Sensitive Area Determination Checklist

TEP Rocky Mountain, LLC			
Person(s) Conducting Field Inspection		None Conducted	Winter Conditions
Site Information	Existing Well Pad w/ Limited Proposed Expansion		
Location:	TR 32-23-597 Well Pad		Time:
Type of Facility:	Existing Well Pad		
Environmental Conditions	N/A		
Temperature (°F)	N/A		

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: There are two (2) USGS identified intermittent drainages.

   If yes, describe location relative to facility: One is located 958 feet to the northwest and the second USGS identified intermittent drainage is located 747 feet to the southeast 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
   If yes, List the pit type(s): Cuttings trench along northwest side of the pad.

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 ≤ $1.0x10^{-7}$ 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 are two unnamed USGS identified intermittent drainages located within ¼ mile of the existing facility. The existing facility, as it is currently constructed, would allow a potential release to migrate of the northeastern, northwestern, and southeastern sides. If a potential release were to migrate off the facility, flow would be perpendicular to all the above mentioned sides and would follow the natural contours of the area. Based on aerial photograph review, there appears to be are Best Management Practices (BMP's) installed on all of the above mentioned sides in the form of a earthen perimeter berm and diversion ditch at the base of the fill slope sides. During the limited pad expansion, these (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 that would provide additional information pertaining to the depth to groundwater. The closest permitted water well is located 12,988 feet (~2.5 miles) to the northeast and would not be an accurate representation of the depth to groundwater in the immediate vicinity of the existing facility. However, the vegetative cover in the immediate vicinity of the facility, which likely consists of service berry, oak brush, and, sage brush does not suggest the presence of shallow groundwater. In addition, based on the topographic setting of the existing facility (ridgeline) and the elevation above the valley floor on both sides (northwest 345 feet and southeast 190 feet); it could be assumed that the depth to groundwater would most likely be in excess of 100 feet if not greater. Therefore the potential to impact groundwater would be deemed as low.

However, as noted in the groundwater section of this SAD, a cuttings trench will be constructed on the northwestern side. It should be noted that the facility resides in the Uinta Formation which tends to be fractured both horizontally and vertically. This can result in fluid migration in the subsurface over large distances. Therefore the cuttings trench should be closely monitored to ensure no materials (especially fluids) other than cuttings are placed in the trench to eliminate any potential impacts to groundwater.

Based on the information collected during this desktop review, the potential to impact surface water features or actual flowing surface water would be deemed to be low. As noted above; if a potential release were to migrate off the facility, it would flow to the northwest and southeast into the existing BMPs or onto the heavily vegetated hillside in the event of a very large release. Even if flow migrated out of the existing BMPs and onto the hillside, it is not anticipated that it would migrate any great distance due to the heavy vegetative cover, and the moderately high infiltration rates of the underlying soils based on information from the NRCS .

Due to the topographical setting of the proposed facility, the potential to impact groundwater and surface water features has been deemed to be low. With the low potential for impacts to

groundwater and surface water features the proposed facility can be classified as being in a non-sensitive area.

Inspector Signature(s):  Date: 1/18/2017

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HRL Compliance Solutions, Inc.