

Table 1.13
Volume Calculations for Groundwater within the Perched Zone and Exposition Zones
Pemaco Superfund Site, Maywood, CA

Groundwater Plume Zone	COC	Surface Area of Plume (ft ²)	Volume of Groundwater in Plume Area (L)	Volume of Groundwater in Plume Area (gallons)	Average Concentration (µg/L)
Perched Zone	PCE	79,379	2,491,026	658,059	120
	TCE	139,790	4,386,808	1,158,872	52
	VC	52,483	1,646,991	435,089	24
Composite Perched Zone	VOCs	168,180	5,277,741	1,394,232	469
Composite Perched Zone	VOCs (onsite only)	60,842	1,909,308	504,386	469
'A' Zone	TCE >10,000	9,941	511,346	135,083	27,409
'A' Zone	TCE >1,000	56,924	2,928,061	773,512	15,540
'A' Zone	TCE >1	352,616	18,137,883	4,791,522	1,864
'B' Zone	TCE >10,000	5,581	305,991	80,834	21,000
'B' Zone	TCE >1,000	67,847	3,719,871	982,686	12,765
'B' Zone	TCE >1	771,004	42,272,100	11,167,107	2,561
Composite 'A' and 'B' Zone	TCE >10,000	10,708	1,141,793	301,630	16,656
Composite 'A' and 'B' Zone	TCE >1,000	69,381	7,398,089	1,954,368	13,454
Composite 'A' and 'B' Zone	TCE >5	552,419	58,904,335	15,560,879	4,558

Notes:

- 1.) ft² - foot square (unit of area)
- 2.) L - liters (unit of volume)
- 3.) µg/L - microgram/liter (unit of concentration)
- 4.) PCE - Tetrachloroethene; TCE - Trichloroethene; VC - Vinyl Chloride
- 5.) TCE selected to represent maximum contamination within the A and B zones as TCE is the most concentrated and widely dispersed VOC within these zones. Average concentrations include all VOCs.
- 6.) Areas derived from groundwater plumes utilizing AutoCAD.
- 7.) Plume thickness = average aquifer thickness for each groundwater zone (2.58, 3.2, and 3.73 feet for perched, 'A' zone and 'B' zone, respectively). Average porosity values used for each zone as follows: perched (0.4298), 'A' zone (0.568) and 'B' zone (0.5194). For the 'A' and 'B' Zone Overlay, the 'A' and 'B' Zone combined thickness was determined by adding the 'A' and 'B' Zone thicknesses; an average porosity value of the 'A' and 'B' Zones was used.
- 8.) Average concentrations for individual plumes determined using concentrations of the stated VOC for all wells (January 2002 data). Average concentrations for composite plumes determined using a select number of wells representative of the composite plume.