



September 3, 2020

Mr. Mike Gardner  
TEP Environmental Specialist  
TEP Rocky Mountain LLC  
1058 County Road 215  
Parachute, Colorado 81635

**RE: Status Report: Baseline Water Quality Sampling – Drill Pad GR 12-29**

Dear Mr. Gardner,

Western Water & Land, Inc. (WWL) completed a hydrologic Water Source evaluation for the TEP Rocky Mountain LLC (TEP) GR 12-29 Drill Pad in accordance with Colorado Oil and Gas Conservation Commission (COGCC) Rule 609. Drill Pad GR 12-29 is located in SW¼, NW¼, Section 29, Township 6S, Range 96 W, 6<sup>th</sup> P.M. This status report addresses field revisions and the sampling location status as relevant to the original executed Baseline Water Quality Evaluation dated November 20, 2018.

The original evaluation considered all Water Sources as defined in Rule 609 within a 0.5-mile radius of the referenced drill pad. Water Sources located within a 0.5-mile radius of the GR 12-29 Drill Pad are shown in Figure 1. Please see the original Baseline Water Quality Evaluation (November 20, 2018) for details on how the evaluation was conducted.

**Water Source Identification**

Water Sources as defined in Rule 609 include Colorado Division of Water Resources (DWR) registered water wells (water wells with existing valid well permits), permitted or adjudicated springs, and monitoring wells installed for baseline sampling and monitoring under COGCC Rules 318A.e(4), 608, 609, or 908.b(9) or specified conditions of approval. Each Water Source identified within the 0.5-mile radius area is considered to be a potentially Available Water Source unless existing information suggests that the Water Source would not be suitable for the baseline water quality program. The original Baseline Water Quality Evaluation identified three potentially Available Water Sources located within 0.5 miles of the GR 12-29 Drill Pad (see Figure 1).

The identified potentially Available Water Sources are summarized as follows:

- Smith Spring
- Maynard Spring
- Crawford Spring

### Preferred Water Sources

In accordance with Rule 609, all potentially Available Water Sources within a 0.5-mile radius of the drill pad are to be identified and up to a maximum of four sources must be included in the baseline and subsequent monitoring program. Each potentially Available Water Source identified was evaluated based on WWL's hydrologic knowledge of the region, general hydrologic rationale, and in accordance with the guidelines specified in Rule 609 to identify the preferred sources for the baseline program. Since only three potentially Available Water Sources were identified they are considered to be preferred Water Sources. The preferred potentially Available Water Sources selected are as follows:

- Smith Spring
- Maynard Spring
- Crawford Spring

Preferred Water Sources are incorporated into the baseline water quality monitoring program provided 1) the structures exist; 2) the structure owner, or land owner if the structure owner is not known, grants approval to sample the source; and 3) inspection of the structure confirms that a representative sample can be obtained from the structure.

### Access Request

All attempts requesting permission to sample potentially Available Water Sources from the well permit holders and the property owners are recorded in the Correspondence Logs below. Access request letters, certified mailing receipts, mailings that were returned to sender, mailed responses, and email correspondence are included in Attachment A.

<b>Correspondence Log: GR 12-29</b>				
<b>Contact Attempt Date</b>	<b>Contact Name</b>	<b>Contact Method</b>	<b>Responsible Person</b>	<b>Results</b>
1/10/2019	BLM Oil and Gas Hydrologist	Certified Mail: Access Request Letter	Shelby Goodwin, WWL	Access Granted

### Field Results

Each identified potentially Available Water Source and its monitoring status is as follows:

- Smith Spring: water right and property owned by BLM.
  - Access to sample this spring was granted by the BLM February 6, 2019. WWL was unable to locate the spring or any surface water in the vicinity of the decreed location during field reconnaissance on August 12, 2020.
- Maynard Spring: water right and property owned by BLM.
  - Access to sample this spring was granted by the BLM February 6, 2019. WWL was unable to locate the spring or any surface water in the vicinity of the decreed location during field reconnaissance on August 12, 2020.

- Crawford Spring: water right and property owned by BLM.
  - Access to sample this spring was granted by the BLM February 6, 2019. WWL was unable to locate the spring or any surface water in the vicinity of the decreed location during field reconnaissance on August 12, 2020.

WWL personnel conducted a broad field reconnaissance on August 12, 2020 in the area where Smith Spring, Maynard Spring, and Crawford Springs are located according to DWR databases. The area was characterized by quaking aspen, Cottonwood, Gambel oak, sagebrush, and cattail plant communities. The decreed locations of the springs are shown in Figure 1. Pictures from field reconnaissance and sampling are included in Attachment B. As a result of these events, no water sources were sampled for the baseline water quality sampling program for Drill Pad GR 12-29.

If you have any questions or concerns, please contact me at (970) 242-0170.

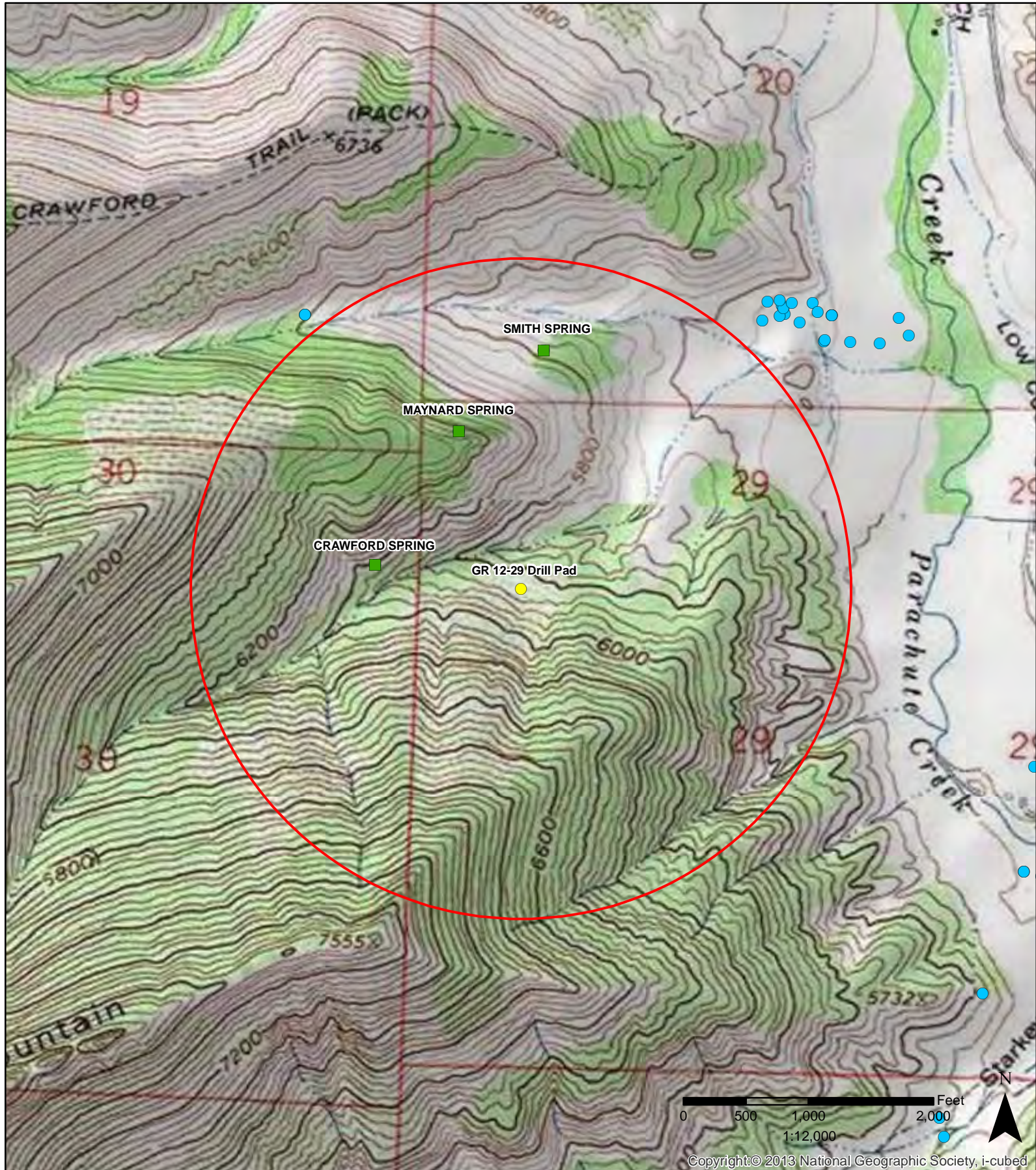
Sincerely,



Bruce D. Smith  
Principal Hydrogeologist  
WESTERN WATER & LAND, INC.

Attachments:

Figure 1 – Water Source Evaluation Map  
Attachment A – Access Request Documentation  
Attachment B – Photographs



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Legend	
<span style="color: yellow;">●</span> GR 12-29 Drill Pad	<span style="color: green;">■</span> Water right decree
<span style="border: 2px solid red; border-radius: 50%; width: 15px; height: 15px; display: inline-block;"></span> 0.5-mile radius evaluation area	<span style="color: blue;">●</span> Outside permits or decrees
<span style="color: green;">●</span> Constructed well	<span style="color: red;">●</span> Well completion status unknown

**Figure 1: GR 12-29 Drill Pad  
0.5-Mile Radius Water Source Evaluation  
SW 1/4, NW 1/4, S29, T6S, R96W, 6 PM**

Garfield County, Colorado  
TEP Rocky Mountain, LLC



**Attachment A**

**Access Request Documentation**



January 10, 2019

Bureau of Land Management  
Attn: BLM Oil & Gas Hydrologist  
Colorado River Valley Field Office  
2300 River Frontage Road  
Silt, CO 81652

**RE: Baseline Groundwater Monitoring Program: Drill Pad GR 12-29**

To whom it may concern:

Under Colorado Oil and Gas Conservation Commission (COGCC) Rule 609, all oil and gas operators are required to conduct baseline groundwater sampling and monitoring within one-half mile of a well pad containing new production well(s) or injection well(s). The rule was promulgated to gather baseline water quality data prior to oil and gas development occurring within a particular area and to gather additional water quality data after drilling and completion operations.

Sampling sites may be registered water wells or permitted or adjudicated springs. Up to four groundwater sampling sites will be included in the baseline sampling and monitoring program within the one-half mile radius of the well pad. Sampling of these groundwater sites will occur three times; once within 12 months prior to drilling the first well on the pad, once between 6 and 12 months after completion of the last well on the pad, and once between 60 and 72 months after completion of the last well on the pad. Final water quality results of each sample will be provided to the well or spring owner and to COGCC.

Terra Energy Partners Rocky Mountain, LLC (TEP) is planning on constructing Drill Pad GR 12-29 and/or a new well located in the SW1/4, NW1/4, Section 29, Township 6S, Range 96W, 6th P.M. Our research of state databases indicates that you may own property and/or hold one or more state permits or water right decrees for wells or springs located on property within 0.5 miles of the well pad. These identified wells and/or springs are listed below:

1. **Smith Spring:** Latitude/Longitude (decimal degrees): 39.503289, -108.138376
2. **Maynard Spring:** Latitude/Longitude (decimal degrees): 39.501442, -108.140696
3. **Crawford Spring:** Latitude/Longitude (decimal degrees): 39.498463, -108.142946

These structures may qualify for baseline sampling and monitoring under Rule 609. If you do not have a well or spring on your property, or if you choose not to have your well or spring sampled for baseline water quality under Rule 609, please indicate so on the Acknowledgment Form provided in this letter.

This Acceptance Letter and Acknowledgment Form apply to the above water sources only. You may receive additional Acknowledgment Forms in the future for other water sources under your ownership or control that are related to other planned TEP drill pads or wells. Your decision to approve or decline participation in the baseline water quality program for the above water sources will also apply for new future TEP drill pads and wells other than Drill Pad GR 12-29 not be mailed to you.

If you chose to include your well or spring in the Baseline Groundwater Sampling and Monitoring Program, please complete the attached questionnaire prepared by TEP to evaluate the groundwater source(s). The questionnaire is intended to assist TEP in the assessment of the best potential baseline groundwater monitoring sites.

Completion of the attached questionnaire is not required for consideration of your well or spring for the program, but final selection of sampling sites may be partially dependent on the results of the questionnaire. Completing the questionnaire and approval to sample your water source does not guarantee that your well or spring will be selected for the baseline sampling and monitoring program. Completed questionnaires will be confidential except for information that is required to be reported to the state.

If you agree to have your well or spring become a monitoring site for the program, and said well or spring is selected for sampling and monitoring, you will be notified and invited to attend the sampling event. Water quality data results will be provided to you and to COGCC within 3 months of sample collection. Please note that COGCC will make the results public by posting the results on the agency's public database and that by signing below to agree to have your well sampled, you also grant TEP permission to provide the data results to COGCC and COGCC's public database.

Please sign and date the attached Acknowledgment Form indicating your choice of participation in the program and return the form using the included pre-addressed envelope. If TEP does not receive this executed letter within 30 days from the date above, TEP will consider that you do not want to participate in the program. Please contact your TEP land representative at 970-210-4244, or myself at 970-623-4875, with any questions you may have. We appreciate your time and cooperation.

If at any time after returning the Acknowledgment Form you change your mind about your response, you may revise your response by contacting TEP.

Sincerely,

Mike Gardner  
Environmental Specialist, TEP Energy

**Baseline Groundwater Quality Monitoring Program  
Acknowledgment Form**

I ALLEN CROCKETT (print name), acknowledge that I have been contacted by TEP regarding the possible qualification of my well or spring as a Water Source for baseline groundwater sampling and monitoring under COGCC Rule 609 associated with TEP Drill Pad GR 12-29, located in the SW1/4, NW1/4, Section 29, Township 6S, Range 96W, 6th P.M. If I agree to have my well or spring water sampled for water quality parameters, I understand that the resulting data will be submitted to the COGCC and will be part of a public database. I understand that if my well or spring is selected as an Available Water Source, I will be contacted by TEP representatives to schedule sample collection. I understand that the baseline groundwater program involves three separate sampling events over a period of time. In addition, I understand that this acknowledgment applies to future new drill pads or wells other than TEP Drill Pad GR 12-29 where the specific water sources may be in question under COGCC Rule 609.

I DO want the following well(s) or spring(s) to be monitored for baseline groundwater quality in accordance with Rule 609 of the COGCC regulations.

- 1. *Smith Spring*: Latitude/Longitude (decimal degrees): 39.503289, -108.138376  
↳ ~ 3gpm, ~150' x 100' seep area, upgradient of culvert with willows, sedges, cattails, rushes, currants, cottonwoods
- 2. *Maynard Spring*: Latitude/Longitude (decimal degrees): 39.501442, -108.140696  
↳ ~ 1gpm, ~ 120' x 150' seep area, near road with sedges, rushes, cattails, willows, currants, cottonwoods
- 3. *Crawford Spring*: Latitude/Longitude (decimal degrees): 39.498463, -108.142946  
↳ ~ 10gpm, ~12'x12' seep area, ~150 ft from road w/ sedges, rushes, willows & currants

I DO NOT want my well or spring to be monitored for baseline groundwater quality in accordance with Rule 609 of the COGCC regulations.

Signature:  Date: 2/6/19

Print Name: ALLEN CROCKETT

Address: 2300 RIVER FRONTAGE ROAD  
SILT CO 81652

Phone: 970.876.9005

**Attachment B**

**Photographs**



**Photo 1. Smith Spring Deceased Location**



**Photo 2. Smith Spring Deceased Location**



**Photo 3. Smith Spring Decreed Location**



**Photo 4. Smith Spring Decreed Location**



**Photo 5. Maynard Spring Decreed Location**



**Photo 6. Maynard Spring Decreed Location**



**Photo 7. Maynard Spring Decreed Location**



**Photo 8. Crawford Spring Decreed Location**



**Photo 9. Crawford Spring Decreed Location**



**Photo 10. Crawford Spring Decreed Location**