FORT WINGATE DEPOT ACTIVITY
GALLUP, NM

FIELD INVESTIGATION REPORT
BUILDING 11

Prepared for:

U.S. ARMY CORPS OF ENGINEERS
FORT WORTH DISTRICT

Prepared by:

PMC *Environmental*

Whiteland Business Park
835 Springdale Drive
Suite 201
Exton, PA 19341-2843

Requests for this document must be referred to:
Commander, U.S. Army Corps of Engineers
Fort Worth District
Fort Worth, TX 76102: or
Commander, Tooele Army Depot, UT 84074

22 January 2004

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

LIST OF FIGURES

LIST OF TABLES

APPENDICES

1.0 INTRODUCTION

This deliverable, the Building 11 Field Investigation Report, describes soil removal and characterization work performed at Building 11 located at Fort Wingate Depot Activity (FWDA), Gallup, New Mexico. The work elements described within this document were conducted by PMC Environmental (PMC) of Exton, Pennsylvania. This document is being prepared to fulfill requirements of Delivery Order No. 0011 under contract DACA63-01-D-0007. Contracting Officer's Representative (COR) and technical oversight responsibilities for the tasks described in this document were provided by the U.S. Army Corps of Engineers (USACE), Fort Worth District.

This report is prepared as a component of the FWDA Environmental Investigation (EI) program. Associated documents that address field implementation issues are incorporated by reference and include the following:

- Final Health and Safety Plan (HASP), FWDA, Gallup, New Mexico (PMC, 1998a);
- Final Field Sampling Plan (FSP), FWDA, Gallup, New Mexico (PMC, 1998b); and
- Final Quality Assurance Project Plan (QAPP), FWDA, Gallup, New Mexico (PMC, 1998c).

2.0 SITE BACKGROUND

2.1 SITE HISTORY

FWDA is an inactive U.S. Army depot whose former mission was to store, ship, and receive material and to dispose of obsolete or deteriorated explosives and military munitions. Since 1975, the installation has been under the administrative command of the Tooele Army Depot (TEAD), located near Salt Lake City, Utah. The active mission of FWDA ceased and the installation closed in January 1993, as a result of the Defense Authorization Amendments and Base Closure and Realignment Act of 1988.

FWDA currently occupies approximately 24 square miles (15,273 acres) of land in northwestern New Mexico, in McKinley County. The installation is located 8 miles east of Gallup on U.S. Route 66 and approximately 130 miles west of Albuquerque on Interstate 40 (Figure 2-1). The active mission of the installation ceased in January 1993 and the installation is currently under caretaker status.

FWDA has been undergoing final environmental restoration prior to property transfer/reuse. As part of planned property transfer to the U.S. Department of Interior (DOI), the installation has been divided into reuse parcels (Figure 2-2) and transfer priorities and schedules have been proposed. Parcels transferred to date include Parcel 1 (Southern Properties, approximately 4,527 acres) and Parcels 15 and 17 (portions of the Protection and Buffer Areas, approximately 907 acres). Building 11 is located in Parcel 11, which is planned for mixed use/commercial reuse.

2.2 BUILDING 11

Building 11 was located in the Administration Area (Figure 2-3) and has been identified as Solid Waste Management Unit (SWMU) 6 on the New Mexico Environment Department (NMED) Annual Unit Audit (AUA) list. Building 11 housed a locomotive maintenance shop and electrical switching/distribution station for parts of FWDA.

Environmental investigation activities at Building 11 identified that the building had been contaminated with polychlorinated biphenyls (PCBs). Results of the EI were documented in the *Final Building 11 PCB Investigation Report* (PMC, 1999).

To address the PCB contamination, in 2002 a remediation project was initiated for Building 11. A new electrical switching/distribution station was constructed nearby, the building was demolished, and concrete remaining in place (some of the original floor slabs and basement walls/footers) was remediated. PCB-contaminated soil under a utility (hot water piping) trench in the office and restroom areas of the building was also removed. This remediation was

documented in the *Remedial Action Summary Report, PCB Remediation and Demolition of Building 11* (Weston, 2002).

One post-excavation soil sample collected as part of the remedial action was found to have PCBs exceeding the project cleanup level of 1 microgram per gram (ug/g) or 1 part per million (ppm). Sample SHT1-01, collected from grid SHT1 (Appendix A), contained PCB 1254 at a concentration of 1.51 ug/g. As shown in Weston Figure 4-4 (Appendix A), grid SHT1 is approximately 5 feet wide by 15 feet long. The excavation depth was approximately 4 feet below ground surface (bgs). The building's concrete footer was removed to approximately 2 feet bgs, and the remainder (approximately 2 feet) left in place. The excavation from 2 to 4 feet bgs was on the interior side of the footer only, and was approximately 3 feet wide (Weston, 2003). The excavation was backfilled with clean soil.

2.3 *REGULATORY FRAMEWORK*

It was the intent of the Army to jointly conduct further environmental characterization and the removal of impacted soil in grid SHT1 at Building 11. The *Building 11 Soil Characterization Work Plan* (Work Plan; PMC, 2003) included the concurrent performance of characterization and removal actions that allowed for the most effective use of increasingly limited Base Realignment and Closure (BRAC) environmental restoration funds as allocated to FWDA.

In order to facilitate this concurrent effort, the following consideration of the applicable administrative pathway summarizes the Army's strategic framework for responding to the requirements of U.S. Environmental Protection Agency (USEPA) implementation of the Toxic Substances Control Act (TSCA) PCB program, codified at 40 CFR §761.

2.3.1 *Self-Implementing Disposal*

Comments by USEPA (Appendix B) on the draft Work Plan (PMC, 2003) dictated that the Army could not pursue the performance-based cleanup [40 CFR §761.61(b)] because the self-implementing disposal option [40 CFR §761.61(a)] had been utilized for the previous removal work at Building 11. USEPA also stated that because the self-implementing disposal option [40 CFR §761.61(a)] was necessary, soil containing <50 ppm (or ug/g) PCBs could be sent to a sanitary landfill for disposal (Appendix B).

The Army intended to remove, and dispose of in a sanitary waste landfill, all soils and other solid materials that were found or assumed to contain PCBs at concentrations greater than 1 ug/g, the most protective TSCA cleanup level for soils.

Guidance developed by NMED presents a default cleanup level for PCBs in soil of 1 ug/g that was developed for residential (i.e., most protective) risk-based

exposure scenarios. In addition, NMED has published a soil screening level (SSL) of 1.1 ug/g, also for residential land use (NMED, 2000). NMED states that unless soil/sediments are remediated to 1 ug/g total PCBs, the risk posed by PCBs to human health and the environment should be evaluated using a risk-based approach (NMED, 1999).

Because the cleanup values for PCBs in both the TSCA program and the NMED program are essentially the same, the soil removal activities at Building 11, driven primarily by the TSCA cleanup level of 1 ug/g, are also in compliance with the NMED Resource Conservation and Recovery Act (RCRA) program underway at FWDA.

2.3.2 *Other Components*

As described in the remedial action report (Weston, 2002), other compounds have been identified in soil at Building 11. The RCRA program, as implemented by NMED, regulates the activities associated with the characterization and evaluation of these other components. FWDA is currently waiting for NMED to release a RCRA Post Closure Permit that will eventually have a Hazardous and Solid Waste Act (HSWA) permit module attached. The HSWA permit module will identify the RCRA corrective action requirements for all FWDA SWMUs, including Building 11. At that time in the future, FWDA will submit the required regulatory documents to comply with the NMED-implemented RCRA program.

3.0 FIELD INVESTIGATION

3.1 OBJECTIVES OF THE SOIL CHARACTERIZATION PROGRAM

The specific objectives of the work effort described in this report were to:

- Excavate and containerize all soil remaining in the SHT1 grid with concentrations of total PCBs exceeding 1 ug/g; and
- Collect one verification soil sample to document concentrations of PCBs and other constituents remaining in the soil.

3.2 INVESTIGATION ACTIVITIES

All activities were conducted following the methodologies described in the FSP (PMC, 1998b).

3.2.1 *Self-Implementing Disposal of PCB-Impacted Soils*

3.2.1.1 *Removal of Clean Fill*

The location of grid SHT1 was re-established in the field (Photo 1 and Photo2, Appendix C). A portion of the clean backfill placed in grid SHT1 as part of the remedial action was excavated and stockpiled on plastic sheeting for reuse as final backfill. The clean backfill removed from the excavation included soil cover, brick, concrete, and demolition debris. As described in Section 2.2, the original excavation depth of grid SHT1 was approximately 4 feet bgs. To be conservative, only the top 3 feet of clean soil were removed and stockpiled for reuse.

3.2.1.2 *Dewatering of Excavation*

Upon removing and stockpiling the clean fill, free water was encountered within the excavation (Photo 3 and Photo 4, Appendix C). FWDA caretakers indicated the free water in the excavation was most likely from a leaking sewer pipe located to the north of Building 11. The excavation was dewatered by pumping the water directly into drums (Photo 5, Appendix C). Approximately 45 gallons of investigation-derived waste (IDW) water was removed from the excavation.

3.2.1.3 *Soil Removal and Characterization*

Following dewatering of the excavation (Section 3.2.1.2), soil and debris in grid SHT1 was excavated from 3.0 feet bgs to between 5.0 and 7.0 feet bgs on the interior side of the remaining concrete footer (Photo 6, Appendix C). The debris consisted of brick, concrete, and other demolition debris to approximately 4.0. This soil and debris was containerized as IDW and staged for later disposal.

A total of 15 cubic yards (CY) of PCB-impacted soil was excavated from grid SHT1.

3.2.1.4 Post-Removal Verification Sampling

Verification sampling was performed at the base of the excavated area. The verification sample was a four-part composite sample, as was the original sample (SHT1-01). The four parts of the composite sample were collected from equally spaced locations along the centerline of the bottom of the excavation. Two of the four-part composites were from the ends of the excavation. The verification sample was analyzed for Target Compound List (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), TCL PCBs, and Target Analyte List (TAL) metals by DataChem Laboratories.

3.2.1.5 Backfill of Excavation

Following receipt of lab results that confirmed the remaining soil in grid SHT1 contained PCBs less than 1 ug/g, the excavation was backfilled with the clean fill stockpiled as described in Section 3.2.1.1. Additional clean soil (less than 1 ug/g PCBs based on the results of field test kits) was obtained from an on-site source approved by the USACE Technical Manager. The backfill was compacted to the extent possible using equipment on-site (Photo 7, Appendix C).

3.2.2 *Laboratory Analysis and Data Validation*

Like the original sample (SHT1-01), the verification sample from this effort was analyzed for TCL VOCs, TCL SVOCs, TCL PCBs, and TAL metals, to document residual concentrations of these constituents after removal of the PCB-impacted soil. The PCBs were analyzed on a quick turn-around time (TAT) basis to confirm that soil with PCB concentrations exceeding 1 ug/g were removed. Remaining analyses were performed using a standard TAT.

The methods that were used for analyzing the soil samples are as described in the FSP and QAPP (PMC, 1998b and 1998c). No quality assurance/quality control (QA/QC) samples were collected. An electronic data deliverable (EDD) in a format compatible with the existing FWDA data management system was produced by DataChem Laboratories.

Analytical laboratory data were validated in accordance with *USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review* (October 1999) and *USEPA CLP National Functional Guidelines for Inorganic Data Review* (February 1994), and the FWDA QAPP (PMC, 1998c). The final verification sample received full validation. Validation results are presented in the Building 537 and Building 11 Quality Control Summary Report (PMC, 2004).

3.2.3 *IDW Management and Disposal*

Three types of IDW were generated during this project: special solid waste, decontamination fluids, and disposable sampling equipment and personal protective equipment (PPE).

3.2.3.1 *Special Solid Waste Disposal*

Because the Army conducted a self-implementing cleanup under 40 CFR §761.61(a), PCB-impacted special-waste was placed in an appropriately sized roll-off container for off-site disposal in Waste Management's Rio Rancho Sanitary Landfill. Disposal profiling was based on analytical results for sample SHT1-01 (Weston, 2002); because the SVOC detection limits were not low enough to allow application of the "20x rule," the containerized waste materials were characterized for Toxicity Characteristic Leaching Procedure (TCLP) SVOCs as requested by the permitted disposal facility. Waste characterization samples were analyzed on a quick TAT to allow disposal of this IDW before demobilization.

3.2.3.2 *Other IDW Disposal*

Liquid IDW was generated during dewatering of the excavation and decontamination of excavation and sampling equipment at Building 11. Excavation dewatering fluids were pumped directly from the excavation into drums (Photo 5, Appendix C). Decontamination was conducted over a temporary decontamination structure lined with impervious material. At the completion of field activities, decontamination fluids were pumped from the decontamination structure into drums. Because this project was scheduled to coincide with removal of PCB remediation waste at Building 537, the liquid IDW from Building 11 was combined with that from Building 537. A total of approximately 80 gallons were generated during the Building 11 and Building 537 projects. This liquid IDW consisted of two 55-gallon drums that were properly labeled and stored in the IDW storage area located in Building 5 to await disposal.

Characterization of dewatering and decontamination fluids were based upon analytical results for one grab sample collected from each waste container (drum). Liquid IDW samples were analyzed for PCBs, RCRA pesticides, RCRA VOCs, RCRA SVOCs, and RCRA metals as required by the permitted disposal facility. Waste characterization samples were analyzed on a quick TAT basis to allow disposal of this IDW in the event that the materials were hazardous and the ninety-day storage time limit was applicable.

Disposable sampling equipment and PPE were placed into trash bags with other general refuse and disposed of in a dumpster awaiting pickup by a commercial sanitary waste disposal company.

4.0 RESULTS

4.1 POST-EXCAVATION SAMPLE

As stated previously, the verification sample was a four part composite from the base of the excavation, as was the original sample (SHT1-01). The verification sample (B11EX00107) was collected from the bottom of the excavation inside of the former building footer. The verification sample results are presented in Table 4-1. The sample was analyzed for TCL VOCs, TCL SVOCs, TCL PCBs, and TAL metals.

No TCL VOCs were detected in the final verification sample collected from the excavation bottom.

A total of 12 TCL SVOCs were detected at estimated concentrations in the final verification sample collected from the excavation bottom. Anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, fluoranthene, indeno(1,2,3-c,d)pyrene, phenanthrene, and pyrene were all detected at concentrations below their respective NMED Residential SSL (Table 4-1). Benzo(g,h,i)perylene and benzoic acid were also detected, however no NMED Residential SSL exists for these constituents.

No TCL PCBs were detected in the final verification sample collected from the excavation bottom.

A total of 18 TAL metals were detected in the final verification sample collected from the excavation bottom. Aluminum, arsenic, barium, beryllium, chromium, cobalt, copper, iron, lead, manganese, mercury, nickel, vanadium, and zinc were all detected at concentrations below their respective NMED Residential SSL (Table 4-1). Calcium, magnesium, potassium, and sodium were also detected, however these constituents are considered macronutrients and therefore, no NMED Residential SSL exists for these constituents.

4.2 INVESTIGATION-DERIVED WASTE SAMPLES

4.2.1 Soil IDW Results

Soil IDW results are presented in Table 4-2. No TCLP SVOCs were detected in the sample collected from the containerized soil.

Soil removed from the Building 11 excavation was considered non-regulated material (containing <50 ppm PCBs) and was containerized and disposed of in Waste Management's Rio Rancho Landfill as PCB-impacted special waste. A copy of the waste manifest for the single roll-off container is provided in Appendix D.

4.2.2 *Liquid IDW Results*

Because this project was scheduled to coincide with removal of PCB remediation waste at Building 537, the liquid IDW from Building 11 was combined with that from Building 537. Liquid IDW results are presented in Table 4-3.

Three VOCs were detected in the samples collected from the liquid IDW. Two VOCs (chloroform and 4-methylphenol) were detected in sample DRUM01. One VOC (2-butanone) was detected in sample DRUM02. Maximum concentration values for the RCRA toxicity characteristics do not exist for 2-butanone or 4-methylphenol. Chloroform was detected at a concentration less than the RCRA toxicity characteristic maximum concentration value.

No RCRA SVOCs were detected.

One PCB (PCB-1260) was detected in sample DRUM02. A maximum concentration value for PCB-1260 does not exist for the RCRA toxicity characteristic.

One RCRA Pesticide (Endrin) was detected in sample DRUM02 at a concentration less than the RCRA toxicity characteristic maximum concentration value.

Five RCRA metals (arsenic, barium, cadmium, chromium, and lead) were detected in both samples collected from the liquid IDW. All of the detected concentrations were less than their respective RCRA toxicity characteristic maximum concentration value.

Based upon the above results, the liquid IDW was determined to be non-hazardous and non-regulated. The drums of liquid IDW were transported to and disposed of at U.S. Ecology's Beatty, Nevada facility. A copy of the waste manifest for the two liquid IDW drums is provided in Appendix D.

5.0 CONCLUSIONS

An additional 15 cubic yards of PCB-impacted soil and debris was removed from the former Building 11 building foundation area. Post-excavation sample results indicated no constituents exceeding NMED Residential SSLs remain within the excavation footprint. The excavated soil was transported off-site to a sanitary waste landfill and disposed of in accordance with all applicable regulations.

6.0 *REFERENCES*

NMED, 1999. Position Paper, Risk-Based Remediation of Polychlorinated Biphenyls at RCRA Corrective Action Site. NMED Hazardous and Radioactive Materials Bureau, September 1999.

NMED, 2000. Technical Background Document for Development of Soil Screening Levels. NMED Hazardous Waste Bureau and Ground Water Quality Bureau Voluntarily Remediation Program, December 2000.

PMC, 1998a. Final Health and Safety Plan, Fort Wingate Depot Activity, Gallup, New Mexico.

PMC, 1998b. Final Field Sampling Plan, Fort Wingate Depot Activity, Gallup, New Mexico.

PMC, 1998c. Final Quality Assurance Project Plan, Fort Wingate Depot Activity, Gallup, New Mexico.

PMC, 1999. Final Building 11 PCB Investigation Report, Fort Wingate Depot Activity, Gallup, New Mexico.

PMC, 2003. Final Building 11 Soil Characterization Work Plan, Fort Wingate Depot Activity, Gallup, New Mexico.

PMC, 2004. Building 537 and Building 11 Quality Control Summary Report, Fort Wingate Depot Activity, Gallup, New Mexico

USEPA, 1999. USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review, USEPA, October 1999.

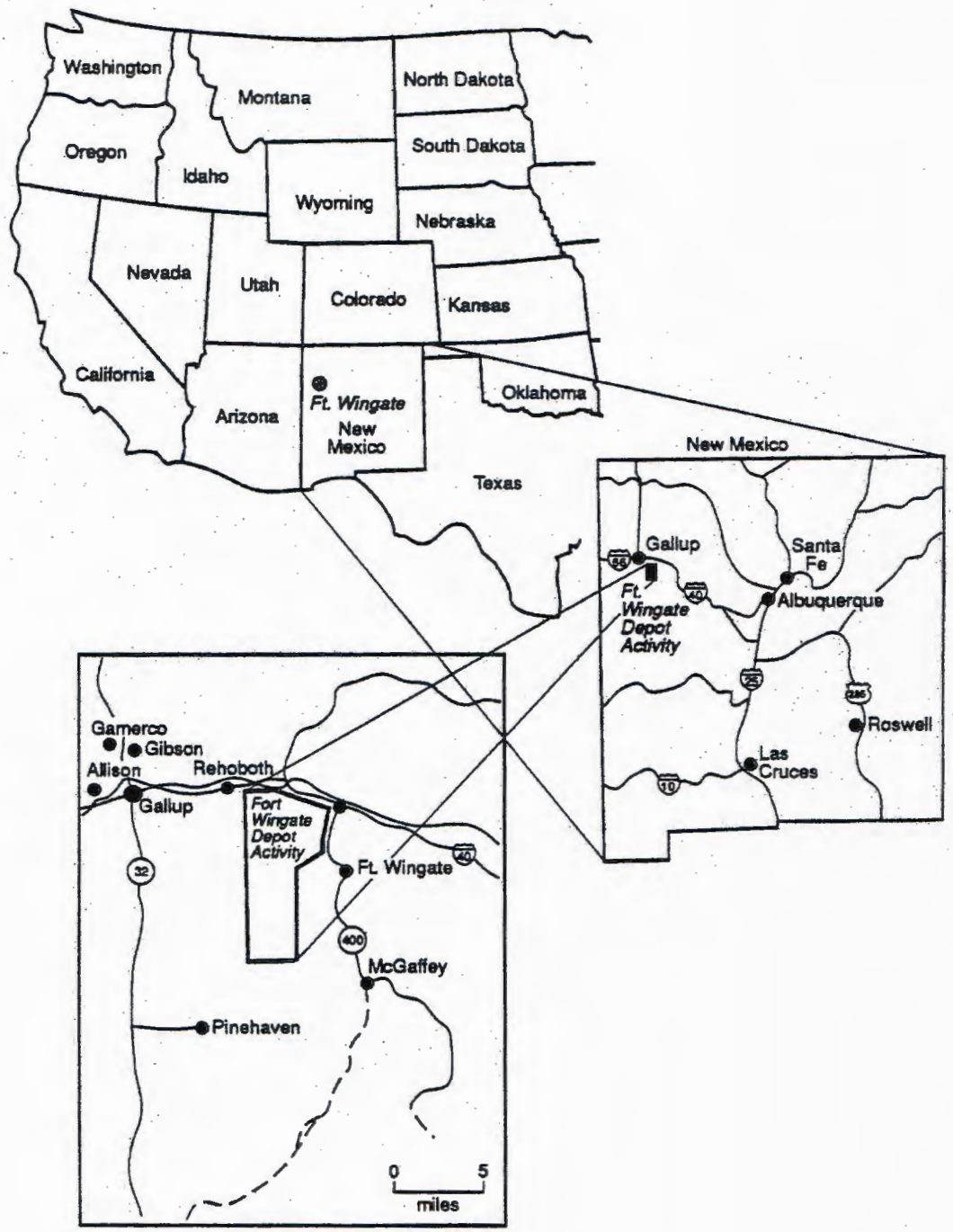
USEPA, 1994. USEPA CLP National Functional Guidelines for Inorganic Data Review, USEPA, February 1994.

Weston, 2002. Remedial Action Summary Report, PCB Remediation and Demolition of Building 11, Fort Wingate Depot Activity, Gallup, New Mexico. Roy F. Weston, Inc, October 2002.

Weston, 2003. Telephone conversation with Tim White, P.E., Weston Building 11 remediation project manager, February 2003.

FIGURES

Figure 2-1
Installation Location
Fort Wingate Depot Activity
Gallup, New Mexico



SOURCE: "MASTER ENVIRONMENTAL PLAN: WINGATE DEPOT ACTIVITY, GALLUP, NEW MEXICO," DECEMBER 1990.

N

NOT TO SCALE

Figure 2-2
Historical Land Use and Reuse Parcel Boundaries
Fort Wingate Depot Activity
Gallup, New Mexico

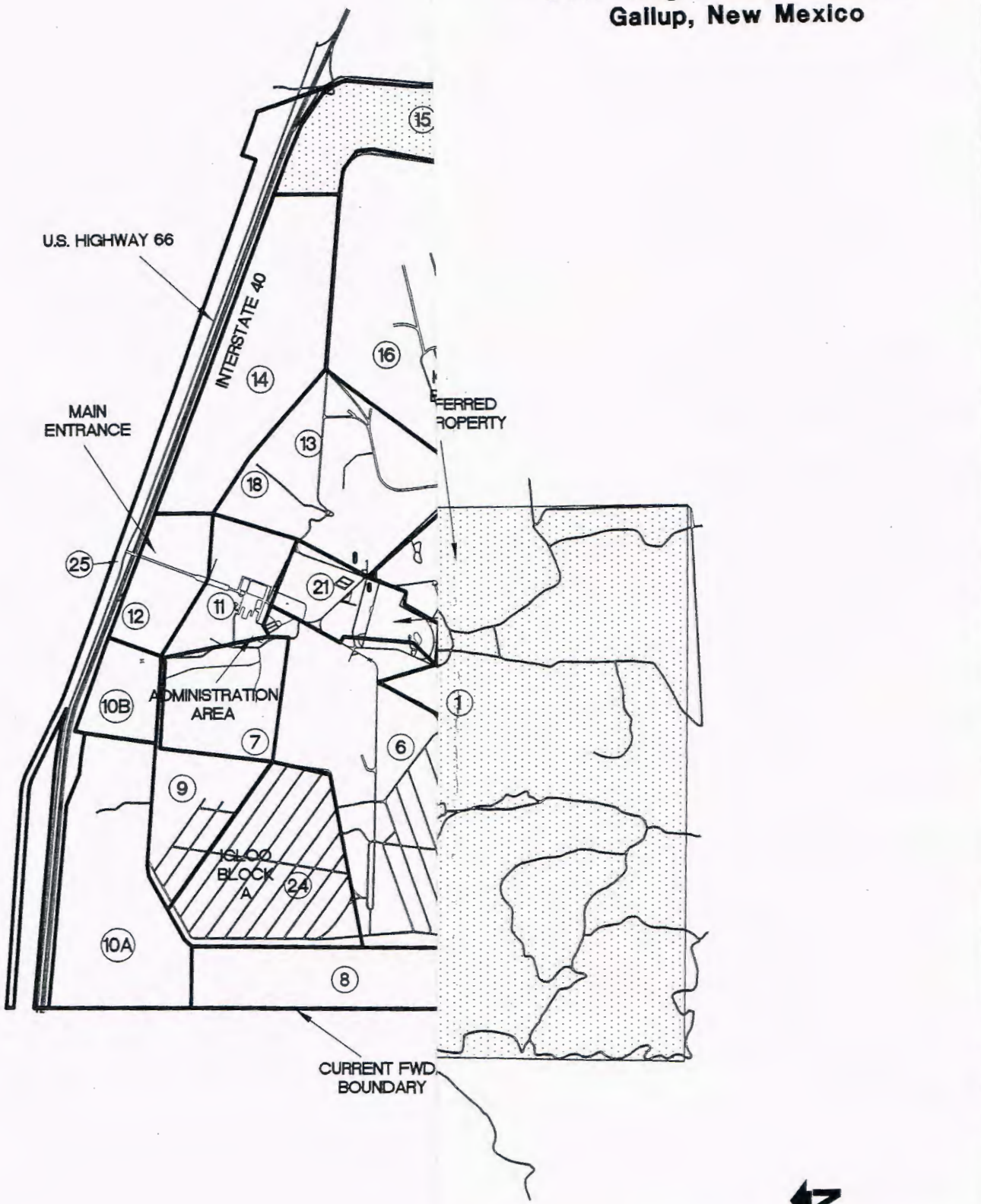
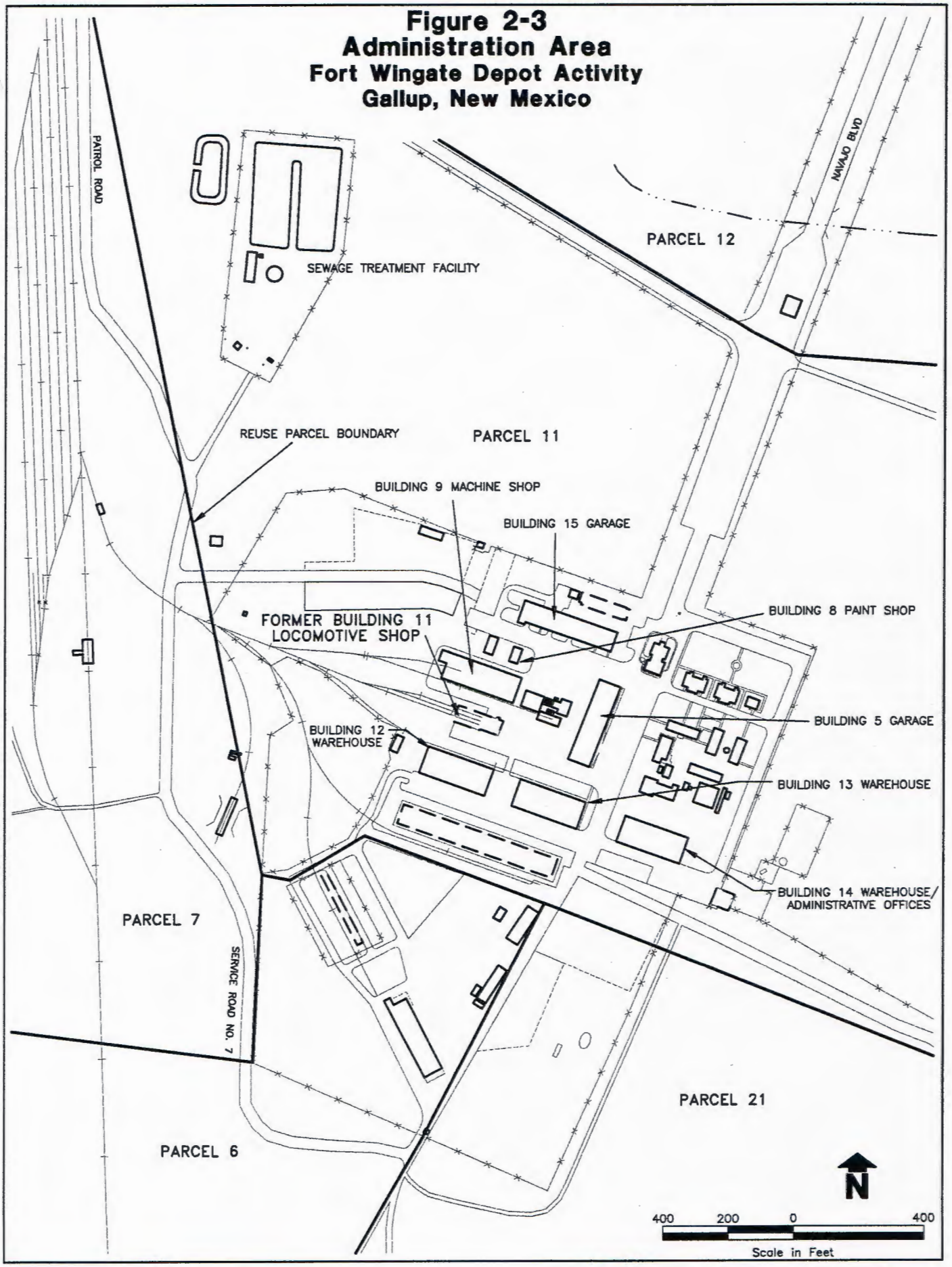


Figure 2-3
Administration Area
Fort Wingate Depot Activity
Gallup, New Mexico



PMC Environmental

33011.81/11.14.03-MKB/11.17.03-MKB/I101-1A

TABLES

Table 4-1
Summary of Detected Concentrations
Post-Excavation Soil Sample
Building 11
Fort Wingate Depot Activity
Gallup, New Mexico

Sample ID	Collection Date	Depth (feet bgs)	Parameter	Value (ug/g)	Flag Code	NMED Screening Level (ug/g)	Sample Exceeds Screening Level?
B11EX00107	10/16/03	7.0	Anthracene	0.00893	J	16000	No
B11EX00107	10/16/03	7.0	Benzo(a)anthracene	0.025	J	6.2	No
B11EX00107	10/16/03	7.0	Benzo(a)pyrene	0.0197	J	0.62	No
B11EX00107	10/16/03	7.0	Benzo(b)fluoranthene	0.0272	J	6.2	No
B11EX00107	10/16/03	7.0	Benzo(g,h,i)perylene	0.0229	J	NS	No
B11EX00107	10/16/03	7.0	Benzo(k)fluoranthene	0.011	J	62	No
B11EX00107	10/16/03	7.0	Benzoic acid	0.11	J	NS	No
B11EX00107	10/16/03	7.0	Chrysene	0.0216	J	610	No
B11EX00107	10/16/03	7.0	Fluoranthene	0.0503	J	2300	No
B11EX00107	10/16/03	7.0	Indeno(1,2,3-c,d)pyrene	0.0216	J	6.2	No
B11EX00107	10/16/03	7.0	Phenanthrene	0.0345	J	1800	No
B11EX00107	10/16/03	7.0	Pyrene	0.0431	J	1800	No
B11EX00107	10/16/03	7.0	Aluminum	27500		74000	No
B11EX00107	10/16/03	7.0	Arsenic	1.02	J	3.9	No
B11EX00107	10/16/03	7.0	Barium	287	J	5200	No
B11EX00107	10/16/03	7.0	Beryllium	1.41		150	No
B11EX00107	10/16/03	7.0	Calcium	20800		NS	No
B11EX00107	10/16/03	7.0	Chromium	6.14	J	230	No
B11EX00107	10/16/03	7.0	Cobalt	5.86	J	4500	No
B11EX00107	10/16/03	7.0	Copper	12		2800	No
B11EX00107	10/16/03	7.0	Iron	20200		23000	No
B11EX00107	10/16/03	7.0	Lead	13.2		400	No
B11EX00107	10/16/03	7.0	Magnesium	8230		NS	No
B11EX00107	10/16/03	7.0	Manganese	485		7800	No
B11EX00107	10/16/03	7.0	Mercury	0.0248	J	6.5	No
B11EX00107	10/16/03	7.0	Nickel	15.6		1500	No
B11EX00107	10/16/03	7.0	Potassium	6060		NS	No
B11EX00107	10/16/03	7.0	Sodium	1090		NS	No
B11EX00107	10/16/03	7.0	Vanadium	19.3		530	No
B11EX00107	10/16/03	7.0	Zinc	34.9		23000	No

Notes:

ug/g - micrograms per gram

feet bgs - feet below ground surface

NS - No standard

NMED Screening Levels - New Mexico Environmental Department, Hazardous Waste Bureau and Ground Water Quality Bureau Technical Background Document For Development of Soil Screening Levels, 18 December 2002, NMED Soil Screening Levels for Residential Soil, Table A-1, Revision 1.0

Flag Codes:

J - Value is estimated

Table 4-2
Summary of Constituents
Soil IDW Characterization Sample
Building 11
Fort Wingate Depot Activity
Gallup, New Mexico

Sample ID	Collection Date	Parameter	Result (ug/l)	Flag Code
B11IDW001	10/16/03	1,4-Dichlorobenzene	7.5	U
B11IDW001	10/16/03	2,4,5-Trichlorophenol	400	U
B11IDW001	10/16/03	2,4,6-Trichlorophenol	2.0	U
B11IDW001	10/16/03	2,4-Dinitrotoluene	0.130	U
B11IDW001	10/16/03	o-Cresol	200	U
B11IDW001	10/16/03	m-Cresol and p-Cresol	200	U
B11IDW001	10/16/03	Hexachlorobenzene	0.130	U
B11IDW001	10/16/03	Hexachloro-1,3-butadiene	0.500	U
B11IDW001	10/16/03	Hexachloroethane	3.0	U
B11IDW001	10/16/03	Nitrobenzene	2.0	U
B11IDW001	10/16/03	Pentachlorophenol	100	U
B11IDW001	10/16/03	Pyridine	5.0	U

Notes:

mg/l - milligrams per liter

Results reported to RCRA TCLP screening values, not Minimum Detection Limits (MDLs).

Flag Codes:

U - not detected

Table 4-3
Summary of Detected Constituents
Liquid IDW Characterization Samples
Buildings 537 and 11
Fort Wingate Depot Activity
Gallup, New Mexico

Sample ID	Collection Date	Parameter	Result (mg/l)	Lab Flag	RCRA TCLP Maximum Concentrations (mg/l)	Result Exceeds RCRA TCLP Maximum Concentrations?
DRUM01	10/20/2003	Arsenic	0.00894		5.0	No
DRUM01	10/20/2003	Barium	0.219		100.0	No
DRUM01	10/20/2003	Cadmium	0.002		1.0	No
DRUM01	10/20/2003	Chromium	0.00156	J	5.0	No
DRUM01	10/20/2003	Lead	0.00446		5.0	No
DRUM01	10/20/2003	Selenium	0.00202	J	1.0	No
DRUM01	10/20/2003	Chloroform	0.00065	J	6.0	No
DRUM01	10/20/2003	4-Methylphenol	0.000488	J	NS	No
DRUM02	10/20/2003	Arsenic	0.0171		5.0	No
DRUM02	10/20/2003	Barium	0.0201		100.0	No
DRUM02	10/20/2003	Cadmium	0.0025		1.0	No
DRUM02	10/20/2003	Chromium	0.116		5.0	No
DRUM02	10/20/2003	Lead	0.00237		5.0	No
DRUM02	10/20/2003	Selenium	0.00334	J	1.0	No
DRUM02	10/20/2003	PCB-1260	0.000122		NS	No
DRUM02	10/20/2003	2-Butanone	0.037		NS	No
DRUM01	10/20/2003	Endrin	0.0000040	J	0.02	No

Notes:

RCRA TCLP - Maximum concentration of contaminants for the Resource Conservation and Recovery Act Toxicity Characteristics, 40 CFR 261.30(b)

mg/l - milligrams per liter

Lab Flags:

J - Value is estimated

APPENDIX A
R.F. WESTON
BUILDING 11 FIGURE

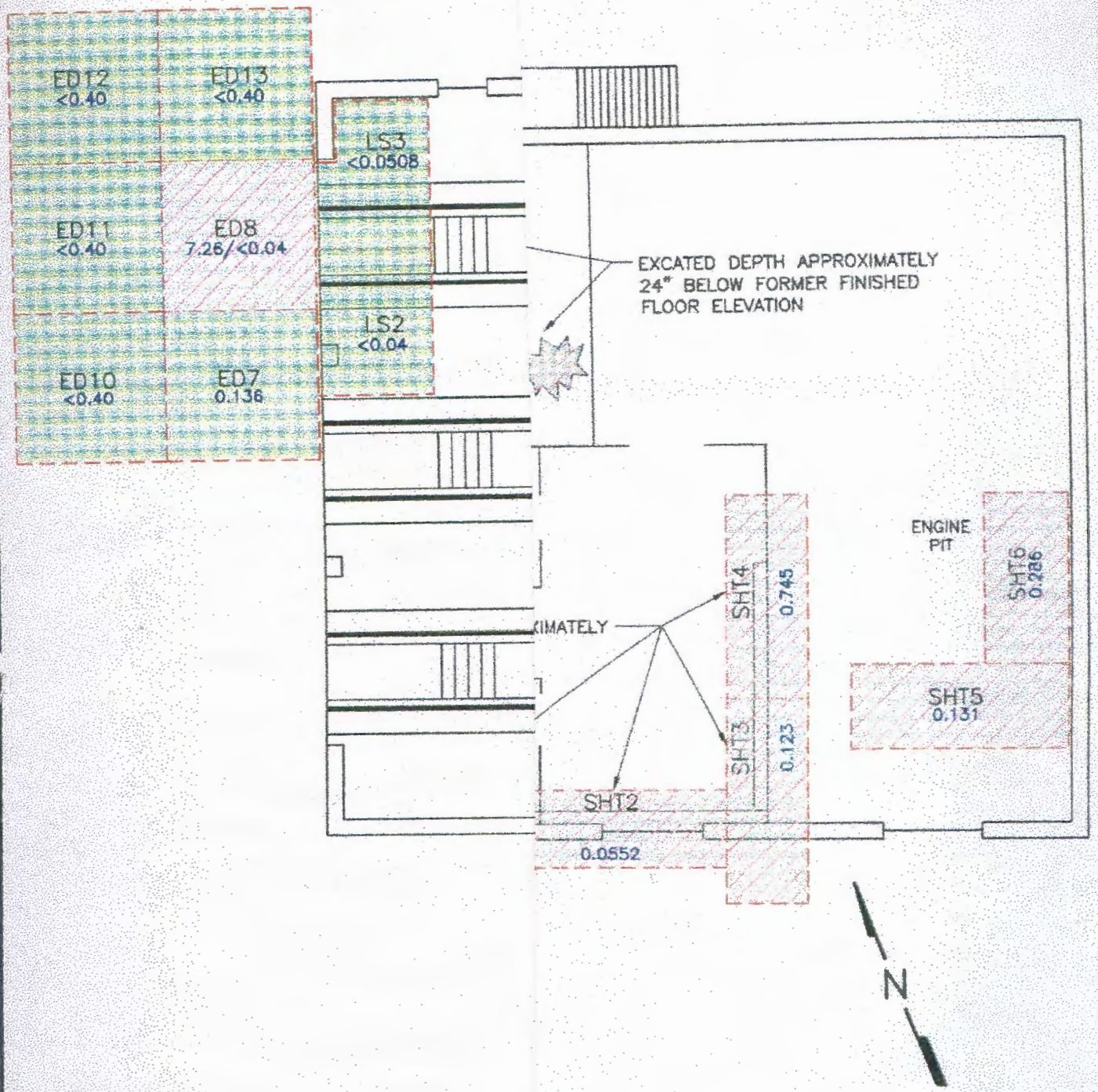


FIGURE 4-4
FORT WINGATE-BUILDING 11
REMEDIAL ACTION SUMMARY REPORT
SOIL VERIFICATION
SAMPLING RESULTS
MAIN LEVEL
GALLUP, NEW MEXICO

DATE	PROJECT NO.	SCALE
AUG 02	12371002011	AS SHOWN

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

JUL 30 2003

Mr. Larry Fisher
BRAC Environmental Coordinator
Environmental Management Division
Tooele Army Depot
Tooele, Utah 84074-5000

RE: Final Soil Characterization Work Plans, Buildings 501 & 11,
Fort Wingate Depot Activity, Gallup, New Mexico
EPA I.D. #NM6213820974

Dear Mr. Fisher:

As you know, Eric Kammerer, Beverly Post, and I have been working out questions and issues related to the soil PCB characterization for Buildings 537, 11, and 501 through email and phone. I still have several comments to make on the brief work plans for Buildings 11 and 501. Here they are:

Building 501 final work plan:

1) This work plan should have included statements on the regulatory framework under which this work is to be done, since the requirements can be quite different under differing scenarios. My understanding is that this work is to be done under 40 CFR 761.61(b) for performance-based disposal of PCB remediation waste.

2) On Figure 2-4, the presence of the electrical substation just across the railroad track from Building 501 really begs the question: Is there any PCB contamination there? Please define the PCB status of that substation.

Building 11 final work plan:

1) Section 2.3, Regulatory Framework: Soil disposal under §761.61(b) would involve disposal in a chemical waste landfill. But you are still required to finish this cleanup action under §§761.61(a) [see 761.61(a)(6)(ii)(B)], which allows disposal in a municipal waste landfill if the waste is <50 ppm PCB [see §761.61(a)(5)(i)(B)(2)(ii). Since you have already met the major requirements of 761.61(a), little more reporting is necessary for the closeout of this TSCA cleanup.

2) Section 2.3.1: The second line of text should read: "<50 ppm" not "≥50 ppm."

General issue: I should note some limits to TSCA regulation of PCB wastes related to §761.50(b)(3) and the definition of PCB remediation waste. The TSCA PCB regulations do not generally apply under either of these conditions: waste with a current PCB concentration <50 ppm from a spill prior to April 18, 1978; or waste from a spill on or

after April 18, 1978 from a PCB source that was authorized for use under §761.30. EPA does not generally consider these wastes to present an unreasonable risk; however, EPA may require a risk analysis if deemed necessary. The burden of proof of the history/status of the wastes is on the owner/operator. The gist of this comment is that in certain situations, perhaps some at Ft. Wingate, PCB-contaminated soils will not be TSCA-regulated and should be cleaned up under state solid waste regulations.

If you want to discuss these comments, please contact me at (214) 665-2196 or hendrickson.charles@epa.gov.

Sincerely yours,

Charles Hendrickson

Charles Hendrickson,
New Mexico & Federal Facilities Section

cc: Julie Wanslow, NMED
Beverly Post Sustala, USACE

APPENDIX C
PHOTOGRAPHS

Appendix C
Building 11 Photographs
Fort Wingate Depot Activity
Gallup, New Mexico

Photo 1: View to east showing existing Building 11 foundation slab, markout for excavation, and building footer.

Photo 2: View to southeast showing area to be excavated.

Appendix C
Building 11 Photographs
Fort Wingate Depot Activity
Gallup, New Mexico

Photo 3: View to west showing excavation. Rebar in excavation is from former Building 11 footer. Note water in bottom of excavation.

Appendix C
Building 11 Photographs
Fort Wingate Depot Activity
Gallup, New Mexico

Photo 4: View to east showing water and debris.

Photo 5: De-watering excavation directly into drum.

Appendix C
Building 11 Photographs
Fort Wingate Depot Activity
Gallup, New Mexico

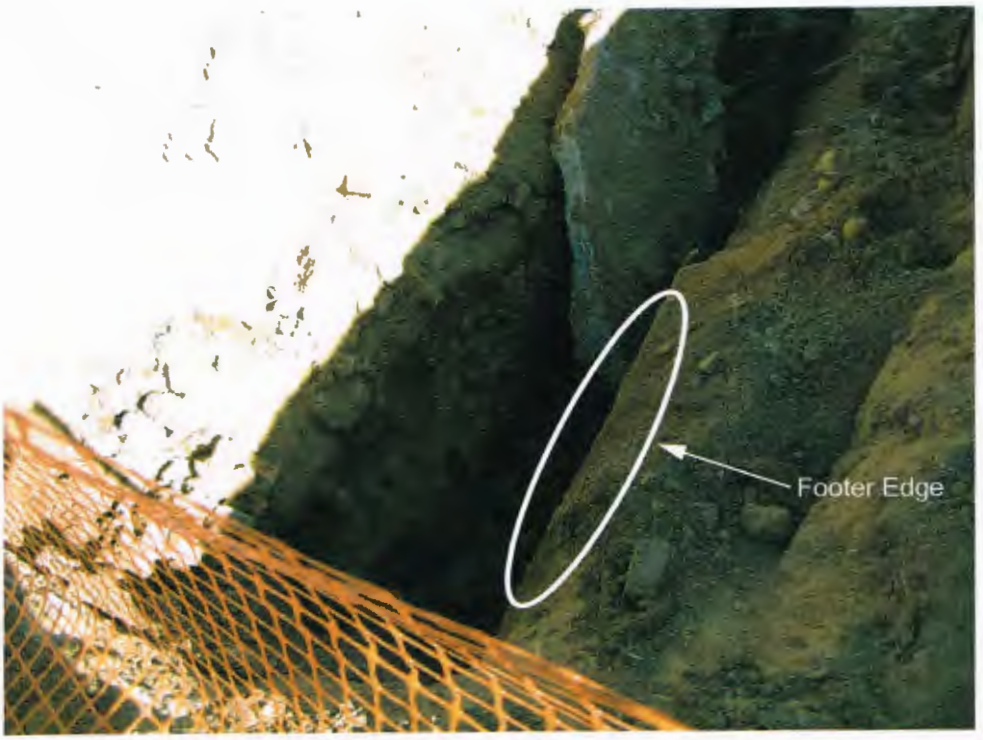


Photo 6: View of footer and soil/debris horizons

Photo 7: View to west showing backfilled excavation; completed project.

APPENDIX D
WASTE MANIFESTS

SPECIAL WASTE SHIPMENT RECORD

Rio Rancho Sanitary Landfill

Mailing Address:
P.O. Box 15700
Rio Rancho, NM 87174
505/892-2055

Physical Address:
33rd St. & Northern Blvd.
Rio Rancho, NM 87144
SWM #231402

Shipment No. 33078

Profile # C04350

1. Generator's work site name and address
Fort Wingate Depot Activity, US Highway 66, Fort Wingate, NM 87316

2. Generator's name and address
Fort Wingate Depot Activity
c/o Tooele Army Depot, Bldg. 8 (SJMTE-CS-EO)
Tooele, UT 84074 (Attn: LARRY Fisher)

Generator's Telephone no.
435-833-3257

3. Authorized Agent's name and mailing address (if different from #2)

Agent's Telephone no.

4. Proper name and type of waste	5. Containers No.	Type	6. Total quantity (yd3)	(tons)
NON-REGULATED MATERIAL-SOIL	001	CM	15	

7. **Special handling instructions:**

8. GENERATOR'S OR AUTHORIZED AGENT'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway in accordance with applicable international and government regulations.

I hereby certify that the above named material does not contain free liquid as defined by 40CFR Part 258.28 and is not a hazardous waste as defined by 40CFR 261 or any applicable state law.

Generator's or Authorized Agent's printed/typed name	Signature	Month / Day / Year
LARRY D. FISHER		10/9/03

9. Transporter 1 (Acknowlegement of receipt of materials)

Printed/typed name, address, telephone no.	Signature	Month / Day / Year
Herman J. Pena 505-892-2055 Hwy 605 Milan, N.M. 87021		10/23/03

10. Transporter 2 (Acknowlegement of receipt of materials)

Printed/typed name, address, telephone no.	Signature	Month / Day / Year

11. Discrepancy indication space

12. Waste disposal site location coordinates
Dines different N35°16'45"W106°39'91"+10

Received By (printed/typed name):	Signature	Month / Day / Year
Cynthia Tompkovic		10/23/03

White/GEN Green/LANDFILL Yellow/NMED Pink/TRANSPORTER Gold/EXTRA

Emergency Contact Telephone Number

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. N.M.6.2.1.3.8.2.0.9.7.4 | Manifest Document No. 53712 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Fort Wingate Depot Activity
C/O Tooele Army Depot, Bldg. 8 (SJMTE-CS-EO
Tooele, UT 84074 Attn: Larry Fisher
4. Generator's Phone (435) 833-3257

A. State Manifest Document Number
B. State Generator's ID

5. Transporter 1 Company Name: Smith Systems Transportation
6. US EPA ID Number: N.E.D.9.8.6.3.8.2.1.3.3
C. State Transporter's ID
D. Transporter's Phone (800) 335-9974

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
US Ecology, Inc.
Hwy. 95, 12 miles south of Beatty
Beatty, NV 89003
10. US EPA ID Number: N.V.T.3.3.0.0.1.0.0.0.0
G. State Facility's ID
H. Facility's Phone (800) 239-3943)

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Non-Hazardous, Non-Regulated Liquid		002	DM	900	P	
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above
11a. Decontamination Water

WS # 07-013-0731

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Pick up location: US Highway 66, 6 miles east of Gallup
Fort Wingate, NM

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimized the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name: LARRY D FISHER | Signature: Larry D Fisher | Month Day Year: 12403

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: JOHN TURNER | Signature: John Turner | Month Day Year: 12 20 03

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Lamar Walter | Signature | Month Day Year: 12 20 03

ORIGINAL — RETURN TO GENERATOR

RCRA CERTIFICATE OF DISPOSAL

December 30,2003

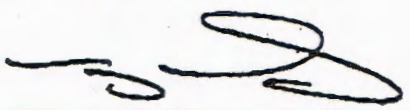
FORT WINGATE DEPOT ACTIVITY
US HIGHWAY 66, 6 MILES E OF GALLUP
FORT WINGATE, NM 87316

This is to certify that waste as defined on Uniform Hazardous Waste Manifest number **53712/** was received by U.S. Ecology, Inc., on **12/03/2003** .The waste(s) were subsequently treated, if required b CFR Part 268 and U.S. Ecology's permits and disposed of by **12/16/2003** in accordance with permits and laws.regulating this facility.

Reference Number: 03120304351-53712-1-a
Material: 2 55 GALLON DRUM
Process: Dust Suppressant
Facility: U.S. ECOLOGY, INC.
HIGHWAY 95 11 MILE S OF BEATTY
BEATTY, NV 89003
EPA ID: NVT330010000

Customer: PMC TECHNOLOGIES

Printed Name: TROY COOLEY

Signature: 

Title: LAB MANAGER