Dear Mr. Kieling:

FPM Remediations/URS Group, Inc. (URS) is tasked by the Air Force Civil Engineer Center (AFCEC) with achieving Corrective Action Complete (CAC) without Controls at the Primate Research Lab Sewer Line (Environmental Restoration Program [ERP] Site OT-32, AOC-PRI-A) located at Holloman Air Force Base (AFB; Figure 1). URS has reviewed the New Mexico Environmental Department (NMED) disapproval letter dated September 18, 2014 for the Accelerated Corrective Measures (ACM) Completion Report (Bhate 2012) and understands that the rationale for the disapproval is based upon:

- Detection of 1,1-dichloroethene (DCE) in monitoring well OT32-TMW09 (TMW-09) at 18 micrograms per liter (µg/L), in exceedance of the NM Water Quality Control Commission (NMWQCC) groundwater standard of 5µg/L, and
- Questionable groundwater flow direction as depicted in the ACM Completion Report.

URS has evaluated the data available for this Site, taken preliminary action to gather additional data, and is now providing this letter work plan that further describes the proposed supplemental work.

Site Description and Previous Investigations

OT-32 is located along the waste discharge sewer line of the former Primate Research Institute (PRI). The former PRI is located on Douglas Road near the intersection with Vandergrift Road, approximately two miles north of the Main Base Area (Figure 1). For a detailed history and description of the site, refer to the ACM Completion Report (Bhate 2012).
In 2007, twelve (12) soil borings were drilled along 2,600 ft of the sewer line and completed as temporary groundwater monitoring wells. The temporary wells were surveyed to evaluate hydraulic conditions at the site, and sampled for laboratory analysis (Figure 2). Results of the 2007 groundwater monitoring investigation indicated one elevated concentration of 1,1-DCE in well TMW-09 at 18 ug/L (Figure 2). All other analytes were below the NMWQCC groundwater standards. The groundwater flow direction illustrated in the ACM Completion Report (Bhate 2012) indicated groundwater flow to the south. URS re-evaluated these potentiometric data and believe the data was contoured incorrectly (variable contour intervals and lack of a holistic approach). The data were re-contoured using the same potentiometric data and applying standard rules of contouring. The resulting potentiometric surface indicates that groundwater flows to the southwest, consistent with the flow direction observed at other locations in this area of Holloman AFB (Figure 2).

In 2014, a URS field team was at Holloman AFB conducting work at other ERP sites. The field presence was used as an opportunity to collect new water-level measurements at OT-32, as well as a groundwater sample for analysis of volatile organic compounds (VOC) from the TMW-09 well that showed an elevated 1,1-DCE concentration in 2007. In addition to TMW-09, surrounding wells TMW-08 and TMW-10 were also sampled and analyzed for VOCs to confirm the previous results. Because of uncertainties in the existing survey data, all twelve (12) temporary monitoring wells were also re-surveyed, and the new potentiometric data were contoured to confirm the Site’s groundwater flow direction.

The November 2014 potentiometric data confirms that groundwater at the OT-32 site flows to the southwest (Figure 3), consistent with the re-contoured data from 2007. Analytical results from 2014 indicate that the 1,1-DCE is still present in TMW-09 (12 ug/L), but the concentration has decreased by approximately 30 percent over the last seven (7) years. Groundwater analysis at adjacent wells TMW-08 and TMW-10 did not detect any VOCs, consistent with the data reported in 2007 (Figure 3). Total Dissolved Solids (TDS) were also evaluated in 2007 from these three (3) wells, with concentrations ranging from 13,000 to 14,000 milligrams per liter (mg/L) (Bhate 2012). Based on these data, the extent of 1,1-DCE is localized, attenuating, and approaching the relevant NMWQCC standard.

**Course of Action**

As stipulated in NMED’s Response to the Notice of Disapproval letter (December 5, 2014), the plan is to “conduct two additional quarters of groundwater sampling at monitoring well OT32-TMW09.” The groundwater sample will be analyzed for VOCs and TDS. The November 2014 sample event represents the first quarterly sampling event and the second event is planned for Spring 2015. At that time, a new round of water-level measurements from the twelve (12) wells will be collected and an updated potentiometric surface map will be created for the site.

**Reporting**

A brief letter report that includes the two quarters of analytical results, as well as updated potentiometric surface maps will be prepared and submitted to the NMED. As indicated in the 2014 disapproval letter, following receipt of the report, “NMED will make a decision regarding the need for future site characterization activities”.

Global Power for America
If you have any questions regarding this submittal, please contact me at (575) 572-3931.

Sincerely,

DEANNA ROTHHAUPT, GS-12, Dafc

Attachment(s):
- Figure 1 – Site and Feature Location Map
- Figure 2 – OT-32 Re-Contoured Potentiometric Surface
- Figure 3 – OT-32 Potentiometric Surface and Analytical Results

CC:  
- D. Cobrain, NMED HWB
- W. Moats, NMED HWB
- C. Amindyas, NMED HWB
- D. Strasser, NMED HWB
- C. Hendrickson, EPA-Region 6 (6PD-N)
- B. Renaghan, AFCEC
- L. Peters, AFCEC

This information is protected by the Privacy Act of 1974
Groundwater Elevation, November 2014

Legend

- Temporary Monitor Well
- Flow Direction
- Potentiometric Contour (0.5 ft interval)
- Dashed where inferred
- Building
- Installation Area
- Wastewater Line
- Water Line

Sources:
HAFB, Bhate (2012), ULS Services Corp.

Coordinate System:
NAD 1983 State Plane,
New Mexico Central Zone, Feet

Scale in Feet

1 inch = 200 feet