

DATA QUALITY REVIEW SHEET

COGCC Facility ID: 755511
 Station Name: Hayes Gulch DWN
 Sample Date: 4/19/2023
 Field Sample ID: Hayes Gulch DWN

Operator: TEP Rocky Mountain LLC
 Drill Pad: GM 241-1 Injection Pad
 Purpose: 2023 Annual COA
 Lab Sample ID: 2304247-02

Field Sampling Data Review	Yes	No	N/A
1. Well properly purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Flow rate reduced prior to sampling?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Water quality parameters stable prior to sampling?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Field instruments calibrated properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Sampling methods performed according to SAP procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Procedures consistent with obtaining a representative sample?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lab Data Report Review			
7. Proper sample custody maintained until laboratory receipt?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Receipt form is without discrepancies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Samples received at the recommended water temperature of $\leq 6^{\circ}\text{C}$?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. All samples analyzed for the requested analyses?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Proper laboratory methods used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. All sample holding times met besides pH?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. Lab QC samples (LCS, LCSD, MB, MS, and MSD) collected and analyzed according to lab method and results within method acceptance limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14. Was the field investigation sample matrix used by the lab for matrix QC for all analyses?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15. Laboratory qualifiers for sample results (other than non-detect)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Additional qualifiers assigned by WWL to the sample results?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Were submitted trip blanks acceptable?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18. Are corrective actions required? <i>If yes, list actions and dates to be completed by:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>Corrective Action</i>	<i>Date to be completed</i>		

Calculated Parameters	Calculated Value	Measured Lab Value	Ratio/Percent Difference	Acceptable Limit	Meets QC Criteria?
Cation/Anion Balance, % (CAB)	7.17%	3.08	N/A	5%	<input type="checkbox"/>
Total Dissolved Solids, mg/L (TDS)	900	915	1.02	1.0 – 1.2	<input checked="" type="checkbox"/>
Specific Conductance, $\mu\text{S}/\text{cm}$ (SpC)	1366	1260	1.08	0.9 – 1.1	<input checked="" type="checkbox"/>
TDS/SpC, calculated	N/A	N/A	0.66	0.55-0.7	<input checked="" type="checkbox"/>
TDS/SpC, lab measured	N/A	N/A	0.73	0.55-0.7	<input type="checkbox"/>
Anion (meq/L):SpC	N/A	N/A	1.27	0.9 – 1.1	<input type="checkbox"/>
Cation (meq/L):SpC	N/A	N/A	1.10	0.9 – 1.1	<input checked="" type="checkbox"/>

DATA QUALITY REVIEW SHEET

Comments:

- Laboratory analysis of pH was conducted 2 days out of holding time, GAL qualified the result with an H4, WWL qualified the result with an H.
- Laboratory analysis of nitrite as N and nitrate as N was conducted 27 days out of holding time, GAL qualified the result with an H2, WWL qualified the result with an H.
- Laboratory analysis of total N was conducted 13 days out of holding time. WWL assigned an H qualifier.
- Multiple QC analytes were outside of acceptable criteria for MS, MSD, LCS, and LCSD samples.
- A J qualifier was assigned to potassium by GAL

Data Suitability Statement

Based upon this data quality review and your professional judgement, have the data been collected and analyzed in general accordance with the COGCC Model Sampling and Analysis Plan?	<input checked="" type="checkbox"/>		
Are the data suitable for release for incorporation into the COGCC Environmental Database?	<input checked="" type="checkbox"/>		
The inorganic data are qualified due to QC criteria not being met; data are considered estimated and released for incorporation into the COGCC Environmental Database.	<input checked="" type="checkbox"/>		
Data Reviewer's Name:	Alex Kubala	Company:	Western Water & Land, Inc.
Reviewer's Signature:	<i>Alex Kubala</i>	Date:	8/7/2023