

DATA QUALITY REVIEW SHEET

COGCC Facility ID: 752987
 Station Name: Palmer 276703
 Sample Date: 3/31/2021
 Field Sample ID: Palmer 276703

Operator: TEP Rocky Mountain LLC
 Drill Pad: Nolte 14-44
 Purpose: Rule 615 5-Year Subsequent
 Lab Sample ID: 2104006-1

Field Sampling Data Review	Yes	No	N/A
1. Well properly purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Flow rate reduced prior to sampling?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Water quality parameters stable prior to sampling?	<input type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Was the field investigation sample matrix used by the lab for matrix QC for all analyses?	<input checked="" type="checkbox"/>	<input 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>		
None	N/A		

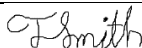
Calculated Parameters	Calculated Value	Measured Lab Value	Ratio/Percent Difference	Acceptable Limit	Meets QC Criteria?
Cation/Anion Balance, % (CAB)	0.361%	N/A	N/A	5%	<input checked="" type="checkbox"/>
Total Dissolved Solids, mg/L (TDS)	4215	3800	0.90	1.0 – 1.2	<input type="checkbox"/>
Specific Conductance, $\mu\text{S}/\text{cm}$ (SpC)	5672	5070	1.12	0.9 – 1.1	<input type="checkbox"/>
TDS/SpC, calculated	N/A	N/A	0.74	0.55-0.7	<input type="checkbox"/>
TDS/SpC, lab measured	N/A	N/A	0.75	0.55-0.7	<input type="checkbox"/>
Anion (meq/L):SpC	N/A	N/A	1.34	0.9 – 1.1	<input type="checkbox"/>
Cation (meq/L):SpC	N/A	N/A	1.33	0.9 – 1.1	<input type="checkbox"/>

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Comments:

Temperature was not stabilized prior to sampling (the range between the last 3 parameters taken prior to the sample was 0.5°C). Total dissolved solids was analyzed five days out of holding time and BTEX/GRO was analyzed 4.5 hours out of holding time; WWL assigned an "H" qualifier to indicate the result is estimated. ALS selected field investigation sample Palmer 276703 for testing matrix quality control for lab duplicate RPD for methane, ethane, and propane. No sample results were assigned qualifiers by the laboratory with the exception of a "J" qualifier assigned to bromide, fluoride, and total phosphorus to indicate a result greater than the method detection limit but less than the reporting limit (result is estimated). WWL assigned an "F" qualifier to indicate the duplicate RPD is outside of limits and results are considered estimated. All other RPD were within the acceptable limits.

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"/>	
Data Reviewer's Name:	Trevor Smith	Company:	Western Water & Land, Inc.
Reviewer's Signature:		Date:	7/7/2021