

# TRI DISTRICT/SOLDIER CANYON FILTER PLANT

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

## WATER QUALITY REPORT

**2ND QUARTER 2016**

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	10.0	45.0	29.3	31.0	51.0	39.0	N/A
ALUMINUM	mg/l	N/A	N/A	N/A	0.000	0.022	0.007	*0.05 - 0.2
CALCIUM HARDNESS	mg/l	9.0	40.0	25.7	23.0	30.0	26.7	N/A
CHLORINE	mg/l	N/A	N/A	N/A	1.14	1.29	1.28	4.0
CHLORITE	mg/l	N/A	N/A	N/A	0.00	0.75	0.53	1.0
CHLORINE DIOXIDE	mg/l	N/A	N/A	N/A	0.00	0.04	0.00	0.8
CONDUCTIVITY	µs/cm	33.2	124.0	79.1	100.1	131.0	112.1	N/A
DISSOLVED OXYGEN	mg/l	8.0	11.3	9.2	N/A	N/A	N/A	N/A
FLUORIDE	mg/l	0.11	0.24	0.19	0.14	0.96	0.61	4.0/*2.0
HARDNESS (TOTAL)	mg/l	16.0	44.0	33.3	27.0	42.0	32.8	N/A
IRON	mg/l	0.01	0.25	0.12	0.00	0.01	0.01	*0.3
LANGLIER INDEX	S.I.#	-1.1	-2.8	-1.8	-1.1	-1.4	-1.2	N/A
MANGANESE	mg/l	0.01	0.08	0.04	0.002	0.010	0.005	*0.05
pH	VALUE	7.10	8.15	7.52	7.78	8.10	7.97	N/A
TEMPERATURE	°C	4.6	14.4	7.5	4.7	8.6	6.7	N/A
TOTAL DISSOLVED SOLIDS	mg/l	16.6	61.6	39.6	50.9	65.6	56.3	*500
TRUE COLOR	APHA	1	56	33.8	0	4	1.0	*15.0
TURBIDITY	NTU	1.07	17.80	4.20	0.01	0.04	0.02	**<0.3 TT

INORGANIC CONTAMINANTS ANALYSES (AL) - (ENTRY INTO THE DISTRIBUTION SYSTEM)			RESULTS	DATE	MCL
ANTIMONY	mg/l		BDL	9/9/2015	0.006
ARSENIC	mg/l		BDL	9/9/2015	0.010
BARIUM	mg/l		0.017	9/9/2015	2.000
BERYLLIUM	mg/l		BDL	9/9/2015	0.004
CADMIUM	mg/l		BDL	9/9/2015	0.005
CHROMIUM	mg/l		BDL	9/9/2015	0.1
CYANIDE	mg/l		NT	NT	0.2
FLUORIDE	mg/l		0.53	9/9/2015	4.0
MERCURY	mg/l		BDL	9/9/2015	0.002
NICKEL	mg/l		BDL	9/9/2015	*SMCL
SELENIUM	mg/l		BDL	9/9/2015	0.050
SODIUM	mg/l		13.1	9/9/2015	*SMCL
THALLIUM	mg/l		BDL	9/9/2015	0.002

NITRATE AND/OR NITRITE AS NITROGEN (AL) (UL) - (ENTRY INTO DISTRIBUTION SYSTEM)			RESULTS	DATE	MCL
NITRATE	mg/l		0.11	9/9/2015	10.000
NITRITE	mg/l		<0.01	2/12/2013	1.000

TOTAL ORGANIC CARBON (AL) - (PLANT INFLUENT AND EFFLUENT)			INFLUENT	EFFLUENT	TT RATIO	DATE	MCL - **TT
TOTAL ORGANIC CARBON - TOC	mg/L		4.5	2.6	0.94/1.21	4/13/2016	RAA - ≥1.0
			4.2	2.1	1.11/1.19	5/19/2016	RAA - ≥1.0
			4.2	2.4	0.95/1.17	6/1/2016	RAA - ≥1.0
			INFLUENT			DATE	MCL
ALKALINITY - (PLANT INFLUENT ONLY)	mg/l		34.9			4/13/2016	N/A
			30.8			5/19/2016	N/A
			29.3			6/1/2016	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		BDL	9/9/2015	7
1,1,2-TRICHLOROETHANE	µg/L		BDL	9/9/2015	200
1,1-DICHLOROETHYLENE	µg/L		BDL	9/9/2015	5
1,2,4-TRICHLOROBENZENE	µg/L		BDL	9/9/2015	5
1,2-DICHLOROETHANE	µg/L		BDL	9/9/2015	5
1,2-DICHLOROPROPANE	µg/L		BDL	9/9/2015	70
BENZENE	µg/L		BDL	9/9/2015	5
CARBON TETRACHLORIDE	µg/L		BDL	9/9/2015	5
CHLOROBENZENE	µg/L		BDL	9/9/2015	70
cis-1,2-DICHLOROETHYLENE	µg/L		BDL	9/9/2015	5
DICHLOROMETHANE	µg/L		BDL	9/9/2015	700
ETHYLBENZENE	µg/L		BDL	9/9/2015	100
o-DICHLOROBENZENE	µg/L		BDL	9/9/2015	600
para-DICHLOROBENZENE	µg/L		BDL	9/9/2015	75
STYRENE	µg/L		BDL	9/9/2015	100
TETRACHLOROETHYLENE	µg/L		BDL	9/9/2015	5
TOLUENE	µg/L		BDL	9/9/2015	1000
trans-1,2-DICHLOROETHYLENE	µg/L		BDL	9/9/2015	100
TRICHLOROETHYLENE	µg/L		BDL	9/9/2015	5
VINYL CHLORIDE	µg/L		BDL	9/9/2015	2
XYLENES (total)	µg/L		BDL	9/9/2015	1000

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

			RESULTS	DATE	MCL	
1,2-DIBROMO-3-CHLOROPROPANE	µg/L	BDL	6/18/2014	BDL	9/10/2014	0.2
2,4-D	µg/L	BDL	6/18/2014	BDL	9/10/2014	70
2,4,5-TP	µg/L	BDL	6/18/2014	BDL	9/10/2014	50
ALACHLOR (LASSO)	µg/L	BDL	6/18/2014	BDL	9/10/2014	2
ALDICARB	µg/L	BDL	6/18/2014	BDL	9/10/2014	N/A
ALDICARB SULFONE	µg/L	BDL	6/18/2014	BDL	9/10/2014	N/A
ALDICARB SULFOXIDE	µg/L	BDL	6/18/2014	BDL	9/10/2014	N/A
ATRAZINE	µg/L	BDL	6/18/2014	BDL	9/10/2014	3
BENZO(a)PYRENE	µg/L	BDL	6/18/2014	BDL	9/10/2014	0.2
CARBOFURAN	µg/L	BDL	6/18/2014	BDL	9/10/2014	40
CHLORDANE	µg/L	BDL	6/18/2014	BDL	9/10/2014	2
DALAPON	µg/L	BDL	6/18/2014	BDL	9/10/2014	200
DINOSEB	µg/L	BDL	6/18/2014	BDL	9/10/2014	7
DIQUAT	µg/L	BDL	6/18/2014	BDL	9/10/2014	20
DI(2-ethylhexyl)ADIPATE	µg/L	BDL	6/18/2014	BDL	9/10/2014	400
DI(2-ethylhexyl)PHTHALATE	µg/L	BDL	6/18/2014	BDL	9/10/2014	6
ENDOTHALL	µg/L	BDL	6/18/2014	BDL	9/10/2014	100
ENDRIN	µg/L	BDL	6/18/2014	BDL	9/10/2014	2
ETHYLENE DIBROMIDE	µg/L	BDL	6/18/2014	BDL	9/10/2014	0.05
HEPTACHLOR	µg/L	BDL	6/18/2014	BDL	9/10/2014	0.4
HEPTACHLOR EPOXIDE	µg/L	BDL	6/18/2014	BDL	9/10/2014	0.2
HEXACHLOROBENZENE	µg/L	BDL	6/18/2014	BDL	9/10/2014	1

ORGANIC CHEMICAL ANALYSES - SOC's (AL) (con't) - (ENTRY INTO THE DISTRIBUTION SYSTEM)						RESULTS	DATE	MCL
HEXACHLOROCYCLOPENTADIENE	µg/L		BDL	6/18/2014		BDL	9/10/2014	50
LINDANE/BHC-GAMMA	µg/L		BDL	6/18/2014		BDL	9/10/2014	0.2
METHOXYCHLOR	µg/L		BDL	6/18/2014		BDL	9/10/2014	40
OXAMYL	µg/L		BDL	6/18/2014		BDL	9/10/2014	200
PENTACHLOROPHENOL	µg/L		BDL	6/18/2014		BDL	9/10/2014	1
PICLORAM	µg/L		BDL	6/18/2014		BDL	9/10/2014	500
POLYCHLORINATED BIPHENYLS	µg/L		BDL	6/18/2014		BDL	9/10/2014	0.5
SIMAZINE	µg/L		BDL	6/18/2014		BDL	9/10/2014	4
TOXAPHENE	µg/L		BDL	6/18/2014		BDL	9/10/2014	3

## DISTRIBUTION SYSTEMS SAMPLES

<u>CHLORINE (Districts Measure)</u>		TOTAL SAMPLES	MIN	MAX	AVG	DATE	MCL
EAST LARIMER COUNTY WATER DISTRICT	mg/L	20	0.5	0.9	0.73	Apr-16	Low <0.2 High >4.0
EAST LARIMER COUNTY WATER DISTRICT	mg/L	20	0.3	1	0.73	May-16	Low <0.2 High >4.0
EAST LARIMER COUNTY WATER DISTRICT	mg/L	20	0.6	1.1	0.89	Jun-16	Low <0.2 High >4.0
FORTCOLLINS/LOVELAND WATER DISTRICT	mg/L	42	0.25	0.90	0.63	Apr-16	Low <0.2 High >4.0
FORTCOLLINS/LOVELAND WATER DISTRICT	mg/L	42	0.20	1.05	0.74	May-16	Low <0.2 High >4.0
FORTCOLLINS/LOVELAND WATER DISTRICT	mg/L	42	0.35	1.15	0.82	Jun-16	Low <0.2 High >4.0
NORTH WELD COUNTY WATER DISTRICT	mg/L	10	0.58	0.96	0.78	Apr-16	Low <0.2 High >4.0
NORTH WELD COUNTY WATER DISTRICT	mg/L	10	0.67	1.02	0.80	May-16	Low <0.2 High >4.0
NORTH WELD COUNTY WATER DISTRICT	mg/L	10	0.59	0.98	0.79	Jun-16	Low <0.2 High >4.0

<u>TOTAL COLIFORMS (SE/WCL)</u>		TOTAL SAMPLES	# POSITIVE	# NEGITIVE	DATE	MCL **TT LEVEL 1 or 2
EAST LARIMER COUNTY WATER DISTRICT		20	0	20	Apr-16	NO/NO
EAST LARIMER COUNTY WATER DISTRICT		20	0	20	May-16	NO/NO
EAST LARIMER COUNTY WATER DISTRICT		20	0	20	Jun-16	NO/NO
FT COLLINS/LOVELAND WATER DISTRICT		42	0	42	Apr-16	NO/NO
FT COLLINS/LOVELAND WATER DISTRICT		42	0	42	May-16	NO/NO
FT COLLINS/LOVELAND WATER DISTRICT		42	0	42	Jun-16	NO/NO
NORTH WELD COUNTY WATER DISTRICT		10	0	10	Apr-16	NO/NO
NORTH WELD COUNTY WATER DISTRICT		10	0	10	May-16	NO/NO
NORTH WELD COUNTY WATER DISTRICT		10	0	10	Jun-16	NO/NO

## DISTRIBUTION SYSTEMS SAMPLES

### Total Trihalomethanes and Haloacetic Acids (AL)

		TTHM RESULTS	MCL (LRAA)	HAA RESULTS	MCL (LRAA)	DATE
<b>EAST LARIMER COUNTY WATER DISTRICT</b>						
SAMPLE SITE - DBP001-ELCSM4	µg/L	46.2	80	36.1	60	4/12/2016
SAMPLE SITE - DBP002-ELCSM6	µg/L	53.6	80	38.2	60	4/12/2016
SAMPLE SITE - DBP003-ELCSM2	µg/L	29.9	80	26.4	60	4/12/2016
<b>FORT COLLINS/LOVELAND WATER DISTRICT</b>						
SAMPLE SITE - DBP001-FCLSM4	µg/L	24.1	80	21.0	60	4/12/2016
SAMPLE SITE - DBP002-FCLSM6	µg/L	43.0	80	24.6	60	4/12/2016
<b>NORTH WELD COUNTY WATER DISTRICT</b>						
SAMPLE SITE - DBP001-NWCMS1	µg/L	39.6	80	34.1	60	4/20/2016
SAMPLE SITE - DBP002-NWCMS4	µg/L	34.6	80	37.7	60	4/20/2016
SAMPLE SITE - DBP003-NWC MAX RES 1	µg/L	35.8	80	39.4	60	4/20/2016

### CHLORITE (AL)

		MIN	MAX	AVG	DATE	MCL
CHLORITE	mg/L	0.55	0.57	0.56	4/12/2016	1.0

### LEAD AND COPPER (AL)

		90TH PERCENTILE mg/L	DATE	90th% ACTION LEVEL mg/L
LEAD	mg/L	0.0085	Jun-15	0.015
COPPER	mg/L	0.34	Jun-15	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 (SE) = Stewart Environmental Lab (WCL) = Weld County Lab

BDL = Below Detectable Limit

ND = Not Detected

N/A = Not applicable

VOC = Volatile Organic Chemicals

LRAA = Location Running Annual Average

> = Greater Than