

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 2019

| 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 | 21.0 | 34.0 | 25.0 | 25.0 | 36.0 | 31.0 | N/A |
| ALUMINUM | mg/l | N/A | N/A | N/A | 0.029 | 0.037 | 0.033 | *0.05 - 0.2 |
| CALCIUM HARDNESS | mg/l | 18.0 | 23.0 | 20.0 | 15.0 | 21.0 | 19.0 | N/A |
| CHLORINE | mg/l | N/A | N/A | N/A | 1.17 | 1.36 | 1.26 | 4.0 MRDL |
| CHLORITE | mg/l | N/A | N/A | N/A | 0.30 | 0.52 | 0.40 | 1.0 |
| CHLORINE DIOXIDE | mg/l | N/A | N/A | N/A | <0.02 | <0.02 | <0.02 | 0.8 |
| CONDUCTIVITY | µs/cm | 61.8 | 63.0 | 62.5 | 76.5 | 85.5 | 81.0 | N/A |
| DISSOLVED OXYGEN | mg/l | 9.0 | 9.9 | 9.5 | N/A | N/A | N/A | N/A |
| FLUORIDE | mg/l | 0.16 | 0.21 | 0.18 | 0.58 | 0.77 | 0.71 | 4.0/*2.0 |
| HARDNESS (TOTAL) | mg/l | 25.0 | 28.0 | 27.0 | 24.0 | 27.0 | 26.0 | N/A |
| IRON | mg/l | 0.04 | 0.05 | 0.05 | 0.01 | 0.02 | 0.02 | *0.3 |
| LANGLIER INDEX | S.I.# | -1.60 | -1.90 | -1.80 | -1.19 | -1.33 | -1.26 | N/A |
| MANGANESE | mg/l | 0.01 | 0.03 | 0.02 | 0.002 | 0.004 | 0.003 | *0.05 |
| pH | VALUE | 7.54 | 8.08 | 7.80 | 8.08 | 8.27 | 8.19 | *6.5-8.5 |
| TEMPERATURE | °C | 4.4 | 7.1 | 5.7 | 4.6 | 7.3 | 6.1 | N/A |
| TOTAL DISSOLVED SOLIDS | mg/l | 28.7 | 31.5 | 30.7 | 38.6 | 42.8 | 41.2 | *500 |
| TRUE COLOR | APHA | 5.0 | 11.0 | 8.0 | 0.0 | 0.0 | 0.0 | *15.0 |
| TURBIDITY | NTU | 1.13 | 1.48 | 1.34 | 0.013 | 0.052 | 0.017 | **<0.3 TT |

| INORGANIC CONTAMINANTS ANALYSES (AL) - (ENTRY INTO THE DISTRIBUTION SYSTEM) | | | RESULTS | DATE | MCL |
|---|------|--|---------|-----------|-------|
| ANTIMONY | mg/l | | ND | 8/14/2019 | 0.006 |
| ARSENIC | mg/l | | ND | 8/14/2019 | 0.010 |
| BARIUM | mg/l | | 0.0122 | 8/14/2019 | 2.000 |
| BERYLLIUM | mg/l | | ND | 8/14/2019 | 0.004 |
| CADMIUM | mg/l | | ND | 8/14/2019 | 0.005 |
| CHROMIUM | mg/l | | ND | 8/14/2019 | 0.1 |
| FLUORIDE | mg/l | | 0.62 | 8/14/2019 | 4.0 |
| MERCURY | mg/l | | ND | 8/14/2019 | 0.002 |
| NICKEL | mg/l | | ND | 8/14/2019 | N/A |
| SELENIUM | mg/l | | ND | 8/14/2019 | 0.050 |
| SODIUM | mg/l | | 11.4 | 8/14/2019 | N/A |
| THALLIUM | mg/l | | ND | 8/14/2019 | 0.002 |

| NITRATE AND/OR NITRITE AS NITROGEN (AL) - (ENTRY INTO DISTRIBUTION SYSTEM) | | | RESULTS | DATE | MCL |
|--|------|--|---------|-----------|--------|
| NITRATE | mg/l | | 0.068 | 8/14/2019 | 10.000 |
| NITRITE | mg/l | | <0.04 | 8/14/2019 | 1.000 |

| TOTAL ORGANIC CARBON (AL/FCL) - (SCFP INFLUENT AND EFFLUENT) | | | INFLUENT | EFFLUENT | TT RATIO | DATE | MCL - **TT |
|--|------|--|----------|----------|----------|------------|------------|
| TOTAL ORGANIC CARBON - TOC | mg/L | | 2.33 | 1.37 | 1.18 | 10/9/2019 | RAA - ≥1.0 |
| | | | 3.30 | 2.05 | 1.08 | 11/6/2019 | RAA - ≥1.0 |
| | | | 3.2 | 1.9 | 1.16 | 12/18/2019 | RAA - ≥1.0 |
| | | | INFLUENT | | | DATE | MCL |
| ALKALINITY - (SCFP INFLUENT ONLY) | mg/l | | 26.6 | | | 10/9/2019 | N/A |
| | | | 24.0 | | | 11/6/2019 | N/A |
| | | | 23.6 | | | 12/18/2019 | 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 (FCL) - (ENTRY INTO THE DISTRIBUTION SYSTEM)

| | | | RESULTS | DATE | MCL |
|----------------------------|------|--|---------|-----------|-------|
| 1,1,1-TRICHLOROETHANE | µg/L | | <0.5 | 8/14/2019 | 200 |
| 1,1,2-TRICHLOROETHANE | µg/L | | <0.5 | 8/14/2019 | 5 |
| 1,1-DICHLOROETHYLENE | µg/L | | <0.5 | 8/14/2019 | 7 |
| 1,2,4-TRICHLOROBENZENE | µg/L | | <0.5 | 8/14/2019 | 70 |
| 1,2-DICHLOROETHANE | µg/L | | <0.5 | 8/14/2019 | 5 |
| 1,2-DICHLOROPROPANE | µg/L | | <0.5 | 8/14/2019 | 5 |
| BENZENE | µg/L | | <0.5 | 8/14/2019 | 5 |
| CARBON TETRACHLORIDE | µg/L | | <0.5 | 8/14/2019 | 5 |
| CHLOROBENZENE | µg/L | | <0.5 | 8/14/2019 | 100 |
| cis-1,2-DICHLOROETHYLENE | µg/L | | <0.5 | 8/14/2019 | 70 |
| DICHLOROMETHANE | µg/L | | <0.5 | 8/14/2019 | 5 |
| ETHYLBENZENE | µg/L | | <0.5 | 8/14/2019 | 700 |
| o-DICHLOROBENZENE | µg/L | | <0.5 | 8/14/2019 | 600 |
| para-DICHLOROBENZENE | µg/L | | <0.5 | 8/14/2019 | 75 |
| STYRENE | µg/L | | <0.5 | 8/14/2019 | 100 |
| TETRACHLOROETHYLENE | µg/L | | <0.5 | 8/14/2019 | 5 |
| TOLUENE | µg/L | | <0.5 | 8/14/2019 | 1000 |
| trans-1,2-DICHLOROETHYLENE | µg/L | | <0.5 | 8/14/2019 | 100 |
| TRICHLOROETHYLENE | µg/L | | <0.5 | 8/14/2019 | 5 |
| VINYL CHLORIDE | µg/L | | <0.5 | 8/14/2019 | 2 |
| XYLENES (total) | µg/L | | <0.5 | 8/14/2019 | 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 | 5/10/2018 | ND | 8/8/2018 | 0.2 |
| 2,4-D | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 70 |
| 2,4,5-TP | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 50 |
| ALACHLOR (LASSO) | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 2 |
| ALDICARB | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | N/A |
| ALDICARB SULFONE | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | N/A |
| ALDICARB SULFOXIDE | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | N/A |
| ATRAZINE | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 3 |
| BENZO(a)PYRENE | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 0.2 |
| CARBOFURAN | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 40 |
| CHLORDANE | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 2 |
| DALAPON | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 200 |
| DINOSEB | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 7 |
| DIQUAT | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 20 |
| DI(2-ethylhexyl)ADIPATE | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 400 |
| DI(2-ethylhexyl)PHTHALATE | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 6 |
| ENDOTHALL | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 100 |
| ENDRIN | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 2 |
| ETHYLENE DIBROMIDE | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 0.05 |
| HEPTACHLOR | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 0.4 |
| HEPTACHLOR EPOXIDE | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 0.2 |

ORGANIC CHEMICAL ANALYSES - SOC's (AL) (con't)

| | | RESULTS | DATE | RESULTS | DATE | MCL |
|---------------------------|------|---------|-----------|---------|----------|-----|
| HEXACHLOROBENZENE | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 1 |
| HEXACHLOROCYCLOPENTADIENE | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 50 |
| LINDANE/BHC-GAMMA | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 0.2 |
| METHOXYCHLOR | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 40 |
| OXAMYL | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 200 |
| PENTACHLOROPHENOL | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 1 |
| PICLORAM | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 500 |
| POLYCHLORINATED BIPHENYLS | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 0.5 |
| SIMAZINE | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 4 |
| TOXAPHENE | µg/L | ND | 5/10/2018 | ND | 8/8/2018 | 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 | 11/7/2018 | NT | 2/6/2019 | 0.2 |
| 2,4-D | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | 70 |
| 2,4,5-TP | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | 50 |
| ALACHLOR (LASSO) | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | 2 |
| ALDICARB | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | N/A |
| ALDICARB SULFONE | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | N/A |
| ALDICARB SULFOXIDE | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | N/A |
| ATRAZINE | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | 3 |
| BENZO(a)PYRENE | µg/L | NT | 11/7/2018 | NT | 2/6/2019 | 0.2 |
| CARBOFURAN | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | 40 |
| CHLORDANE | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | 2 |
| DALAPON | µg/L | ND | 11/7/2018 | ND | 2/6/2019 | 200 |
| DINOSEB | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | 7 |
| DIQUAT | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | 20 |
| DI(2-ethylhexyl)ADIPATE | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | 400 |
| DI(2-ethylhexyl)PHTHALATE | µg/L | ND | 11/7/2018 | ND | 5/8/2019 | 6 |
| ENDOTHALL | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | 100 |
| ENDRIN | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | 2 |
| ETHYLENE DIBROMIDE | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | 0.05 |
| HEPTACHLOR | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | 0.4 |
| HEPTACHLOR EPOXIDE | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | 0.2 |
| HEXACHLOROBENZENE | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | 1 |
| HEXACHLOROCYCLOPENTADIENE | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | 50 |
| LINDANE/BHC-GAMMA | µg/L | ND | 11/7/2018 | ND | 5/8/2019 | 0.2 |
| METHOXYCHLOR | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | 40 |
| OXAMYL | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | 200 |
| PENTACHLOROPHENOL | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | 1 |
| PICLORAM | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | 500 |
| POLYCHLORINATED BIPHENYLS | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | 0.5 |
| SIMAZINE | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | 4 |
| TOXAPHENE | µg/L | ND | 11/7/2018 | NT | 2/6/2019 | 3 |

DISTRIBUTION SYSTEMS SAMPLES

CHLORINE (Districts Measure)

| | | TOTAL SAMPLES | MIN | MAX | AVG | DATE | MRDL |
|--|------|---------------|------|------|------|--------|------|
| EAST LARIMER COUNTY WATER DISTRICT | mg/L | 20 | 0.39 | 1.14 | 0.87 | Oct-19 | 4.0 |
| EAST LARIMER COUNTY WATER DISTRICT | mg/L | 20 | 0.30 | 0.88 | 0.61 | Nov-19 | 4.0 |
| EAST LARIMER COUNTY WATER DISTRICT | mg/L | 20 | 0.30 | 1.00 | 0.73 | Dec-19 | 4.0 |
| FORTCOLLINS/LOVELAND WATER DISTRICT | | | | | | | |
| FORTCOLLINS/LOVELAND WATER DISTRICT | mg/L | 40 | 0.25 | 1.15 | 0.68 | Oct-19 | 4.0 |
| FORTCOLLINS/LOVELAND WATER DISTRICT | mg/L | 40 | 0.20 | 1.10 | 0.63 | Nov-19 | 4.0 |
| FORTCOLLINS/LOVELAND WATER DISTRICT | mg/L | 40 | 0.25 | 1.15 | 0.63 | Dec-19 | 4.0 |
| NORTH WELD COUNTY WATER DISTRICT | | | | | | | |
| NORTH WELD COUNTY WATER DISTRICT | mg/L | 10 | 0.42 | 1.06 | 0.82 | Oct-19 | 4.0 |
| NORTH WELD COUNTY WATER DISTRICT | mg/L | 10 | 0.31 | 1.10 | 0.75 | Nov-19 | 4.0 |
| NORTH WELD COUNTY WATER DISTRICT | mg/L | 10 | 0.33 | 0.98 | 0.73 | Dec-19 | 4.0 |

TOTAL COLIFORMS (MMS/WCL)

| | | TOTAL SAMPLES | # POSITIVE | # NEGATIVE | DATE | MCL **TT LEVEL 1 or 2 |
|---|--|---------------|------------|------------|--------|-----------------------|
| EAST LARIMER COUNTY WATER DISTRICT | | 20 | 0 | 20 | Oct-19 | NO/NO |
| EAST LARIMER COUNTY WATER DISTRICT | | 20 | 0 | 20 | Nov-19 | NO/NO |
| EAST LARIMER COUNTY WATER DISTRICT | | 20 | 0 | 20 | Dec-19 | NO/NO |
| FT COLLINS/LOVELAND WATER DISTRICT | | | | | | |
| FT COLLINS/LOVELAND WATER DISTRICT | | 40 | 0 | 40 | Oct-19 | NO/NO |
| FT COLLINS/LOVELAND WATER DISTRICT | | 40 | 0 | 40 | Nov-19 | NO/NO |
| FT COLLINS/LOVELAND WATER DISTRICT | | 40 | 0 | 40 | Dec-19 | NO/NO |
| NORTH WELD COUNTY WATER DISTRICT | | | | | | |
| NORTH WELD COUNTY WATER DISTRICT | | 10 | 0 | 10 | Oct-19 | NO/NO |
| NORTH WELD COUNTY WATER DISTRICT | | 10 | 0 | 10 | Nov-19 | NO/NO |
| NORTH WELD COUNTY WATER DISTRICT | | 10 | 0 | 10 | Dec-19 | NO/NO |

TOTAL TRIHALOMETHANES AND HALOACETIC ACIDS

| | | TTHM RESULTS | MCL (LRAA) | HAA RESULTS | MCL (LRAA) | DATE |
|--|------|--------------|------------|-------------|------------|-----------|
| EAST LARIMER COUNTY WATER DISTRICT (AL) | | | | | | |
| SAMPLE SITE - DBP001 | µg/L | 32.2 | 80 | 24.1 | 60 | 10/8/2019 |
| SAMPLE SITE - DBP002 | µg/L | 46.4 | 80 | 30.6 | 60 | 10/8/2019 |
| SAMPLE SITE - DBP003 | µg/L | 16.9 | 80 | 16.2 | 60 | 10/8/2019 |
| SAMPLE SITE - DBP004 | µg/L | 43.2 | 80 | 23.4 | 60 | 10/8/2019 |
| FORT COLLINS/LOVELAND WATER DISTRICT (CA) | | | | | | |
| SAMPLE SITE - DBP001 | µg/L | 34.0 | 80 | 23.2 | 60 | 10/9/2019 |
| SAMPLE SITE - DBP002 | µg/L | 28.2 | 80 | 16.6 | 60 | 10/9/2019 |
| SAMPLE SITE - DBP003 | µg/L | 26.2 | 80 | 21.4 | 60 | 10/9/2019 |
| SAMPLE SITE - DBP004 | µg/L | 30.0 | 80 | 20.7 | 60 | 10/9/2019 |

Total Trihalomethanes and Haloacetic Acids (cont)

| | | TTHM RESULTS | MCL (LRAA) | HAA RESULTS | MCL (LRAA) | DATE |
|---|------|--------------|------------|-------------|------------|-----------|
| NORTH WELD COUNTY WATER DISTRICT (WCL) | | | | | | |
| SAMPLE SITE - DBP001 | µg/L | 47.2 | 80 | 20.00 | 60 | 10/8/2019 |
| SAMPLE SITE - DBP002 | µg/L | 31.4 | 80 | 26.10 | 60 | 10/8/2019 |
| SAMPLE SITE - DBP003 | µg/L | 37.5 | 80 | 26.80 | 60 | 10/8/2019 |
| SAMPLE SITE - DBP004 | µg/L | 31.8 | 80 | 22.50 | 60 | 10/8/2019 |

CHLORITE

| | | 1ST RES | AVG RES | MAX RES | DATE | MCL |
|-------------------------------|------|---------|---------|---------|------------|-----|
| EAST LARIMER COUNTY WD (FCL) | mg/L | 0.51 | 0.50 | 0.46 | 10/1/2019 | 1.0 |
| FORT COLLINS/LOVELAND WD (EA) | mg/L | 0.53 | 0.47 | 0.42 | 10/9/2019 | 1.0 |
| NORTH WELD COUNTY WD (WCL) | mg/L | 0.41 | 0.42 | 0.42 | 11/12/2019 | 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 2019 | 0.015 |
| COPPER | mg/L | 0.2 | JUN-SEP 2019 | 1.3 |

FORT COLLINS LOVELAND WATER DISTRICT (CA)

| | | 30 SAMPLES COLLECTED | DATE | 90th% ACTION LEVEL mg/L |
|--------|------|----------------------|--------|-------------------------|
| LEAD | mg/L | 0.003 | Jun-19 | 0.015 |
| COPPER | mg/L | 0.296 | Jun-19 | 1.3 |

NORTH WELD COUNTY WATER DISTRICT (AL)

| | | 30 SAMPLES COLLECTED | DATE | 90th% ACTION LEVEL mg/L |
|--------|------|----------------------|--------|-------------------------|
| LEAD | mg/L | 0.0038 | Jul-19 | 0.015 |
| COPPER | mg/L | 0.26 | Jul-19 | 1.3 |

MCL = Maximum Contaminate Level - Enforcable

*SMCL = Secondary Maximum Contaminate Level - Recomendend

**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 NT = Not Tested

N/A = Not applicable

VOC = Volatile Organic Chemicals

LRAA = Location Running Annual Average

MRDL = Maximum Residual Disinfectant Level

> = Greater Than