



March 23, 2016

Mr. Mike Shoemaker  
Environmental Specialist Senior Staff  
WPX Energy Rocky Mountain LLC  
1058 County Road 215  
Parachute, Colorado 81635

**RE: Status Report: Baseline Water Quality Sampling – RU 22-7 Drill Pad**

Dear Mr. Shoemaker

Western Water & Land, Inc. (WWL) completed a hydrologic Water Source evaluation for the WPX Energy Rocky Mountain LLC (WPX) RU 22-7 Drill Pad in accordance with Colorado Oil and Gas Conservation Commission (COGCC) Rule 609. Drill Pad RU 22-7 is located in SE¼, NW¼, Section 7, Township 7 S, Range 93 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 March 23, 2016.

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 RU 22-7 Drill Pad are shown in Figure 1. Please see the original Baseline Water Quality Evaluation (March 23, 2016) 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, 609, or 908. 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 RU 22-7 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. 51732-MH-A: permit held by WPX Energy Rocky Mountain, LLC C/O Walter Environmental; property owned by Youberg Beaver Creek Ranch C/O Dr. David Youberg

- Water Well Permit No. 51732-MH-B: permit held by WPX Energy Rocky Mountain, LLC C/O Walter Environmental; property owned by Youberg Beaver Creek Ranch C/O Dr. David Youberg

### **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 two 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. 51732-MH-A
- Water Well Permit No. 51732-MH-B

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**

No access request letters were sent for the potentially Available Water Sources as they are permitted to WPX.

### **Field Results**

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

- Water Well Permit No. 51732-MH-A: permit held by WPX Energy Rocky Mountain, LLC C/O Walter Environmental; property owned by Youberg Beaver Creek Ranch C/O Dr. David Youberg
  - This well is not a viable Water Source.
- Water Well Permit No. 51732-MH-B: permit held by WPX Energy Rocky Mountain, LLC C/O Walter Environmental; property owned by Youberg Beaver Creek Ranch C/O Dr. David Youberg
  - This well is not a viable water source.

Water Well Permit No. 51752-MH-A and Water Well Permit No. 51732-MH-B are shallow monitoring wells that were voluntarily installed by WPX in support of the RU 11-7 Completions Pit and are monitored on a quarterly basis by WWL. Water Well Permit No. 51732-MH-A has been dry since August of 2014 and Water Well Permit No. 51732-MH-B typically only has a couple of liters of water within the well casing and recovers slowly after being bailed. Neither of these monitoring wells have dedicated well pumps installed. Because of these reasons, it would be impractical to include these monitoring wells in the baseline water quality monitoring program. As a result, no baseline water quality sampling was conducted for Drill Pad RU 22-7 under COGCC Rule 609.

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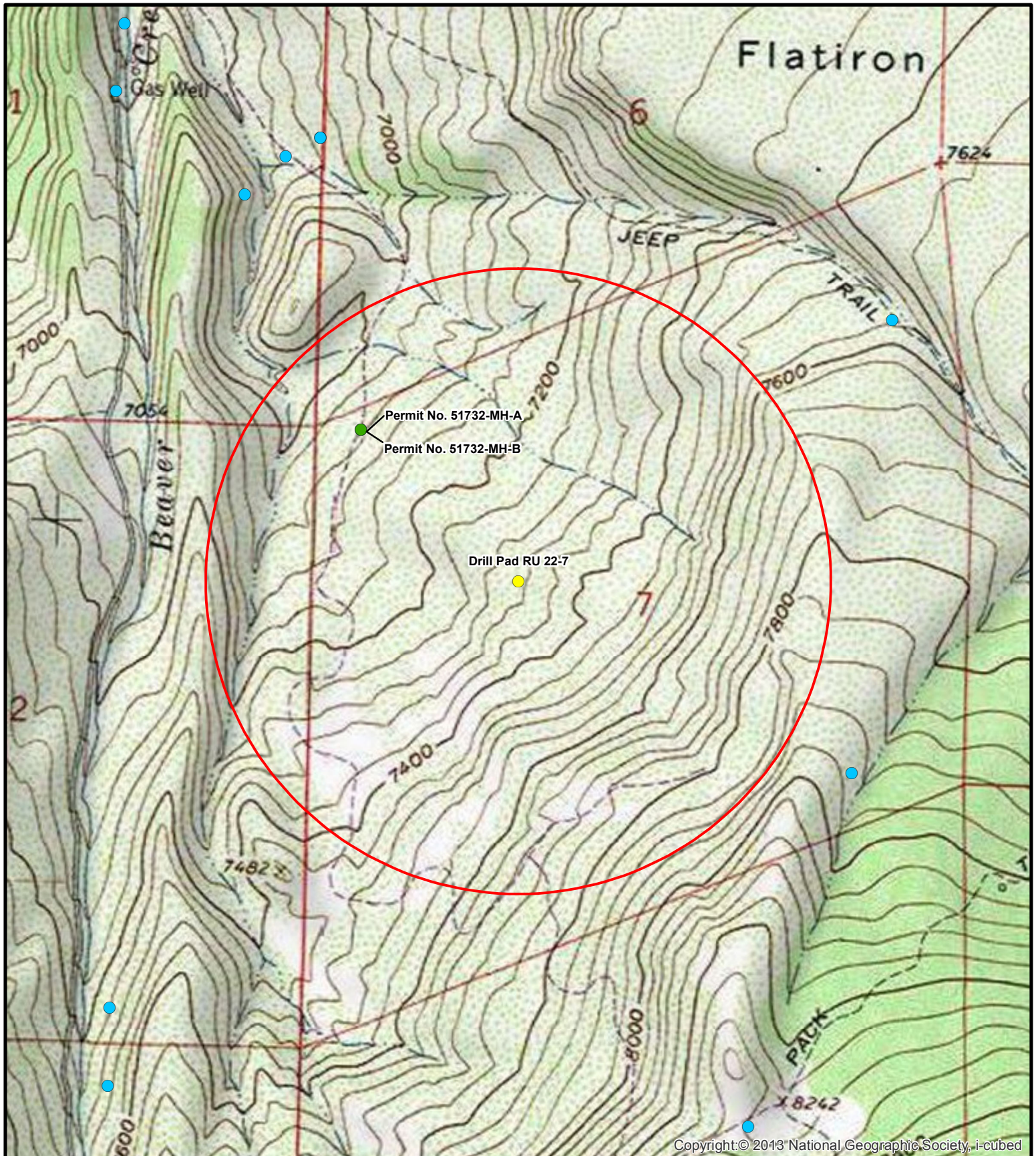
If you have any questions or concerns, please contact me at (970) 242-0170.

Sincerely,

A handwritten signature in black ink, appearing to read "Bruce D. Smith". The signature is fluid and cursive, with the first name "Bruce" being more legible than the last name "Smith".

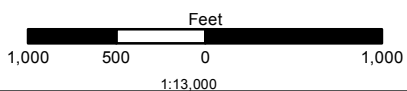
Bruce D. Smith  
Principal Hydrogeologist  
WESTERN WATER & LAND, INC.  
Attachments





### Legend

- Decree
- Constructed well
- Outside permits or decrees
- Drill Pad RU 22-7
- 0.5-Mile radius evaluation area
- Well completion status unknown



**Figure 1: Drill Pad RU 22-7**  
**0.5 Mile Radius Water Source Evaluation**  
**SE1/4, NW1/4, S7, T7S, R93W, 6 PM**

Garfield County, Colorado  
 WPX Energy Rocky Mountain LLC

Basemap Source: Esri ArcGIS Online



Western Water & Land, Inc.  
 Applications in Earth Science