

**Table 3A.** Volatile organic compounds measured in ground water in the Southern Sacramento Valley Ground-Water Ambient Monitoring and Assessment (GAMA) study unit, California, 2005.

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Constituent	Detected in ground-water samples in this study	USGS parameter code	Constituent class	CAS number	LRL (µg/L)	Threshold (µg/L)	Threshold type
Acetone	yes	81552	Solvent	67-64-1	6.000	na	na
Acrylonitrile	no	34215	Organic synthesis	107-13-1	0.800	0.6	RSD5
<i>tert</i> -Amyl alcohol	no	77073	Gasoline degradate	75-85-4	1.00	na	na
Benzene	yes	34030	Gasoline component	71-43-2	0.021	1	MCL-CA
Bromobenzene	no	81555	Solvent	108-86-1	0.028	na	na
Bromochloromethane	no	77297	Organic synthesis	74-97-5	0.120	9	HA-L
Bromodichloromethane	yes	32101	Disinfection by-product	75-27-4	0.028	80	MCL-US
Bromoethene	no	50002	Fire retardant	593-60-2	0.100	na	na
Bromomethane	no	34413	Fumigant	74-83-9	0.260	10	HA-L
2-Butanone	no	81595	Solvent	78-93-3	2.000	4,000	HA-L
<i>tert</i> -Butyl alcohol	no	77035	Gasoline degradate	75-65-0	1.00	12	NL
<i>n</i> -Butylbenzene	no	77342	Organic synthesis	104-51-8	0.120	260	NL
<i>sec</i> -Butylbenzene	yes	77350	Organic synthesis	135-98-8	0.060	260	NL
<i>tert</i> -Butylbenzene	yes	77353	Organic synthesis	98-06-6	0.060	260	NL
Chlorobenzene	no	34301	Solvent	108-90-7	0.028	70	MCL-CA
Chloroethane	no	34311	Solvent	75-00-3	0.120	na	na
Chloroethene (vinyl chloride)	no	39175	Organic synthesis	75-01-4	0.080	0.5	MCL-CA
Chloromethane	no	34418	Refrigerant	74-87-3	0.170	30	HA-L
1-Chloro-2-methylbenzene	no	77275	Solvent	95-49-8	0.040	140	NL
1-Chloro-4-methylbenzene	no	77277	Solvent	106-43-4	0.050	140	NL
3-Chloro-1-propene	no	78109	Organic synthesis	107-05-1	0.500	na	na
Dibromochloromethane	yes	32105	Disinfection by-product	124-48-1	0.100	80	MCL-US
1,2-Dibromoethane	no	77651	Solvent/Fumigant	106-93-4	0.036	0.05	MCL-US
Dibromomethane	no	30217	Solvent	74-95-3	0.050	na	na
1,2-Dichlorobenzene	no	34536	Solvent	95-50-1	0.048	600	MCL-CA
1,3-Dichlorobenzene	no	34566	Solvent	541-73-1	0.030	600	HA-L
1,4-Dichlorobenzene	no	34571	Fumigant	106-46-7	0.034	5	MCL-CA
<i>trans</i> -1,4-Dichloro-2-butene	no	73547	Organic synthesis	110-57-6	0.700	na	na
1,2-Dichloroethane	no	32103	Solvent	107-06-2	0.130	0.5	MCL-CA
<i>cis</i> -1,2-Dichloroethane	yes	77093	Solvent	156-59-2	0.024	6	MCL-CA
1,1-Dichloroethane	yes	34496	Solvent	75-34-3	0.035	5	MCL-CA
1,1-Dichloroethylene	yes	34501	Organic synthesis	75-35-4	0.024	6	MCL-CA

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Constituent	Detected in ground-water samples in this study	USGS parameter code	Constituent class	CAS number	LRL (µg/L)	Threshold (µg/L)	Threshold type
<i>trans</i> -1,2-Dichloroethylene	no	34546	Solvent	156-60-5	0.032	10	MCL-CA
Dichloromethane (methylene chloride)	no	34423	Solvent	75-09-2	0.060	5	MCL-US
1,2-Dibromo-3-chloropropane	no	82625	Fumigant	96-12-8	0.510	0.2	MCL-US
1,2-Dichloropropane	yes	34541	Solvent	78-87-5	0.029	5	MCL-US
1,3-Dichloropropane	no	77173	Organic synthesis	142-28-9	0.060	na	na
2,2-Dichloropropane	no	77170	Organic synthesis	594-20-7	0.050	na	na
1,1-Dichloropropene	no	77168	Organic synthesis	563-58-6	0.026	na	na
<i>cis</i> -1,3-Dichloropropene	no	34704	Fumigant	10061-01-5	0.050	na	na
<i>trans</i> -1,3-Dichloropropene	no	34699	Fumigant	10061-02-6	0.090	na	na
Dithiocarbonic anhydride (carbon disulfide)	yes	77041	Organic synthesis	75-15-0	0.038	160	NL
Dichlorodifluoromethane (CFC-12)	yes	34668	Refrigerant	75-71-8	0.180	1,000	NL
Ethylbenzene (styrene)	no	77128	Organic synthesis	100-42-5	0.042	100	MCL-US
2-Ethoxy-2-methylpropane (ETBE)	no	50004	Gasoline oxygenate	637-92-3	0.030	na	na
Ethyl 2-methyl-2-propanoate	no	73570	Organic synthesis	97-63-2	0.180	na	na
2-Ethyl toluene	yes	77220	Hydrocarbon	611-14-3	0.060	na	na
Ethylbenzene	yes	34371	Gasoline component	100-41-4	0.030	300	MCL-CA
1,1,2,3,4,4-Hexachloro-1,3-butadiene	no	39702	Organic synthesis	87-68-3	0.140	1	HA-L
1,1,1,2,2,2-Hexachloroethane	no	34396	Solvent	67-72-1	0.140	1	HA-L
2-Hexanone	no	77103	Solvent	591-78-6	0.400	na	na
Iodomethane	no	77424	Organic synthesis	74-88-4	0.500	na	na
Isobutyl methyl ketone	yes	78133	Solvent	108-10-1	0.370	120	NL
Isopropylbenzene	yes	77223	Organic synthesis	98-82-8	0.038	770	NL
4-Isopropyltoluene	yes	77356	Organic synthesis	99-87-6	0.080	na	na
Methyl acetate	no	77032	Gasoline degradate	79-20-9	0.43	na	na
Methylbenzene (toluene)	v	34010	Gasoline component	108-88-3	0.020	150	MCL-CA
Methyl <i>tert</i> -butyl ether (MTBE)	yes	78032	Gasoline oxygenate	1634-04-4	0.100	13	MCL-CA
2-Methoxy-2-methyl butane	no	50005	Gasoline oxygenate	994-05-8	0.040	na	na
2-Methyl-2-propenenitrile	no	81593	Organic synthesis	126-98-7	0.400	na	na
Methyl 2-methyl-2-propenoate	no	81597	Organic synthesis	80-62-6	0.200	na	na
Methyl-2-propenoate	no	49991	Organic synthesis	96-33-3	1.000	na	na
NaphtHA-Lene	yes	34696	Organic synthesis	91-20-3	0.520	17	NL

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Constituent	Detected in ground-water samples in this study	USGS parameter code	Constituent class	CAS number	LRL (µg/L)	Threshold (µg/L)	Threshold type
1,1'-Oxybisethane	no	81576	Solvent	60-29-7	0.080	na	na
2,2'-Oxybis[propane]	no	81577	Gasoline oxygenate	108-20-3	0.100	na	na
<i>n</i> -Propylbenzene	yes	77224	Solvent	103-65-1	0.042	260	NL
1,1,1,2-Tetrachloroethane	no	77562	Solvent	630-20-6	0.030	na	na
1,1,2,2-Tetrachloroethane	no	34516	Solvent	79-34-5	0.080	1	MCL-CA
Tetrachloroethylene (PCE)	yes	34475	Solvent	127-18-4	0.030	5	MCL-US
Tetrachloromethane (carbon tetrachloride)	yes	32102	Solvent	56-23-5	0.060	0.5	MCL-CA
Tetrahydrofuran	yes	81607	Solvent	109-99-9	1.000	na	na
1,2,3,4-Tetramethylbenzene	yes	49999	Hydrocarbon	488-23-3	0.140	na	na
1,2,3,5-Tetramethylbenzene	yes	50000	Hydrocarbon	527-53-7	0.140	na	na
Tribromomethane (bromoform)	yes	32104	Disinfection by-product	75-25-2	0.100	80	MCL-US
1,2,3-Trichlorobenzene	no	77613	Organic synthesis	87-61-6	0.180	na	na
1,2,4-Trichlorobenzene	no	34551	Solvent	120-82-1	0.120	5	MCL-CA
Trichloroethylene (TCE)	yes	39180	Solvent	79-01-6	0.038	5	MCL-US
1,1,1-Trichloroethane	no	34506	Solvent	71-55-6	0.032	200	MCL-CA
1,1,2-Trichloroethane	no	34511	Solvent	79-00-5	0.040	5	MCL-CA
Trichlorofluoromethane (CFC-11)	yes	34488	Refrigerant	75-69-4	0.080	150	MCL-CA
Trichloromethane (chloroform)	yes	32106	Disinfection by-product	67-66-3	0.024	80	MCL-US
1,2,3-Trimethylbenzene	yes	77221	Gasoline component	526-73-8	0.060	na	na
1,2,3-Trichloropropane	no	77443	Solvent	96-18-4	0.180	0.005	NL
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	yes	77652	Refrigerant	76-13-1	0.038	1,200	MCL-CA
1,2,4-Trimethylbenzene	yes	77222	Organic synthesis	95-63-6	0.056	330	NL
1,3,5-Trimethylbenzene	yes	77226	Gasoline component	108-67-8	0.044	330	NL
<i>o</i> -Xylene	no	77135	Gasoline component	95-47-6	0.038	1.75	MCL-CA
<i>m</i> - and <i>p</i> -Xylene	v	85795	Gasoline component	108-38-3/ 106-42-3	0.060	1.75	MCL-CA