



December 28, 2018

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 PA 44-13

Dear Mr. Gardner,

Western Water & Land, Inc. (WWL) completed a hydrologic Water Source evaluation for the TEP Rocky Mountain LLC (TEP) PA 44-13 Drill Pad in accordance with Colorado Oil and Gas Conservation Commission (COGCC) Rule 609. Drill Pad PA 44-13 is located in SE¹/₄, SE¹/₄, Section 13, Township 5 S, Range 95 W, 6th P.M. This status report addresses field revisions and the sampling location status as relevant to the original executed Baseline Water Quality Evaluation dated October 10, 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 PA 44-13 Drill Pad are shown in Figure 1. Please see the original Baseline Water Quality Evaluation (October 10, 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 two potentially Available Water Sources located within 0.5 miles of the PA 44-13 Drill Pad (see Figure 1).

The identified potentially Available Water Sources are summarized as follows:

- Water Well Permit No. 214172
- Water Well Permit No. 214173

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. The preferred potentially Available Water Sources selected are as follows:

- Water Well Permit No. 214172
- Water Well Permit No. 214173

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.

Correspondence Log: PA 44-13				
Contact Attempt Date	Contact Name	Contact Method	Responsible Person	Results
10/11/2018	U.S. DOE; Grand Junction Office	Certified Mail: Access Request Letter	Shelby Goodwin, WWL	No response within 30 days
12/6/2018	Ms. Tashina Jasso, US Department of Energy	Email	Shelby Goodwin, WWL	Received request, Ms. Jasso potentially to grant access.
12/20/2018	Ms. Tashina Jasso, US Department of Energy	Phone	Shelby Goodwin, WWL	Ms. Jasso verbally denied access to sample water sources.

Field Results

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

- Water Well Permit No. 214172: water right and property owned by the U.S. DOE.
 - Access to sample this well was not granted.
- Water Well Permit No. 214173: water right and property owned by the U.S. DOE.
 - Access to sample this well was not granted.

As a result of these events, no water sources were sampled for the baseline water quality sampling program for Drill Pad PA 44-13.

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

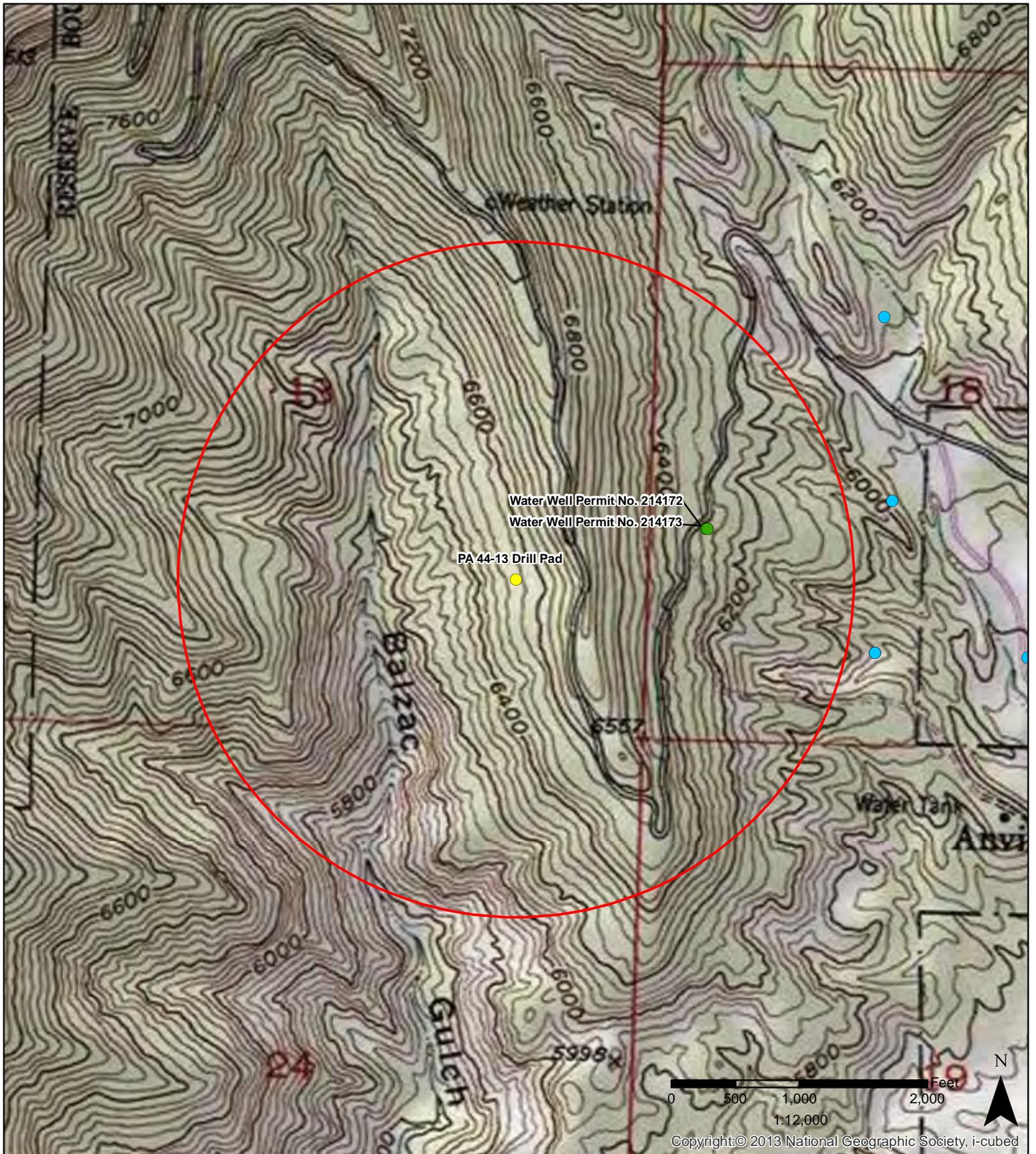
Sincerely,

A handwritten signature in black ink, appearing to read "Bruce D. Smith". The signature is written in a cursive style with a large initial "B" and "S".

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

Attachments:

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



Legend

- PA 44-13 Drill Pad
- 0.5-mile radius evaluation area
- Constructed well
- Well completion status unknown
- Water right decree
- Outside permits or decrees

**Figure 1: PA 44-13 Drill Pad
0.5-Mile Radius Water Source Evaluation
SE 1/4, SE 1/4, S13, T5S, R95W, 6 PM**

Garfield County, Colorado
TEP Rocky Mountain, LLC



Western Water & Land, Inc.

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Attachment A

Access Request Documentation



October 11, 2018

US Department of Energy
2597 B $\frac{3}{4}$ Rd
Grand Junction, CO 81503

RE: Baseline Groundwater Monitoring Program: Drill Pads PA 44-13 and PA 32-13

Dear Sir or Madam:

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 Pads PA 44-13 and PA 32-13 and/or a new well located in the SE $\frac{1}{4}$, SE $\frac{1}{4}$, Section 13, Township 5S, Range 95 W, 6th P.M and SW $\frac{1}{4}$, NW $\frac{1}{4}$, Section 13, Township 5S, Range 95 W, 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. **Water Well Permit No. 214172:** Latitude/Longitude (decimal degrees): 39.521470, -107.936056
2. **Water Well Permit No. 214173:** Latitude/Longitude (decimal degrees): 39.521942, -107.936593

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 Pads PA 44-13 and PA 32-13 that are located within the 0.5 mile distance of these water sources. In these cases, a new Acknowledgment Form will 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 _____ (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 Pads PA 44-13 and PA 32-13, located in the SE¹/₄, SE¹/₄, Section 13, Township 5S, Range 95 W, 6th P.M and SW¹/₄, NW¹/₄, Section 13, Township 5S, Range 95 W, 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 Pads PA 44-13 and PA 32-13 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.

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

Please check all that apply.

- 1. Water Well Permit No. 214172:** Latitude/Longitude (decimal degrees): 39.521470, -107.936056
- 2. Water Well Permit No. 214173:** Latitude/Longitude (decimal degrees): 39.521942, -107.936593

Signature: _____ Date: _____

Print Name: _____

Address: _____

Phone: _____



October 24, 2018

Dear Shelby Goodwin:

The following is in response to your request for proof of delivery on your item with the tracking number: 7014 0150 0000 4300 1183.

Item Details

Status: Delivered, Left with Individual
Status Date / Time: October 12, 2018, 10:41 am
Location: GRAND JUNCTION, CO 81503
Postal Product: First-Class Mail®
Extra Services: Certified Mail™
 Return Receipt Electronic

Shipment Details

Weight: 5.0oz

Recipient Signature

Signature of Recipient: *[Handwritten Signature]*
 Address of Recipient: *2597 L Enfant*

Note: Scanned image may reflect a different destination address due to Intended Recipient's delivery instructions on file.

Thank you for selecting the United States Postal Service® for your mailing needs. If you require additional assistance, please contact your local Post Office™ or a Postal representative at 1-800-222-1811.

Sincerely,
 United States Postal Service®
 475 L'Enfant Plaza SW
 Washington, D.C. 20260-0004

*Access Request letter
 PA 44-13 and PA 32-13
 US DOE (GJ office)*

U.S. Postal Service™ CERTIFIED MAIL™ RECEIPT
 (Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

GRAND JUNCTION, CO 81503

Postage	\$3.45
Certified Fee	\$0.00
Return Receipt Fee (Endorsement Required)	\$1.50
Restricted Delivery Fee (Endorsement Required)	\$0.00
Total Postage & Fees	\$1.84
	\$6.79

Sent To: *US DOE*
 Street, Apt. No., or PO Box No.: *2597 B 3/4 Rd*
 City, State, ZIP+4: *Grand Jct, CO 81503*

PS Form 3800, August 2006 See Reverse for Instructions

7014 0150 0000 4300 1183

OFFICIAL USE

Postmark Here
 10/11/2018
 GRAND JUNCTION CO 81503

Shelby Goodwin

From: Jasso, Tashina <Tashina.Jasso@lm.doe.gov>
Sent: Thursday, December 06, 2018 12:07 PM
To: Shelby Goodwin; Kreie, Ken
Cc: Mike Gardner; Bruce Smith; Jessie Pahler; Nick Solawetz
Subject: RE: Access Request: Water Well Sampling COGCC Rule 609

Hello Shelby,

I am the DOE site manager for the Rifle sites. Originally there was some confusion as the well locations were showing up on the State site in a different location. We have received communication that it will be corrected from the State. However I do have some follow-up questions on this, are you available for a quick chat?

Thank you,

Tashina Jasso

Site Manager | Environmental Scientist

Office of Legacy Management

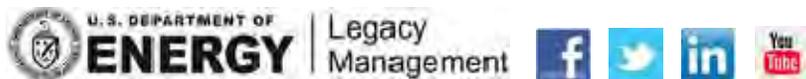
U.S. Department of Energy

2597 Legacy Way

Grand Junction, CO 81503

tashina.jasso@lm.doe.gov

970.248.6378 | c: 202.617.5815



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From: Shelby Goodwin [mailto:SGoodwin@WesternWaterandLand.com]
Sent: Thursday, December 06, 2018 11:36 AM
To: Kreie, Ken
Cc: Jasso, Tashina; Mike Gardner; Bruce Smith; Jessie Pahler; Nick Solawetz
Subject: [EXTERNAL] Access Request: Water Well Sampling COGCC Rule 609

Hi Ken,

I'm following up on two access request letters Western Water & Land mailed the DOE Legacy Management office on October 11 on behalf of Terra Energy. We have not received any response; I was advised you would be an appropriate contact.

The letters are for a request to sample your water sources identified within a half mile of new oil and gas drilling for Terra Energy. Sampling of any water sources would be to satisfy the COGCC Rule 609 program – baseline groundwater monitoring. Attached are the two access request letters which explain in detail the Rule 609 program. Drill Pads PA 44-13 and PA 32-13 share the same water sources, both the well permits and property are owned by the DOE. The water sources for Drill Pad DOE 1-M-18 indicate the well permits are held by Oak Ridge National Laboratory, and are on

property owned by the DOE. I understand Oak Ridge National Laboratory is related to the LM office. Could you please review the letters and indicate whether or not the DOE would like these wells to be sampled for the Rule 609 program.

If there is a better contact for these letters could you please forward? Let me know what questions you have.

Regards,

Shelby Goodwin

Staff Scientist

Western Water & Land, Inc.

Office: (970) 242-0170

Cell: (970) 210-2463

743 Horizon Ct, Suite 330

Grand Junction, CO 81506

sgoodwin@westernwaterandland.com

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