



March 27, 2014

Mr. Brandon Danforth  
Environmental Specialist  
WPX Energy Rocky Mountain LLC  
1058 County Road 215  
Parachute, Colorado 81635

**RE: Status Report: Baseline Water Quality Sampling – MV 34-5 Drill Pad**

Dear Mr. Danforth,

Western Water & Land, Inc. (WWL) completed a hydrologic Water Source evaluation for the WPX Energy Rocky Mountain LLC (WPX) MV 34-5 Drill Pad in accordance with Colorado Oil and Gas Conservation Commission (COGCC) Rule 609. Drill Pad MV 34-5 is located in SE1/4, SE1/4, Section 5, Township 7 S, 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 August 5, 2013.

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 MV 34-5 Drill Pad are shown in Figure 1. Please see the original Baseline Water Quality Evaluation (August 5, 2013) for complete 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, or 609. 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 MV 34-5 Drill Pad (see Figure 1). Well permits with the status “Permit issued; Completion status unknown” were not initially included as potentially Available Water Sources. However, because DWR databases are not always up to date, or may have errors, WWL has since revised this approach and includes permits with this status as potentially Available Water Sources.

The identified potentially Available Water Sources are summarized as follows:

- Water Well Permit No. 97408-VE: permit held by John and Joan Savage; property owned by Bureau of Land Management

- Riley Gulch Spring: water rights held by Bureau of Land Management (BLM); property owned by BLM
- Section 8 Spring: water rights held by BLM; property owned by BLM

As described in the Baseline Water Quality Evaluation report, Spring G-7960410-1 was not located during sampling field reconnaissance.

### **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 were selected as follows:

- Water Well Permit No. 97408-VE
- Riley Gulch Spring
- Section 8 Spring

Preferred Water Sources are incorporated into the baseline water quality monitoring program provided the structures exist, and the structure owner, or land owner if the structure owner is not known, grants approval to sample the source and 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 from the property owners are recorded in the Correspondence Log below. Access request letters, certified mailing receipts, mailings that were returned to sender, mailed responses, and email correspondence are included in Attachment A.

The request for permission to sample the BLM-owned springs was delayed until existence of the springs was field confirmed. (A previous BLM approval for Spring G-7960410-1 was granted through a Sundry Notice on June 7, 2013; the spring was not located during field reconnaissance).

<b>Correspondence Log: MV 34-5</b>				
<b>Contact Attempt Date</b>	<b>Contact Name</b>	<b>Contact Method</b>	<b>Responsible Person</b>	<b>Results</b>
8/7/2013	Savage	Certified Mail: Access Request Letter	NWS	Permit mislocated on DWR

## Field Results

No baseline water quality sampling was conducted for Drill Pad MV 34-5 because WWL was unable to locate the identified Potential Available Water Sources.

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

- Water Well Permit No. 97408-VE (permit held by John and Joan Savage; property owned by Bureau of Land Management)
  - Mr. John Savage informed WPX that this well is incorrectly located in DWR map databases and that they have no wells in Riley Gulch.
- Riley Gulch Spring (water rights held by Bureau of Land Management (BLM); property owned by BLM)
  - WWL was unable to locate this spring during field reconnaissance.
- Section 8 Spring (water rights held by BLM; property owned by BLM)
  - WWL was unable to locate this spring during field reconnaissance.

WWL personnel conducted a broad field reconnaissance on September 30, 2013 in the area where the BLM springs are located according to DWR databases. The area was characterized by piñon-juniper and Gambel oak plant communities. A few cottonwood trees were located but spring emanation points were not found. Pictures from field reconnaissance are included in Attachment B.

According to DWR databases Water Well Permit No. 97408-VE is located in Section 4, Township 7 S, Range 96W but was plotted incorrectly in their on-line map database. Mr. John Savage informed WPX that Water Well Permit No. 97408-VE is related to Water Well Permit No. 18852-F which is located in Section 4, Township 7S, Range 95W. No identified potentially Available Water Sources were found to be available for sampling.

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

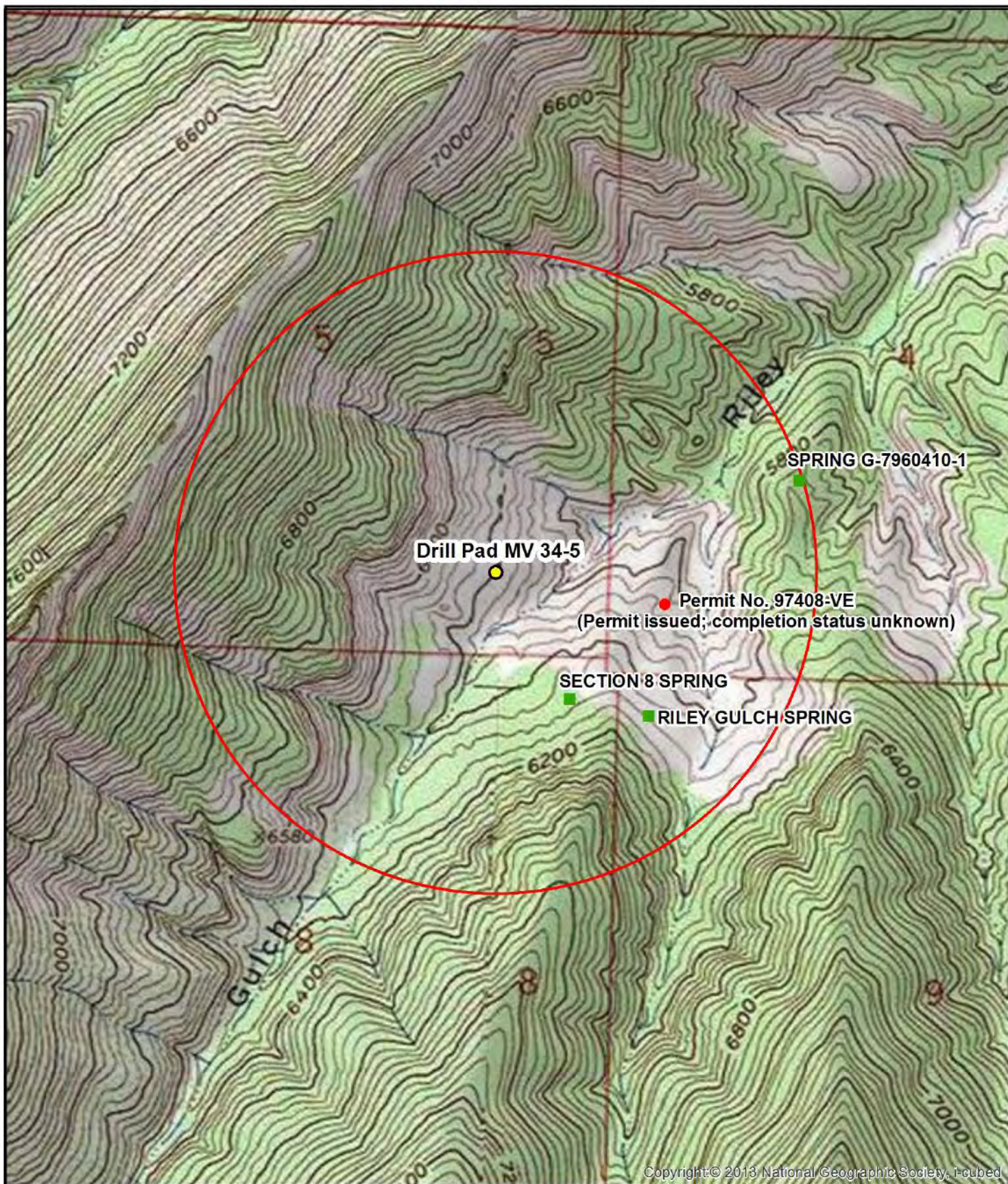
Sincerely,



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

Attachments





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#### Legend

- Decree
- Drill Pad MV 34-5
- Constructed well
- 0.5-Mile Radius Evaluation Area
- Monitoring hole
- No permit or not completed



Feet  
1,000 500 0 1,000  
1:13,000

**Figure 1: Drill Pad Location MV 34-5  
0.5 Mile Radius Water Source Evaluation  
SE1/4, SE1/4, S5, T7S, R96W, 6 PM**

Garfield County, Colorado  
WPX Energy Rocky Mountain LLC

Basemap Source: Esri ArcGIS Online



Western Water & Land, Inc.  
Applications in Earth Science



**Attachment A**

**Access Request Documentation**



August 7, 2013

John and Joan Savage  
210 Railroad Ave  
Rifle, CO 81650

**RE: Baseline Groundwater Monitoring Program**

Dear Mr. and Mrs. Savage:

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.

WPX Energy Rocky Mountain, LLC (WPX) is planning on constructing a well pad in the SE1/4, SWE1/4, S5, T7S, R96W, 6 PM. Our research of state databases indicates that there may be one or multiple permitted wells or springs located on your property that could 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 in the signature section at the end of this letter.

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

Sampling sites may be registered water wells or permitted or adjudicated springs. Final selection of sampling sites may be partially dependent on the results of the attached questionnaire. Completing this questionnaire does not guarantee that your well or spring will be selected for the baseline sampling and monitoring program, and completion of the form is not required for consideration of your well or spring for the 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, 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 agreeing to have your well sampled, you are also providing WPX 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 using the included pre-addressed envelope. If WPX does not receive this executed letter within 30 days from the date above, WPX will consider that you do not want to participate in the program. Please contact your WPX land representative, Mr. Justin Hall, at 970-309-0167 with any questions you may have. We appreciate your time and cooperation.

### **Baseline Groundwater Quality Monitoring Program Acknowledgment**

I \_\_\_\_\_(print name), acknowledge that I have been contacted by WPX regarding the possible qualification of my well or spring as a Water Source for baseline groundwater sampling and monitoring under COGCC Rule 609. 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 WPX representatives to schedule sample collection. I understand that the baseline groundwater program involves three separate sampling events over a period of time.

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

Signature: \_\_\_\_\_ Date:\_\_\_\_\_

Print Name: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_\_

English

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Send to USPS  
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Change of Address

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YOUR LABEL NUMBER

7012305000236599811

SERVICE

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STATUS OF YOUR ITEM

Delivered

DATE &amp; TIME

August 15, 2013, 1:29 pm

LOCATION

RIFLE, CO 81650

FEATURES

Scheduled Delivery Day:  
August 8, 2013  
Certified Mail™  
Return Receipt  
Electronic

Notice Left (Business  
Closed)

August 9, 2013, 12:13 pm

RIFLE, CO 81650

Notice Left (Business  
Closed)

August 8, 2013, 12:24 pm

RIFLE, CO 81650

Arrival at Unit

August 8, 2013, 8:29 am

RIFLE, CO 81650

Dispatched to Sort  
Facility

August 7, 2013, 5:51 pm

GRAND  
JUNCTION, CO 81501

Acceptance

August 7, 2013, 4:18 pm

GRAND  
JUNCTION, CO 81501

Check on Another Item

What's your label (or receipt) number?

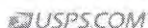
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MV 34-5  
Access Request Letter

7012 3050 0002 3659 9811

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RIFLE CO 81650

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Certified Fee		\$3.10	06
Return Receipt Fee (Endorsement Required)		\$1.25	
Restricted Delivery Fee (Endorsement Required)		\$0.00	
Total Postage & Fees	\$	\$6.07	

Sent To John + Joan Savage  
Street, Apt. No.,  
or PO Box No. 210 Railroad Ave.  
City, State, ZIP+4 Rifle, CO 81650

PS Form 3800, August 2006

See Reverse for Instructions





Date: September 10, 2013

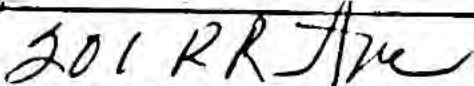
Bruce Smith:

The following is in response to your September 10, 2013 request for delivery information on your Certified Mail™ item number 70123050000236599811. The delivery record shows that this item was delivered on August 15, 2013 at 1:29 pm in RIFLE, CO 81650. The scanned image of the recipient information is provided below.

Signature of Recipient :

ature	
ted me	

Address of Recipient :

very ress	
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Thank you for selecting the Postal Service for your mailing needs.

If you require additional assistance, please contact your local Post Office or postal representative.

Sincerely,  
United States Postal Service

## Nick Solawetz

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**From:** Nick Solawetz [solawetz@gmail.com]  
**Sent:** Friday, December 06, 2013 10:43 AM  
**To:** Nick Solawetz  
**Subject:** Fwd: FW: MV 34-5 BWQ sampling: Permit No. 97408-VE

----- Forwarded message -----

**From:** Doose, John <[John.Doose@wpenergy.com](mailto:John.Doose@wpenergy.com)>  
**Date:** Thu, Sep 26, 2013 at 9:34 AM  
**Subject:** FW: MV 34-5 BWQ sampling: Permit No. 97408-VE  
**To:** Nick Solawetz <[solawetz@gmail.com](mailto:solawetz@gmail.com)>  
**Cc:** "Danforth, Brandon" <[Brandon.Danforth@wpenergy.com](mailto:Brandon.Danforth@wpenergy.com)>

Can we catch these?

JD

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**From:** John Savage [mailto:[savagejw@msn.com](mailto:savagejw@msn.com)]  
**Sent:** Monday, September 23, 2013 9:29 AM  
**To:** Doose, John  
**Subject:** RE: MV 34-5 BWQ sampling: Permit No. 97408-VE

John: That Permit No. is related to our water well Permit No. 18852-F located in Sec. 4, T7s, [R95W](#). Location is wrong on CO Div of Water Resources web site. We don't have anything in Riley Gulch.

John Savage

Savage Land Company, Inc.

201 Railroad Ave/PO Box 1926

Rifle, CO 81650-1926

[970-625-1470](tel:970-625-1470)/fax: 625-0803

Cell: [970-379-6745](tel:970-379-6745); [savagejw@msn.com](mailto:savagejw@msn.com)

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**From:** Doose, John [<mailto:John.Doose@wpenergy.com>]  
**Sent:** Friday, September 20, 2013 4:56 PM  
**To:** John Savage  
**Subject:** FW: MV 34-5 BWQ sampling

John,

Can we sample this well? This just came across my desk in the last couple of days.

Thanks.

JD

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**From:** Nick Solawetz [<mailto:solawetz@gmail.com>]  
**Sent:** Thursday, September 19, 2013 1:09 PM  
**To:** Doose, John  
**Subject:** MV 34-5 BWQ sampling

John,

A well permitted to the Savages came up in our evaluation for MV 34-5 (Permit No. 97408-VE). Can you email John Savage with the attached map to see if they completed a well in Riley Gulch and if we can sample it?

Nick Solawetz  
[970-712-7952](tel:970-712-7952)

**Attachment B**

**Field Reconnaissance Photographs**





Photograph 1. Cottonwood trees at suspected location of Section 8 Spring.



Photograph 2. View of Riley Gulch uphill of cottonwoods at suspected Section 8 Spring.





Photograph 3. Dry conditions at suspected Section 8 Spring location.



Photograph 4. View from access road of suspected location of Riley Gulch Spring.





Photograph 5. Approaching suspected Riley Gulch Spring location.



Photograph 6. Dry conditions at suspected Riley Gulch Spring location.