

# SOLDIER CANYON WATER TREATMENT AUTHORITY

(East Larimer County Water District; Fort Collins/Loveland Water District; North Weld County Water District)

## WATER QUALITY REPORT

**4TH QUARTER 2018**

ANALYSIS PARAMETER <small>Monitored at SCFP (not a certified lab)</small>	Report	PLANT INFLUENT			PLANT EFFLUENT			MCL *SMCL
	Values	MIN	MAX	AVG	MIN	MAX	AVG	
ALKALINITY	mg/l	22.0	31.0	25.7	24.0	44.0	32.9	N/A
ALUMINUM	mg/l	N/A	N/A	N/A	0.021	0.069	0.049	*0.05 - 0.2
CALCIUM HARDNESS	mg/l	19.0	25.0	21.1	17.0	25.0	20.0	N/A
CHLORINE	mg/l	N/A	N/A	N/A	0.78	1.28	1.15	4.0 MRDL
CHLORITE	mg/l	N/A	N/A	N/A	0.21	0.64	0.44	1.0
CHLORINE DIOXIDE	mg/l	N/A	N/A	N/A	<0.02	<0.02	<0.02	0.8
CONDUCTIVITY	µs/cm	64.8	68.7	66.5	79.1	110.7	91.9	N/A
DISSOLVED OXYGEN	mg/l	1.5	10.7	7.9	N/A	N/A	N/A	N/A
FLUORIDE	mg/l	0.12	0.16	0.14	0.16	0.85	0.69	4.0/*2.0
HARDNESS (TOTAL)	mg/l	24.0	33.0	27.8	25.0	37.0	29.4	N/A
IRON	mg/l	0.03	0.18	0.06	0.01	0.03	0.01	*0.3
LANGLIER INDEX	S.I.#	-1.40	-2.50	-1.80	-1.18	-1.76	-1.42	N/A
MANGANESE	mg/l	0.02	0.16	0.04	0.000	0.008	0.004	*0.05
pH	VALUE	6.81	8.29	7.65	7.92	8.24	8.13	*6.5-8.5
TEMPERATURE	°C	3.6	13.1	9.0	3.9	12.8	8.5	N/A
TOTAL DISSOLVED SOLIDS	mg/l	29.7	34.3	33.1	41.5	55.4	46.3	*500
TRUE COLOR	APHA	0.0	9.0	4.7	0.0	0.0	0.0	*15.0
TURBIDITY	NTU	1.64	3.42	2.17	0.010	0.026	0.017	**<0.3 TT

INORGANIC CONTAMINANTS ANALYSES (AL) - (ENTRY INTO THE DISTRIBUTION SYSTEM)			RESULTS	DATE	MCL
ANTIMONY	mg/l		ND	5/10/2018	0.006
ARSENIC	mg/l		ND	5/10/2018	0.010
BARIUM	mg/l		0.018	5/10/2018	2.000
BERYLLIUM	mg/l		ND	5/10/2018	0.004
CADMIUM	mg/l		ND	5/10/2018	0.005
CHROMIUM	mg/l		ND	5/10/2018	0.1
FLUORIDE	mg/l		0.64	5/10/2018	4.0
MERCURY	mg/l		ND	5/10/2018	0.002
NICKEL	mg/l		ND	5/10/2018	N/A
SELENIUM	mg/l		ND	5/10/2018	0.050
SODIUM	mg/l		9.7	5/10/2018	N/A
THALLIUM	mg/l		ND	5/10/2018	0.002

NITRATE AND/OR NITRITE AS NITROGEN (AL) - (ENTRY INTO DISTRIBUTION SYSTEM)			RESULTS	DATE	MCL
NITRATE	mg/l		<0.010	5/10/2018	10.000
NITRITE	mg/l		<0.01	2/12/2013	1.000

TOTAL ORGANIC CARBON (AL) - (SCFP INFLUENT AND EFFLUENT)			INFLUENT	EFFLUENT	TT RATIO	DATE	MCL - **TT
TOTAL ORGANIC CARBON - TOC	mg/L		2.8	1.5	1.33	10/3/2018	RAA - ≥1.0
			2.9	1.7	1.18	11/7/2018	RAA - ≥1.0
			3.2	1.9	1.16	12/5/2018	RAA - ≥1.0
			INFLUENT			DATE	MCL
ALKALINITY - (SCFP INFLUENT ONLY)	mg/l		25.1			10/3/2018	N/A
			25.2			11/7/2018	N/A
			26.7			12/5/2018	N/A

**RADIONUCLIDE ANALYSES (UL) - (ENTRY INTO THE DISTRIBUTION SYSTEM)**

			RESULTS	DATE	MCL
GROSS ALPHA	pCi/L		1.7	8/24/2011	15
URANIUM	ppb		0.01	8/24/2011	30
RADIUM 226 + 228	pCi/L		0.76	8/24/2011	5
GROSS BETA	pCi/L		2.1	8/24/2011	50

**ORGANIC CHEMICAL ANALYSES - VOC's (AL) - (ENTRY INTO THE DISTRIBUTION SYSTEM)**

			RESULTS	DATE	MCL
1,1,1-TRICHLOROETHANE	µg/L		ND	5/10/2018	200
1,1,2-TRICHLOROETHANE	µg/L		ND	5/10/2018	5
1,1-DICHLOROETHYLENE	µg/L		ND	5/10/2018	7
1,2,4-TRICHLOROBENZENE	µg/L		ND	5/10/2018	70
1,2-DICHLOROETHANE	µg/L		ND	5/10/2018	5
1,2-DICHLOROPROPANE	µg/L		ND	5/10/2018	5
BENZENE	µg/L		ND	5/10/2018	5
CARBON TETRACHLORIDE	µg/L		ND	5/10/2018	5
CHLOROBENZENE	µg/L		ND	5/10/2018	100
cis-1,2-DICHLOROETHYLENE	µg/L		ND	5/10/2018	70
DICHLOROMETHANE	µg/L		ND	5/10/2018	5
ETHYLBENZENE	µg/L		ND	5/10/2018	700
o-DICHLOROENZENE	µg/L		ND	5/10/2018	600
para-DICHLOROENZENE	µg/L		ND	5/10/2018	75
STYRENE	µg/L		ND	5/10/2018	100
TETRACHLOROETHYLENE	µg/L		ND	5/10/2018	5
TOLUENE	µg/L		ND	5/10/2018	1000
trans-1,2-DICHLOROETHYLENE	µg/L		ND	5/10/2018	100
TRICHLOROETHYLENE	µg/L		ND	5/10/2018	5
VINYL CHLORIDE	µg/L		ND	5/10/2018	2
XYLENES (total)	µg/L		ND	5/10/2018	10000

**ORGANIC CHEMICAL ANALYSES - SOC's (AL) - (ENTRY INTO THE DISTRIBUTION SYSTEM)**

		RESULTS	DATE	RESULTS	DATE	MCL
1,2-DIBROMO-3-CHLOROPROPANE	µg/L	ND	2/7/2018	ND	5/10/2018	0.2
2,4-D	µg/L	ND	2/7/2018	ND	5/10/2018	70
2,4,5-TP	µg/L	ND	2/7/2018	ND	5/10/2018	50
ALACHLOR (LASSO)	µg/L	ND	2/7/2018	ND	5/10/2018	2
ALDICARB	µg/L	ND	2/7/2018	ND	5/10/2018	N/A
ALDICARB SULFONE	µg/L	ND	2/7/2018	ND	5/10/2018	N/A
ALDICARB SULFOXIDE	µg/L	ND	2/7/2018	ND	5/10/2018	N/A
ATRAZINE	µg/L	ND	2/7/2018	ND	5/10/2018	3
BENZO(a)PYRENE	µg/L	ND	2/7/2018	ND	5/10/2018	0.2
CARBOFURAN	µg/L	ND	2/7/2018	ND	5/10/2018	40
CHLORDANE	µg/L	ND	2/7/2018	ND	5/10/2018	2
DALAPON	µg/L	ND	2/7/2018	ND	5/10/2018	200
DINOSEB	µg/L	ND	2/7/2018	ND	5/10/2018	7
DIQUAT	µg/L	ND	2/7/2018	ND	5/10/2018	20
DI(2-ethylhexyl)ADIPATE	µg/L	ND	2/7/2018	ND	5/10/2018	400
DI(2-ethylhexyl)PHTHALATE	µg/L	ND	2/7/2018	ND	5/10/2018	6
ENDOTHALL	µg/L	ND	2/7/2018	ND	5/10/2018	100
ENDRIN	µg/L	ND	2/7/2018	ND	5/10/2018	2
ETHYLENE DIBROMIDE	µg/L	ND	2/7/2018	ND	5/10/2018	0.05
HEPTACHLOR	µg/L	ND	2/7/2018	ND	5/10/2018	0.4
HEPTACHLOR EPOXIDE	µg/L	ND	2/7/2018	ND	5/10/2018	0.2

ORGANIC CHEMICAL ANALYSES - SOC's (AL) (con't)			RESULTS	DATE	RESULTS	DATE	MCL
HEXACHLOROBENZENE	µg/L		ND	2/7/2018	ND	5/10/2018	1
HEXACHLOROCYCLOPENTADIENE	µg/L		ND	2/7/2018	ND	5/10/2018	50
LINDANE/BHC-GAMMA	µg/L		ND	2/7/2018	ND	5/10/2018	0.2
METHOXYCHLOR	µg/L		ND	2/7/2018	ND	5/10/2018	40
OXAMYL	µg/L		ND	2/7/2018	ND	5/10/2018	200
PENTACHLOROPHENOL	µg/L		ND	2/7/2018	ND	5/10/2018	1
PICLORAM	µg/L		ND	2/7/2018	ND	5/10/2018	500
POLYCHLORINATED BIPHENYLS	µg/L		ND	2/7/2018	ND	5/10/2018	0.5
SIMAZINE	µg/L		ND	2/7/2018	ND	5/10/2018	4
TOXAPHENE	µg/L		ND	2/7/2018	ND	5/10/2018	3

**ORGANIC CHEMICAL ANALYSES - SOC's (AL) - (ENTRY INTO THE DISTRIBUTION SYSTEM)**

		RESULTS	DATE	RESULTS	DATE	MCL
1,2-DIBROMO-3-CHLOROPROPANE	µg/L	ND	8/8/2018	ND	11/7/2018	0.2
2,4-D	µg/L	ND	8/8/2018	ND	11/7/2018	70
2,4,5-TP	µg/L	ND	8/8/2018	ND	11/7/2018	50
ALACHLOR (LASSO)	µg/L	ND	8/8/2018	ND	11/7/2018	2
ALDICARB	µg/L	ND	8/8/2018	ND	11/7/2018	N/A
ALDICARB SULFONE	µg/L	ND	8/8/2018	ND	11/7/2018	N/A
ALDICARB SULFOXIDE	µg/L	ND	8/8/2018	ND	11/7/2018	N/A
ATRAZINE	µg/L	ND	8/8/2018	ND	11/7/2018	3
BENZO(a)PYRENE	µg/L	NT	8/8/2018	ND	11/7/2018	0.2
CARBOFURAN	µg/L	ND	8/8/2018	ND	11/7/2018	40
CHLORDANE	µg/L	ND	8/8/2018	ND	11/7/2018	2
DALAPON	µg/L	ND	8/8/2018	ND	11/7/2018	200
DINOSEB	µg/L	ND	8/8/2018	ND	11/7/2018	7
DIQUAT	µg/L	ND	8/8/2018	ND	11/7/2018	20
DI(2-ethylhexyl)ADIPATE	µg/L	ND	8/8/2018	ND	11/7/2018	400
DI(2-ethylhexyl)PHTHALATE	µg/L	ND	8/8/2018	ND	11/7/2018	6
ENDOTHALL	µg/L	ND	8/8/2018	ND	11/7/2018	100
ENDRIN	µg/L	ND	8/8/2018	ND	11/7/2018	2
ETHYLENE DIBROMIDE	µg/L	ND	8/8/2018	ND	11/7/2018	0.05
HEPTACHLOR	µg/L	ND	8/8/2018	ND	11/7/2018	0.4
HEPTACHLOR EPOXIDE	µg/L	ND	8/8/2018	ND	11/7/2018	0.2
HEXACHLOROBENZENE	µg/L	ND	8/8/2018	ND	11/7/2018	1
HEXACHLOROCYCLOPENTADIENE	µg/L	ND	8/8/2018	ND	11/7/2018	50
LINDANE/BHC-GAMMA	µg/L	ND	8/8/2018	ND	11/7/2018	0.2
METHOXYCHLOR	µg/L	ND	8/8/2018	ND	11/7/2018	40
OXAMYL	µg/L	ND	8/8/2018	ND	11/7/2018	200
PENTACHLOROPHENOL	µg/L	ND	8/8/2018	ND	11/7/2018	1
PICLORAM	µg/L	ND	8/8/2018	ND	11/7/2018	500
POLYCHLORINATED BIPHENYLS	µg/L	ND	8/8/2018	ND	11/7/2018	0.5
SIMAZINE	µg/L	ND	8/8/2018	ND	11/7/2018	4
TOXAPHENE	µg/L	ND	8/8/2018	ND	11/7/2018	3

## DISTRIBUTION SYSTEMS SAMPLES

### CHLORINE (Districts Measure)

		TOTAL SAMPLES	MIN	MAX	AVG	DATE	MRDL
EAST LARIMER COUNTY WATER DISTRICT	mg/L	20	0.29	0.85	0.63	Oct-18	4.0
EAST LARIMER COUNTY WATER DISTRICT	mg/L	20	0.14	0.96	0.59	Nov-18	4.0
EAST LARIMER COUNTY WATER DISTRICT	mg/L	20	0.20	0.97	0.67	Dec-18	4.0
<b>FORTCOLLINS/LOVELAND WATER DISTRICT</b>							
FORTCOLLINS/LOVELAND WATER DISTRICT	mg/L	40	0.20	1.00	0.56	Oct-18	4.0
FORTCOLLINS/LOVELAND WATER DISTRICT	mg/L	40	0.20	1.00	0.50	Nov-18	4.0
FORTCOLLINS/LOVELAND WATER DISTRICT	mg/L	40	0.20	1.05	0.58	Dec-18	4.0
<b>NORTH WELD COUNTY WATER DISTRICT</b>							
NORTH WELD COUNTY WATER DISTRICT	mg/L	10	0.37	0.86	0.67	Oct-18	4.0
NORTH WELD COUNTY WATER DISTRICT	mg/L	10	0.31	0.76	0.59	Nov-18	4.0
NORTH WELD COUNTY WATER DISTRICT	mg/L	10	0.27	0.92	0.72	Dec-18	4.0

### TOTAL COLIFORMS (MMS/WCL)

		TOTAL SAMPLES	# POSITIVE	# NEGITIVE	DATE	MCL **TT LEVEL 1 or 2
EAST LARIMER COUNTY WATER DISTRICT		20	0	20	Oct-18	NO/NO
EAST LARIMER COUNTY WATER DISTRICT		20	0	20	Nov-18	NO/NO
EAST LARIMER COUNTY WATER DISTRICT		20	0	20	Dec-18	NO/NO
<b>FT COLLINS/LOVELAND WATER DISTRICT</b>						
FT COLLINS/LOVELAND WATER DISTRICT		40	0	40	Oct-18	NO/NO
FT COLLINS/LOVELAND WATER DISTRICT		40	0	40	Nov-18	NO/NO
FT COLLINS/LOVELAND WATER DISTRICT		40	0	40	Dec-18	NO/NO
<b>NORTH WELD COUNTY WATER DISTRICT</b>						
NORTH WELD COUNTY WATER DISTRICT		10	0	10	Oct-18	NO/NO
NORTH WELD COUNTY WATER DISTRICT		10	0	10	Nov-18	NO/NO
NORTH WELD COUNTY WATER DISTRICT		10	0	10	Dec-18	NO/NO

### TOTAL TRIHALOMETHANES AND HALOACETIC ACIDS

		TTHM RESULTS	MCL (LRAA)	HAA RESULTS	MCL (LRAA)	DATE
<b>EAST LARIMER COUNTY WATER DISTRICT (AL)</b>						
SAMPLE SITE - DBP001	µg/L	28.0	80	22.8	60	10/9/2018
SAMPLE SITE - DBP002	µg/L	34.6	80	24.3	60	10/9/2018
SAMPLE SITE - DBP003	µg/L	26.3	80	24.6	60	10/9/2018
SAMPLE SITE - DBP004	µg/L	37.2	80	16.6	60	10/9/2018
<b>FORT COLLINS/LOVELAND WATER DISTRICT (CA)</b>						
SAMPLE SITE - DBP001	µg/L	35.0	80	23.6	60	10/10/2018
SAMPLE SITE - DBP002	µg/L	40.2	80	22.1	60	10/10/2018
SAMPLE SITE - DBP003	µg/L	30.4	80	22.3	60	10/10/2018
SAMPLE SITE - DBP004	µg/L	42.0	80	22.5	60	10/10/2018

**Total Trihalomethanes and Haloacetic Acids (cont)**

		TTHM RESULTS	MCL (LRAA)	HAA RESULTS	MCL (LRAA)	DATE
<b>NORTH WELD COUNTY WATER DISTRICT (WCL)</b>						
SAMPLE SITE - DBP001	µg/L	42.5	80	18.40	60	10/9/2018
SAMPLE SITE - DBP002	µg/L	32.2	80	25.80	60	10/9/2018
SAMPLE SITE - DBP003	µg/L	34.0	80	25.80	60	10/9/2018
SAMPLE SITE - DBP004	µg/L	31.0	80	21.60	60	10/9/2018

**CHLORITE**

		1ST RES	AVG RES	MAX RES	DATE	MCL
EAST LARIMER COUNTY WD (FCL)	mg/L	0.45	0.44	0.42	10/10/2018	1.0
FORT COLLINS/LOVELAND WD (EA)	mg/L	0.46	0.43	0.29	10/10/2018	1.0
NORTH WELD COUNTY WD (WCL)	mg/L	0.40	0.40	0.41	11/14/2018	1.0

**LEAD AND COPPER**

**EAST LARIMER COUNTY WATER DISTRICT (AL)**

		90TH PERCENTILE mg/L	DATE	90th% ACTION LEVEL mg/L
		30 SAMPLES COLLECTED		
LEAD	mg/L	0.0035	JUN-SEP 2018	0.015
COPPER	mg/L	0.23	JUN-SEP 2018	1.3

**FORT COLLINS LOVELAND WATER DISTRICT (CA)**

		30 SAMPLES COLLECTED	DATE	90th% ACTION LEVEL mg/L
LEAD	mg/L	0.004	Jun-18	0.015
COPPER	mg/L	0.257	Jun-18	1.3

**NORTH WELD COUNTY WATER DISTRICT (AL)**

		30 SAMPLES COLLECTED	DATE	90th% ACTION LEVEL mg/L
LEAD	mg/L	0.00292	Jul-18	0.015
COPPER	mg/L	0.23	Jul-18	1.3

MCL = Maximum Contaminate Level - Enforcable

\*SMCL = Secondary Maximum Contaminate Level - Reccomended

\*\*TT = Treatment Technique

SOC = Synthetic Organic Chemicals

RAA = Running Annual Average

ACTION LEVEL = Addition treatment required if exceeded

< = Less Than

(FCL) = Fort Collins Lab (UL) = United Lab (AL) = Accutest Lab (MMS) = MMS Environmental (WCL) = Weld County Lab

(CA) = Colorado Analytical Lab (EA) = Eurofins Eaton Analytical (SCFP) = Soldier Canyon Filter Plant

BDL = Below Detectable Limit

ND = Not Detected

N/A = Not applicable

VOC = Volatile Organic Chemicals

LRAA = Location Running Annual Average

MRDL = Maximum Residual Disinfectant Level

> = Greater Than