

Sensitive Area Determination Checklist

WPX Energy Rocky Mountain, LLC (WPX)		
Person(s) Conducting Field Inspection	Jennifer Belcastro	01/30/13
	<i>Environmental Scientist</i>	
Site Information		
Location:	GV 86-2	Time: 1130
Type of Facility:	Existing Well Pad	
Environmental Conditions	Cloudy; frozen ground conditions with 2 feet of snow	
Temperature (°F)	22°	

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) unnamed USGS identified intermittent drainage

If yes, describe location relative to facility: The unnamed USGS identified intermittent drainage is located 492 feet to the northwest of the existing 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 Cuttings and fluids will be managed on the surface
 If yes, List the pit type(s):

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:

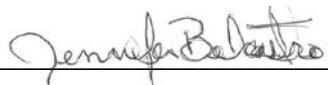
As stated in the surface water section of this sensitive area determination, there is one (1) unnamed USGS identified drainage located 492 feet northwest of the existing facility. By COGCC decision this would classify the facility as being in a sensitive area. However, the facility, as it is proposed to be expanded, will limit the direction of a potential release to portions of the northeastern and northwestern sides. A potential release, if it were to migrate off the facility, would tend to flow to the northeast following the natural contours of the area and would be parallel to the unnamed intermittent drainage. In addition, an overland release would tend to infiltrate into the open pasture land north of the facility due to the relatively short duration of the release and the moderate to high infiltration rates of the underlying soil. During facility expansion, it is still recommended that Best Management Practices (BMPs) be installed 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 one record was revealed which would provide additional information pertaining to the depth to groundwater. There is one upgradient domestic water well located within 1/8 mile of the existing facility. The depth to groundwater in the well is noted to be at 90 feet.

Based on the information collected during the site visit and desk top review, the potential to impact surface water features, actual flowing surface water, and groundwater has been deemed low based on the topographical setting of the existing facility. Cuttings and fluids will be managed on the surface thus eliminating the potential for a release which could occur over a longer period of time, such as a leaking pit, from potentially impacting groundwater. Therefore, the facility can be designated as being in a non-sensitive area.

Inspector Signature(s):  Date: 2/1/2013

Mark E. Mumby, *Project Manager/RPG*
HRL Compliance Solutions, Inc.

 Date: 1/31/2013

Jennifer Belcastro, *Environmental Scientist*
HRL Compliance Solutions, Inc.