Bratcher, Mike, EMNRD

From: Randall Hicks <r@rthicksconsult.com>

Sent: Thursday, February 28, 2013 11:50 AM

To: whoughto@nmsu.edu; Bratcher, Mike, EMNRD; 'Kristin Pope'

Cc: mstewart@helmsoil.com; cstoker@helmsoil.com

Subject: Alamo Permian Cedar Lake 5 - Site visit next Tuesday or Thursday?

Mike

Mr. Woods Houghton of NMSU will give you a call to talk about his ability to act as an independent expert as it relates to determining if the mapped wetland near the Cedar Lake #5 well is a wetland as defined by OCD Rules. The key to determining if the mapped area is an OCD "wetland" is the identification of the plants in the area. The OCD definition is:

(9) "Wetlands" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient

support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions in New

Mexico. This definition does not include constructed wetlands used for wastewater treatment purposes.

Assuming that you are comfortable with the experience of Mr. Houghton, we would like to schedule a field visit on Tuesday or Thursday of next week to meet with you and take a look at the nearby mapped wetlands. If Mr. Houghton identifies "a prevalence of vegetation typically adapted for life in saturated soil conditions in New Mexico, then Alamo Permian will submit a revised C-144 to use closed loop/haul-off. We believe this site meets all other siting criteria for the use of a pit.

Kristin has done some research regarding the Wetlands Mapper and it appears that satellite mapping, other remote sensing techniques and USDA soils data are some tools used to identify these wetlands. You can go to http://www.fws.gov/wetlands/Data/Limitations.html and find that the USFWS Mapper says:

Data Limitations, Exclusions and Precautions

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery and/or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site

Obviously, we need to look at what exists on the ground to determine if the area(s) meet the OCD definition of a wetland.

Thanks Mike. Expect a call from Kristin to ask you about a good time/day for the site visit.

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