

LAKEHAVEN UTILITY DISTRICT - 2010 REPORT - INORGANIC CHEMICAL (IOC) ANALYSIS

Source Water Before Treatment (RAW)

Treated Water Effluent (TE)

(Yellow background) = Contributed Water To The Distribution System During 2010

EPA REGULATED PRIMARY INORGANIC CHEMICALS

MCL mg/L	LUD / DEPARTMENT OF HEALTH (DOH) WELL SOURCE NUMBER																										FLOW WEIGHTED AVERAGE	
	(RAW) Well 7 S04	(TE) Well 9 S07	(RAW) Well 10 S09	(RAW) Well 10A S10	(RAW) Well 10C S30	(RAW) Well 15 S12	(RAW) Well 15A S13	(RAW) Well 16 S14	(TE) Well 17 S15	(TE) Well 17A S16	(TE) Well 17B S31	(RAW) Well 18 S17	(TE) Well 19 S25	(RAW) Well 19A S26	(RAW) Well 20 S18	(RAW) Well 20A S19	(TE) Well 21 S20	(RAW) Well 22 S21	(RAW) Well 22A S22	(TE) Well 22B S34	(RAW) Well 23 S23	(RAW) Well 23A S24	(RAW) Well 25 S29	(TE) Well 29 S35	(TE) Well 33 S36	(TE) TACOMA S33		
ARSENIC 0.01	0.003	0.003	<0.002	0.004	<0.01	<0.002	<0.002	0.003	0.005	0.005	0.005	0.002	0.004	0.005	<0.002	<0.002	0.011	<0.01	<0.004	<0.003	<0.002	0.004	<0.002	<0.002	<0.002	<0.01	0.00	0.00
BARIUM (Phase II) 2.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.0	0.00
CADMIUM (Phase II) 0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0	0.000
CHROMIUM (Phase II) 0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0	0.00
MERCURY (Phase II) 0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0	0.0000
SELENIUM (Phase II) 0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0	0.0000
BERYLLIUM (Phase V) 0.004	<0.003	<0.003	<0.003	<0.003	<0.002	<0.002	<0.002	<0.003	<0.003	<0.003	<0.003	<0.002	<0.003	<0.003	<0.003	<0.003	<0.002	<0.002	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.0	0.0000
NICKEL (Phase V) 0.1	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.0	0.00
ANTIMONY (Phase V) 0.006	<0.005	<0.002	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.005	<0.005	<0.002	<0.005	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0	0.0000
THALLIUM (Phase V) 0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.001	<0.002	<0.002	<0.002	<0.002	<0.001	<0.002	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0	0.0000
CYANIDE (Phase V) 0.2	<0.05	<0.05	<0.05	<0.05	<0.10	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	<0.05	<0.05	<0.05	<0.05	<0.10	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.0	0.00
FLUORIDE 4.0	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.3
NITRITE as N (Phase II) 1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.0	0.0
NITRATE as N (Phase II) 10.0	1.7	<0.2	0.5	0.3	<0.2	<0.2	0.8	2.1	<0.2	<0.2	<0.2	0.7	<0.2	0.3	0.7	0.8	<0.2	<0.2	<0.2	<0.2	0.2	0.2	1.9	<0.2	<0.2	0.4	0.2	
TOTAL NITRATE & NITRITE 10.0	1.7	<0.4	0.5	0.3	0.0	0.7	0.8	2.1	<0.4	<0.4	<0.4	0.7	<0.4	<0.5	0.7	<0.4	<0.4	0.0	<0.4	<0.4	<0.4	<0.4	1.9	<0.4	<0.4	0.4	0.2	

EPA REGULATED SECONDARY INORGANIC CHEMICALS

MCL mg/L	LUD / DEPARTMENT OF HEALTH (DOH) WELL SOURCE NUMBER																										FLOW WEIGHTED AVERAGE	
	Well 7 S04	Well 9 S07	Well 10 S09	Well 10A S10	Well 10C S30	Well 15 S12	Well 15A S13	Well 16 S14	Well 17 S15	Well 17A S16	Well 17B S31	Well 18 S17	Well 19 S25	Well 19A S26	Well 20 S18	Well 20A S19	Well 21 S20	Well 22 S21	Well 22A S22	Well 22B S34	Well 23 S23	Well 23A S24	Well 25 S29	Well 29 S35	Well 33 S36	TACOMA S33		
IRON 0.3	<0.1	<0.1	<0.1	<0.1	<0.03	<0.03	<0.03	0.06	<0.1	<0.1	<0.1	<0.03	<0.1	<0.01	<0.1	<0.03	<0.1	0.21	0.16	<0.1	<0.01	<0.01	<0.1	<0.1	<0.01	<0.1	0.02	0.00
MANGANESE 0.05	0.02	<0.01	<0.01	0.05	0.078	0.025	<0.01	<0.01	<0.01	<0.01	<0.01	0.048	<0.01	0.04	<0.01	0.392	<0.01	0.087	<0.01	<0.01	<0.03	<0.03	<0.01	<0.01	<0.01	0.0332	0.03	0.02
SILVER 0.1	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00	0.00
CHLORIDE 250	6	4	5	4	2	4	4	7	4	4	4	4	3	5	5	9	5	2	4	4	6	10	6	5	8	3.06	4.9	3.9
SULFATE 250	18	3	12	10		10	11	7	8	8	8	12	1	15	15	33	14	2	5	3	16	36	19	2	16	1.82	11.4	6.8
ZINC 5.0	<0.2	<0.2	<0.2	<0.2	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.05	<0.2	<0.2	<0.2	<0.05	<0.2	<0.05	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.00	0.00

STATE REGULATED INORGANIC CHEMICALS

MCL mg/L	LUD / DEPARTMENT OF HEALTH (DOH) WELL SOURCE NUMBER																										FLOW WEIGHTED AVERAGE	
	Well 7 S04	Well 9 S07	Well 10 S09	Well 10A S10	Well 10C S30	Well 15 S12	Well 15A S13	Well 16 S14	Well 17 S15	Well 17A S16	Well 17B S31	Well 18 S17	Well 19 S25	Well 19A S26	Well 20 S18	Well 20A S19	Well 21 S20	Well 22 S21	Well 22A S22	Well 22B S34	Well 23 S23	Well 23A S24	Well 25 S29	Well 29 S35	Well 33 S36	TACOMA S33		
SODIUM 20	8	6	8	7	6	7	7	8	7	7	7	9	19	7	7	9	7	6	6	7	7	8	9	8	7	7.25	8	8
HARDNESS (mg/l as CaCO3) "NONE"	143	67	112	110	71	91	98	92	90	90	90	91	88	91	111	139	87	57	60	58	128	185	132	76	96	26	95	78
CONDUCTIVITY umhos/cm 700	296	107	226	215	154	195	209	217	150	150	150	207	230	186	225	310	167	142	112	87	235	345	244	111	172	68.6	189	159
TURBIDITY 1 NTU	0.6	0.4	1.1		0.5	0.3	0.3	0.3	<0.1	<0.1	<0.1	0.4	<0.1	3.9	0.7	0.2	0.5	1.2	<0.1	0.4	0.4	1	0.3	0.9	1.62	0.63	0.63	
COLOR 15 CU	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	10	12.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	0.9	0.8
TOTAL DISSOLVED SOLIDS (TDS) 500	177.6	114.9	130.2	129	92.4	117	125.4	130.2	140	140	140	124.2	138	111.6	135	186	109	85.2	96	110	141	207	311.83	162	161	74	138	118

STATE UNREGULATED INORGANIC CHEMICALS

MCL mg/L	LUD / DEPARTMENT OF HEALTH (DOH) WELL SOURCE NUMBER																										FLOW WEIGHTED AVERAGE	
	Well 7 S04	Well 9 S07	Well 10 S09	Well 10A S10	Well 10C S30	Well 15 S12	Well 15A S13	Well 16 S14	Well 17 S15	Well 17A S16	Well 17B S31	Well 18 S17	Well 19 S25	Well 19A S26	Well 20 S18	Well 20A S19	Well 21 S20	Well 22 S21	Well 22A S22	Well 22B S34	Well 23 S23	Well 23A S24	Well 25 S29	Well 29 S35	Well 33 S36	TACOMA S33		
LEAD 0.015	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000	0.000
COPPER 1.3	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.00	0.00

OTHER PHYSICAL & CHEMICAL PARAMETERS

MCL mg/L
