

Administrative Record

FORT WINGATE DEPOT ACTIVITY, GALLUP, NEW MEXICO

Document No. 95-13

*Second Quarterly Report on Ground Water
Monitoring at UST Bldg. 6 Area,
Fort Wingate Depot Activity,
New Mexico*

U.S. Army Corps of Engineers, Albuquerque District

December 1995



INQUIRIES REGARDING THIS DOCUMENT AND/OR THE ADMINISTRATIVE RECORD FOR
FORT WINGATE DEPOT ACTIVITY SHOULD BE MADE TO:
COMMANDER, TOOELE ARMY DEPOT, TOOELE, UTAH 84074



DEPARTMENT OF THE ARMY
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 1580
ALBUQUERQUE, NEW MEXICO 87103-1580
FAX (505) 766-2770

REPLY TO
ATTENTION OF:

December 11, 1995

Engineering and Planning Division
Planning Branch

Tim
(H10) 671-1635

Mr. Ray Montes
New Mexico Environment Department
Underground Storage Tank Bureau
Post Office Box 26110
Santa Fe, New Mexico 87502

Dear Mr. Montes:

Enclosed please find the second Quarterly Sampling Report for the Fort Wingate Depot Activity, Building 6 UST Area. This report is submitted in compliance with the UST Bureau's request for two years of continuous quarterly sampling of the impacted aquifer, by your letter dated April 18, 1995 from Mr. Bill Skinner.

Please note that the last sentence of the second paragraph is changed from the 1st Quarterly Sampling Report. We have corrected that sentence to read: "...a surface sheen was reported."

If you have any questions or need further information concerning this report, please contact the Technical Manager for this project, Ms. Susan Gant, at (505) 766-1363, after December 18, 1995, (505) 254-3471.

Sincerely,

James A. White for
Gary L. Gamel, P.E.

Chief, Engineering and Planning Division

Enclosures

Copy Furnished (w/enclosures):

Commander, Tooele Army Depot
ATTN: Mr. Larry Fisher
Tooele, Utah 84074

2nd QUARTERLY REPORT
on
Groundwater Monitoring at UST Building 6 Area
Fort Wingate Army Depot Activity, New Mexico

1.0 Background. Fort Wingate Depot Activity (FWDA) is a federally owned and operated facility under the United States Army command and occupies 22,812 acres of land in McKinley County, New Mexico. FWDA was closed in January of 1993 and is currently managed by Tooele Army Depot in Tooele, Utah. During the week of January 18-22, 1993, six underground storage tanks (USTs) were removed from the vehicle service and maintenance area at FWDA. A fuel release was discovered during tank removal, presumably from holes in the bottom of several of the tanks or associated piping. This spill was discovered on January 19 and reported to the New Mexico Environment Department (NMED), UST Bureau.

The U.S. Army Corps of Engineers, Albuquerque District (USACE-SWA), performed an on-site investigation to address soil and groundwater contamination at the site and to provide reclamation/remediation alternatives, as necessary. Personnel from USACE-SWA, HTRW Section made a brief inspection of the site during a field reconnaissance trip on February 8, 1993. A strong petroleum odor was detected at the site and several gallons of liquid were observed in a test pit adjacent to the UST excavation area. A determination of the nature of this liquid was not made at the time, however, a surface sheen was reported.

An On-Site Investigation was begun in May of 1993. Petroleum constituent data was collected from sixteen soil borings advanced to an average depth of sixty feet. Headspace readings on a PID were collected at five foot intervals to guide the collection of soil samples in the contaminated and uncontaminated zones. Based on the laboratory and field results from the sixteen soil borings completed at the site in May of 1993, the vertical extent of the contamination appeared to be limited by a continuous clay layer occurring at about 40 feet in depth. The horizontal extent of the contamination appeared to be limited to within 250 feet downgradient of the former underground storage tanks. These results were submitted to the NMED in June of 1993. After reviewing these results, the NMED requested in January of 1994, that the investigation be expanded to better define the vertical and horizontal extent of the contamination and to determine if fuel products have significantly contaminated the shallow alluvial aquifer.

In October and November of 1994, six soil borings to a depth of 60 feet were drilled, and 3 monitoring wells to an average depth of 57 feet were installed at the UST site. Laboratory analysis of water from one of these wells, MW-20, located south and west of the UST removal area indicated benzene contamination at 110 $\mu\text{g/l}$, well above the State action level of 10 $\mu\text{g/l}$ for benzene in groundwater. All three wells were resampled in December of 1994 and again, laboratory analysis indicated that the same well was still contaminated with benzene, but at a lower level of 59 $\mu\text{g/l}$. A soil gas survey was conducted in the UST area

in March of 1995 to better define the location of the benzene contamination around MW-20; however, benzene was not found in the soils or water at a depth of 35 to 50 feet in that area. The three wells were resampled during the soil gas survey and laboratory analysis indicated that the benzene level in MW-20 had fallen to 4.4 $\mu\text{g/l}$. With the apparent steady decline in the benzene levels, the Albuquerque District approached the NMED to suspend the investigation and any further requirements to install additional monitoring wells at this site. The NMED agreed that installation of additional monitoring wells was not indicated at that time, however, a two-year quarterly ground water monitoring program was required to provide data for this site to ensure that shallow ground water quality has not been compromised. A work plan for the eight quarters of monitoring was submitted by USACE to the NMED and was approved on June 13, 1995.

2.0 2nd Quarter Water Sampling. Mr. Stephen Mooty and Ms. Susan Gant, of USACE-SWA, completed water sampling at MW-18, MW-20 and MW-22 on July 18-20, 1995, in accordance with the approved Work Plan. Water levels were recorded prior to and following sampling. The wells have not been surveyed at this time. Reported water levels are measured from the top of the PVC casing. An ES-60 sampling pump was used to purge the wells and was decontaminated prior to and following the purging of each well. Disposable polyethylene bailers were used to draw the samples from the wells, the samples were decanted into laboratory certified containers, chilled to 4°C, and delivered to the laboratory on November 22, 1995. A tabular summary of well purging data is provided in Table 1.

TABLE 1

| WELL NO. | Depth of Well (ft*) | Pre-Purge Water Level (ft*) | Pumping Rate (gpm) | Purged Volume (gal) | Post-Sample Water Level (ft*) |
|----------|---------------------|-----------------------------|--------------------|---------------------|-------------------------------|
| MW-18S | 39.13 | 0 | 0 | 0 | 0 |
| MW-18D | 59.39 | 42.90 | pumped dry | 8 | 0.10 |
| MW-20 | 59.58 | 44.80 | 0.41 | 12 | 44.37 |
| MW-22S | 43.53 | 41.73 | pumped dry | 1.5 | 0.10 |
| MW-22D | 58.95 | 41.85 | 0.5 | 20 | 39.78 |

* from top of riser

3. Analytical Results. Four water samples, one equipment rinsate sample and a trip blank were analyzed for BTEX, using EPA method 8020. No BTEX was detected in any of the samples analyzed by Assagai Laboratory and reported on December 6, 1995. Laboratory results have been included in Appendix A.

