



1313 Sherman Street, Room 821  
Denver, CO 80203

MEMORANDUM

TO: Robert P. Koehler, PhD, Oil & Gas Conservation Commission  
FROM: Matthew A. Sares and Andy Flor, Hydrogeological Services  
DATE: February 10, 2016  
SUBJECT: Water Injection Project - Windy Hill # 3-17D (API 087-08145)  
SENE Sec 17, T3N, R55W, 6th PM  
Windy Hill Water Operations, LLC, Morgan County

On December 21, 2015 you sent a memo describing a proposal by Windy Hill Water Operations, LLC to use an existing well, Windy Hill # 3-17D, for injection into the J-Sandstone member of the Dakota Group (5,130-5,300 feet below ground). The well is located in the SE¼ of the NE¼ of Section 17, Township 3 North, Range 55 West of the Sixth Principal Meridian. The well is located in east-central Morgan County approximately 4 miles southeast of Brush, CO. The uppermost injection formation crops out approximately 85 miles west of the well location.

Most of the existing water supply wells in this area produce from the shallow Quaternary eolian sediments. The Pierre Shale underlies the eolian sediments at this location. Recently, the Upper Pierre Aquifer has begun to be developed as a source of fresh water in Northern Colorado. The Upper Pierre Aquifer at this location extends to an approximate depth of 1,200 feet below ground surface.

The wells listed below are in the immediate vicinity of the subject well, were drilled to the J-Sandstone with no production casing set, and the wells were subsequently abandoned leaving open holes filled with drilling mud:

- Rincon Operating - Chvatal #1 - API: 05-087-07588
  - TD: 5196 feet; surface casing: 131 feet
  - Elevation: 4397 feet; Base Kpu: 3255 feet (1140 feet BGS)
- Morgan Oil Co - Chvatal #2 - API: 05-087-07636
  - TD: 5175 feet; surface casing: 129 feet
  - Elevation: 4409 feet; Base Kpu: 3279 feet (1130 feet BGS)
- Plains Ex - John A Fries et al (L-2768) #1 - API: 05-087-05996
  - TD: 5250 feet; surface casing: 159 feet
  - Elevation: 4454 feet; Base Kpu: 3279 feet (1175 feet BGS)

Due to the open hole construction and proximity to the proposed injection well, we recommend that the above wells be reentered and grouted from the surface to a depth of at least 1,200 feet to adequately protect the Upper Pierre Aquifer from contamination. If you have any questions or require additional information, please feel free to contact me (303-866-3581 x8290).

