

Sensitive Area Determination Checklist

TEP Rocky Mountain, LLC		
Person(s) Conducting Field Inspection	None Conducted	
Site Information		
Location:	RGU 23-7-297 Drill Pad	Time:
Type of Facility:	Existing Well Pad w/ Proposed Expansion	
Environmental Conditions		
Temperature (°F)		

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: Three (3) unnamed ephemeral drainages

If yes, describe location relative to facility: Two (2) of the unnamed ephemeral drainages are located adjacent to the northern edge of disturbance. The third identified ephemeral drainage is located approximately 330 feet to the south 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. If a potential release were to migrate off the existing facility on the northern side, flow would be directly into the above-mentioned ephemeral drainage features.

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

High to actual surface water features Low to actual flowing surface water

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): Drilling pit on the southeastern corner of the existing facility.

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

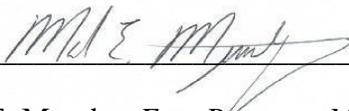
Additional Comments:

As stated in the surface water portion of this sensitive area determination, there three (3) unnamed ephemeral drainages located within ¼ mile of the existing facility. The facility as it is currently proposed to be expanded, limits the direction of a potential release to the northern side. If a potential release were to migrate off the facility on the northern side, flow would be to the north and directly into one or both ephemeral drainages adjacent to the northern edge of disturbance. The unnamed ephemeral drainage to the south would not be affected by a potential release as it is separated from the facility by a natural topographic high to the south. During facility expansion, Best Management Practices (BMP's) should be installed in the form of an earthen perimeter berm along the graded edge of the fill slope sides. If feasible diversion ditches and sediment traps should be constructed along the toe of all fill slope sides. Installation of these BMP's will greatly aid in mitigating any fluid migration off the facility. All installed BMP's should be monitored and maintained to ensure site containment in the event of a potential release.

The State Engineer's Office and USGS records were reviewed and no records were revealed which would provide any additional information pertaining to the depth to groundwater within a ¼ mile of the proposed facility. The closest permitted water well (permit #68235-F) is located 5,148 feet to the northeast and does provide limited information as to the depth to groundwater in the immediate vicinity of the existing facility. Even though the well to the north is some distance away it is permitted in a similar topographic/geologic setting and has targeted groundwater at depths of greater than 500 feet. Therefore, it could be assumed that groundwater, if present, in the immediate vicinity of the existing facility would be in excess of 500 feet. The vegetative cover in the immediate vicinity of the existing facility is dominated by sage, juniper, and bunch grasses typical of the upland xeric environment. No seeps or springs were identified during the desk top review which would suggest the presence of shallow groundwater. In addition, the existing facility is located on top of a ridgeline and is constructed in bedrock which is most likely devoid of any groundwater.

Based on the information collected during the desktop review, the greatest potential for impacts would be to the unnamed intermittent drainages located to the north of the existing facility. As noted above; if a potential release were to migrate off the northern side, flow would be to the north towards and directly into the unnamed intermittent drainages. Even if flow from a potential release were to reach the unnamed intermittent drainages it is not anticipated that it would migrate any great distance. This would be because the unnamed intermittent drainage features have very poorly defined channels, contain an abundant amount of woody debris and vegetation in the channel bottoms which would tend to hinder flow. In addition, the high infiltration rates of the channel bottom soils would prevent a potential release from migrating over a large distance as well. Both drainage features become non-existent in areas to the north of the existing facility. Therefore, the potential for impacts to actual flowing surface water would be deemed to be very low. The potential for impacts to groundwater, and actual flowing surface

water been deemed as low. However, the potential for impacts to surface water features has been deemed as high due to the close proximity of the two intermittent drainages to the existing facility. With the high potential for impacts to surface water features the facility should be designated as being in a sensitive area.

Inspector Signature(s):  Date: 3/20/2020

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