

# City of Red Deer

## Water Quality –June 2025

### Subcontracted Testing for Treated Discharge

Report ID 25R305793

#### Water Quality Parameters–June 2, 2025 (\* from WTP in-house benchtop testing)

| Parameter                                | Units | Value | GCDWQ<br>MAC |
|------------------------------------------|-------|-------|--------------|
| pH*                                      | mg/L  | 8.00  | A/O 6.5-8.5  |
| Turbidity*                               | NTU   | 0.044 | A/O < 1.0    |
| Total Alkalinity*                        | mg/L  | 147.9 | NR           |
| Total Hardness (mg CaCO <sub>3</sub> /L) | mg/L  | 186   | NR           |
| Total Dissolved Solids                   | mg/L  | 293   | A/O < 500    |
| Total Chlorine*                          | mg/L  | 2.30  | 4 (US EPA)   |
| Sulfate                                  | mg/L  | 92.8  | A/O < 500    |
| Chloride                                 | mg/L  | 5.3   | A/O ≤ 250    |

| Parameter       | Units | Value | GCDWQ<br>MAC |
|-----------------|-------|-------|--------------|
| Fluoride        | mg/L  | 0.54  | ≤ 1.50       |
| Total Calcium   | mg/L  | 49.2  | NR           |
| Total Magnesium | mg/L  | 15.3  | NR           |
| Total Sodium    | mg/L  | 23.1  | A/O ≤ 200    |
| Total Potassium | mg/L  | 1.38  | NR           |
| Total Iron      | mg/L  | <0.01 | A/O ≤ 0.1    |
| Nitrite         | mg/L  | <0.05 | ≤ 3          |
| Nitrate         | mg/L  | <0.5  | ≤ 45         |

#### Other Parameters–June 2, 2025

| Parameter             | Units | Value     | GCDWQ<br>MAC  |
|-----------------------|-------|-----------|---------------|
| Total Ammonia (as N)  | mg/L  | 0.34      | NR            |
| Sulfide               | mg/L  | <0.02     | A/O ≤ 0.05    |
| Total Trihalomethanes | mg/L  | 0.039     | 0.1           |
| Total Aluminum        | mg/L  | 0.038     | 2.9 OG < 0.1  |
| Total Arsenic         | mg/L  | <0.001    | 0.010 (ALARA) |
| Total Barium          | mg/L  | 0.09      | 2.0           |
| Total Boron           | mg/L  | 0.01      | 5             |
| Total Cadmium         | mg/L  | <0.000016 | 0.007         |
| Total Chromium        | mg/L  | 0.0007    | 0.05          |

| Parameter        | Units | Value    | GCDWQ<br>MAC   |
|------------------|-------|----------|----------------|
| Total Copper     | mg/L  | 0.0011   | 2.0 A/O ≤ 1.0  |
| Total Cyanide    | mg/L  | <0.002   | 0.2            |
| Total Lead       | mg/L  | <0.0001  | 0.005 (ALARA)  |
| Total Manganese  | mg/L  | 0.0020   | 0.12 AO ≤ 0.02 |
| Total Mercury    | mg/L  | <0.00001 | 0.001          |
| Total Phosphorus | mg/L  | <0.05    | NR             |
| Total Selenium   | mg/L  | <0.0005  | 0.05           |
| Total Uranium    | mg/L  | <0.001   | 0.02           |
| Total Zinc       | mg/L  | <0.004   | A/O ≤ 5.0      |

GCDWQ – Guidelines for Canadian Drinking Water Quality

MAC – Maximum Acceptable Concentration

AO – Aesthetic Objective

OG – Operational Guidance

ALARA – As Low As Reasonably Achievable

NR – No Requirement as per GCDWQ