TABLE 3-1
Fate and Transport Properties for Selected Organic Compounds

Chemical	Water Solubility (mg/l)	Vapor Pressure (mm Hg)	Henry's Law Constant ($atm\text{-}m^3/mol$)	Koc (ml/g)	Kow
VOCs (Note 1)					
1,1,1-Trichloroethane	9.50E+02	1.00E+02	2.76E-02	1.52E+02	3.09E+02
1,1-Dichloroethene	4.00E+02	5.00E+02	1.54E-01	6.50E+01	1.35E+02
1,1-Dichloroethane	5.50E+03	1.82E+02	5.70E-03	3.00E+01	6.17E+01
Benzene	1.76E+03	7.52E+01	5.18E-03	6.50E+01	1.35E+02
Ethylbenzene	1.52E+02	7.08E+00	7.72E-03	1.20E+03	2.19E+03
m-,p, o-Xylene	1.75E+02	1.60E+01	7.30E-03	7.00E+02	1.45E+03
Toluene	5.15E+02	2.18E+01	6.30E-03	2.40E+02	4.90E+02
Trichloroethene	1.10E+03	6.90E+01	1.03E-01	1.60E+02	2.63E+02
Vinyl Chloride	1.10E+03	2.30E+03	6.95E-01	8.20E+00	1.70E+01
Petroleum Hydrocarbon Fractions (Note 2)					
Aliphatics					
C8-10	4.30E-01	6.30E-03	1.92E+00	3.16E+04	NA
C10-12	3.40E-02	6.30E-04	2.88E+00	2.51E+06	NA
C12-16	7.60E-04	4.80E-05	1.25E+01	5.01E+06	NA
C16-21	2.50E+06	1.10E-06	1.18E+02	6.31E+08	NA
Aromatics					
C8-10	6.50E+01	6.30E-03	1.15E-02	1.58E+03	NA
C10-12	2.50E+01	6.30E-04	3.30E-03	2.51E+03	NA
C12-16	5.80E+00	4.80E-05	1.27E-03	5.01E+03	NA
C16-21	6.50E-01	1.10E-06	3.12E-04	1.58E+04	NA
C21-35	6.60E-03	4.40E-10	1.61E-05	1.26E+05	NA

Notes:
NA – Not Available
Koc – Organic carbon partition coefficient
Kow – Octanol/water partition coefficient
Sources:

1) Arthur D. Little, Inc. (1987) The Installation Restoration Program Toxicology Guide, Volume 1, Section 2:1-16.
2) Gustafson, J.B., Tell, J.G., and Orem, D, 1997, Selection of Representative TPH Fractions based on Fate and Transport Considerations, Amherst Scientific Publishers, Amherst, MA. 102 pp.