

JOHN SHOMAKER & ASSOCIATES, INC.

WATER-RESOURCE AND ENVIRONMENTAL CONSULTANTS

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March 13, 2009

Ms. Claudia Borchert
City of Santa Fe Water Division
801 W. San Mateo
Santa Fe, NM 87505

ciborchert@ci.santa-fe.nm.us

RE: Buckman Monitoring Program well and well permit survey

Dear Claudia:

The Buckman Monitoring Program well and well permit survey (survey) includes the Buckman Monitoring Program area (a 4-mile radius from each well RG-20516-S-10 through RG-20516-S-13), and the Tano Road area (part or all of Sections 1 through 5 and 9 in Township 17 North, Range 9 East, and part of Section 33 in Township 18 North, Range 9 East), as shown in brown and blue, respectively, on the attached map.

The survey, finalized January 23, 2009, is posted on the City of Santa Fe website (<http://www.santafenm.gov/index.asp?NID=1030>). The database can also be reached by following the links beginning at the City's home page: www.santafenm.gov → Government → Departments → Public Utilities → Water Division → Water Resources → Buckman Wells Monitoring Program.

The survey is accompanied by an index map that divides the Buckman Monitoring Program area into smaller sub-areas indexed by the letters A through J. More detailed maps are provided for these sub-areas. The maps are aerial photos with streets, Township/Range, and well ID Nos. labeled. The database is also accompanied by instructions on finding a well in the survey.

The survey is a synthesis of well data and permits from the New Mexico Office of the State Engineer (NMOSE), New Mexico Bureau of Geology and Mineral Resources (NMBGMR), U.S. Geological Survey (USGS), and City of Santa Fe. Additional information on well location and ownership was provided by John Miles Smith for Sundance Estates, New West, and Vista del Mundo subdivision wells, by Charles Harrison for La Tierra Nueva subdivision wells, and by James and Sylvia DuLaney for Tano Road Neighborhood Association wells.

Well and Well Permit Survey Development

The NMOSE iWATERS database was searched based on Township, Range, Section, and based on a search radius using New Mexico State Plane coordinates, for the Buckman Monitoring Program area and Tano Road area. In addition, information technology staff at NMOSE performed a WATERS database “dump” for the area. Wells documented by the USGS (Mourant, 1980) were entered in the survey, and where possible, matched with WATERS database wells and permits. Wells documented by NMBGMR (Johnson, February 20, 2008) were entered in the survey, and where possible, matched with WATERS database wells and permits. Additional data on La Tierra subdivision wells, provided in hard copy by City of Santa Fe, were entered in the survey. Additional data for Buckman Monitoring Program wells provided in electronic format by City of Santa Fe were entered in the survey. Wells and well permit locations were overlain on the Santa Fe County plat, and parcel ownership, street address, and legal description were added to the survey.

NAD83 UTM coordinates were determined for each well or permit location, based on Township/Range, New Mexico State Plane, or UTM coordinates from the WATERS database, Township/Range or New Mexico State Plane coordinates from Mourant (1980), or UTM coordinates from Johnson (February 20, 2008). NMBGMR location information (Johnson, February 20, 2008) was considered to be the highest-quality, followed by USGS location information (Mourant, 1980), and iWATERS location information.

Certain well locations were verified or revised based on high-quality information provided by John Miles Smith (June 19, 2008 email) for Sundance Estates, New West, and Vista del Mundo subdivision wells, by Charles Harrison (September 2, 2004 letter to Louis O’Dell) for La Tierra Nueva subdivision wells, and by James and Sylvia DuLaney (October 29, 2008 meeting) for Tano Road Neighborhood Association wells. The verified wells are represented by square symbols on the attached map.

Well Verification

It is important to keep in mind that the survey represents wells and well permits. It was very difficult to verify the existence or non-existence of many wells with expired permits in the iWATERS database, since wells may have been drilled under expired permits; however, many of the expired well permits were likely never drilled. In addition, there is a high level of uncertainty associated with locations in iWATERS, resulting in wells and well permits being matched with incorrect lots in the Santa Fe County parcel database.

Thus, survey entries were not deleted based on expired-permit designation in iWATERS. Survey entries were only deleted based on plug/abandon documentation in Mourant (1980) or verification by John Miles Smith for Sundance Estates, New West, and Vista del Mundo subdivision wells.

Survey Entries

The survey includes the following:

- NMOSE well or well permit ID No.
- Well owner as indicated in iWATERS database¹
- Confirmed well owner from information provided by John Miles Smith for Sundance Estates, New West, and Vista del Mundo subdivision wells, by Charles Harrison for La Tierra Nueva subdivision wells, and by James and Sylvia DuLaney for Tano Road Neighborhood Association wells
- Other well names from Mourant (1980), NMBGMR (Johnson, February 20, 2008), City of Santa Fe files
- Parcel owner listed in Santa Fe County parcel database
- Street address listed in Santa Fe County parcel database and, at certain locations, confirmed by John Miles Smith for Sundance Estates, New West, and Vista del Mundo subdivision wells, by Charles Harrison for La Tierra Nueva subdivision wells, and by James and Sylvia DuLaney for Tano Road Neighborhood Association wells (see Address source column)
- Lot description listed in Santa Fe County parcel database
- NAD83 UTM coordinates (in meters) for well or well permit location
- Township/Range for well or well permit location
- Use from iWATERS database
- Diversion from iWATERS database
- Drilling date from iWATERS database, Mourant (1980), or NMBGMR (Johnson, February 20, 2008)
- Well depth from iWATERS database, Mourant (1980), or NMBGMR (Johnson, February 20, 2008)²
- Depth to water from iWATERS database, Mourant (1980), or NMBGMR (Johnson, February 20, 2008)²
- Land surface elevation from WATERS database, Mourant (1980), or NMBGMR (Johnson, February 20, 2008)²

¹ In some cases, when the iWATERS database was searched based on Township, Range, Section, and based on a search radius using New Mexico State Plane coordinates, a well or well permit entry would be listed under two different owners. In such cases, both owners are listed in the survey. Owner information from the NMBGMR database (Johnson, February 20, 2008) was also added.

² NMBGMR information (Johnson, February 20, 2008) was considered to be the highest-quality, followed by USGS information (Mourant, 1980), and iWATERS information.

- Monitoring area (BMP = Buckman Monitoring Program, TR = Tano Road)
- Other well ID Nos. (EB- ID Nos. are from the NMBGMR database (Johnson, February 20, 2008), and M- ID Nos. represent wells documented in Mourant (1980))
- Shared well notes from information provided by John Miles Smith for Sundance Estates, New West, and Vista del Mundo subdivision wells, by Charles Harrison for La Tierra Nueva subdivision wells, and by James and Sylvia DuLaney for Tano Road Neighborhood Association wells

Please contact me if you have any questions or comments,

Sincerely,

JOHN SHOMAKER & ASSOCIATES, INC.

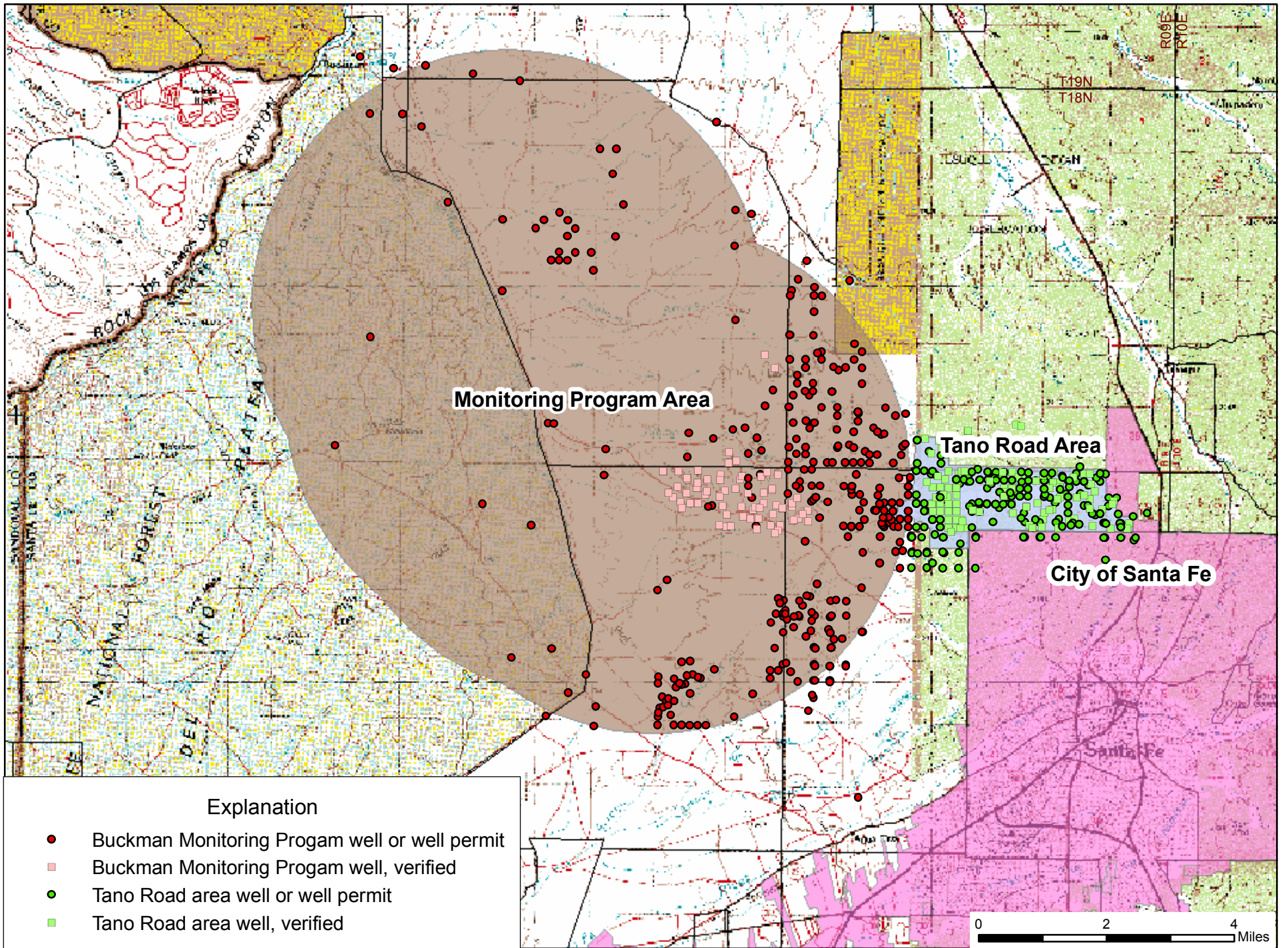


Annie McCoy
Project Hydrogeologist

AMM:am

Reference

Mourant, W.A., 1980, Hydrologic maps and data for Santa Fe County, New Mexico: Basic Data Report prepared by the U.S. Geological Survey and New Mexico Office of the State Engineer, 180 p. plus maps.



Wells and well permits in the Buckman Monitoring Program Survey Area.