DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 377TH AIR BASE WING (AFMC)

ENTERED

377 ABW/EMR
2000 Wyoming Blvd SE
Kirtland AFB NM 87117-5659

10 Nov 1994

Ms. Nancy Morlock, Environmental Engineer
RCRA Permits Branch
U.S. EPA Region 6
1445 Ross Ave, Suite 1200
Dallas TX 75202-2733

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Dear Ms. Morlock

Please find enclosed the site specific sampling plan for the RCRA Facility Investigation (RFI) of Site WP-58, Former Laundry Facility, Kirtland Air Force Base, New Mexico. This site will be investigated as part of the Stage 2-E, Appendix V RFI. Please address any questions or comments to Stephen Lee at 505-846-2773/0053.

Sincerely

CHRISTOPHER B. DeWITT, R.P.G.
Chief, Restoration Branch
Environmental Management Division

Attachment:
RFI Sampling Plan

KAFB1530

SITE WP-58, FORMER LAUNDRY FACILITY

RCRA FACILITY INVESTIGATION SAMPLING PLAN

1.0 LOCATION

Site WP-58 is located at Building 20451, on the east side of Kirtland Air Force Base in Albuquerque, New Mexico. The building functioned as the Sandia Army Base laundry facility from about 1950 to the mid-sixties. The building was renovated in 1983 and currently is used as an office for the Defense Evaluation Support Activity.

2.0 SOURCE CHARACTERIZATION

The building is a single story 17,500 square foot slab on grade structure. The facility used washers, dryers, steam presses and a water softening unit during its operation. The washers discharged effluent to a central concrete drainage trench which drained to a below grade sump on the east side of the building (figure 1). The sump was constructed of concrete and had a holding capacity of about 500 gallons. The sump discharged to the sanitary sewer via a 6 inch discharge line. This sump was removed during the building renovation. A second smaller sump was located inside the building next to the water softening units. This sump also discharged to the sanitary sewer via a 4 inch line on the east side of the building (figure 1).

2.1 PREVIOUS INVESTIGATIONS

A SWMU Assessment was completed at the site in August,1994. Two borings designated 20451-1 and 20451-2 were drilled to evaluate whether or not there have been releases of hazardous constituents from the sumps that drained the facility. The borings were drilled on the east side of the building along the discharge pipe for the small sump, and in the former location of the large sump (figure 1). The borings were advanced to a depth of 5 feet with a 4 inch flight auger, and from 5 to 10 feet with a stainless steel hand auger. Samples were collected at depths of 5 and 10 feet in the boreholes and analyzed for RCRA metals (SW 7000 Series), Volatile Organic Compounds, (SW 8240), Semi-Volatile Organic Compounds, (SW 8270), and Chlorinated Herbicides (SW 509b). A duplicate sample was taken in boring 20451-2 at a depth of 9-10 feet. Two borings designated TH-2 and TH-2 were drilled in 1983 for a landscaping study at the site (figure 1). Soil samples were collected at depths of 1.5 and 6 feet and analyzed for herbicides.

RCRA FACILITY INVESTIGATION
BUILDING 20451
FORMER SANDIA BASE LAUNDRY

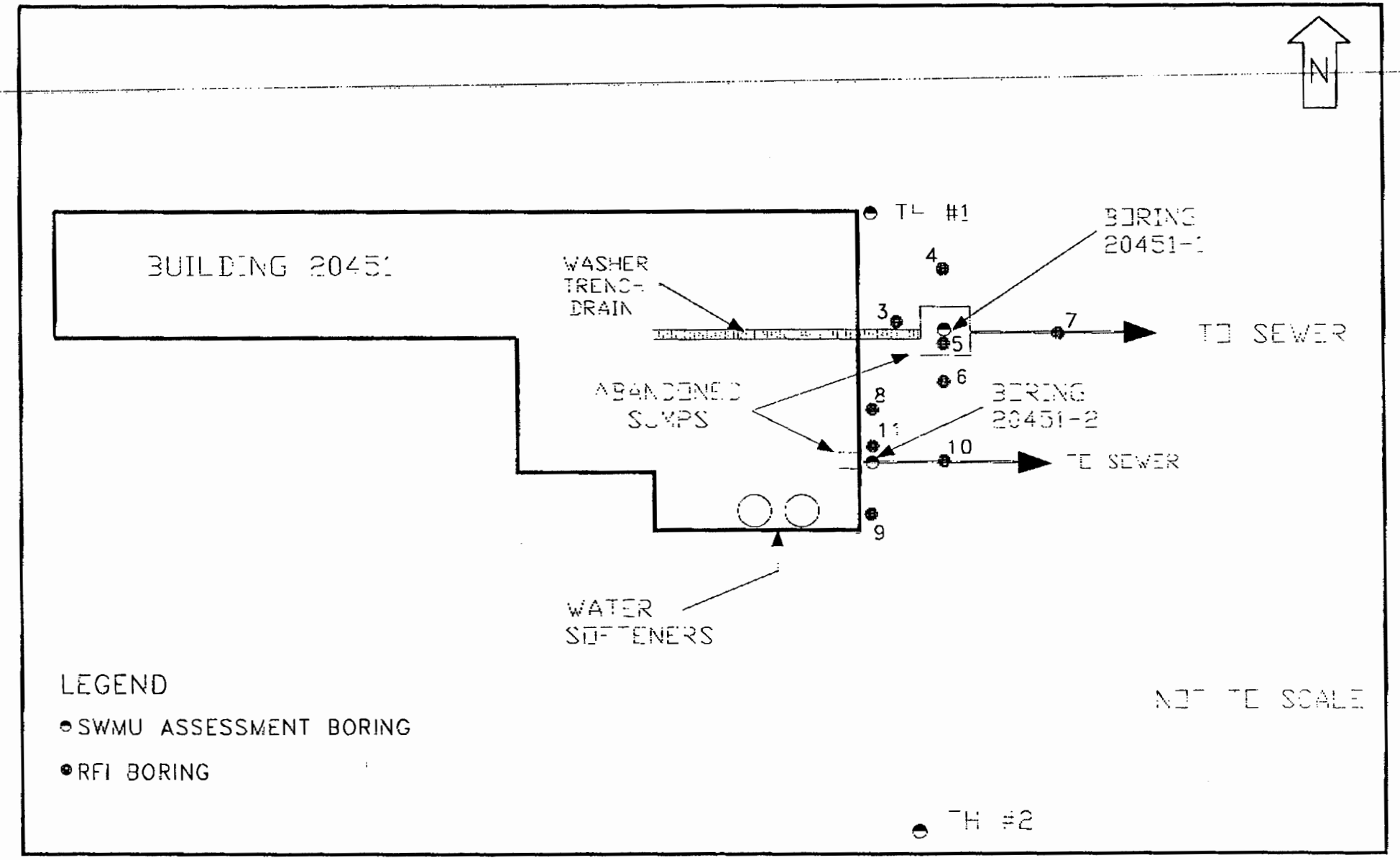

FIGURE 1

Numerous semi-volatile organic compounds (SVOC's) were detected in borings 20451-1and 2. Benzidine and Anthracene were detected at concentrations up to 49 and 12 mg/kg, respectively, at a depth of 5 feet in boring 20451-1. The concentrations of Benzidine and Anthracene decreased to 3.0 and 0.76 mg/kg, respectively, at a depth of 10 feet. Benzidine was detected in concentrations ranging from 0.28 to 1.3 mg/kg in boring 20451-2, while anthracene was detected only at the 5 foot depth at a concentration of 0.077 mg/kg. These compounds were formally used in the production of dyes and were probably leached from clothing being washed at the laundry, and were deposited in the soils surrounding the sump via leaks in the sump or associated piping. The other SVOC's detected such as Fluoranthene (max. conc.=12 mg/kg), Pyrene (max. conc=11 mg/kg), Benzo(a) anthracene (max. conc.=5.1 mg/kg), Chrysene (max. conc.=4.7 mg/kg), and Benzo(a)pyrene are common constituents of coal tar. These compounds are much more prevalent and found in higher concentrations in boring 20451-1 than in boring 20451-2. The source for these compounds is probably from the degradation of asphalt which was used along with other construction debris as fill when the sump was removed in 1983. The herbicides Dicamba and 2,4-D were detected in borings TH-1 and 2 at concentrations up to .308 and .247 mg/kg , respectively . These herbicides were used for weed control around the building grounds. No herbicides were detected in borings 20451-1,2. Metals exceeding natural background concentrations common to Kirtland AFB were not detected in any of the samples. No volatile organic compounds were detected which indicates that dry cleaning was probably not performed at the facility.

3.0 RCRA Facility Investigation (RFI) Sampling Plan

The objective of the RFI is to determine the nature and extent of the release of the SVOC's detected in the SWMU Assessment. The RFI will be conducted in accordance with the Stage 2C, Appendix III Health and Safety Plan, Project Management Plan, and Data Collection Quality Assurance Plan, approved on 7 April,1994 by the U.S. EPA. The site specific sampling plan will consist of the following. Nine boreholes will be driven using direct push methods at the locations shown on figure 1. Soil samples will be collected at the ground surface (0- 1 foot depth) , at a depth of 5-6 feet, and at a depth of 15-16 feet in borings 3,4,6,7,8,9 and 10. Soil samples will be collected at the ground surface (0-1 foot depth) and at depths of 15-16 feet, and 25-26 feet in borings 5 and 11. All samples will be analyzed for SVOC's (SW-8270), soil moisture, and soil pH. If field screening (soil staining, PID readings) indicates contamination at the 15 or 25 foot depth at any borehole, sampling will continue on 10 foot intervals until field screening indicates no contamination.