Sensitive Area Determination Checklist

Williams Production RMT Company			
Person(s) Conducting Field Inspection		Jennifer Belcastro	03/26/2012
		Environmental Scientist	
Site Information			
Location:	RGU 43-23-198		Time: 0330
Type of Facility:	Proposed Well Pad		
Environmental Conditions	Windy; dry soil conditions.		
Temperature (°F)	55°		

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 unnamed USGS identified intermittent drainages.

   If yes, describe location relative to facility: One unnamed USGS identified intermittent drainage is located approximately 961 feet to the northwest and the other unnamed USGS indentified intermittent drainage is located approximately 513 feet to the southeast of the proposed facility.

   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. A potential release, if it were to migrate off the facility, would tend to flow to the northwest and southeast following the natural contours of the area towards the unnamed intermittent drainages.

2. Is the potential to impact surface water from a facility release high or low?
   ☒ High to actual surface water features ☒ Low to any 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): Cuttings Trench

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 USGS identified unnamed intermittent drainages located 961 feet to the northwest and one USGS identified unnamed intermittent drainage located 513 feet to the southeast of the proposed facility. The facility, as it is currently proposed, is situated atop a ridge line which limits the direction of a potential release to primarily the northwestern and southeastern sides. If a potential release were to migrate off the facility, flow would be to the northwest and southeast following the natural contours of the area directly towards the unnamed drainages. The greatest potential for impact would be to the unnamed intermittent drainage located to the southeast of the facility due to its relatively close proximity to the facility. However, the unnamed intermittent drainage exhibits more ephemeral characteristics in the immediate vicinity of the proposed facility such as no high ordinary water mark and a somewhat vegetated bottom indicating it does not flow a majority of the time. It is not anticipated the drainage to the northwest of the facility would be impacted by a released due to the fairly thick vegetative cover and the distance flow would have to migrate in order to reach this drainage feature. The drainage to the northwest, like the drainage to the southeast, also exhibits ephemeral characteristics in the immediate vicinity of the facility indicating it does not flow a majority of the time as well. During facility construction, it would be recommended that Best Management Practices (BMPs) be installed along the fill slope sides of the facility particularly the northwestern, southeastern and a portion of the northeastern sides. These should be in the form of an earthen perimeter berm along the graded edge and a diversion ditch along the toe of the fill slope sides. These 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 it was revealed there are two permitted wells located to the southwest of the proposed facility. The depth to water in these wells is greater than 1,000 feet. Therefore it is not anticipated a potential release would impact groundwater. In addition, the vegetative cover in the immediate vicinity of the facility (Piñon juniper woodland and sage brush) does not suggest the presence of any potential 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 high due to the close proximity of the unnamed intermittent drainage located to the southeast of the facility. However, the potential to impact any flowing surface water is very low due to the fact the closest drainage with intermittent flow (Yellow Creek) is located more than 2 miles to the north of the proposed facility. With the potential to impact any flowing surface water and groundwater being deemed as low, the facility can be designated as being in a non-sensitive area.

Inspector Signature(s): _____ Date: 1/13/2013

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

_____ Date: 3/26/2013

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HRL Compliance Solutions, Inc.