

Sonoma County Water Agency - Production Wells 1, 4, 7, Occidental, Todd and Sebastopol Production Wells - 2007 Water Quality Report

VOLATILE ORGANIC COMPOUNDS <i>Section 64444 - Table A</i>	Units	STATE MCL	DLR	PHG { MCLG }	Production 1	Production 4	Production 7	Todd #1	Sebastopol #2	Occidental #2
					27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07
Benzene	mg/L	0.001	0.0005	0.00015	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	mg/L	0.0005	0.0005	0.0001	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene (o-DCB)	mg/L	0.6	0.0005	0.6	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene (p-DCB)	mg/L	0.005	0.0005	0.006	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane (1,1-DCA)	mg/L	0.005	0.0005	0.003	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane (1,2-DCA)	mg/L	0.0005	0.0005	0.0004	ND	ND	ND	ND	ND	ND
1,1,1-Dichloroethylene (1,1-DCE)	mg/L	0.006	0.0005	0.01	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene (c-1,2-DCE)	mg/L	0.006	0.0005	0.1	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene (t-1,2-DCE)	mg/L	0.01	0.0005	0.06	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene Chloride)	mg/L	0.005	0.0005	0.004	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	mg/L	0.005	0.0005	0.0005	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	mg/L	0.0005	0.0005	0.0002	ND	ND	ND	ND	ND	ND
Ethylbenzene	mg/L	0.3	0.0005	0.3	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether (MTBE) ⁽¹⁾	mg/L	0.013	0.003	0.013	ND	ND	ND	ND	ND	ND
Monochlorobenzene (Chlorobenzene)	mg/L	0.07	0.0005	0.2	ND	ND	ND	ND	ND	ND
Styrene	mg/L	0.1	0.0005	{ 0.1 }	ND	ND	ND	ND	ND	ND
1,1,1,2,2-Tetrachloroethane	mg/L	0.001	0.0005	0.0001	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	mg/L	0.005	0.0005	0.00006	ND	ND	ND	ND	ND	ND
Toluene	mg/L	0.15	0.0005	0.15	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	mg/L	0.005	0.0005	0.005	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane (1,1,1-TCA)	mg/L	0.2	0.0005	1.0	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane (1,1,2-TCA)	mg/L	0.005	0.0005	0.0003	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	mg/L	0.005	0.0005	0.0008	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane (Freon 11)	mg/L	0.15	0.005	0.7	ND	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	mg/L	1.2	0.01	4	ND	ND	ND	ND	ND	ND
Vinyl Chloride (VC)	mg/L	0.0005	0.0005	0.00005	ND	ND	ND	ND	ND	ND
Xylenes (m,p, & o)	mg/L	1.75		1.8	ND	ND	ND	ND	ND	ND

⁽¹⁾ Methyl tert-butyl ether (MTBE) is listed in both the Primary (Organic Chemicals - VOCs) and Secondary standards.

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SYNTHETIC ORGANIC COMPOUNDS <i>Section 64444 - Table A</i>	Units	STATE MCL	DLR	PHG { MCLG }	Production 1	Production 4	Production 7	Todd #1	Sebastopol #2	Occidental #2
					27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07
Alachlor	mg/L	0.002	0.001	0.004	ND	ND	ND	ND	ND	ND
Atrazine	mg/L	0.001	0.0005	0.00015	ND	ND	ND	ND	ND	ND
Bentazon	mg/L	0.018	0.002	0.2	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	mg/L	0.0002	0.0001	0.000004	ND	ND	ND	ND	ND	ND
Carbofuran	mg/L	0.018	0.005	0.0017	ND	ND	ND	ND	ND	ND
Chlordane	mg/L	0.0001	0.0001	0.00003	ND	ND	ND	ND	ND	ND
2,4 - Dichlorophenoxyacetic acid (2,4-D)	mg/L	0.07	0.01	0.07	ND	ND	ND	ND	ND	ND
Dalapon	mg/L	0.2	0.01	0.79	ND	ND	ND	ND	ND	ND
Dibromochloropropane (DBCP)	mg/L	0.0002	0.00001	0.0000017	ND	ND	ND	ND	ND	ND
Di(2-ethylhexyl)adipate	mg/L	0.4	0.005	0.2	ND	ND	ND	ND	ND	ND
Di(2-ethylhexyl)phthalate (DEHP)	mg/L	0.004	0.003	0.012	ND	ND	ND	ND	ND	ND
Dinoseb	mg/L	0.007	0.002	0.014	ND	ND	ND	ND	ND	ND
Diquat	mg/L	0.02	0.004	0.015	ND	ND	ND	ND	ND	ND
Endothall	mg/L	0.1	0.045	0.58	ND	ND	ND	ND	ND	ND
Endrin	mg/L	0.002	0.0001	0.0018	ND	ND	ND	ND	ND	ND
Ethylene Dibromide (EDB)	mg/L	0.00005	0.00002	0.00001	ND	ND	ND	ND	ND	ND
Glyphosate	mg/L	0.7	0.025	0.9	ND	ND	ND	ND	ND	ND
Heptachlor	mg/L	0.00001	0.00001	0.000008	ND	ND	ND	ND	ND	ND
Heptachlor Epoxide	mg/L	0.00001	0.00001	0.000006	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	mg/L	0.001	0.0005	0.00003	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	mg/L	0.05	0.001	0.05	ND	ND	ND	ND	ND	ND
Lindane	mg/L	0.0002	0.000	0.000032	ND	ND	ND	ND	ND	ND
Methoxychlor	mg/L	0.03	0.01	0.03	ND	ND	ND	ND	ND	ND
Molinate	mg/L	0.02	0.002	NA	ND	ND	ND	ND	ND	ND
Oxamyl	mg/L	0.05	0.02	0.05	ND	ND	ND	ND	ND	ND
Pentachlorophenol	mg/L	0.001	0.0002	0.0004	ND	ND	ND	ND	ND	ND
Picloram	mg/L	0.5	0.001	0.5	ND	ND	ND	ND	ND	ND
Polychlorinated Biphenyls (PCBs)	mg/L	0.0005	0.0005	0.00009	ND	ND	ND	ND	ND	ND
Simazine	mg/L	0.004	0.001	0.004	ND	ND	ND	ND	ND	ND
Thiobencarb ⁽²⁾	mg/L	0.07	0.001	0.07	ND	ND	ND	ND	ND	ND
Toxaphene	mg/L	0.003	0.001	0.00003	ND	ND	ND	ND	ND	ND
2,3,7,8-TCDD (Dioxin)	mg/L	3 x 10 ⁻⁸	5 x 10 ⁻⁹	{ 0 }	ND	ND	ND	ND	ND	ND
2,4,5-TP (Silvex)	mg/L	0.05	0.001	0.025	ND	ND	ND	ND	ND	ND

⁽²⁾ Thiobencarb is listed in both the Primary (Organic Chemicals - SOCs) and Secondary standards.

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INORGANIC CHEMICALS <i>Section 64431 - Table A</i>	Units	STATE MCL	DLR	PHG { MCLG }	Production 1	Production 4	Production 7	Todd #1	Sebastopol #2	Occidental #2
					27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07
Aluminum ⁽³⁾	µg/L	1000	50	600	104 ⁽⁹⁾	< 50	< 50	< 50	< 50	< 50
Antimony	µg/L	6	6	20	< 6	< 6	< 6	< 6	< 6	< 6
Arsenic	µg/L	10	2	0.004	< 2	< 2	< 2	< 2	< 2	< 2
Asbestos	MFL	7	0.2	7	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Barium	µg/L	1000	100	2000	< 100	< 100	< 100	< 100	< 100	< 100
Beryllium	µg/L	4	1	1	< 1	< 1	< 1	< 1	< 1	< 1
Cadmium	µg/L	5	1	0.04	< 1	< 1	< 1	< 1	< 1	< 1
Chromium	µg/L	50	10	{ 100 }	< 2	< 2	< 2	< 2	< 2	< 2
Cyanide	mg/L	0.15	0.1	0.15	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Fluoride (F) Natural-Source	mg/L	2.0	0.1	1	0.12	0.13	0.13	<0.10	<0.10	0.17
Mercury	µg/L	2	1	1.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Nickel	µg/L	100	10	12	< 2	2.6	< 2	< 2	< 2	< 2
Nitrate (as NO3)	mg/L	45	2	45	< 1	< 1	< 1	< 1	< 1	< 1
Nitrate + Nitrite (as N)	mg/L	10	0.4	10	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Nitrite (as N)	mg/L	1	0.4	1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perchlorate	µg/L	6	4.0	6	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Selenium	µg/L	50	5	{ 50 }	< 5	< 5	< 5	< 5	< 5	< 5
Thallium	µg/L	2	1	0.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

RADIONUCLIDE - <i>Section 64442</i>					Production 1	Production 4	Production 7	Todd #1	Sebastopol #2	Occidental #2
Gross Alpha (4 quarterly samples every 9 years)	Units	STATE MCL	DLR	PHG { MCLG }						
16-Mar-05	pCi/L	15	3	{ 0 }	-0.01 ± 0.42	-0.17 ± 0.73	-0.22 ± 0.35	-0.29 ± 0.35	-0.80 ± 0.90	-0.15 ± 0.40
8-Jun-05	pCi/L	15	3	{ 0 }	-0.36 ± 0.53	-0.01 ± 0.62	-0.94 ± 0.35	-0.51 ± 0.49	-0.36 ± 0.43	-0.57 ± 0.48
1-Sep-05	pCi/L	15	3	{ 0 }	0.107 ± 0.647	0.0727 ± 0.607	0.000 ± 0.568	0.261 ± 0.770	0.000 ± 0.470	0.000 ± 0.500
5-Dec-05	pCi/L	15	3	{ 0 }	0.034 ± 0.572	0.319 ± 0.657	0.00 ± 0.538	0.283 ± 0.816	0.309 ± 0.736	0.432 ± 0.806
Next Sample					Due 2014	Due 2014	Due 2014	Due 2014	Due 2014	Due 2014
24-Aug-07	pCi/L	15	3	{ 0 }	0.000 ± 0.508	0.000 ± 0.755	0.631 ± 0.566	0.756 ± 0.975	0.475 ± 0.859	0.000 ± 0.645

RADIONUCLIDE - <i>Section 64442</i>					Production 1	Production 4	Production 7	Todd #1	Sebastopol #2	Occidental #2
Radium-228 (4 quarterly samples)	Units	STATE MCL	DLR	PHG { MCLG }						
10-Jul-06	pCi/L	5	1	0.019	0.0584 ± 0.563	0.103 ± 0.585	0.0973 ± 0.602	0.000 ± 0.566	0.0124 ± 0.554	0.000 ± 0.527
10-Oct-06	pCi/L	5	1	0.019	0.115 ± 0.492	0.000 ± 0.438	0.000 ± 0.502	0.000 ± 0.520	---	---
4-Dec-06	pCi/L	5	1	0.019	---	---	---	---	0.000 ± 0.513	---
19-Dec-06	pCi/L	5	1	0.019	---	---	---	---	---	0.0115 ± 0.524

⁽³⁾ Aluminum is listed in both the Primary (Inorganic Chemicals) and Secondary standards.

⁽⁹⁾ Production Well 1 aluminum was sampled on 8/27/200 (130 µg/L) and 9/24/2007 (78 µg/L). Combined average equals 104 µg/L.

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SECONDARY STANDARDS <i>Section 64449 - Table A</i>	Units	Secondary MCL	DLR	PHG { MCLG }	Production 1	Production 4	Production 7	Todd #1	Sebastopol #2	Occidental #2
					27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07
Aluminum ⁽³⁾	µg/L	200	50	600	104 ⁽⁹⁾	< 50	< 50	< 50	< 50	< 50
Color	Color Units	15			4.0	< 3	< 3	< 3	< 3	< 3
Copper	µg/L	1300 ⁽⁴⁾	50	300	< 10	< 10	< 10	< 10	< 10	< 10
Foaming Agents (MBAS)	mg/L	0.5			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Iron	µg/L	300	100		305 ⁽¹⁰⁾	< 100	< 100	< 100	< 100	< 100
Manganese	µg/L	50	20		< 20	< 20	< 20	33	78	< 20
Methyl tert-butyl ether (MTBE) ⁽¹⁾	mg/L	0.005	0.003	0.013	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Odor - Threshold	TON	3	1		< 1	< 1	< 1	< 1	< 1	200 ⁽¹²⁾
Silver	µg/L	100	10		< 10	< 10	< 10	< 10	< 10	< 10
Thiobencarb ⁽²⁾	mg/L	0.001	0.001	0.07	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Turbidity	NTU	5			5.0 ⁽¹¹⁾	0.44	0.22	0.35	< 0.1	< 0.1
Zinc	µg/L	5000	50		< 10	< 10	< 10	< 10	< 10	< 10

SECONDARY STANDARDS <i>Section 64449 - Table A</i>	Units	Secondary MCL	DLR	PHG { MCLG }	Sebastopol #2 (Quarterly for Color, Odor, Manganese)			
					8-Mar-07	5-Jun-07	18-Sep-07	17-Dec-07
Color	Color Units	15			< 3	< 3	< 3	< 3
Manganese	µg/L	50	20		< 20	< 20	78	81
Odor - Threshold	TON	3			2.5	10.0	< 1.0	32

SECONDARY STANDARDS <i>Section 64449 - Table B</i>	Units	Recommended MCL	DLR	Upper MCL	Production 1	Production 4	Production 7	Todd #1	Sebastopol #2	Occidental #2
					27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07
Total Dissolved Solids	mg/L	500		1000	130	110	110	140	120	130
Specific Conductance	µS/cm	900		1600	260	230	230	270	250	250
Chloride	mg/L	250		500	5.8	5.4	5.3	27	15	14
Sulfate	mg/L	250	0.5	500	14	12	11	4.0	5.1	2.5

⁽¹⁾ Methyl tert-butyl ether (MTBE) is listed in both the Primary (Organic Chemicals - VOCs) and Secondary standards.
⁽²⁾ Thiobencarb is listed in both the Primary (Organic Chemicals - SOCs) and Secondary standards.
⁽³⁾ Aluminum is listed in both the Primary (Inorganic Chemicals) and Secondary standards.
⁽⁴⁾ Notification Level under the Lead and Copper Rule.
⁽⁹⁾ Production Well 1 aluminum was sampled on 8/27/07 (130 µg/L) and 9/24/07 (78 µg/L). Combined average equals 104 µg/L.
⁽¹⁰⁾ Production Well 1 iron was sampled on 8/27/07 (460 µg/L) and 9/24/07 (150 µg/L). Combined average equals 305 µg/L.
⁽¹¹⁾ Production Well 1 turbidity was sampled on 8/27/07 (5.2 NTU) and 9/24/07 (4.8NTU). Combined average equals 5.0 NTU.
⁽¹²⁾ Occidental Well #2 odor was sampled on 8/27/07 (200 TON) and 9/24/07 (200 TON). Combined average equals 200TON.

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ADDITIONAL CONSTITUENTS ANALYZED	Units	STATE MCL	DLR	PHG { MCLG }	Production 1	Production 4	Production 7	Todd #1	Sebastopol #2	Occidental #2
					27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07	27-Aug-07
pH	pH				6.9	7.2	7.0	7.0	8.0	8.3
Total Hardness as CaCO ₃	mg/L				115	99	97	51	57	42
Calcium	mg/L				18	20	19	13	17	13
Magnesium	mg/L				17	12	12	4.3	3.7	2.3
Sodium	mg/L				8.2	7.5	7.5	34	25	38
Potassium	mg/L				<1.0	1.2	1.0	1.9	1.5	1.11
Total Alkalinity as CaCO ₃	mg/L				120	100	100	97	100	110
Hydroxide as CaCO ₃	mg/L				<5	<5	<5	<5	<5	<5
Carbonate as CaCO ₃	mg/L				<5	<5	<5	<5	<5	<5
Bicarbonate as CaCO ₃	mg/L				120	100	100	97	100	110
Agressiveness Index					10.35	10.56	10.41	10.55	11.65	11.83
Lead	µg/L	15 ⁽⁴⁾	5	2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Radon 222 ± Counting Error	pCi/L		100		199 ± 30	124 ± 28	184 ± 31	450 ± 36	171 ± 29	101 ± 27
N-Nitrosodimethylamine (NDMA)	µg/L	0.01 ⁽⁵⁾	0.002	0.003	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1,2,3-Trichloropropane (1,2,3-TCP)	µg/L	0.005 ⁽⁵⁾	0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

⁽⁴⁾ Notification Level under the Lead and Copper Rule.

⁽⁵⁾ Notification Level

