

## DATA QUALITY REVIEW SHEET

COGCC Facility ID: 703040  
 Station Name: Lindauer 47731  
 Sample Date: 9/22/2020  
 Field Sample ID: 703040

Operator:  
 Drill Pad:  
 Purpose:  
 Lab Sample ID:

TEP Rocky Mountain LLC  
GM 21-12  
Rule 609 2nd Subsequent  
2009498-1

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 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? <i>If no, list in comments.</i>	<input type="checkbox"/>	<input checked="" 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 (other than lab pH)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. Lab QA samples (e.g., matrix spikes and matrix spike duplicates) 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Laboratory qualifiers for data (other than non-detect)? <i>List in comments.</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Additional qualifiers assigned by WWL (other than pH)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Were submitted trip blanks acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Are corrective actions required? <i>If yes, list actions and dates to be completed by:</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Corrective Action</i>	<i>Date to be completed</i>		
The analytic results for dissolved metals did fall within the historical range for the well with permit number 47731. A reanalysis for major dissolved cations (calcium, magnesium, potassium, and sodium) was requested by the laboratory on October 27, 2020. The reanalysis was conducted on December 2, 2020; the results were similar to the original analytic results and therefore accepted as quality data.	December 2, 2020		

Calculated Parameters	Calculated Value	Measured Lab Value	Ratio/Percent Difference	Acceptable Limit	Meets QC Criteria?
Cation/Anion Balance, % (CAB)	1.608%	N/A	N/A	$\pm 5\%$	<input checked="" type="checkbox"/>
Total Dissolved Solids, mg/L (TDS)	1151	1100	0.96	1.0 – 1.2	<input type="checkbox"/>
Specific Conductance, $\mu\text{S}/\text{cm}$ (SpC)	1642	1831	0.90	0.9 – 1.1	<input checked="" type="checkbox"/>
TDS/SpC, calculated	N/A	N/A	0.70	0.55-0.7	<input checked="" type="checkbox"/>

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TDS/SpC, lab measured	N/A	N/A	0.60	0.55-0.7	<input checked="" type="checkbox"/>
<p><b>Comments:</b>                  It was noted on the sample receipt that the holding time for some of the analytes was about to expire. Laboratory pH, nitrate, nitrite, and TDS were analyzed out of holding time; WWL assigned an "H" qualifier to indicate the results are estimated. "J" qualifier assigned to manganese method blank results to indicate a result greater than the method detection limit but less than the reporting limit. ALS selected field investigation sample 703040 for assessing matrix quality control for MS and MSD testing for total phosphorus by Method SM4500-P. "J" qualifier assigned to DRO, barium, calcium, and total phosphorus sample results indicate a result greater than the method detection limit but less than the reporting limit. Iron reducing bacteria and sulfate reducing bacteria had RPDs outside of the acceptance criteria; WWL qualified these results with an "F" to indicate the results are estimated.</p>					

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"/>
<b>Data Review's Name:</b>	Trevor Smith
<b>Company:</b>	Western Water & Land, Inc.
<b>Reviewer's Signature:</b>	<i>T. Smith</i>
<b>Date:</b>	12/8/2020