

Sensitive Area Determination Checklist

WPX Energy Rocky Mountain, LLC (WPX)		
Person(s) Conducting Field Inspection	Jennifer Belcastro <i>Environmental Scientist</i>	03/14/13
Site Information		
Location:	NE Ryan Gulch Water Recycling Pit	Time: 13:30
Type of Facility:	Proposed Water Recycling Pit	
Environmental Conditions	Sunny; snow melt occurring	
Temperature (°F)	60°	

Has the proposed, new or existing location been designated as a sensitive area?

Yes No

SURFACE WATER

1. Are there any surface water features or SWSAs adjacent to or within ¼ mile of the proposed/new or existing facility?

Yes No

If yes, list type of surface water feature(s), i.e. rivers, creeks, streams, seeps, springs, wetlands: One (1) USGS identified unnamed intermittent drainage

If yes, describe location relative to facility: The intermittent drainage is located 1,564 feet to the north of the proposed facility.

2. Could a potential release from the facility reach surface water features?

Yes No

If yes, describe the pathway a release from the facility would likely follow to determine if the potential to impact surface water is high or low.

3. Is the potential to impact surface water from a facility release high or low?

High Low

GROUNDWATER

1. Will the proposed/new or existing facility have any pits which will contain hydrocarbons and chlorides or other E&P wastes?
 Yes No
 If yes, List the pit type(s): Water recycling pit

2. Is the site of the proposed facility underlain by an unconfined aquifer or recharge zone?
 Yes No

3. Is the hydraulic conductivity of the underlying soil or geologic material $\leq 1.0 \times 10^{-7}$ cm/sec?
 Yes No

4. Is the proposed facility located within 1/8 mile of a domestic water well or 1/4 mile of a public water supply well which would use the same aquifer?
 Yes No

5. Is the proposed facility located within a 100 year floodplain?
 Yes (*Sensitive Area*) No (*If no, proceed to question #6.*)

6. Is the depth to groundwater known?
 Yes (*If yes, follow instructions provided in 6(a) of this section.*)
 No (*If no, follow instructions provided in 6(b) of this section.*)
 - (a) If yes, could a potential release from the proposed facility reach groundwater?
 Yes No
 If yes, explain:

 - (b) If no:
 - (i) Evaluate surrounding soils, topography, and vegetation which may suggest the presence of shallow groundwater.
 - (ii) Gather information from surrounding well data in order to determine a depth to groundwater, i.e. State Engineers Office.

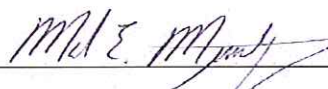
7. Is the potential to impact ground water from the facility in the event of a release high or low?
 High Low

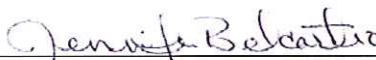
Additional Comments:

As stated in the surface water section of this sensitive area determination, there is one (1) USGS identified unnamed intermittent drainage located 1,564 feet north of the proposed facility. The facility, as it is currently proposed, limits the direction of a potential release to the northwestern side. If a potential release were to migrate off the facility, flow would be to the northwest following the natural contours of the area into open rangeland and the RGU 31-25-198 well pad. It is not anticipated the USGS identified intermittent drainage to the north would be impacted by a potential release due to fact a ridgeline separates the proposed facility from the drainage. However, during construction of the proposed facility, it is recommended that Best Management Practices (BMPs) be installed along the fill slope sides of the facility. These should be in the form of an earthen perimeter berm along the graded edge and diversion ditch along the toe of the fill slope sides of the facility. These BMPs should be monitored and maintained to ensure site containment in the event of a release.

The State Engineer's Office and USGS records were reviewed and no records were revealed which would provide additional information pertaining to the depth to groundwater. The vegetative cover in the immediate vicinity of the facility, Piñon Juniper woodland and sage brush, does not suggest the presence of any shallow groundwater.

Based on the information collected during the site investigation and desktop review, the potential to impact actual surface water features has been deemed low. Based on the topographic setting of the proposed facility and the vegetative cover, the potential to impact groundwater would be deemed to be low as well. However, as the pit will be a permitted facility, it should be constructed and lined as per COGCC rule 904. It should be hydrostatically tested with fresh water prior to the placement of any E&P fluids in it. With the potential to impact actual flowing surface water and groundwater being deemed low, the proposed facility can be designated as being in a non-sensitive area.

Inspector Signature(s):  Date: 3/21/2013
 Mark E. Mumby, *Project Manager/RPG*
 HRL Compliance Solutions, Inc.

 Date: 3/18/2013
 Jennifer Belcastro, *Environmental Scientist*
 HRL Compliance Solutions, Inc.