05	1.10E+02		2.95E+03		3.0E+03	K
Tetrachlorophenol,2,3,4,6-										
Thallium										
Toluene	1.18E-03	7.61E-06	3.31E-04	3.01E-05		4.00E+02		1.33E+04	1.3E+04	K
Toxaphene										
Trichlorobenzene,1,2,4-	4.13E-04	3.17E-05	3.44E-04	6.70E-06	#VALUE!	2.08E+02	#VALUE!	3.11E+04	3.1E+04	J
Trichloroethane,1,1,1-	1.06E-03	3.29E-06	1.67E-04	3.93E-05	#VALUE!	1.04E+03	#VALUE!	2.65E+04	2.7E+04	J
Trichloroethane,1,1,2-	1.07E-03	5.29E-05	8.10E-04	1.01E-05	6.30E+00		6.22E+02		6.2E+02	K
Trichloroethene	1.07E-03	5.32E-06	2.47E-04	3.49E-05	5.90E+01		1.69E+03		1.7E+03	K
Trichlorofluoromethane	1.18E-03	1.11E-06	6.31E-05	8.39E-05	#VALUE!	7.30E+02	#VALUE!	8.70E+03	8.7E+03	J
Trichlorophenol,2,4,5-										
Trichlorophenol,2,4,6-										
Vanadium										
Vinyl chloride	1.44E-03	9.38E-07	5.42E-05	2.01E-05	1.20E+00		5.98E+01		6.0E+01	K
Xylene(mixed)	9.51E-04	6.04E-06	2.64E-04	2.74E-05	#VALUE!	1.06E+02	#VALUE!	3.86E+03	3.9E+03	J
Zinc										

LDEQ RECAP
WORKSHEET 15
GWairni
(mg/l)

Volatile releases from groundwater to ambient air-Non-industrial					Derivation of Management Option 2 RS					
Revision Date: 08/04/2003					Run date:	10/17/2003				
INPUTS TO GROUNDWATER TO AMBIENT AIR MODEL-NONINDUSTRIAL						Site-Specific				
volumetric air content in capillary fringe					nacap =	0.015	cm3-air/cm3-soil			
volumetric water content in capillary fringe					nwcap =	0.345	cm3-water/cm3-soil			
total porosity of capillary fringe soil					nc =	0.36	cm3/cm3			
thickness of capillary fringe					hcap =	5	cm			
thickness of vadose zone					hv =	295	cm			
depth to groundwater					Lgw =	300	cm			
wind speed above ground surface in ambient mixing zone					Uair =	225	cm/s			
width of source area parallel to wind					W =	4511	cm			
ambient air mixing zone height					dair =	200	cm			
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2										
Dcap = Da*nacap^3.33/nc^2+Dw*1/(H*41)*nwcap^3.33/nc^2										
Dws = (hcap+hv)/(hcap/Dcap+hv/Ds)										
VFgwairni = (H*41*1000)/[1+(Uair*dair*Lgw)/(W*Dws)]										
Cani C-O = (TR*ATc*365*1000)/(EFni*SFi*IRAadj)										
Cani N-O = (THQ*RfDi*BWa*ATnni*365*1000)/(IRAa*EFni*EDni)										
GWairni = Cani*0.001/VFgwairni										
	Ds	Dcap	Dws	VFgwairni	Cani	Cani	GWairi	GWairi	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(cm2/s)	(mg/m3/mg/l)	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/l)	N-O(mg/l)	(C or N)	
Aliphatics C6-C8	1.36E-03	6.96E-07	4.05E-05	6.77E-04		1.93E+04		2.86E+04	2.9E+04	J
Aliphatics >C8-C10	1.36E-03	6.79E-07	3.96E-05	1.06E-03		1.06E+03		1.00E+03	1.0E+03	J
Aliphatics >C10-C12	1.36E-03	6.70E-07	3.91E-05	1.57E-03		1.10E+03		6.98E+02	7.0E+02	J
Aliphatics >C12-C16	1.36E-03	6.56E-07	3.82E-05	6.65E-03		1.10E+03		1.65E+02	1.6E+02	J
Aliphatics >C16-C35										
Aromatics >C8-C10	1.36E-03	5.30E-06	2.59E-04	4.14E-05		2.19E+02		5.29E+03	5.3E+03	J
Aromatics >C10-C12	1.36E-03	1.66E-05	5.79E-04	2.71E-05		2.19E+02		8.09E+03	8.1E+03	J
Aromatics >C12-C16	1.37E-03	4.28E-05	9.02E-04	1.59E-05		2.19E+02		1.37E+04	1.4E+04	J
Aromatics >C16-C21										
Aromatics >C21-C35										
TPH-GRO (C6-C10)						2.19E+02			1.0E+03	
TPH-DRO (C10-C28)										
TPH-ORO (>C28)										
J - Risk-based value calculated with one of the equations EQ 56 thru 59.										
K - Louisiana Toxic Air Pollutant Ambient Air Standards (LAC 33:III.5112 Table 51.2).										

LDEQ RECAP
WORKSHEET 16
GWairi
(mg/l)

Volatile releases from groundwater to ambient air-Industrial					Derivation of Management Option 2 RS					
Revision Date: 08/04/2003					Run date:	10/17/2003				
INPUTS TO GROUNDWATER TO AMBIENT AIR MODEL-INDUSTRIAL					Site-Specific					
volumetric air content in capillary fringe				nacap =	0.015	cm3-air/cm3-soil				
volumetric water content in capillary fringe				nwcap =	0.345	cm3-water/cm3-soil				
total porosity of capillary fringe soil				nc =	0.36	cm3/cm3				
thickness of capillary fringe				hcap =	5	cm				
thickness of vadose zone				hv =	295	cm				
depth to groundwater				Lgw =	300	cm				
wind speed above ground surface in ambient mixing zone				Uair =	225	cm/s				
width of source area parallel to wind				W =	4511	cm				
ambient air mixing zone height				dair =	200	cm				
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2										
Dcap = Da*nacap^3.33/nc^2+Dw*1/(H*41)*nwcap^3.33/nc^2										
Dws = (hcap+hv)/(hcap/Dcap+hv/Ds)										
VFgwairi = (H*41*1000)/[1+(Uair*dair*Lgw)/(W*Dws)]										
Cai C-O = (TR*BWa*ATc*365*1000)/(SFi*IRAa*EFi*EDi)										
Cai N-O = (THQ*RfDi*BWa*ATni*365*1000)/(IRAa*EFi*EDi)										
GWairi = Cai*0.001/VFgwairi										
	Ds	Dcap	Dws	VFgwairi	Cai	Cai	GWairi	GWairi	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(cm2/s)	(mg/m3/mg/l)	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/l)	N-O(mg/l)	(C or N)	
Acenaphthene	6.24E-04	2.70E-04	6.10E-04	1.30E-06	#VALUE!	3.07E+02	#VALUE!	2.37E+05	2.4E+05	J
Acenaphthylene	6.65E-04	3.60E-04	6.56E-04	1.02E-06	#VALUE!	3.07E+02	#VALUE!	2.99E+05	3.0E+05	J
Acetone	1.99E-03	1.60E-03	1.98E-03	1.05E-06	#VALUE!	5.11E+02	#VALUE!	4.85E+05	4.8E+05	J
Aldrin										
Aniline										
Anthracene	5.65E-04	6.48E-04	5.66E-04	5.04E-07	#VALUE!	1.53E+03	#VALUE!	3.04E+06	3.0E+06	J
Antimony										
Arsenic										
Barium										
Benzene	1.20E-03	1.02E-05	4.07E-04	3.09E-05	1.20E+01		3.88E+02		3.9E+02	K
Benz(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(k)fluoranthene										
Beryllium										
Biphenyl,1,1-	5.77E-04	1.48E-04	5.50E-04	2.26E-06		2.38E+01		1.05E+04	1.1E+04	K
Bis(2-chloroethyl)ether	1.38E-03	2.28E-03	1.39E-03	3.42E-07	3.00E-01		8.76E+02		8.8E+02	K
Bis(2-chloroisopropyl)ether	8.69E-04	3.19E-04	8.45E-04	1.31E-06	4.09E-01	2.04E+02	3.12E+02	1.56E+05	3.1E+02	J
Bis(2-ethyl-hexyl)phthalate										
Bromodichloromethane	4.12E-04	3.62E-05	3.51E-04	7.69E-06	2.31E-01	1.02E+02	3.00E+01	1.33E+04	3.0E+01	J
Bromoform	2.23E-04	1.05E-04	2.18E-04	1.60E-06	3.72E+00	1.02E+02	2.32E+03	6.38E+04	2.3E+03	J
Bromomethane	9.90E-04	1.11E-05	4.01E-04	3.40E-05	#VALUE!	7.31E+00	#VALUE!	2.15E+02	2.1E+02	J
Butyl benzyl phthalate										
Cadmium										
Carbon Disulfide	1.41E-03	2.47E-06	1.34E-04	5.58E-05		7.14E+01		1.28E+03	1.3E+03	K
Carbon Tetrachloride	1.06E-03	2.08E-06	1.12E-04	4.66E-05	6.67E+00		1.43E+02		1.4E+02	K
Chlordane										
Chloroaniline,p-										
Chlorobenzene	9.94E-04	1.33E-05	4.45E-04	2.26E-05		1.10E+03		4.87E+04	4.9E+04	K
Chlorodibromomethane	2.80E-04	7.31E-05	2.68E-04	2.87E-06	1.70E-01	1.02E+02	5.93E+01	3.56E+04	5.9E+01	J
Chloroethane (Ethylchloride)	3.68E-03	8.87E-06	4.66E-04	5.62E-05		6.29E+04		1.12E+06	1.1E+06	K
Chloroform	1.41E-03	1.55E-05	5.65E-04	2.84E-05	4.30E+00		1.51E+02		1.5E+02	K
Chloromethane	1.71E-03	4.84E-06	2.49E-04	3.00E-05	5.56E+01		1.85E+03		1.9E+03	K

LDEQ RECAP
WORKSHEET 16
GWairi
(mg/l)

Volatile releases from groundwater to ambient air-Industrial					Derivation of Management Option 2 RS					
Revision Date: 08/04/2003					Run date:	10/17/2003				
INPUTS TO GROUNDWATER TO AMBIENT AIR MODEL-INDUSTRIAL					Site-Specific					
volumetric air content in capillary fringe				nacap =	0.015	cm3-air/cm3-soil				
volumetric water content in capillary fringe				nwcap =	0.345	cm3-water/cm3-soil				
total porosity of capillary fringe soil				nc =	0.36	cm3/cm3				
thickness of capillary fringe				hcap =	5	cm				
thickness of vadose zone				hv =	295	cm				
depth to groundwater				Lgw =	300	cm				
wind speed above ground surface in ambient mixing zone				Uair =	225	cm/s				
width of source area parallel to wind				W =	4511	cm				
ambient air mixing zone height				dair =	200	cm				
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2										
Dcap = Da*nacap^3.33/nc^2+Dw*1/(H*41)*nwcap^3.33/nc^2										
Dws = (hcap+hv)/(hcap/Dcap+hv/Ds)										
VFgwairi = (H*41*1000)/[1+(Uair*dair*Lgw)/(W*Dws)]										
Cai C-O = (TR*BWa*ATc*365*1000)/(SFi*IRAa*EFi*EDi)										
Cai N-O = (THQ*RfDi*BWa*ATni*365*1000)/(IRAa*EFi*EDi)										
GWairi = Cai*0.001/VFgwairi										
	Ds	Dcap	Dws	VFgwairi	Cai	Cai	GWairi	GWairi	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(cm2/s)	(mg/m3/mg/l)	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/l)	N-O(mg/l)	(C or N)	
Chloronaphthalene,2-	5.01E-04	1.55E-04	4.83E-04	2.05E-06	#VALUE!	4.09E+02	#VALUE!	1.99E+05	2.0E+05	J
Chlorophenol,2-	7.06E-04	1.32E-04	6.58E-04	3.52E-06	#VALUE!	2.56E+01	#VALUE!	7.25E+03	7.2E+03	J
Chromium(III)										
Chromium(VI)										
Chrysene										
Cobalt										
Copper										
Cyanide (free)										
DDD										
DDE										
DDT										
Dibenz(a,h)anthracene										
Dibenzofuran	8.47E-04	2.51E-03	8.57E-04	1.53E-07	#VALUE!	2.04E+01	#VALUE!	1.34E+05	1.3E+05	J
Dibromo-3-chloropropane,1,2-										
Dichlorobenzene,1,2-	9.41E-04	2.31E-05	5.66E-04	1.47E-05	#VALUE!	2.91E+02	#VALUE!	1.98E+04	2.0E+04	J
Dichlorobenzene,1,3-	8.74E-04	1.21E-05	4.00E-04	1.81E-05	#VALUE!	4.60E+00	#VALUE!	2.54E+02	2.5E+02	J
Dichlorobenzene,1,4-	9.40E-04	1.81E-05	5.09E-04	1.69E-05		1.43E+03		8.44E+04	8.4E+04	K
Dichlorobenzidine,3,3-										
Dichloroethane,1,1-	1.01E-03	1.06E-05	3.94E-04	3.03E-05	#VALUE!	7.31E+02	#VALUE!	2.41E+04	2.4E+04	J
Dichloroethane,1,2-	1.42E-03	5.57E-05	1.01E-03	1.35E-05	3.85E+00		2.84E+02		2.8E+02	K
Dichloroethene,1,1-	1.22E-03	2.75E-06	1.46E-04	5.21E-05	#VALUE!	2.91E+02	#VALUE!	5.59E+03	5.6E+03	J
Dichloroethene,cis,1,2-	1.00E-03	1.55E-05	4.87E-04	2.72E-05	#VALUE!	5.11E+01	#VALUE!	1.88E+03	1.9E+03	J
Dichloroethene,trans,1,2-	9.61E-04	7.36E-06	3.04E-04	3.91E-05	#VALUE!	1.02E+02	#VALUE!	2.61E+03	2.6E+03	J
Dichlorophenol,2,4-										
Dichloropropane,1,2-	1.06E-03	1.75E-05	5.33E-04	2.04E-05		8.26E+03		4.04E+05	4.0E+05	K
Dichloropropene,1,3-	8.56E-04	3.11E-05	5.94E-04	1.44E-05		1.07E+02		7.43E+03	7.4E+03	K
Dieldrin										
Diethylphthalate										
Dimethylphenol,2,4-										
Dimethylphthalate										
Di-n-octylphthalate										
Dinitrobenzene,1,3-										
Dinitrophenol,2,4-										

LDEQ RECAP
WORKSHEET 16
GWairi
(mg/l)

Volatile releases from groundwater to ambient air-Industrial					Derivation of Management Option 2 RS					
Revision Date: 08/04/2003					Run date:	10/17/2003				
INPUTS TO GROUNDWATER TO AMBIENT AIR MODEL-INDUSTRIAL					Site-Specific					
volumetric air content in capillary fringe				nacap =	0.015	cm3-air/cm3-soil				
volumetric water content in capillary fringe				nwcap =	0.345	cm3-water/cm3-soil				
total porosity of capillary fringe soil				nc =	0.36	cm3/cm3				
thickness of capillary fringe				hcap =	5	cm				
thickness of vadose zone				hv =	295	cm				
depth to groundwater				Lgw =	300	cm				
wind speed above ground surface in ambient mixing zone				Uair =	225	cm/s				
width of source area parallel to wind				W =	4511	cm				
ambient air mixing zone height				dair =	200	cm				
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2										
Dcap = Da*nacap^3.33/nc^2+Dw*1/(H*41)*nwcap^3.33/nc^2										
Dws = (hcap+hv)/(hcap/Dcap+hv/Ds)										
VFgwairi = (H*41*1000)/[1+(Uair*dair*Lgw)/(W*Dws)]										
Cai C-O = (TR*BWa*ATc*365*1000)/(SFi*IRAa*EFi*EDi)										
Cai N-O = (THQ*RfDi*BWa*ATni*365*1000)/(IRAa*EFi*EDi)										
GWairi = Cai*0.001/VFgwairi										
	Ds	Dcap	Dws	VFgwairi	Cai	Cai	GWairi	GWairi	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(cm2/s)	(mg/m3/mg/l)	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/l)	N-O(mg/l)	(C or N)	
Dinitrotoluene,2,6-										
Dinitrotoluene,2,4-										
Dinoseb										
Endosulfan										
Endrin										
Ethyl benzene	1.02E-03	5.87E-06	2.63E-04	2.84E-05		1.03E+04		3.63E+05	3.6E+05	K
Fluoranthene										
Fluorene	6.23E-04	6.74E-04	6.24E-04	5.43E-07	#VALUE!	2.04E+02	#VALUE!	3.76E+05	3.8E+05	J
Heptachlor										
Heptachlor epoxide										
Hexachlorobenzene	7.41E-04	2.47E-05	4.99E-04	9.03E-06	2.00E-01		2.21E+01		2.2E+01	K
Hexachlorobutadiene										
Hexachlorocyclohexane,alpha										
Hexachlorocyclohexane,beta										
Hexachlorocyclohexane,gamma										
Hexachlorocyclopentadiene	2.19E-04	1.56E-06	6.58E-05	2.43E-05	#VALUE!	2.91E-01	#VALUE!	1.20E+01	1.2E+01	J
Hexachloroethane	3.58E-05	9.52E-06	3.42E-05	1.82E-06	2.50E+01		1.37E+04		1.4E+04	K
Indeno(1,2,3-cd)pyrene										
Isobutyl alcohol										
Isophorone										
Lead (inorganic)										
Mercury (inorganic)										
Methoxychlor										
Methylene chloride	1.38E-03	2.97E-05	7.84E-04	2.35E-05	2.13E+02		9.04E+03		9.0E+03	K
Methyl ethyl ketone	1.28E-03	9.52E-04	1.27E-03	9.77E-07		1.40E+04		1.43E+07	1.4E+07	K
Methyl isobutyl ketone	1.08E-03	3.04E-04	1.03E-03	1.98E-06		4.88E+03		2.46E+06	2.5E+06	K
Methylnaphthalene,2-	7.94E-04	7.36E-04	7.93E-04	6.30E-07	#VALUE!	4.39E+00	#VALUE!	6.98E+03	7.0E+03	J
MTBE (methyl tert-butyl ether)	1.40E-03	9.80E-05	1.15E-03	9.24E-06	#VALUE!	4.38E+03	#VALUE!	4.74E+05	4.7E+05	J
Naphthalene	8.17E-04	8.48E-05	7.15E-04	4.73E-06	#VALUE!	4.39E+00	#VALUE!	9.29E+02	9.3E+02	J
Nickel										
Nitrate										
Nitrite										
Nitroaniline,2-	9.76E-04	4.15E-04	9.54E-04	1.27E-06	#VALUE!	1.48E-01	#VALUE!	1.17E+02	1.2E+02	J

LDEQ RECAP
WORKSHEET 16
GWairi
(mg/l)

Volatile releases from groundwater to ambient air-Industrial					Derivation of Management Option 2 RS					
Revision Date: 08/04/2003					Run date:	10/17/2003				
INPUTS TO GROUNDWATER TO AMBIENT AIR MODEL-INDUSTRIAL					Site-Specific					
volumetric air content in capillary fringe				nacap =	0.015	cm3-air/cm3-soil				
volumetric water content in capillary fringe				nwcap =	0.345	cm3-water/cm3-soil				
total porosity of capillary fringe soil				nc =	0.36	cm3/cm3				
thickness of capillary fringe				hcap =	5	cm				
thickness of vadose zone				hv =	295	cm				
depth to groundwater				Lgw =	300	cm				
wind speed above ground surface in ambient mixing zone				Uair =	225	cm/s				
width of source area parallel to wind				W =	4511	cm				
ambient air mixing zone height				dair =	200	cm				
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2										
Dcap = Da*nacap^3.33/nc^2+Dw*1/(H*41)*nwcap^3.33/nc^2										
Dws = (hcap+hv)/(hcap/Dcap+hv/Ds)										
VFgwairi = (H*41*1000)/[1+(Uair*dair*Lgw)/(W*Dws)]										
Cai C-O = (TR*BWa*ATc*365*1000)/(SFi*IRAa*EFi*EDi)										
Cai N-O = (THQ*RfDi*BWa*ATni*365*1000)/(IRAa*EFi*EDi)										
GWairi = Cai*0.001/VFgwairi										
	Ds	Dcap	Dws	VFgwairi	Cai	Cai	GWairi	GWairi	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(cm2/s)	(mg/m3/mg/l)	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/l)	N-O(mg/l)	(C or N)	
Nitroaniline,3-	5.38E-02	2.74E-01	5.45E-02	1.10E-07	#VALUE!	1.53E+01	#VALUE!	1.40E+05	1.4E+05	J
Nitroaniline,4-										
Nitrobenzene	1.41E-03	1.95E-03	1.41E-03	4.65E-07		1.19E+02		2.56E+05	2.6E+05	K
Nitrophenol,4-										
Nitrosodi-n-propylamine,n-										
N-nitrosodiphenylamine										
Pentachlorophenol										
Phenanthrene	7.89E-04	1.81E-03	7.96E-04	2.54E-07	#VALUE!	1.53E+03	#VALUE!	6.03E+06	6.0E+06	J
Phenol	2.52E-02	1.25E-01	2.55E-02	1.39E-07	#VALUE!	1.53E+03	#VALUE!	1.10E+07	1.1E+07	J
Polychlorinated biphenyls										
Pyrene	1.06E-03	3.58E-03	1.07E-03	1.62E-07	#VALUE!	1.53E+02	#VALUE!	9.48E+05	9.5E+05	J
Selenium										
Silver										
Styrene	9.67E-04	1.63E-05	4.90E-04	1.85E-05		1.00E+03		5.42E+04	5.4E+04	K
Tetrachlorobenzene,1,2,4,5-										
Tetrachloroethane,1,1,1,2-	8.18E-04	1.56E-05	4.40E-04	1.45E-05	1.00E-01		6.91E+00		6.9E+00	K
Tetrachloroethane,1,1,2,2-	9.88E-04	1.25E-04	8.86E-04	4.19E-06	1.70E+00		4.06E+02		4.1E+02	K
Tetrachloroethylene	9.78E-04	2.89E-06	1.48E-04	3.73E-05	1.10E+02		2.95E+03		3.0E+03	K
Tetrachlorophenol,2,3,4,6-										
Thallium										
Toluene	1.18E-03	7.61E-06	3.31E-04	3.01E-05		4.00E+02		1.33E+04	1.3E+04	K
Toxaphene										
Trichlorobenzene,1,2,4-	4.13E-04	3.17E-05	3.44E-04	6.70E-06	#VALUE!	2.91E+02	#VALUE!	4.35E+04	4.3E+04	J
Trichloroethane,1,1,1-	1.06E-03	3.29E-06	1.67E-04	3.93E-05	#VALUE!	1.46E+03	#VALUE!	3.72E+04	3.7E+04	J
Trichloroethane,1,1,2-	1.07E-03	5.29E-05	8.10E-04	1.01E-05	6.30E+00		6.22E+02		6.2E+02	K
Trichloroethene	1.07E-03	5.32E-06	2.47E-04	3.49E-05	5.90E+01		1.69E+03		1.7E+03	K
Trichlorofluoromethane	1.18E-03	1.11E-06	6.31E-05	8.39E-05	#VALUE!	1.02E+03	#VALUE!	1.22E+04	1.2E+04	J
Trichlorophenol,2,4,5-										
Trichlorophenol,2,4,6-										
Vanadium										
Vinyl chloride	1.44E-03	9.38E-07	5.42E-05	2.01E-05	1.20E+00		5.98E+01		6.0E+01	K
Xylene(mixed)	9.51E-04	6.04E-06	2.64E-04	2.74E-05	#VALUE!	1.48E+02	#VALUE!	5.40E+03	5.4E+03	J
Zinc										

LDEQ RECAP
WORKSHEET 16
GWairi
(mg/l)

Volatile releases from groundwater to ambient air-Industrial					Derivation of Management Option 2 RS					
Revision Date: 08/04/2003					Run date:	10/17/2003				
INPUTS TO GROUNDWATER TO AMBIENT AIR MODEL-INDUSTRIAL					Site-Specific					
volumetric air content in capillary fringe				nacap =	0.015	cm3-air/cm3-soil				
volumetric water content in capillary fringe				nwcap =	0.345	cm3-water/cm3-soil				
total porosity of capillary fringe soil				nc =	0.36	cm3/cm3				
thickness of capillary fringe				hcap =	5	cm				
thickness of vadose zone				hv =	295	cm				
depth to groundwater				Lgw =	300	cm				
wind speed above ground surface in ambient mixing zone				Uair =	225	cm/s				
width of source area parallel to wind				W =	4511	cm				
ambient air mixing zone height				dair =	200	cm				
Ds = Da*na^3.33/n^2+Dw*1/(H*41)*nw^3.33/n^2										
Dcap = Da*nacap^3.33/nc^2+Dw*1/(H*41)*nwcap^3.33/nc^2										
Dws = (hcap+hv)/(hcap/Dcap+hv/Ds)										
VFgwairi = (H*41*1000)/[1+(Uair*dair*Lgw)/(W*Dws)]										
Cai C-O = (TR*BWa*ATc*365*1000)/(SFi*IRAa*EFi*EDi)										
Cai N-O = (THQ*RfDi*BWa*ATni*365*1000)/(IRAa*EFi*EDi)										
GWairi = Cai*0.001/VFgwairi										
	Ds	Dcap	Dws	VFgwairi	Cai	Cai	GWairi	GWairi	min value	Note
COMPOUND	(cm2/s)	(cm2/s)	(cm2/s)	(mg/m3/mg/l)	C-O (ug/m3)	N-O (ug/m3)	C-O(mg/l)	N-O(mg/l)	(C or N)	
Aliphatics C6-C8	1.36E-03	6.96E-07	4.05E-05	6.77E-04		1.93E+04		2.86E+04	2.9E+04	J
Aliphatics >C8-C10	1.36E-03	6.79E-07	3.96E-05	1.06E-03		1.06E+03		1.00E+03	1.0E+03	J
Aliphatics >C10-C12	1.36E-03	6.70E-07	3.91E-05	1.57E-03		1.10E+03		6.98E+02	7.0E+02	J
Aliphatics >C12-C16	1.36E-03	6.56E-07	3.82E-05	6.65E-03		1.10E+03		1.65E+02	1.6E+02	J
Aliphatics >C16-C35										
Aromatics >C8-C10	1.36E-03	5.30E-06	2.59E-04	4.14E-05		2.19E+02		5.29E+03	5.3E+03	J
Aromatics >C10-C12	1.36E-03	1.66E-05	5.79E-04	2.71E-05		2.19E+02		8.09E+03	8.1E+03	J
Aromatics >C12-C16	1.37E-03	4.28E-05	9.02E-04	1.59E-05		2.19E+02		1.37E+04	1.4E+04	J
Aromatics >C16-C21										
Aromatics >C21-C35										
TPH-GRO (C6-C10)						2.19E+02			1.0E+03	
TPH-DRO (C10-C28)										
TPH-ORO (>C28)										
J - Risk-based value calculated with one of the equations EQ 56 thru 59.										
K - Louisiana Toxic Air Pollutant Ambient Air Standards (LAC 33:III.5112 Table 51.2).										