Sensitive Area Determination Checklist

Williams Production RMT Company			
Person(s) Conducting Field Inspection		Ashlee Lane	3/21/11
		Biologist	
Site Information			
Location:	SG 14-23		Time: 1100
Type of Facility:	Existing Well Pad		
Environmental Conditions	Cloudy and windy.		
Temperature (°F)	52°		

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: Two USGS identified unnamed intermittent drainages both of which are tributary to the Colorado River.

   If yes, describe location relative to facility: One unnamed intermittent drainage is located 571 feet east, and the second unnamed intermittent drainage is located 404 feet west 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 was to migrate off the southwestern edge of the facility.

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): Drilling 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 $\leq 1.0x10^{-7}$ 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.

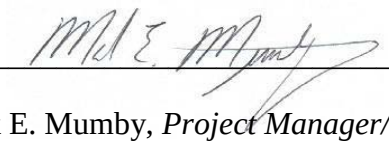
7. Is the potential to impact ground water from the facility in the event of a release high or low?
   ☐ High ☒ Low

Additional Comments:

As stated in the surface water section of this sensitive area determination, there are two USGS identified unnamed intermittent drainages located within ¼ mile of the existing facility. The facility as it is currently constructed limits flow directions of a potential release to primarily the southwestern side. If a potential release was to migrate off the southwestern edge of the facility it would tend to flow to the southwest following the natural contours of the area. Therefore, the potential to impact the unnamed drainage to the east of the facility would be minimal to non-existent since flow would be parallel to that drainage. The greatest potential for impact would be to the drainage located 404 feet to the west of the facility. By COGCC decision this would classify the facility as being in a sensitive area. However the potential to impact this drainage is low due to the following: the topography, immediately west of the facility, is relatively flat; there is substantial vegetative cover consisting of sage brush, greasewood, snakeweed and bunch grasses; and the underlying soils have a moderate to high infiltration rate. Best Management Practices (BMPs) are currently not installed along any edges of the existing facility. It is highly recommended that BMP's be installed in the form of a perimeter berm along the fill slope edges of the facility (i.e. southwest and portions of the northwestern and southeastern sides). In addition it is recommended that a diversion ditch be installed along the base of the fill slopes especially the southwestern side. These BMPs should be monitored and maintained to ensure site containment in the event of a release.

The State engineers Office and USGS records were reviewed and limited water well data was available within the immediate vicinity of the well pad. Water well data is available from wells south of the Colorado River; however, they are in a different flow regime than that of the existing facility. The closest water well data available, from a similar geographic setting is located approximately 3,000 feet southwest of the facility. The depth to water in that well is 70 feet however the screened interval is located at 250 feet which would put the depth to groundwater at that depth. The vegetative cover in the immediate vicinity of the facility, consisting of sage brush, greasewood, snakeweed and bunch grasses, does not suggest the presence of shallow groundwater.

Based on the information collected during the field investigation and desktop review, the potential to impact surface water features, actual flowing surface water, and groundwater has been deemed low. Therefore the facility can be designated as being in a non-sensitive area.

Inspector Signature(s):  Date: 3/24/2011

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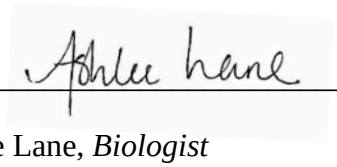 Date: 3/22/2011

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