RELEASE ASSESSMENT REPORT
PARCEL 21

FORT WINGATE DEPOT ACTIVITY
McKinley County, New Mexico

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ACM	Asbestos Containing Material
AOC	Area of Concern
ASTM	American Society for Testing and Materials
ASR	Archive Search Report
BRAC	Base Realignment and Closure
BRACD	BRAC Office
CFR	Code of Federal Regulations
DNT	Dinitrotoluene
DOI	Department of the Interior
FWDA	Fort Wingate Depot Activity
GIS	Geographic Information System
GPS	Global Positioning System
HE	High Explosive
HMX	Cyclotetramethylene-tetranitramine
HWB	Hazardous Waste Bureau
HWMU	Hazardous Waste Management Unit
MD	Munitions Debris
mg/kg	Milligram per Kilogram
mm	Millimeter
MSSL	Medium-Specific Screening Level
NARA	National Archives and Records Administration
NB	Nitrobenzene
NMAC	New Mexico Administrative Code
NMED	New Mexico Environmental Department
OB/OD	Open Burning/Open Detonation
PCB	Polychlorinated Biphenyl
PDF	Portable Document Format
RCRA	Resource Conservation and Recovery Act
RDX	Cyclotrimethylenetrinitramine
RFI	RCRA Facility Investigation
SOP	Standard Operating Procedure
SSL	Soil Screening Level
SUXOS	Senior Unexploded Ordnance Supervisor
SVOC	Semi-volatile Organic Compound
SWMU	Solid Waste Management Unit
TCL	Target Compound List
TEAD	Tooele Army Depot
TM	Technical Manual
TNT	Trinitrotoluene
TSCA	Toxic Substances Control Act
ug/cm^2	Micrograms per Square Centimeter
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency

ES.0 EXECUTIVE SUMMARY

This Release Assessment Report for Parcel 21 at Fort Wingate Depot Activity (FWDA) describes release assessments conducted as part of the environmental restoration program at FWDA. This document has been prepared for submission to the New Mexico Environment Department (NMED) Hazardous Waste Bureau (HWB), as required by Section VII.F.1 of Resource Conservation and Recovery Act (RCRA) Permit No. NM 6213820974.

ES.1 PURPOSE

The purpose of this document is to compile and present available information regarding the possibility of releases from Areas of Concern (AOCs) located within Parcel 21. As required by the Permit, this document was prepared in conjunction with and is submitted as a companion to the Parcel 21 RCRA Facility Investigation (RFI) Work Plan.

This report contains information for 11 AOCs within Parcel 21, as follows:

- AOC 60 Building 522 (Ammunition Renovation Building, formerly designated as Building 500);
- AOC 62 Building 508 (Smokeless Powder Magazine);
- AOC 63 Building 509 (Primary Collector Barricade);
- AOC 64 Building 510 (Vacuum Producer Building);
- AOC 65 Building 511 (Service Magazine);
- AOC 66 Building 512 (Service Magazine);
- AOC 67 Building 513 (Service Magazine);
- AOC 68 Building 514 (Deboostering Barricade) and Structure 545 (Earthen Barricade);
- AOC 71 Former rectangular structure near monitoring well TMW05 and north of Building 528;
- AOC 75 Former electrical transformer locations near Building 501 and Building 515;
- AOC 86 Feature 15 on 1973 aerial photo in 1995 Archive Search Report; and
- AOC 87 Feature 18 on 1962 aerial photo and Feature 23 on 1973 aerial photo in 1995 Archive Search Report.

ES.2 CONCLUSIONS

Based on the release assessments conducted as described in this document, conclusions were reached as follows.

- AOC 60 — Based on the known operations conducted within Building 522 and the findings of the site reconnaissance, it is concluded that it is unlikely that a release of a hazardous waste or hazardous constituents occurred at Building 522. Further, there is no evidence to suggest AOC 60 poses an unacceptable risk to human health or the environment.

  NMED HWB review comments 65 though 68 (Appendix A in the companion RFI Work Plan for Parcel 21) require additional characterization at AOC 60 and directed that AOC 60 be included in the RFI Work Plan.

  As discussed in the FWDA response to NMED HWB review comment 65 (Appendix A in the companion RFI Work Plan for Parcel 21), FWDA plans to request funding to demolish and remove Building 522. Characterization underneath former munitions disassembly and handling operations within the building and the land surface surrounding the building will be planned as part of post-demolition activities, in the same way that additional characterization was completed at SWMU 1 and SWMU 19 following the demolition and removal of Buildings 503 and 501, respectively.

  Therefore, no additional investigations are proposed for AOC 60 in the RFI Work Plan.

- AOC 62 — Based on the known operations conducted at Building 508 and the findings of the site reconnaissance and confirmation sampling, it is concluded that a release of a hazardous waste or hazardous constituents occurred at Building 508. The site reconnaissance found a few propellant grains on the ground surface, and samples of underlying soils contain constituents related to smokeless powder propellant. NMED HWB review comments 69 and 70 (Appendix A in the companion RFI Work Plan for Parcel 21) require additional characterization at AOC 62 and directed that AOC 62 be included in the RFI Work Plan. Planned investigations are described in that document.

- AOC 63 — Based on the known operations conducted at Building 509 and the findings of the site reconnaissance and confirmation sampling, it is concluded that a release of a hazardous waste or hazardous constituents occurred at Building 509. The site reconnaissance found propellant grains on the ground surface,

and samples of underlying soils contain constituents related to smokeless powder propellant and HE.

NMED HWB review comments 69 though 71 (Appendix A of the companion RFI Work Plan for Parcel 21) require additional characterization at AOCs 63 and 64 and directed that AOCs 63 and 64 be included in the RFI Work Plan. Planned investigations are described in that document.

- AOC 64

At the time of the site reconnaissance, the historical information describing the equipment previously housed within this building had not been reviewed. Confirmatory sampling was focused on possible releases of chemicals and/or lubricants from possible equipment maintenance activities. However, because review of historical documents indicates that the vacuum pump was a centrifugal style (meaning that possible maintenance would be limited to periodic grease addition to roller bearings, as compared to possible periodic filling and draining oil from an oil-filled reciprocating style compressor), it can be presumed that the amount and frequency of lubrication and maintenance chemical usage would have been minimal. There is no evidence to suggest AOC 64 poses an unacceptable risk to human health or the environment related to releases of chemicals and/or lubricants.

At the time of confirmatory sampling, the historical presence of secondary separator units generating dust/sludge was not known. As noted above, the three SVOCs detected in the single soil sample are constituents related to smokeless powder propellant; and the detected levels were well below cleanup levels.

NMED HWB review comments 69 though 71 (Appendix A of the companion RFI Work Plan for Parcel 21) require additional characterization at AOCs 63 and 64 and directed that AOCs 63 and 64 be included in the RFI Work Plan. Planned investigations are described in that document.

- AOCs 65-67

There is no evidence that release of a hazardous waste or hazardous constituents occurred at these buildings, and no evidence to suggest these AOCs pose an unacceptable risk to human health or the environment. NMED HWB review comment 72 (Appendix A in the companion RFI Work Plan for Parcel 21) requires additional characterization at AOCs 65, 66, and 67 and directed that AOCs 65, 66, and 67 be included in the RFI Work Plan. Planned investigations are described in that document.

- AOC 68 — A release of a hazardous waste or hazardous constituents occurred at Building 514. The site reconnaissance found empty booster cups on the ground surface, and samples of surface soils contain constituents related to HE.

  NMED HWB review comment 73 (Appendix A of the companion RFI Work Plan for Parcel 21) requires additional characterization at AOC 68 and directed that AOC 68 be included in the RFI Work Plan. Planned investigations are described in that document.

- AOC 71 — There is no evidence that a release of a hazardous waste or hazardous constituents occurred, and no evidence to suggest AOC 71 poses an unacceptable risk to human health or the environment. Debris will be removed prior to land transfer as part of a "housekeeping" action (as opposed to an environmental restoration action). The Army proposes that AOC 71 be designated "Corrective Action Complete Without Controls".

- AOC 75 — The concentration of polychlorinated biphenyl (PCB) 1260 detected in soil under the former transformer nest at Building 515 is significantly lower than the cleanup level. There is no evidence to suggest this part of AOC 75 poses an unacceptable risk to human health or the environment. However, because the sample location was poorly documented in the historical report, and because PCBs were detected (indicating that a release had taken place), additional samples are required to evaluate remaining PCB concentrations at the former transformer nest at Building 515.

  The concentration of PCB 1260 detected on the concrete pad north of the former location of Building 501 exceeds the Toxic Substances Control Act (TSCA) unrestricted use decontamination standard of 10 micrograms per 100 square centimeters (10 ug/100 cm^2). Because the sample location was poorly documented in the historical report, because PCBs were detected (indicating that a release had taken place), and because NMED directed additional sampling in NMED HWB review comment 79 (Appendix A of the companion RFI Work Plan for Parcel 21), additional samples are required to evaluate remaining PCB concentrations at the former transformer pad north of Building 501.

  Further characterization of this portion of AOC 75 will be completed as part of the RFI for Parcel 21, and is discussed further in the companion Parcel 21 RFI Work Plan

- AOC 86 — Historical documents indicate that AOC 86 was an open storage location, used for temporary storage of military munitions. It is possible that some of the munitions stored were damaged bombs filled with Napalm-B. The aerial photo analysis did not identify any staining indicative of a significant release in any of the photos analyzed, including a 1973 color photo. The aerial photo analysis showed no materials stored in this location in 1966, and none again in 1973, so if potentially damaged munitions were stored at this location, that use was less than 7 years more than 33 years ago. Observations made during the site reconnaissance did not suggest that releases of hazardous wastes or hazardous constituents occurred from operations at AOC 86. NMED HWB review comment 78 (Appendix A of the companion RFI Work Plan for Parcel 21) require additional characterization at AOC 86 and directed that AOC 86 be included in this RFI Work Plan. Planned investigations are described in that document.

- AOC 87 — The two Archive Search Report "features" that make up AOC 87 also include AOCs 60, 63, 64, 65, 66, 67, 68, two pre-1940s magazine sites, and an area of debris possibly associated with Solid Waste management Unit (SWMU) 2 (Building 515). Because these areas will be addressed as part of actions at other AOCs or SWMUs, the Army proposes that AOC 87 be designated "Corrective Action Complete Without Controls". In a Notice of Approval with Modification dated 8 August 2007, NMED HWB concurred with the release assessment findings for AOC 87.

- Additional Areas Evaluated

  An asbestos evaluation was performed to identify sites that are not SWMUs or AOCs where there is a potential for asbestos contamination. Suspect ACM was observed and sampled in nine locations; based on sample results, six of the nine locations had confirmed ACM. Confirmed ACM will be mitigated prior to land transfer.

  The aerial photo analysis (ERI, 2006, Parcel 21 findings included in Appendix C of the companion SRHI for Parcel 21) noted a ground scar with an object and staining approximately 200 feet north of Arterial Road No. 4 and 300 feet west of the Post-1962 TNT Leaching Beds (part of SWMU 1), on the west side of the surface drainage ditch which drained the Pre-1962 Leaching Bed (part of SWMU 1); while this feature was noted, it was not characterized as a Photo-Identified site (potential contamination source or AOC). This site appears to the location of one of the pre-1940s magazines, specifically Magazine I-276.

As noted below, a sample was collected at I-276 as part of a facility-wide investigation of former storage sites.

As described in the responses to consultation comments (Appendix E), Structure 526 (identified during the consultation walkover) is a timber safety shelter with earthen cover, designed and constructed to provide a safe haven for workers in the event of an operational emergency. It has no utility service connections, and no known use other than as a safety shelter. No issues regarding this structure were identified in the historical aerial photo analysis, historical document review, or site reconnaissance.

As noted in the response to NMED HWB review comment 82 (Appendix A of the companion RFI Work Plan for Parcel 21), although there are 10 pre-1940s magazines shown in a 1935 map that are within Parcel 21 (Magazines H-264, H-265, I-275, I-276, I-277, I-289, I-290, K-303, T-356, and T357; locations shown in gray on Figure 3), only three locations (Magazine H-264, Magazine I-276, and Magazine T-356) have not been obliterated during construction of current day facilities. Multi-incremental surface soil samples were collected at H-264, I-276, and T-356 as part of a facility-wide investigation of former storage sites, as documented in a report entitled *Report of Investigation for Potential Environmental Areas of Concern* (USACE, 2007). As described in the report (USACE, 2007, page 6), soil samples from the pre-1940s magazine sites were collected and analyzed for explosives (SW846 8330B), As documented in the report (USACE, 2007, Table 3), explosives were not detected in multi-incremental samples collected at H-264, I-276, or T-356.

Empty 3.25-inch rocket motor tubes (a metal tube, approximately 46 inches long, 2.5 inches in diameter, and threaded on each end) have been reused at various locations at FWDA as vertical marking posts for drainage culverts and walkways. Because they have been fully demilitarized and classified as scrap metal, the rocket motor tubes should not be considered munitions debris (MD). The empty rocket motor tubes will be removed prior to land transfer as part of a "housekeeping" action (as opposed to an environmental restoration action).

1.0 INTRODUCTION

This Release Assessment Report for Parcel 21 at Fort Wingate Depot Activity (FWDA) describes release assessments conducted as part of the environmental restoration program at FWDA. This document was prepared by TerranearPMC, LLC of Exton, Pennsylvania, in partial fulfillment of the requirements of Task Order No. 0001 under contract W9126G-06-D-0016. Contracting Officer's Representative 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 document has been prepared for submission to the New Mexico Environment Department (NMED) Hazardous Waste Bureau (HWB), as required by Section VII.F.1 of the Resource Conservation and Recovery Act (RCRA) Permit (hereinafter referred to as "the Permit") for FWDA. The Permit (NM 6213820974) was finalized in December 2005 and became effective 31 December 2005.

This report has been revised to address review comments provided by NMED HWB in a Notice of Disapproval (NOD) dated 5 September 2007 (NMED, 2007). NMED comments and FWDA responses are provided in Appendix A to the companion RCRA Facility Investigation (RFI) Work Plan for Parcel 21.

1.1 PURPOSE/OBJECTIVE

The purpose of this document is to compile and present available information regarding the possibility of releases from Areas of Concern (AOCs) located within Parcel 21. As required by the Permit, this document was prepared in conjunction with and is submitted as a companion to the Parcel 21 RFI Work Plan.

1.2 PERMIT RELEASE ASSESSMENT REPORT REQUIREMENTS

As outlined in Permit Section VII.F.1, a Release Assessment Report must, at a minimum, include the following information:

1. Location of unit(s) on a topographic map of appropriate scale such as required under 20.4.1.900 New Mexico Administrative Code (NMAC) [incorporating 40 Code of Federal Regulations (CFR) 270.14(b)(19)];
2. Designation of type and function of unit(s);
3. General dimensions, capacities and structural description of unit(s) (supply any available plans/drawings);
4. Dates that the unit(s) operated;
5. All available site history information;

6. Specification of all wastes that have been managed at/in the unit(s) to the extent available (include any available data on hazardous waste or hazardous constituents in the wastes); and

7. All available information pertaining to any release of hazardous waste or hazardous constituents from such unit(s) (to include ground water data, soil analyses, air, and surface water data).

According to Permit Section VII.F.2, NMED will review the information presented herein to determine whether any further investigative action is required. NMED will notify FWDA of a corrective action complete decision, the need for confirmatory sampling, or the need to perform an RFI.

2.0 INSTALLATION DESCRIPTION AND HISTORY

FWDA is an inactive U.S. Army depot whose former mission was to receive, store, maintain, and ship assigned materials (primarily explosives and military munitions), and to dispose of obsolete or deteriorated explosives and military munitions. Since 1975, the installation has been under the administrative command of 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 Realignment and Closure (BRAC) Act of 1988. In 2002, the Army reassigned many functions at FWDA to the BRAC Division (BRACD), including property disposal, caretaker duties, management of caretaker staff, and performance of environmental restoration and compliance activities. TEAD retained command and control responsibilities, and continued to provide support services to FWDA until January 31, 2008. On January 31, 2008, command and control and support functions were transferred to White Sands Missile Range (WSMR).

FWDA currently occupies approximately 24 square miles (approximately 15,277 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 1). FWDA contains facilities formerly used to operate a reserve storage activity providing for the care, preservation, and minor maintenance of assigned commodities, primarily conventional military munitions. The installation mission included the disassembly and demilitarization of unserviceable and obsolete military munitions. Ammunition maintenance facilities existed for the clipping, linking, and repackaging of small arms ammunition.

The installation is almost entirely surrounded by federally owned or administered lands, including both national forest and Tribal lands. The installation can be divided into several areas based upon location and historical land use. As shown in Figure 2, these historical land-use areas include:

- The Administration Area - located in the northern portion of the installation and encompassing approximately 800 acres; contains former office facilities, housing, equipment maintenance facilities, warehouse buildings, and utility support facilities;

- The Workshop Area - located south of the Administration Area and encompassing approximately 700 acres; consisting of an industrial area containing former ammunition maintenance and renovation facilities, the former TNT washout facility, and the TNT Leaching Beds Area;

- The Magazine (Igloo) Area - covering approximately 7,400 acres in the central portion of the installation and encompassing ten Igloo Blocks (A through H, J and K) consisting of 732 earth-covered igloos and 241 earthen revetments previously used for storage of munitions;

- Protection and Buffer Areas - encompassing approximately 4,050 acres consisting of buffer zones surrounding the former magazine and demolition areas; these areas are located adjacent to the eastern, northern, and western boundaries of the installation; and

- The Open Burning/Open Detonation (OB/OD) Area - located within the west central portion of the installation and encompassing approximately 1,800 acres; the OB/OD Area can be separated into two subareas based on period of operation, the Closed OB/OD Area and the Current OB/OD Area. The Current OB/OD Area was designated as the OB/OD Unit Hazardous Waste Management Unit (HWMU) in the Permit.

FWDA has been undergoing final environmental restoration prior to property transfer/reuse. As part of planned property transfer to the Department of the Interior (DOI), the installation has been divided into reuse parcels (Figure 2). Parcels transferred to date consist of Parcels 1, 15, and 17.

This report contains release assessment information for AOCs within Parcel 21. The Permit lists a total of 11 AOCs within Parcel 21, as follows (Figure 3):

- AOC 60 Building 522 (Ammunition Renovation Building, formerly designated as Building 500);
- AOC 62 Building 508 (Smokeless Powder Magazine);
- AOC 63 Building 509 (Primary Collector Barricade);
- AOC 64 Building 510 (Vacuum Producer Building);
- AOC 65 Building 511 (Service Magazine);
- AOC 66 Building 512 (Service Magazine);
- AOC 67 Building 513 (Service Magazine);
- AOC 68 Building 514 (Deboostering Barricade) and Structure 545 (Earthen Barricade);
- AOC 71 Former rectangular structure near monitoring well TMW05 and north of Building 528;
- AOC 75 Former electrical transformer locations near Building 501 and Building 515;
- AOC 86 Feature 15 on 1973 aerial photo in 1995 Archive Search Report; and
- AOC 87 Feature 18 on 1962 aerial photo and Feature 23 on 1973 aerial photo in 1995 Archive Search Report.

The Permit also lists a total of five Solid Waste Management Units (SWMUs) within Parcel 21, as follows (Figure 3):

- SWMU 1 TNT Leaching Beds and Building 503;
- SWMU 2 Building 515 (Clean and Paint Building and Acid Holding Pond);
- SWMU 7 Fire Training Ground;
- SWMU 19 Building 501 (Former Boiler House and Heating Plant No. 7); and
- SWMU 72 Building 530 (Former Deactivation Furnace and Vicinity).

With the exception of AOCs 71, 75, 86, and 87 and SWMU 7, the listed AOCs and SWMUs are buildings and facilities that were part of munitions operations in the Workshop Area during the active mission. Specific operations/activities conducted at the AOCs located in Parcel 21 are discussed in the section for each respective AOC in this report. Specific operations and investigations conducted at the five SWMUs located in Parcel 21 are discussed in the Parcel 21 RFI Work Plan.

3.0 RELEASE ASSESSMENT METHODOLOGY

There is no specific release assessment methodology for AOCs under RCRA. During Permit implementation discussions, NMED HWB described an approach generally similar to the American Society for Testing and Materials (ASTM) Phase I Environmental Site Assessment process. The current version of ASTM guidance for conducting a Phase I Environmental Site Assessment is entitled *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, designated as ASTM Standard E 1527-05; this standard is available for download from the ASTM website, www.astm.org.

3.1 RECORDS REVIEW

All available records pertaining to operations at the AOCs within Parcel 21 were reviewed as part of this release assessment.

Records reviewed included:

- A historical aerial photograph analysis for FWDA (ERI, 2006, Parcel 21 findings included in Appendix C of the companion SRHI for Parcel 21);
- Historical maps, drawings, and records located at FWDA;
- Historical records and documents, including historical FWDA Standard Operating Procedures (SOPs) (included in Appendix A of the companion SRHI for Parcel 21), obtained from the National Archives and Records Administration (NARA) Rocky Mountain Region Federal Records Center;
- Historical records and documents obtained from the NARA College Park, Maryland, location;
- Historical records obtained from Army Field Support Command/Joint Munitions Command History Office's archives and document collection; and
- Other historical documents contained in the FWDA Information Repository.

When information included herein was found in a document already in the FWDA Information Repository, the full citation in Section 16 of this document includes the Information Repository index number for the cited document. When information cited herein was found in another location, copies of relevant portions of the cited document have been included in the companion SRHI for Parcel 21.

3.2 SITE RECONNAISSANCE AND CONFIRMATORY SAMPLING

A site reconnaissance of the Parcel 21 AOCs was conducted during the week of 19 June 2006. A team of three environmental professionals and one Senior Unexploded Ordnance Supervisor (SUXOS)-qualified professional performed the site reconnaissance. Representative photographs are included in Appendix A. For locations where munitions and/or munitions components were possibly

stored or handled, a handheld magnetometer (Schonstedt MAC-51Bx) was used to augment the visual reconnaissance.

Sampling of several AOCs was completed during the site reconnaissance. The sampling strategy was based upon historical information regarding operations conducted at the individual AOCs, as well as issues identified by NMED HWB as part of their basis for listing a given site as an AOC. Surface soil samples were collected at AOCs 62, 63, 64, and 68 during the site reconnaissance. A copy of the sampling plan is included in Appendix B.

Samples were collected from the 0 to 6-inch depth interval from biased sampling locations using disposable equipment. Samples were sent to GPL Laboratories located in Frederick, Maryland, for analysis. A total of seven sampling locations were sampled as part of the release assessments. All locations were screened with a Photo-Ionization (PID)/Flame-Ionization Detector (FID) immediately after the sample was collected to identify any potential volatile compounds. No elevated PID/FID readings were observed during sampling activities.

Analytical parameter lists for each AOC were tailored to the operations conducted at each location. For AOC 64, the Vacuum Producer Building, NMED cited the possible use/release of lubricants and maintenance chemicals associated with the machinery inside the building as their basis for listing the building as an AOC; for that reason, a sample from AOC 64 was to be analyzed for Target Compound List (TCL) semi-volatile organic compounds (SVOCs) and polychlorinated biphenyls (PCBs). Because AOCs 62, 63, and 68 had operations involving munitions and/or munitions components, samples from these AOCs were to be analyzed for explosives, nitrocellulose, TCL SVOCs, nitrate, and perchlorate. In addition, because of an error in the completion of the laboratory chain-of-custody form, the samples from AOCs 62, 63, and 68 were also analyzed for PCBs.

Laboratory results are summarized in the section for the AOC at which the samples were collected; a complete copy of analytical results is included in Appendix C. Tables 1 through 4 present summaries of detected parameters. For this Release Assessment Report, data have been screened against cleanup levels as described in Permit Attachment 7 (NMED, 2005). According to the most recent reuse planning document (DOI, 2005), the planned reuse for Parcel 21 is as a Commercial Holding Zone.

As a first attempt to evaluate environmental data relative to risk to human health, soil and sediment analytical data were compared to NMED Residential Soil Screening Levels (SSLs) (NMED, 2006). If a Residential SSL has not been established for a given detected constituent, the data were compared to U.S. Environmental Protection Agency (USEPA) Region 6 Human Health Medium Specific Screening Levels (MSSLs) (USEPA, 2007).

AOC boundaries, site features, and sampling locations were surveyed using a Trimble Pro XRS Global Positioning System (GPS) to accurately place them on a map of FWDA.

4.0 AOC 60 – BUILDING 522, AMMUNITION RENOVATION BUILDING

4.1 LOCATION, DESCRIPTION, AND OPERATIONAL HISTORY

AOC 60 is Building 522, Ammunition Renovation Building (formerly Building 500), and was built in 1948 on a concrete dock that was the former location of two bundle ammunition packing buildings. The one-story building is approximately 372 feet long by 32 feet wide. AOC 60 is shown in Figure 4.

An as-built site plan from 1943 (FWDA Drawing No. A-1-16, included in Appendix H of the companion SRHI for Parcel 21) shows the Workshop Area as it existed following construction in 1941, during World War II. The sites of Building 522 (AOC 60) and Building 503 (part of SWMU 1) were occupied by two large concrete loading docks, each with two smaller buildings on top, and a rail spur along the north side. These facilities were bundle ammunition packing buildings, used to package ammunition being shipped to support military operations in World War II. A historical publication (War Department, 1944) describes "bundled ammunition" as ammunition in three round fiber containers and uncrated; the containers had to be loaded tightly in a rail car in order to prevent movement during transportation.

The bundle ammunition packing buildings were removed, and a permanent structure with eight processing rooms (separated by concrete blast walls) was completed in 1948. The building was initially identified as Building 500. Sometime prior to 1961, it was renumbered Building 522.

As noted above, operations at this location began during Word War II with packing of military munitions for shipment. Following the war, operations at this location shifted to demilitarization of military munitions, as shown in FWDA Drawing Nos. B-15-108 and B-15-109 (Appendix H of the companion SRHI for Parcel 21). When the building as it is now configured was completed in 1948, it became the location of additional munitions maintenance, renovation, and demilitarization operations. As described in historical SOPs (Appendix A of the companion SRHI for Parcel 21), these operations typically included the disassembly of various munitions into individual components or assemblies, which would be removed from Building 522/500 for further processing or storage.

The exact date operations in this building ceased is unknown based on existing information, but the building was inactive for some time prior to FWDA closure in January 1993.

4.2 WASTE MANAGEMENT INFORMATION

There is no information suggesting hazardous wastes were handled at this AOC. As described above, various operations were performed on military munitions and their components within this building, and the munitions and/or components were removed from the building for further processing or storage. These items may have contained hazardous constituents including high explosives (HE) and

propellants. Other chemical products, such as solvents and lubricants, are believed to have been used within the building.

4.3 RELEASE ASSESSMENT

The potential for a release of hazardous waste or hazardous constituents at this AOC was assessed by combining review of available records and documents with observations made during site reconnaissance.

4.3.1 Historical Records/Document Review

None of the historical documents reviewed suggested that releases of hazardous wastes or hazardous constituents occurred from operations conducted inside Building 522/500. Although several documents (USATHAMA, 1980, Page 24, Table I; PRC, 1990, page 6, Table 1) noted past industrial activities within the building, no document identified Building 522/500 as a potential SWMU or AOC.

As noted in the aerial photo analysis report (ERI, 2006, pages 54-55, Table 1), there were no significant findings for AOC 60 on any of the photos reviewed, spanning the years 1948 through 1997.

4.3.2 Site Reconnaissance Findings

The site reconnaissance conducted at Building 522 included both the interior and exterior/surrounding area. Representative photographs of Building 522 are included as Photos 1 through 7, Appendix A.

Building 522 is in poor condition with portions of the roof collapsing into the building's interior. The building is a raised concrete and brick structure with an attached covered loading dock. The interior of Building 522 consists of several large rooms separated by concrete blast-shielding walls. Heat was provided by a boiler-fed, hot water system. The boiler was located in Building 501 (SWMU 19) located approximately 200 feet east of Building 522

Floors within Building 522 consist of a thin asphalt coating over concrete, most likely as an anti-spark precaution. No floor drains were present within Building 522, and there are no sinks or sumps in any of the work areas. A single small room at the northwest corner of Building 522 contained restroom facilities, including a wash basin, former urinal, and two toilets that are presumed to be connected to the sanitary sewer system; there was no visual evidence of illicit discharges to any of these fixtures. No staining of interior floors was observed. The building was empty with only a small amount of debris observed. No munitions or munitions components were observed within the building.

Outside the building, it was noted that only doors for personnel access exist on the north side of the building; it appears that, following completion of the building in 1948, all railcar unloading took place at Building 516 (AOC 42, Parcel 6). The rail spur is no longer present on the north side of the building. There is a covered walk leading from Building 516 into the west end the building, and there is a ramp on the south side of the building leading to the walks which serve the various

related outbuildings (AOCs 62-68 and SWMUs 1 and 2), described below. There is an enclosed loading dock on the east end of the building. No staining of the dock or ground surfaces was observed. Since 1997, the dock has been used to store clean 55-gallon drums and clean plastic water tanks of various sizes for use during various environmental restoration activities at FWDA. Small amounts of debris were observed on the loading dock and around the exterior of the building. No munitions or munitions components were observed on the dock or around the exterior of the building.

4.3.3 Confirmatory Sampling

Because there was no historical information suggesting the possibility of a release, samples were not collected as part of the release assessment for this AOC.

4.4 RELEASE ASSESSMENT CONCLUSION

Based on the known operations conducted within Building 522 and the findings of the site reconnaissance, it is concluded that it is unlikely that a release of a hazardous waste or hazardous constituents occurred at Building 522. Further, there is no evidence to suggest AOC 60 poses an unacceptable risk to human health or the environment.

NMED HWB review comments 65 though 68 (Appendix A in the companion RFI Work Plan for Parcel 21) require additional characterization at AOC 60 and directed that AOC 60 be included in the RFI Work Plan.

As discussed in the FWDA response to NMED HWB review comment 65 (Appendix A in the companion RFI Work Plan for Parcel 21), FWDA plans to request funding to demolish and remove Building 522. Characterization underneath former munitions disassembly and handling operations within the building and the land surface surrounding the building will be planned as part of post-demolition activities, in the same way that additional characterization was completed at SWMU 1 and SWMU 19 following the demolition and removal of Buildings 503 and 501, respectively.

Therefore, no additional investigations are proposed for AOC 60 in the RFI Work Plan.

5.0 AOC 62 – BUILDING 508, SMOKELESS POWDER MAGAZINE

5.1 LOCATION, DESCRIPTION, AND OPERATIONAL HISTORY

AOC 62 is Building 508, Smokeless Powder Magazine, which was built in 1948 to support Workshop Area operations (primarily those conducted in AOC 60, Building 522/500). This one-story building is approximately 11 feet long by 12 feet wide. As described in historical SOPs (Appendix A of the companion SRHI for Parcel 21), this building was used to store containers of propellant filled in Building 509 (AOC 63) to await transport either to longer term storage or to the OB/OD Area for burning. AOC 62 is shown in Figure 4.

The exact date operations ceased is unknown based on existing information, but the building was inactive for some time prior to FWDA closure in January 1993.

5.2 WASTE MANAGEMENT INFORMATION

There is no information suggesting hazardous wastes were handled at this AOC. Military munitions and components were handled and stored in this building. These items may have contained hazardous constituents including HE and propellants.

5.3 RELEASE ASSESSMENT

The potential for a release of hazardous waste or hazardous constituents at this AOC was assessed by combining review of available records and documents with observations made during site reconnaissance.

5.3.1 Historical Records/Document Review

None of the historical documents reviewed suggested that releases of hazardous wastes or hazardous constituents occurred from operations at AOC 62. No document identified Building 508 as a potential SWMU or AOC.

As noted in the aerial photo analysis report (ERI, 2006, Pages 55-56, Table 1), there were no significant findings for AOC 62 on any of the photos reviewed, spanning the years 1948 through 1997.

5.3.2 Site Reconnaissance Findings

The site reconnaissance conducted at Building 508 included both the interior and exterior/surrounding area. Representative photographs of Building 508 are included as Photos 8 through 10, Appendix A.

No stains, munitions, or munitions components were observed within the interior of Building 508. No stains or munitions were observed around the building exterior. Munitions components, in the form of propellant grains, were observed around the building exterior in several locations (Figure 5 and Photo 10, Appendix A). A few small anomalies, likely nails or other small metal debris,

were detected around the building exterior during the magnetometer-assisted walkover.

5.3.3 Confirmatory Sampling

Two confirmation samples were collected from near Building 508. One sample, B508SO001, was collected in soil immediately adjacent to the concrete walkway at the front (south side) of the magazine. Another sample, B508SO002, was collected from soil immediately under a propellant grain found on the ground surface just south of the magazine. Sample locations are shown in Figure 5. These samples were analyzed for explosives, nitrocellulose, TCL SVOCs, nitrate, perchlorate, and PCBs.

As shown in Table 1, nitrocellulose was detected in B508SO001, at a concentration of 62 mg/kg; there is no current human health screening level for nitrocellulose in soil. Two explosives were detected in B508SO001. 2,4-dinitrotoluene (2,4-DNT) and nitrobenzene (NB) were detected In B508SO001 at concentrations of 3.4 milligrams per kilogram (mg/kg) and 0.28 mg/kg, respectively. 2,4-DNT was also detected in the SVOC analysis, along with 2,6-DNT, at 1.3 and 0.04 mg/kg, respectively. As shown in Table 1, detected concentrations of 2,4-DNT 2,6, DNT, and NB are well below cleanup levels. Three additional SVOCs, bis (2-ehtylhexyl) phthalate, di-n-butyl phthalate, and n-nitrosodiphenylamine, were detected at levels well below their respective cleanup levels. Nitrate/nitrite was detected at 2.3 mg/kg, well below the nitrate and nitrite cleanup levels of 100,000 mg/kg and 7,820 mg/kg, respectively.

As shown in Table 1, nitrocellulose was also detected in B508SO002, at a concentration of 41 mg/kg; there is no current human health screening level for nitrocellulose in soil. One explosive, NB, was detected at a concentration of 0.16 mg/kg, well below the cleanup level. Nitrate/nitrite was detected at 27 mg/kg, well below the nitrate and nitrite cleanup levels of 100,000 mg/kg and 7,820 mg/kg, respectively.

Perchlorate or PCBs were not detected in either sample.

The detected parameters are consistent with those expected from a smokeless powder propellant. As noted in page 88 of Technical Manual (TM) 9-1904 (War Department, 1944; page included in Appendix B of the companion SRHI for Parcel 21), DNT, diphenylamine, and dibutylphthalate were added to nitrocellulose in the manufacture of smokeless powder.

5.4 RELEASE ASSESSMENT CONCLUSION

Based on the known operations conducted at Building 508 and the findings of the site reconnaissance and confirmation sampling, it is concluded that a release of a hazardous waste or hazardous constituents occurred at Building 508. The site reconnaissance found a few propellant grains on the ground surface, and samples of underlying soils contain constituents related to smokeless powder propellant. NMED HWB review comments 69 and 70 (Appendix A in the companion RFI Work Plan for Parcel 21) require additional characterization at

AOC 62 and directed that AOC 62 be included in the RFI Work Plan. Planned investigations are described in that document.

6.0 AOC 63 – BUILDING 509, PRIMARY COLLECTOR BARRICADE

6.1 LOCATION, DESCRIPTION, AND OPERATIONAL HISTORY

AOC 63 is Building 509, Primary Collector Barricade, which was built in 1948 to support Workshop Area operations conducted in AOC 60, Building 522/500. This one-story building is approximately 7 feet long by 15 feet wide. As described in historical SOPs (Appendix A of the companion SRHI for Parcel 21), this building was used to collect propellant (e.g., smokeless powder) removed from munitions being disassembled in Building 522/500. Propellant removed from munitions inside Building 522/500 was conveyed to Building 509 via an overhead vacuum line running between the two buildings. Containers were placed in Building 509 to collect the recovered propellant. When containers were filled, they were closed and moved to Building 507 (AOC 61, Parcel 6) and Building 508 (AOC 62) to await transport either to longer term storage or to the OB/OD Area for burning. AOC 63 is shown in Figure 4.

The exact date operations ceased is unknown based on existing information, but the building was inactive for some time prior to FWDA closure in January 1993.

6.2 WASTE MANAGEMENT INFORMATION

There is no information suggesting hazardous wastes were handled at this AOC. Military munitions and components were handled and stored in this building. These items may have contained hazardous constituents including HE and propellants.

6.3 RELEASE ASSESSMENT

The potential for a release of hazardous waste or hazardous constituents at this AOC was assessed by combining review of available records and documents with observations made during site reconnaissance.

6.3.1 Historical Records/Document Review

None of the historical documents reviewed suggested that releases of hazardous wastes or hazardous constituents occurred from operations at AOC 63. No document identified Building 509 as a potential SWMU or AOC.

NMED HWB performed soil sampling for perchlorate analysis around this building in February 2001, and as provided in a fax from NMED HWB on 12 June 2002, no perchlorates were detected (NMED, 2002).

As noted in the aerial photo analysis report (ERI, 2006, Pages 56-57, Table 1), staining was observed on the ground on the north and west sides of Building 509 in the 1958 photo. There were no significant findings for AOC 63 on any of the other photos reviewed, spanning the years 1948 through 1997.

6.3.2 Site Reconnaissance Findings

The site reconnaissance conducted at Building 509 included both the interior and exterior/surrounding area. Representative photographs of Building 509 are included as Photos 11 through 18, Appendix A.

No stains, munitions, or munitions components were observed within the interior of Building 509. No stains or munitions were observed around the building exterior. Munitions components, in the form of propellant grains, were observed around the building exterior in several locations (Figure 5 and Photos 17 and 18, Appendix A). At one of the soil sample locations, B509SO001, propellant grains were observed mixed in the soil to a depth of 3 inches. A few small anomalies, likely nails or other small metal debris, were detected around the building exterior during the magnetometer-assisted walkover.

The cloth covering on the south side of Building 509 is badly deteriorated and falling off onto the ground. This covering was identified as suspect asbestos-containing material (ACM) in historical documentation (ERM, 1994, Appendix C, Page 37, Table 3-3). A sample of the cloth covering was collected in October 2006 during the asbestos evaluation for Parcels 11 and 12; as noted in the results included in Appendix D, asbestos was not detected in the cloth covering.

6.3.3 Confirmatory Sampling

Two confirmation samples were collected from near Building 509. One sample, B509SO001, was collected in soil immediately adjacent to the front (South side) of the building and next to the concrete walkway between Building 509 and Building 508 (AOC 62), in an area where propellant grains were visible on the surface. Another sample, B509SO002, was collected from soil immediately under propellant grains found on the ground surface southwest of the building. Sample locations are shown in Figure 5. These samples were analyzed for explosives, nitrocellulose, TCL SVOCs, nitrate, perchlorate, and PCBs.

As shown in Table 2, nitrocellulose was detected in B509SO001, at a concentration of 5,300 mg/kg; there is no current human health screening level for nitrocellulose in soil. Nine explosives, including trinitrotoluene (TNT), cyclotetramethylene-tetranitramine (HMX), and cyclotrimethylenetrinitramine (RDX), were detected in B509SO001. Only 2,4-DNT, at 220 mg/kg, exceeded the cleanup level of 122 mg/kg. 2,4-DNT, 2,6-DNT, and six other parameters were detected in SVOC analysis; again, only 2,4-DNT, at 230 mg/kg, exceeded the cleanup level of 122 mg/kg. PCB 1254 was detected at 2.3 mg/kg, exceeding the cleanup level of 1.12 mg/kg. Nitrate/nitrite was detected at 15 mg/kg, well below the nitrate and nitrite cleanup level of 100,000 mg/kg and 7,820 mg/kg, respectively.

As shown in Table 2, two explosives, 2,4-DNT and NB were detected in B509SO002, at concentrations well below cleanup levels. 2,4-DNT and di-n-butyl phthalate were detected in the SVOC analysis, at concentrations well below cleanup levels. Nitrate/nitrite was detected at 4.5 mg/kg, well below the nitrate

and nitrite cleanup levels of 100,000 mg/kg and 7,820 mg/kg, respectively. PCBs were not detected in this sample.

Perchlorate was not detected in either sample.

As noted in Section 5.3.3, the detected parameters in sample B509SO002 are consistent with smokeless powder propellant. The source of HE constituents in sample B509SO001 is not known.

6.4 RELEASE ASSESSMENT CONCLUSION

Based on the known operations conducted at Building 509 and the findings of the site reconnaissance and confirmation sampling, it is concluded that a release of a hazardous waste or hazardous constituents occurred at Building 509. The site reconnaissance found propellant grains on the ground surface, and samples of underlying soils contain constituents related to smokeless powder propellant and HE.

NMED HWB review comments 69 though 71 (Appendix A of the companion RFI Work Plan for Parcel 21) require additional characterization at AOCs 63 and 64 and directed that AOCs 63 and 64 be included in the RFI Work Plan. Planned investigations are described in that document.

7.0 AOC 64 – BUILDING 510, VACUUM PRODUCER BUILDING

7.1 LOCATION, DESCRIPTION, AND OPERATIONAL HISTORY

AOC 64 is Building 510, Vacuum Producer Building, and was built in 1948. This one-story building is approximately 10 feet long by 10 feet wide. This building contained equipment to produce the vacuum used to convey recovered propellant from Building 522 to Building 509. In their basis for listing this location as an AOC, NMED cited the possible use/release of lubricants and maintenance chemicals associated with the machinery in Building 510. AOC 64 is shown in Figure 4.

The exact date operations ceased is unknown based on existing information, but the building was inactive for some time prior to FWDA closure in January 1993.

7.2 WASTE MANAGEMENT INFORMATION

There is no information suggesting hazardous wastes were handled at this AOC. Military munition components were handled and stored in this building. These items may have contained hazardous constituents including propellants. Maintenance chemicals or lubricant oils used in the equipment housed inside the AOC could have potentially contained hazardous constituents.

7.3 RELEASE ASSESSMENT

The potential for a release of hazardous waste or hazardous constituents at this AOC was assessed by combining review of available records and documents and observations made during site reconnaissance.

7.3.1 Historical Records/Document Review

A historic floor plan for Building 510 (FWDA Drawing No. A-6-60, Appendix I of the companion SRHI for Parcel 21) shows that the building housed a centrifugal vacuum pump with direct connected 10 horsepower electric motor to produce the necessary vacuum to pull debagged smokeless powder propellant from Building 522/500 to Building 509. For safety reasons, the building also housed two secondary separator units (the primary separators were the cyclone separators in Building 509) to remove potential explosion hazards (propellant dust) from the air being drawn by the vacuum pump. One secondary separator was a wet type, 30 inches in diameter by 66 inches high. The other secondary separator was a dry type, 36 inches in diameter by 72 inches high. The design vacuum flow through the system was 400 cubic feet per minute (CFM). Although no specific piping diagrams for Building 510 were found, the system is similar to that installed in Building 550 (part of SWMU 27, Parcel 22); a copy of the piping diagram for Building 550 is included in Appendix I of the companion SRHI for Parcel 21 (FWDA Drawing No. A-5-103).

No historical records were found detailing amounts of dust/sludge produced in the secondary separators, or how the dust/sludge was removed, handled, and

disposed. Based on knowledge of this type of process at similar installations, it is presumed that the dust/sludge was collected in containers and transported to the OB/OD Area for treatment.

No historical document identified Building 510 as a potential SWMU or AOC.

As noted in the aerial photo analysis report (ERI, 2006, Page 57, Table 1), there were no significant findings for AOC 64 on any of the photos reviewed, spanning the years 1948 through 1997.

7.3.2 Site Reconnaissance Findings

The exterior and interior of Building 510 were inspected for stains, munitions, and munitions components. Representative photographs of Building 510 are included as Photos 19 through 23, Appendix A.

As shown in Photo 23, the vacuum pump and secondary separators have been removed from the building interior. Electrical conduits, an electrical switch box, and a water supply line for the wet type secondary separator are still present. There were no floor drains, and the floor was partially covered with dust and rodent droppings.

No stains, munitions, or munitions components were observed around the building exterior. The vacuum pump exhaust was present in the east exterior wall. A few small anomalies, likely nails or other small metal debris, were detected around the building exterior during the magnetometer-assisted walkover.

7.3.3 Confirmatory Sampling

One confirmation sample was collected from near Building 510. This sample, B510SO001, was collected from soil near the edge of the concrete walkway on the south side of the building, opposite the only access door to the building. Sample locations are shown in Figure 5. This sample was analyzed for TCL SVOCs and PCBs.

As shown in Table 3, SVOC analysis detected 2,4-DNT at a concentration of 0.58 mg/kg, well below the cleanup level of 122 mg/kg. Two additional SVOCs, di-n-butyl phthalate were detected in B510SO001, at concentrations of 1.10 mg/kg and 0.03 mg/kg, respectively, well below their respective cleanup levels. PCBs were not detected in the B510SO001.

The detected parameters are consistent with those expected from a smokeless powder propellant. As noted in page 88 of TM 9-1904 (War Department, 1944; page included in Appendix B of the companion SRHI for Parcel 21), DNT, diphenylamine, and dibutylphthalate were added to nitrocellulose in the manufacture of smokeless powder.

7.4 RELEASE ASSESSMENT CONCLUSION

At the time of the site reconnaissance, the historical information describing the equipment previously housed within this building had not been reviewed. Confirmatory sampling was focused on possible releases of chemicals and/or lubricants from possible equipment maintenance activities. However, because review of historical documents indicates that the vacuum pump was a centrifugal style (meaning that possible maintenance would be limited to periodic grease addition to roller bearings, as compared to possible periodic filling and draining oil from an oil-filled reciprocating style compressor), it can be presumed that the amount and frequency of lubrication and maintenance chemical usage would have been minimal. There is no evidence to suggest AOC 64 poses an unacceptable risk to human health or the environment related to releases of chemicals and/or lubricants.

At the time of confirmatory sampling, the historical presence of secondary separator units generating dust/sludge was not known. As noted above, the three SVOCs detected in the single soil sample are constituents related to smokeless powder propellant; and the detected levels were well below cleanup levels.

NMED HWB review comments 69 though 71 (Appendix A of the companion RFI Work Plan for Parcel 21) require additional characterization at AOCs 63 and 64 and directed that AOCs 63 and 64 be included in the RFI Work Plan. Planned investigations are described in that document.

8.0 AOC 65, 66, AND 67 – BUILDINGS 511, 512, AND 513, SERVICE MAGAZINES

8.1 LOCATION, DESCRIPTION, AND OPERATIONAL HISTORY

AOCs 65, 66, and 67 are Buildings 511, 512, and 513, respectively. They have been grouped into one section of this document because they are identical in structure and in past operations.

Each building is a Service Magazine, built in 1948. Each of these one-story buildings is approximately 10 feet long by 10 feet wide. As described in historical SOPs (Appendix A of the companion SRHI for Parcel 21), these buildings were used to store containers of munitions components or assemblies following disassembly of munitions in Building 522/500. AOCs 65, 66, and 67 are shown in Figure 4.

The exact date operations ceased is unknown based on existing information, but the buildings were inactive for some time prior to FWDA closure in January 1993.

8.2 WASTE MANAGEMENT INFORMATION

There is no information suggesting hazardous wastes were handled at this AOC. Military munitions and components were handled and stored in these buildings. These items may have contained hazardous constituents including black powder, HE and propellants.

8.3 RELEASE ASSESSMENT

The potential for a release of hazardous waste or hazardous constituents at this AOC was assessed by combining review of available records and documents and observations made during site reconnaissance.

8.3.1 Historical Records/Document Review

None of the historical documents reviewed suggested that releases of hazardous wastes or hazardous constituents occurred from operations at AOCs 65, 66, or 67. No document identified these buildings as a potential SWMU or AOC.

As noted in the aerial photo analysis report (ERI, 2006, Pages 57-59, Table 1), there were no significant findings for AOCs 65, 66, or 67 on any of the photos reviewed, spanning the years 1948 through 1997.

8.3.2 Site Reconnaissance Findings

The exterior and interior of Buildings 511, 512, and 513 were inspected for stains, munitions, and munitions components. Representative photographs of these buildings are included as Photos 24 through 37, Appendix A.

No stains, munitions, or munitions components were observed within the interior of Building 511 and 512. Building 513 contained several empty cardboard

munitions boxes. No stains or munitions were observed around any of the building exteriors.

A 3.25-inch rocket motor tube (a metal tube, approximately 46 inches long, 2.5 inches in diameter, and threaded on each end) was observed on the ground near Building 511, however, it appeared to have been an empty tube used as a marker for a drainage culvert. According to SOP No. AM-O-64 (Appendix A of the companion SRHI for Parcel 21), 3.25-inch target rockets were demilitarized during FWDA operations. After propellant and other internal components had been removed in operations performed within Building 522/500, the rocket motor tubes were taken to the OB/OD Area for flash burning with a torch. After flashing has been completed, the motor tubes were classified as scrap metal to be salvaged. A number of these tubes were reused at various locations at FWDA as vertical marking posts for drainage culverts and walkways, and also as "decorative" fencing (one such fence, consisting of empty rocket motor tubes welded together, is present around the parking area at the Fire Training Ground (SWMU 7). Because they have been fully demilitarized and classified as scrap metal, the rocket motor tubes should not be considered munitions debris (MD).

A few small anomalies, likely nails or other small metal debris, were detected around the building exteriors during the magnetometer-assisted walkover.

8.3.3 Confirmatory Sampling

Because there was no historical information suggesting the possibility of a release, samples were not collected as part of the release assessments for these AOCs.

8.4 RELEASE ASSESSMENT CONCLUSION

Based on the known operations conducted within Buildings 511, 512, and 513 and the findings of the site reconnaissance, it is concluded that it is unlikely that a release of a hazardous waste or hazardous constituents occurred at these buildings. Further, there is no evidence to suggest these AOCs pose an unacceptable risk to human health or the environment.

NMED HWB review comment 72 (Appendix A in the companion RFI Work Plan for Parcel 21) requires additional characterization at AOCs 65, 66, and 67 and directed that AOCs 65, 66, and 67 be included in the RFI Work Plan. Planned investigations are described in that document.

9.0 AOC 68 – BUILDING 514, DEBOOSTERING BARRICADE AND STRUCTURE 545, EARTH BARRICADE

9.1 LOCATION, DESCRIPTION, AND OPERATIONAL HISTORY

AOC 68 is Building 514, Deboostering Barricade and the surrounding earthen barricade (Building 545). Building 514 is a one-story building, approximately 6 feet long by 8 feet wide, constructed in 1948. The earthen barricade was 10 feet high and was approximately 150 feet long when constructed, sometime between 1948 and 1952.

As described in historical SOPs (Appendix A of the companion SRHI for Parcel 21), the Deboostering Barricade was used when a booster assembly could not be safely removed from a given munition in a "normal" operation in Building 522. The munition still containing the booster was carried on a cart to the Deboostering Barricade, where it was clamped down in a steel fixture and connected to a pneumatic wrench, which was then operated remotely to remove the booster. The booster and the remaining parts of the munition where then returned to the normal flow of operations in Building 522. The purpose of the earthen barricade (Structure 545) was to protect personnel and facilities in the surrounding areas in the event of an explosion. AOC 68 is shown in Figure 4.

The exact date operations ceased is unknown based on existing information, but the building was inactive for some time prior to FWDA closure in January 1993.

9.2 WASTE MANAGEMENT INFORMATION

There is no information suggesting hazardous wastes were handled at this AOC. Military munitions and munitions components were handled at this location. These items may have contained hazardous constituents including HE.

9.3 RELEASE ASSESSMENT

The potential for a release of hazardous waste or hazardous constituents at this AOC was assessed by combining review of available records and documents and observations made during site reconnaissance.

9.3.1 Historical Records/Document Review

None of the historical documents reviewed suggested that releases of hazardous wastes or hazardous constituents occurred from operations at AOC 68. No document identified this building as a potential SWMU or AOC.

As noted in the aerial photo analysis report (ERI, 2006, Pages 59-60, Table 1), there were no significant findings for AOC 68 on any of the photos reviewed, spanning the years 1948 through 1997.

9.3.2 Site Reconnaissance Findings

The exterior and interior of Building 514 was inspected for stains, munitions, and munitions components. Structure 545 was inspected for stained soil, munitions, and munitions components. Representative photographs are included as Photos 38 through 42, Appendix A.

No stains or munitions, or munitions components were observed within the interior of Building 514. No stains or munitions were observed around the building exterior. Two munitions components (empty booster cups) were observed on the ground between Building 514 and Structure 545. A few small anomalies were detected around the building exterior during the magnetometer-assisted walkover.

No stained soils, munitions, or munitions components were observed on Structure 545. The face of Structure 545 is reinforced with wire mesh, which prevented a magnetometer assisted walkover of the earthen barricade.

9.3.3 Confirmatory Sampling

Two confirmation samples were collected from the area between Building 514 and Structure 545. Samples B514SO001 and B514SO002 were collected from surface soil near the open (south) side of Building 514, where the munitions were handled. Sample locations are shown in Figure 6. These samples were analyzed for explosives, nitrocellulose, TCL SVOCs, nitrate, perchlorate, and PCBs.

As shown in Table 4, nitrocellulose was detected in B514SO001 at a concentration of 270 mg/kg; there is no current human health screening level for nitrocellulose in soil. Five explosives, including TNT, HMX, and RDX, were detected in B514SO001. The detected RDX concentration of 160 mg/kg exceeded the cleanup level of 44.2 mg/kg. One SOVC, bis (2-ethylhexyl) phthalate was detected at a concentration of 0.037 mg/kg, well below the cleanup level of 347 mg/kg. PCB 1260 was detected at 0.03 mg/kg, well below the cleanup level of 1.12 mg/kg. Nitrate/nitrite was detected at 9.8 mg/kg, well below the nitrate and nitrite cleanup level of 100,000 mg/kg and 7,820 mg/kg, respectively.

As shown in Table 4, NB was detected in B514SO002 at a concentration of 0.06 mg/kg, well below the cleanup level of 22.8 mg/kg. Nitrate/nitrite was detected at 6.6 mg/kg, well below the nitrate and nitrite cleanup levels of 100,000 mg/kg and 7,820 mg/kg, respectively.

Perchlorate was not detected in either sample collected from near Building 514.

9.4 RELEASE ASSESSMENT CONCLUSION

Based on the known operations conducted at Building 514 and the findings of the site reconnaissance and confirmation sampling, it is concluded that a release of a hazardous waste or hazardous constituents occurred at Building 514. The site

reconnaissance found empty booster cups on the ground surface, and samples of surface soils contain constituents related to HE.

As shown in page 484 of TM 9-1904 (War Department, 1944; included in Appendix B of the companion SRHI for Parcel 21), the booster assembly in some munitions is in direct contact with the explosive filler contained within the projectile. When the booster assembly was removed during operations at Building 514, the removal could potentially loosen a small amount of the explosive filler. Loosened explosive filler could have then been lost to the floor of the Deboostering Barricade and then blown by wind or washed by rain to the nearby ground surface.

NMED HWB review comment 73 (Appendix A of the companion RFI Work Plan for Parcel 21) requires additional characterization at AOC 68 and directed that AOC 68 be included in the RFI Work Plan. Planned investigations are described in that document.

10.0 AOC 71 – FORMER RECTANGULAR STRUCTURE

10.1 LOCATION, DESCRIPTION, AND OPERATIONAL HISTORY

AOC 71 is listed in the Permit as a "Former rectangular structure near TMW-5 and north of Building 528." In their basis for listing this location as an AOC, NMED cited a 6 March 2001 site visit where "a rectangular concrete foundation (16 feet by 40 feet) reinforced with rebar and anchor bolts was found located immediately north of TMW-5 and about 40 feet from Arterial Road No. 6". No additional information was available prior to the records review and site reconnaissance.

During preparation of the SWMU/AOC map included in the Permit, AOC 71 was shown in a slightly different location to the south, where a rectangular area was visible in historical aerial photographs.

Both locations were evaluated as part of this release assessment.

AOC 71 is shown in Figure 7. For purposes of this release assessment, the location near TMW05, north of Building 528 was designated 71A. The location south of Arterial Road No. 6 and west of Normal Maintenance Avenue was designated 71B.

10.2 WASTE MANAGEMENT INFORMATION

There is no information suggesting hazardous wastes were handled at either location. Military munitions and components were potentially handled and stored in these areas. These items may have contained hazardous constituents including HE and propellants.

10.3 RELEASE ASSESSMENT

The potential for a release of hazardous waste or hazardous constituents at this AOC was assessed by combining review of available records and documents and observations made during site reconnaissance.

10.3.1 Historical Records/Document Review

Based on a review of historical maps and the FWDA geographic Information System (GIS), it is believed that location 71A is a foundation of one of the pre-1940s magazines, specifically Magazine K-302. Historical map A-7-70 (Appendix J of the companion SRHI for Parcel 21) shows location 71B as a temporary storage location, T-324, in 1945.

None of the historical documents reviewed suggested that releases of hazardous wastes or hazardous constituents occurred from operations at either location. No document identified either location as a potential SWMU or AOC.

As noted in the aerial photo analysis report (ERI, 2006, Pages 61-62, Table 1), findings for the analysis of the 1948 and 1952 aerial photos in the 71B location

noted that "a rectangular ground scarred area is present. A ditch and berm are located on the south end of the scarred area." There were no significant findings for 71B on any of the other photos reviewed, spanning the years 1958 through 1997. There were no significant findings for the 71A location for any of the aerial photos reviewed.

10.3.2 Site Reconnaissance Findings

Both locations were inspected for stained soil, munitions, and munitions components. Representative photographs are included as Photos 43 and 44, Appendix A.

A concrete foundation, approximately 15 foot wide by 40 feet long, with anchor bolts was observed at location 71A. The concrete is in extremely poor condition. No stains or munitions were observed at this area. Small, thin metal discs with holes were observed on the ground surface (Photo 44, Appendix A); these may have been part of packing used in the shipment of munitions, and are light enough to have been deposited at location 71A by winds from other areas, such as Building 528 (SMWU 27). Additionally, some metal banding and possible battery case fragments were observed during the magnetometer assisted walkover at this location.

A potential building footprint was observed at location 71B. No stains or munitions were observed at this area. As noted above for location 71A, small, thin metal discs with holes were observed on the ground surface; these may have been part of packing used in the shipment of munitions, and are light enough to have been deposited at location 71B by winds from other areas, such as Building 528 (SMWU 27). Additionally, roofing materials, metal banding, and nails were observed during the walkover with the metal detector at this location. The size of this area was difficult to determine because it appeared as though the area was disturbed during the installation of a drainage ditch through the center of the area.

10.3.3 Confirmatory Sampling

Because there was no historical information suggesting the possibility of a release, samples were not collected as part of the release assessment for this AOC.

Multi-incremental surface soil samples were collected at both AOC 71A and 71B as part of a facility-wide investigation of former open storage sites, as documented in a report entitled *Report of Investigation for Potential Environmental Areas of Concern* (USACE, 2007). As described in the report (USACE, 2007, page 6), a soil sample from AOC 71A (Pre-1940s Magazine K-302) was collected and analyzed for explosives (SW846 8330B), and a soil sample from AOC 71B (T-324, identified in the report as X-13) was collected and analyzed for explosives (SW846 8330B) and aluminum (SW846 6010A). As documented in the report (USACE, 2007, Table 3), explosives were not detected in either multi-incremental sample; aluminum was detected in the sample from

AOC 71B at a concentration of 20,000 mg/kg, well below the Permit cleanup level of 77,800 mg/kg.

10.4 RELEASE ASSESSMENT CONCLUSION

Location 71A discussed above is AOC 71 as described by NMED, and is the foundation of one of the pre-1940s magazines, specifically Magazine K-302. As noted in Section 10.3.3, explosives were not detected in soil samples from AOC 71A. There is no evidence to suggest Location 71A poses an unacceptable risk to human health or the environment. The Army plans to address identifiable pre-1940s magazine locations as part of a future action.

Location 71B is not AOC 71 as described by NMED. Historical map A-7-70 (Appendix J of the companion SRHI for Parcel 21) shows location 71B as a temporary storage location, T-324, in 1945. As noted in Section 10.3.3, explosives were not detected in soil samples from AOC 71B; aluminum was detected in the sample from AOC 71B at a concentration of 20,000 mg/kg, well below the Permit cleanup level of 77,800 mg/kg. There is no evidence to suggest location 71B poses an unacceptable risk to human health or the environment.

Observed debris at both locations will be removed prior to land transfer as part of a “housekeeping” action (as opposed to an environmental restoration action).

No further corrective action activities are warranted or proposed for AOC 71, and the Army proposes that AOC 71 be designated “Corrective Action Complete Without Controls”.

11.0 AOC 75 – TWO FORMER ELECTRICAL TRANSFORMER LOCATIONS IN PARCEL 21

11.1 LOCATION, DESCRIPTION, AND OPERATIONAL HISTORY

AOC 75 is listed in the Permit as "Electrical Transformers (at least 65 former or existing transformers)". FWDA records (included in Appendix K of the companion SRHI for Parcel 21) show 65 transformers in 29 locations throughout FWDA; two of these locations are within Parcel 21. As shown in Figure 6, there were three transformers formerly located on a pole west of Building 515, and three transformers formerly located on a fenced concrete pad north of Building 501.

11.2 WASTE MANAGEMENT INFORMATION

There is no information suggesting hazardous wastes were handled at either location in this AOC.

11.3 RELEASE ASSESSMENT

The potential for a release of hazardous waste or hazardous constituents at this AOC was assessed by combining review of available records and documents and observations made during site reconnaissance.

11.3.1 Historical Records/Document Review

According to FWDA records (Appendix K of the companion SRHI for Parcel 21), one transformer at each location (two total) would have been classified as "PCB transformers", one transformer at each location (two total) would have been classified as "PCB-Contaminated transformers", and one transformer at each location (two total) would have been classified as "non-PCB- transformers". All transformers were removed from both locations prior to FWDA closure in 1993; all six were manifested for disposal in January 1993.

One wipe sample was collected from the concrete pad north of Building 501 in May 1993 (ERM PMC, 1997, Page 7-139 ,erroneously reported as being north of Building 528); PCB 1260 was detected at a concentration of 0.22 micrograms per square centimeter (ug/cm^2). One surface soil sample was collected under the former transformer nest at Building 515 in May 1993 (ERM PMC, 1997, Page 7-139); PCB 1260 was detected at a concentration of 0.07 mg/kg.

11.3.2 Site Reconnaissance Findings

Both AOC 75 locations in Parcel 21 were inspected for stained surfaces and/or stained soil. Representative photographs are included as Photos 57 through 59, Appendix A.

No staining was observed in either location.

11.3.3 Confirmatory Sampling

Samples were not collected as part of the release assessment for this AOC.

11.4 RELEASE ASSESSMENT CONCLUSION

The concentration of PCB 1260 detected in soil under the former transformer nest at Building 515 is significantly lower than the cleanup level. There is no evidence to suggest this part of AOC 75 poses an unacceptable risk to human health or the environment. However, because the sample location was poorly documented in the historical report, and because PCBs were detected (indicating that a release had taken place), additional samples are required to evaluate remaining PCB concentrations at the former transformer nest at Building 515.

The concentration of PCB 1260 detected on the concrete pad north of the former location of Building 501 exceeds the Toxic Substances Control Act (TSCA) unrestricted use decontamination standard of 10 micrograms per 100 square centimeters (10 ug/100 cm^2). Because the sample location was poorly documented in the historical report, because PCBs were detected (indicating that a release had taken place), and because NMED directed additional sampling in NMED HWB review comment 79 (Appendix A of the companion RFI Work Plan for Parcel 21), additional samples are required to evaluate remaining PCB concentrations at the former transformer pad north of Building 501.

Further characterization of this portion of AOC 75 will be completed as part of the RFI for Parcel 21, and is discussed further in the companion Parcel 21 RFI Work Plan.

12.0 AOC 86 – FEATURE 15 ON THE 1973 AERIAL PHOTO API-5

12.1 LOCATION, DESCRIPTION, AND OPERATIONAL HISTORY

AOC 86 is listed in the Permit as “Feature 15 on 1973 aerial photo (API-5) in Archive Search Report” (ASR). In their basis for listing this location as an AOC, NMED cited the ASR description of this feature as “a pit scar with a broken berm around it, possible burn area.” Dates of operation at this location are unknown based on existing information. AOC 86 is approximately 4 acres, as shown in Figure 3.

12.2 WASTE MANAGEMENT INFORMATION

There is no information suggesting hazardous wastes were handled at this AOC. Military munitions and components were potentially temporarily stored in this area. These items may have contained hazardous constituents including HE, napalm, and propellants.

12.3 RELEASE ASSESSMENT

The potential for a release of hazardous waste or hazardous constituents at this AOC was assessed by combining review of available records and documents and observations made during site reconnaissance.

12.3.1 Historical Records/Document Review

A historical map (FWDA Drawing No. A-7-70, included in Appendix L of the companion SRHI for Parcel 21) shows this location as temporary storage, Building T-312, in 1945. Historical maps from 1963 (FWDA Drawing No. C-9-13, included in Appendix L of the companion SRHI for Parcel 21) and 1966 (FWDA Drawing Nos. C-10-4 and A-14-4, included in Appendix L of the companion SRHI for Parcel 21) show this location as temporary open storage area Z-64.

A historical map, FWDA Drawing No. A-14-4 (included in Appendix L of the companion SRHI for Parcel 21), appears to have been used by FWDA personnel to track status of each open storage site shown, with push pins used to identify a given site’s status. The handwritten legend included the classification “leakers awaiting disposition”, and it is possible that open storage site Z-64 was one of the sites used to store “leakers.”

A review of the *Installation Assessment of Fort Wingate Army Depot Activity* (USATHAMA,1980, Page 27, Section d) found a statement regarding "large quantities of Napalm bombs stored at FWDA during the SEA conflict. Any rejects or leakers among these fire bombs were destroyed by burning in the demolition area." SEA was an abbreviation of Southeast Asia, and the “SEA conflict” was also known as the Vietnam War or Vietnam Conflict. The time period of the Vietnam War corresponds to the approximate date (1966) of the map described above.

Based on this information, it is possible that damaged munitions containing napalm were stored at AOC 86. Information on Vietnam-era napalm weapons is included in Appendix L of the companion SRHI for Parcel 21. There is no record of the exact types of munitions containing napalm stored at FWDA. However, only two types of the eight weapons were pre-filled at the factory, with Napalm-B filler. Napalm-B was a mixture of polystyrene thickener, benzene, and gasoline. The remaining six types of weapons were shipped empty and filled in the field.

As noted in the aerial photo analysis report (ERI, 2006, Pages 73-74, Table 1), stacked material or a low rectangular structure was present in the 1948 photo; by 1952, the stacked material or structure was no longer present. Analysis of the 1973 photo found that vegetation had been cleared from the site perimeter. There were no significant findings for the remaining photos analyzed.

12.3.2 Site Reconnaissance Findings

AOC 86 was inspected for stained soil, munitions, and munitions components. Representative photographs are included as Photos 45 through 50, Appendix A.

No stains or munitions were observed in this area. One munition shipping container lid, small metal packing discs, and pieces of metal banding were observed on the ground within AOC 86. Two 3.25-inch rocket motor tubes (a metal tube, approximately 46 inches long, 2.5 inches in diameter, and threaded on each end) were observed on the ground near AOC 86, however, they appeared to be empty tubes used as a marker for a drainage culvert. As discussed in Section 8.3.2, according to SOP No. AM-O-64 (Appendix A of the companion SRHI for Parcel 21), 3.25-inch target rockets were demilitarized during FWDA operations. After propellant and other internal components had been removed in operations performed within Building 522/500, the rocket motor tubes were taken to the OB/OD Area for flash burning with a torch. After flashing has been completed, the motor tubes were classified as scrap metal to be salvaged. A number of these tubes were reused at various locations at FWDA as vertical marking posts for drainage culverts and walkways, and also as "decorative" fencing (one such fence, consisting of empty rocket motor tubes welded together, is present around the parking area at the Fire Training Ground (SWMU 7). Because they have been fully demilitarized and classified as scrap metal, the rocket motor tubes should not be considered MD.

12.3.3 Confirmatory Sampling

Samples were not collected as part of the release assessment for this AOC.

12.4 RELEASE ASSESSMENT CONCLUSION

Historical documents indicate that AOC 86 was an open storage location, used for temporary storage of military munitions. It is possible that some of the munitions stored were damaged bombs filled with Napalm-B. Napalm-B contained polystyrene, benzene, and gasoline. The aerial photo analysis did not identify any staining indicative of a significant release in any of the photos analyzed, including a 1973 color photo. The aerial photo analysis showed no

materials stored in this location in 1966, and none again in 1973, so if potentially damaged munitions were stored at this location, that use was less than 7 years more than 33 years ago. Observations made during the site reconnaissance did not suggest that releases of hazardous wastes or hazardous constituents occurred from operations at AOC 86.

NMED HWB review comment 78 (Appendix A of the companion RFI Work Plan for Parcel 21) require additional characterization at AOC 86 and directed that AOC 86 be included in this RFI Work Plan. Planned investigations are described in that document.

13.0 AOC 87 – FEATURE 18 ON THE 1962 AERIAL PHOTO API-3 AND FEATURE 23 ON THE 1973 AERIAL PHOTO API-5

13.1 LOCATION, DESCRIPTION, AND OPERATIONAL HISTORY

AOC 87 is listed in the Permit as "Feature 18 on 1962 aerial photo (API-3) and Feature 23 on 1973 aerial photo (API-5) in Archive Search Report". In their basis for listing this location as an AOC, NMED cited the ASR description of these features, as follows. "Feature 23 on API-5 is larger than and appears to include Feature 18 on API-3. Feature 18 is described by API-3 as a graded area, rough with a shallow pit in the northeast quadrant. Feature 23 is described by API-5 as a rough and scarred area, scarring may be from leaching." As shown in Figure 8, these are two distinct areas. Feature 23 is approximately 12 acres in size. Feature 18 is approximately 3.4 acres in size.

13.2 WASTE MANAGEMENT INFORMATION

There is no information suggesting hazardous wastes were handled at either location in this AOC.

13.3 RELEASE ASSESSMENT

The potential for a release of hazardous waste or hazardous constituents at this AOC was assessed by combining review of available records and documents and observations made during site reconnaissance.

13.3.1 Historical Records/Document Review

Based on a review of historical maps and the FWDA GIS, it is believed that the location identified as "Feature 18" was the location of one of the pre-1940s magazines, specifically Magazine K-303. The outline for the location identified as "Feature 23" is large, and includes AOCs 60 through 68 as well as other Workshop Area buildings and structures.

With the exception of what has been previously discussed for AOCs 60 through 68, none of the historical documents reviewed suggested that releases of hazardous wastes or hazardous constituents occurred in either location in AOC 87. No document identified these locations as a potential SWMU or AOC.

As noted in the aerial photo analysis report (ERI, 2006, Page 75, Table 1), findings for "Feature 18" included a rectangular scarred area, with a dark-toned area in the northeast corner, in 1948 and 1952 aerial photos. In the 1962 aerial photo, an access road leading to a depression with probable debris was noted. There were no significant findings for the other photos analyzed.

As noted in the aerial photo analysis report (ERI, 2006, Pages 74-75, Table 1), findings for "Feature 23" included ground scars and light-and dark-toned materials at different locations within the area in the 1948, 1952, and 1958 aerial photos. The ground scars were noted in all photos analyzed, including the 1935 photo.

13.3.2 Site Reconnaissance Findings

Both locations in AOC 87 were inspected for stained soil, munitions, and munitions components. Representative photographs are included as Photos 51 through 56, Appendix A. A magnetometer assisted walkover of both locations was conducted.

As noted above, "Feature 23" includes a number of other AOCs in Parcel 21 (AOC60 and AOCs 62 through 68). Site reconnaissance observations for those AOCs have been discussed in previous sections and will not be repeated here. As shown in Figure 8, the western portion of "Feature 23" is actually in Parcel 6. Remnants of what the aerial photo analysis (ERI, 2006, Page 74, Table 1) called "dark-toned material in the southwest corner" in the 1948, 1952, and 1958 photos are still visible on the ground surface just north of Building 600 (SWMU 4, Parcel 6). Based on a review of historical maps, it appears that the area may have been the location of one of the pre-1940s magazines, specifically Magazine K-304. Miscellaneous debris, including nails, pieces of steel wire, and trash were observed widely scattered throughout "Feature 23"; no stains, munitions, or munitions components were observed within the location of "Feature 23". One large magnetic anomaly, later determined to be buried water supply piping based on review of utility drawings, was detected approximately 150 feet southeast of Building 508 (AOC 62), along the west edge of the access road. The very distinct "scarred area", noted in the aerial photos, was not observed during the walkover of the area. Upon further review of the aerial photo dates and visual observation made of the area, it is believed that the majority of the "scarred area" noted on the aerial was actually snow and sagebrush "shadows." It is also likely that some of the ground scarring observed in the photos after 1948 can be attributed to earthmoving during construction of the majority of the Workshop Area buildings in 1947 and 1948.

"Feature 18" is located directly south of Building 515 (SWMU 2). Based on a review of historical maps, it appears that the area may have been the location of one of the pre-1940s magazines, specifically Magazine K-303. Miscellaneous debris, including nails, pieces of steel wire, a crushed, rusted 5-gallon pail, and trash were observed widely scattered throughout "Feature 18"; no stains, munitions, or munitions components were observed within the location of "Feature 18". The suspected "pit" located in the northeast corner of this feature is believed to be the drainage ditch that parallels Service Road No. 2. As shown in Figure 8 and Photo 54 (Appendix A), a small area (approximately 20 feet by 40 feet) with widely scattered clumps of hardened green paint was observed in the northeastern end of "Feature 18", across the road and approximately 120 feet due south from Building 515 (SWMU 2, Clean and Paint Building).

13.3.3 Confirmatory Sampling

Because there was no historical information suggesting the possibility of a release, samples were not collected as part of the release assessment for this AOC.

13.4 RELEASE ASSESSMENT CONCLUSION

"Feature 23" of AOC 87 appears to contain the location of one of the pre-1940s magazines, specifically Magazine K-304, as well as 11 other Workshop Area buildings or structures. It is believed that the scarring noted in historical aerial photographs is related to building removal and construction activities, and that some of the "scars" were likely a misinterpretation of the contrast between snow on the ground and sparse sagebrush vegetation. None of the historical documents reviewed or observations made during the site reconnaissance suggested that releases of hazardous wastes or hazardous constituents occurred from operations at "Feature 23" of AOC 87. Further, there is no evidence to suggest "Feature 23" of AOC 87 poses an unacceptable risk to human health or the environment. The Army plans to address identifiable pre-1940s magazine locations as part of a future action.

"Feature 18" of AOC 87 appears to contain the location of one of the pre-1940s magazines, specifically Magazine K-303. It is believed that the "pit" identified in the northeast quadrant was actually a roadside drainage ditch. None of the historical documents reviewed or observations made during the site reconnaissance suggested that releases of hazardous wastes or hazardous constituents occurred from operations at "Feature 18" of AOC 87, with the exception of one small area. The Army plans to address identifiable pre-1940s magazine locations as part of a future action.

Hardened green paint on the ground surface approximately 120 feet due south of Building 515 is possibly from operations in Building 515 (SWMU 2); however, because the area was small and the clumps of hardened paint were widely scattered, it is believed that the paint was already solid or nearly solid when it was deposited in this location. There is no evidence to suggest that disposal of significant amounts of liquid paint from operations in Building 515 took place here; no staining was noted in historical aerial photographs. However, the area of hardened paint is discussed further in the companion RFI Work Plan for Parcel 21, in the section pertaining to SWMU 2.

There is no evidence to suggest "Feature 18" of AOC 87 poses an unacceptable risk to human health or the environment.

Because the areas within AOC 87 noted above will be addressed as part of actions at other AOCs or SWMUs, no further corrective action activities are warranted or proposed for AOC 87, and the Army proposes that AOC 87 be designated "Corrective Action Complete Without Controls".

In a Notice of Approval with Modification dated 8 August 2007, NMED HWB concurred with the release assessment findings for AOC 87.

14.0 ADDITIONAL AREAS EVALUATED

As required by Permit Section VIII.A.1.e, an asbestos evaluation was performed to identify sites that are not SWMUs or AOCs where there is a potential for asbestos contamination. The 167-acre parcel was surveyed by a two person team (one person was a Certified Asbestos Inspector) from Envirotech, Inc., of Farmington, New Mexico. The inspection team transected the entire area using a two-passenger all-terrain vehicle. A copy of the inspection report is included in Appendix D. Suspect ACM was observed and sampled in nine locations; based on sample results, six of the nine locations had confirmed ACM. Confirmed ACM will be mitigated prior to land transfer.

The aerial photo analysis (ERI, 2006, Parcel 21 findings included in Appendix C of the companion SRHI for Parcel 21) noted a ground scar with an object and staining approximately 200 feet north of Arterial Road No. 4 and 300 feet west of the Post-1962 TNT Leaching Beds (part of SWMU 1), on the west side of the surface drainage ditch which drained the Pre-1962 Leaching Bed (part of SWMU 1); while this feature was noted, it was not characterized as a Photo-Identified site (potential contamination source or AOC). This site appears to the location of one of the pre-1940s magazines, specifically Magazine I-276. As noted below, a sample was collected at I-276 as part of a facility-wide investigation of former storage sites.

As described in the responses to consultation comments (Appendix E), Structure 526 (identified during the consultation walkover) is a timber safety shelter with earthen cover, designed and constructed to provide a safe haven for workers in the event of an operational emergency. It has no utility service connections, and no known use other than as a safety shelter. No issues regarding this structure were identified in the historical aerial photo analysis, historical document review, or site reconnaissance.

As noted in the response to NMED HWB review comment 82 (Appendix A of the companion RFI Work Plan for Parcel 21), although there are 10 pre-1940s magazines shown in a 1935 map that are within Parcel 21 (Magazines H-264, H-265, I-275, I-276, I-277, I-289, I-290, K-303, T-356, and T357; locations shown in gray on Figure 3), only three locations (Magazine H-264, Magazine I-276, and Magazine T-356) have not been obliterated during construction of current day facilities. Multi-incremental surface soil samples were collected at H-264, I-276, and T-356 as part of a facility-wide investigation of former storage sites, as documented in a report entitled *Report of Investigation for Potential Environmental Areas of Concern* (USACE, 2007). As described in the report (USACE, 2007, page 6), soil samples from the pre-1940s magazine sites were collected and analyzed for explosives (SW846 8330B), As documented in the report (USACE, 2007, Table 3), explosives were not detected in multi-incremental samples collected at H-264, I-276, or T-356,

As noted in Sections 8.3.2 and 11.3.2, empty 3.25-inch rocket motor tubes (a metal tube, approximately 46 inches long, 2.5 inches in diameter, and threaded on each end) have been reused at various locations at FWDA as vertical marking

posts for drainage culverts and walkways, such as the walkway on the north side of Building 515 (see Photo 60, Appendix A). Because they have been fully demilitarized and classified as scrap metal, the rocket motor tubes should not be considered MD. The empty rocket motor tubes will be removed prior to land transfer as part of a “housekeeping” action (as opposed to an environmental restoration action).

15.0 CONSULTATION PROCESS RESULTS

The purpose of this section is to document the results of the consultation process for this Release Assessment Report, as required by Permit Section VIII.B.1.b.

A draft of this document was provided in October 2006 to designated representatives of the Navajo Nation and Pueblo of Zuni, for their review and comment. At the same time, copies were also provided to designated DOI, Bureau of Land Management (BLM), and Bureau of Indian Affairs (BIA) representatives, for their review and comment.

An on-site consultation meeting was conducted the week of 13 November 2006. There were no issues identified regarding this Release Assessment Report during the consultation meeting.

Comments were received from representatives of the Navajo Nation, Pueblo of Zuni, DOI, and BLM during the review period ending 8 February 2007. All review comments were incorporated into a single summary table, and responses to the comments were developed. A copy of the table summarizing comments and responses is provided in Appendix E.

16.0 REFERENCES

ERI, 2006. Aerial Photographic Analysis, Fort Wingate Depot Activity. Environmental Research, Inc., September 2006.

ERM, 1994. Draft Final Building Evaluation Summary Report, Fort Wingate Depot Activity. Environmental Resources Management, Inc., 14 January 1994. Included as Appendix C of a document entitled Draft Final RI/FS Report, Fort Wingate Depot Activity, also prepared by Environmental Resources Management, Inc., dated 28 January 1994.

ERM PMC, 1997. Final Remedial Investigation/Feasibility Study Report & RCRA Corrective Action Program Document, Fort Wingate Depot Activity. ERM Program Management Company, 15 November 1997. FWDA Information Repository Document Number FW 97-12.

NMED, 2002. Fax, Summary of HWB Perchlorate Survey at FWDA. New Mexico Environment Department, Hazardous Waste Bureau, Julie Wanslow, June 12, 2002.

NMED, 2006. Technical Background Document for Development of Soil Screening Levels, Revision 4.0. New Mexico Environment Department, Hazardous Waste Bureau and Ground Water Quality Bureau Voluntary Remediation Program, June 2006.

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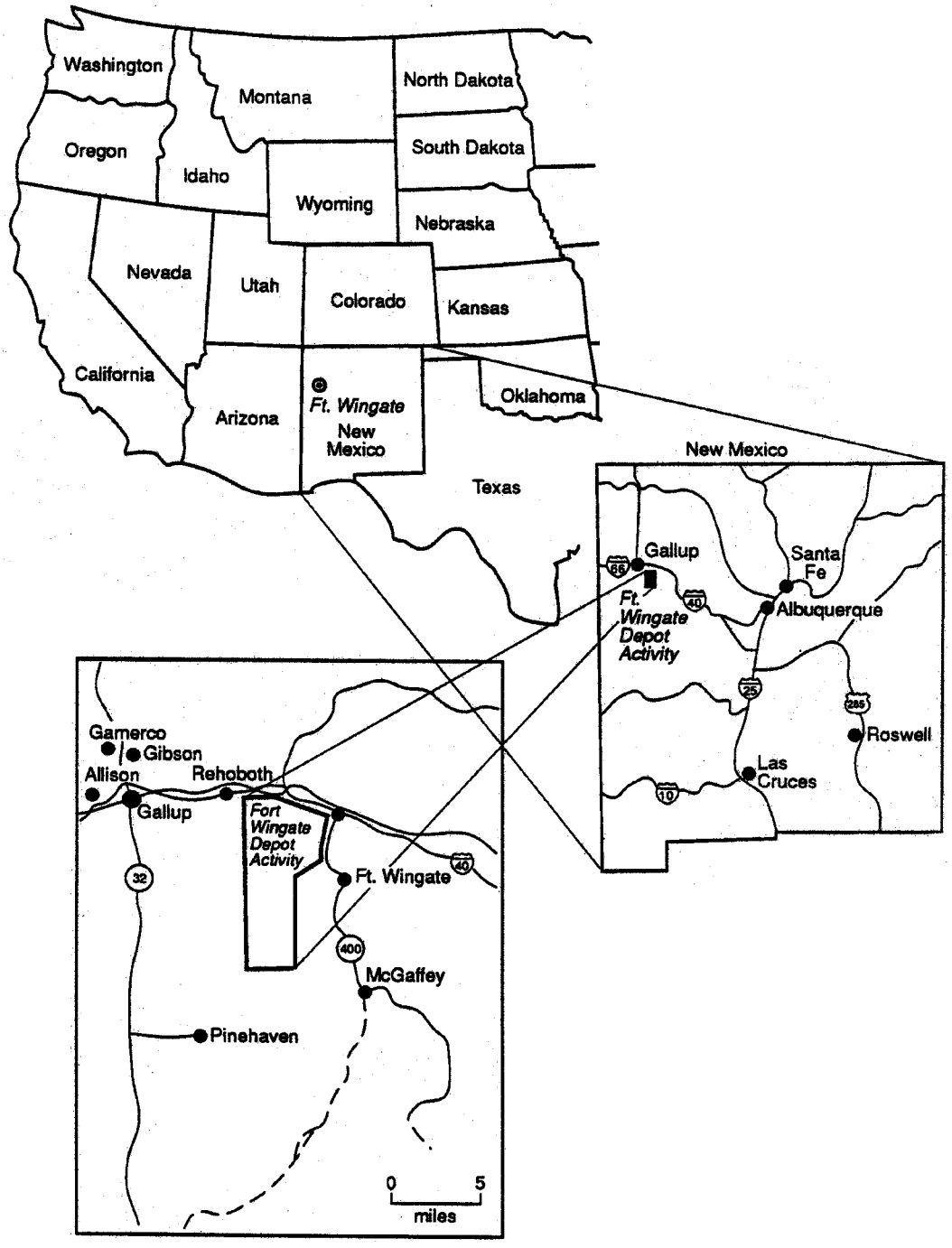
USATHAMA, 1980. Installation Assessment of Fort Wingate Army Depot Activity, Report No. 136. U.S. Army Toxic and Hazardous Materials Agency, January 1980. FWDA Information Repository Document Number FW 80-1.

USEPA, 2007. Region 6 Human Health Medium Specific Screening Levels. U.S. Environmental Protection Agency, Region 6, December 4, 2007.

War Department, 1944. TM 9-1904, Ammunition Inspection Guide. War Department, 2 March 1944.

FIGURES

Figure 1
Installation Location
Fort Wingate Depot Activity
McKinley County, New Mexico

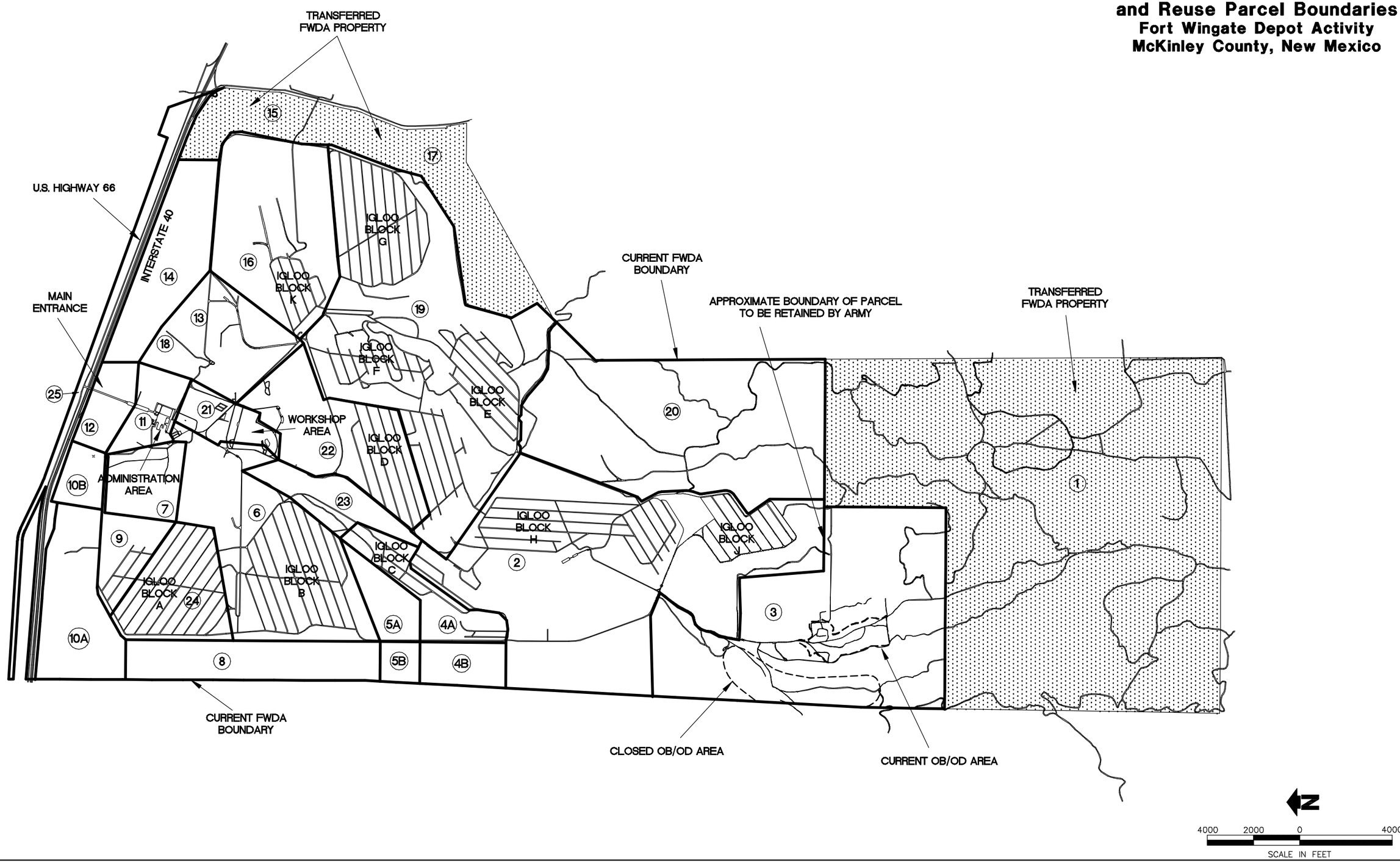


SOURCE: "MASTER ENVIRONMENTAL PLAN: WINGATE DEPOT ACTIVITY, GALLUP, NEW MEXICO," DECEMBER 1990.

N

NOT TO SCALE

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

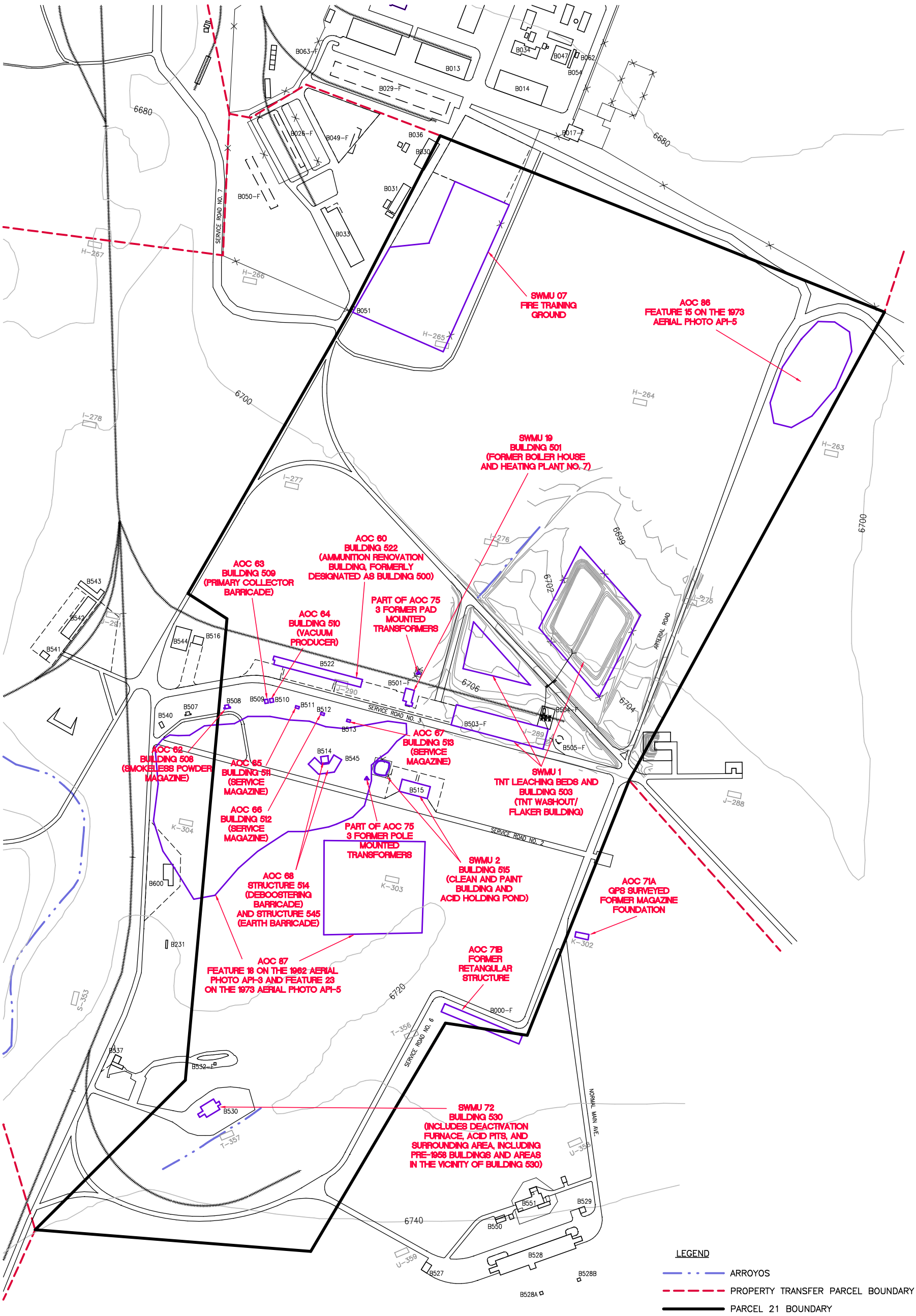


TerranearPMC

33201.50/09.25.06-DST/A201-1B

TerraneaPMC

Figure 3
SWMU and AOC Locations
Parcel 21
Fort Wingate Depot Activity
McKinley County, New Mexico



SWMUS/AOCS NOT SHOWN ON MAP

SWMU 40 (SOUTH ADMIN AREA) - BUILDING T-34, WOOD SHOPS

33201.50/09.25.06-DST/02.20.07-DST/1208 -1C

Figure 4
Workshop Area AOC Locations
Fort Wingate Depot Activity
McKinley County, New Mexico

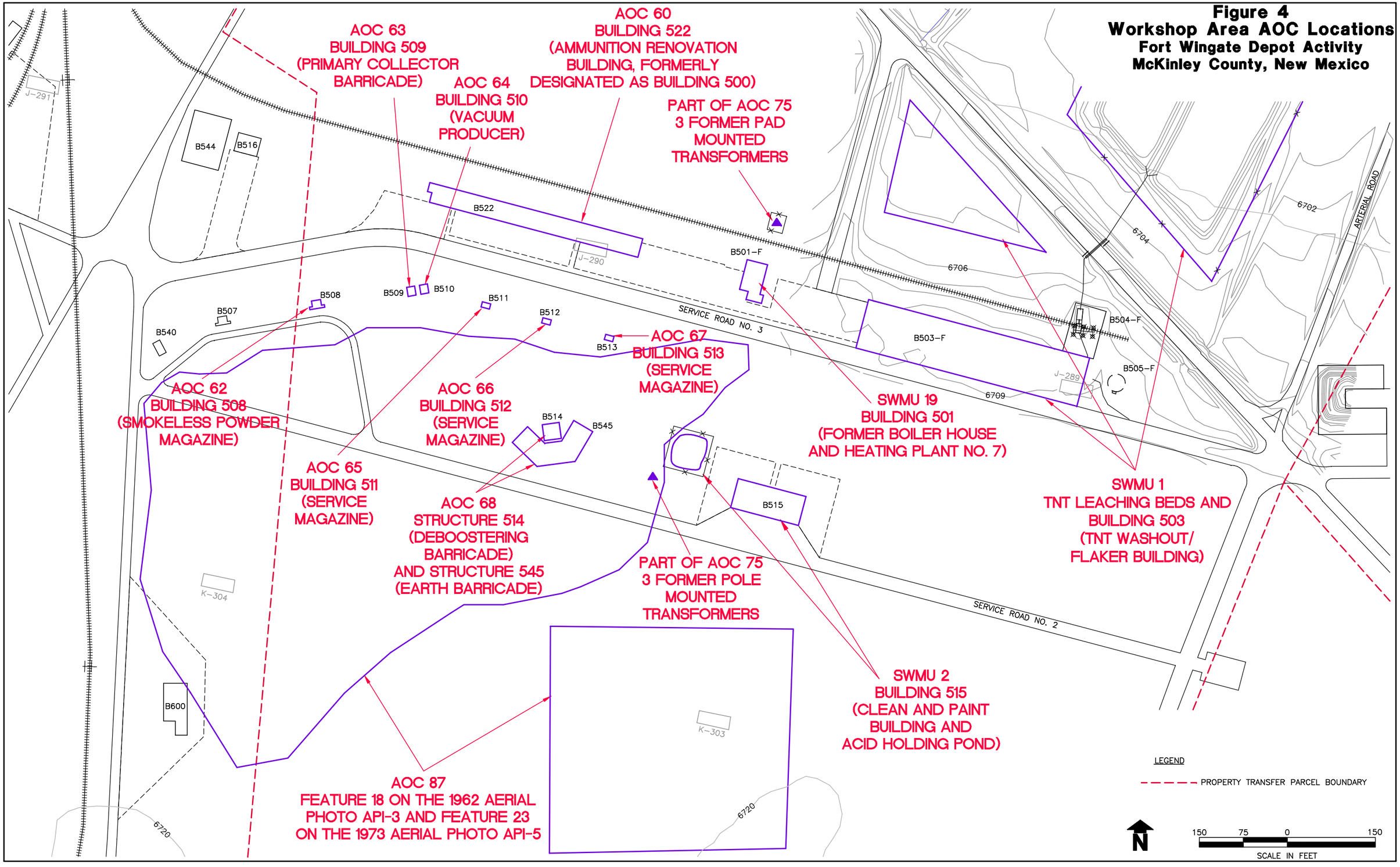


Figure 5
AOC 62, AOC 63, and AOC 64
Fort Wingate Depot Activity
McKinley County, New Mexico

AOC 60
BUILDING 522
(AMMUNITION RENOVATION
BUILDING, FORMERLY
DESIGNATED AS BUILDING 500)

B522

EDGE OF PARKING AREA

SERVICE ROAD NO. 3

PROPOSED CONFIRMATORY
MI SAMPLING AREA

APPROXIMATE LOCATION
OF 2 1/2 INCH OVERHEAD
VACUUM LINES

AOC 63
BUILDING 509
(PRIMARY COLLECTOR
BARRICADE OR
PROPELLANT BAGHOUSE)

AOC 64
BUILDING 510
(VACUUM
PRODUCER)

AOC 62
BUILDING 508
(SMOKELESS POWDER
MAGAZINE)

PROPOSED CONFIRMATORY
MI SAMPLING AREA

PROPOSED CONFIRMATORY
MI SAMPLING AREA

AOC 65
BUILDING 511
(SERVICE
MAGAZINE)

B508
B509
B510
B511

B508S0001

B508S0002

B509S0001

B509S0002

B510S0001

B508S0001	
NITROCELLULOSE	62.00
2,4–DINITROTOLUENE	3.40
NITROBENZENE	0.28
2,4–DINITROTOLUENE	1.30
2,6–DINITROTOLUENE	0.04 J
BIS(2–ETHYLHEXYL) PHTHALATE	0.27 J
DI–N–BUTYL PHTHALATE	1.90
N–NITROSODIPHENYLAMINE	0.14 J
NITRATE/NITRITE	2.30

B509S0001	
NITROCELLULOSE	5,300.00
1,3–DINITROBENZENE	0.02 J
2,4,6–TRINITROTOLUENE	2.40
2,4–DINITROTOLUENE	220.00 E
2,6–DINITROTOLUENE	10.00
2–AMINO–4,6–DINITROTOLUENE	0.85
4–AMINO–2,6–DINITROTOLUENE	0.29
HMX	0.55
NITROBENZENE	0.06 J
RDX	0.60
2,6–DINITROTOLUENE	8.70 E
BENZYL BUTYL PHTHALATE	0.07 J
BIS(2–ETHYLHEXYL) PHTHALATE	0.64
DI–N–BUTYL PHTHALATE	52.00 E
FLUORANTHENE	0.04 J
N–NITROSODIPHENYLAMINE	17.00 E
PYRENE	0.04 J
NITRATE/NITRITE	15.00
2,4–DINITROTOLUENE	230.00 (DL)
2,6–DINITROTOLUENE	6.30 J (DL)
DI–N–BUTYL PHTHALATE	150.00 (DL)
N–NITROSODIPHENYLAMINE	18.00 J (DL)
PCB–1254	2.30 (DL)

B508S0002	
NITROCELLULOSE	41.00
NITROBENZENE	0.16
NITRATE/NITRITE	27.00

B509S0002	
2,4–DINITROTOLUENE	0.09 J
NITROBENZENE	0.07 J
2,4–DINITROTOLUENE	0.04 J
DI–N–BUTYL PHTHALATE	0.18 J
NITRATE/NITRITE	4.50

B510S0001	
2,4–DINITROTOLUENE	0.58
DI–N–BUTYL PHTHALATE	1.10
N–NITROSODIPHENYLAMINE	0.03 J

LEGEND

- PROPERTY TRANSFER PARCEL BOUNDARY
- PROPELLANT GRAIN LOCATION
- SAMPLE LOCATION
- 160 — ANALYTICAL RESULT IN mg/kg
- (DL) — DILUTED SAMPLE
- J — VALUE REPORTED IS LESS THAN THE REPORTING LIMIT BUT GREATER THAN THE METHOD DETECTION LIMIT
- E — CONCENTRATION DETECTED EXCEEDED THE CALIBRATION RANGE OF THE INSTRUMENT

N

30 15 0 30
SCALE IN FEET

Figure 6
AOC 68 and AOC 75
Fort Wingate Depot Activity
McKinley County, New Mexico

AOC 63
BUILDING 509
(PRIMARY COLLECTOR
BARRICADE)

AOC 64
BUILDING 510
(VACUUM
PRODUCER)

AOC 60
BUILDING 522
(AMMUNITION RENOVATION
BUILDING, FORMERLY
DESIGNATED AS BUILDING 500)

PART OF AOC 75
3 FORMER PAD
MOUNTED
TRANSFORMERS

B514S0001

NITROCELLULOSE	270.00
2,4,6-TRINITROTOLUENE	0.14
2-AMINO-4,6-DINITROTOLUENE	0.21
4-AMINO-2,6-DINITROTOLUENE	0.27
HMX	24.00
RDX	130.00 E
RDX	160.00 (DL)
BIS(2-ETHYLHEXYL) PHTHALATE	0.04 J
PCB-1260	0.03 P
NITRATE/NITRITE	9.80

AOC 67
BUILDING 513
(SERVICE
MAGAZINE)

AOC 62
BUILDING 508
(SMOKELESS POWDER
MAGAZINE)

AOC 66
BUILDING 512
(SERVICE
MAGAZINE)

PROPOSED CONFIRMATORY
MI SAMPLING AREA

B514S0001
B514S0002

B514S0002

NITROBENZENE	0.06 J
NITRATE/NITRITE	6.60

AOC 68
STRUCTURE 514
(DEBOOSTERING
BARRICADE)
AND STRUCTURE 545
(EARTH BARRICADE)

PART OF AOC 75
3 FORMER POLE
MOUNTED
TRANSFORMERS

SWMU 19
BUILDING 501
(FORMER BOILER HOUSE
AND HEATING PLANT NO. 7)

SWMU 1
TNT LEACHING BEDS AND
BUILDING 503
(TNT WASHOUT/
FLAKER BUILDING)

SWMU 2
BUILDING 515
(CLEAN AND PAINT
BUILDING AND
ACID HOLDING POND)

AOC 65
BUILDING 511
(SERVICE
MAGAZINE)

AOC 87
FEATURE 18 ON THE 1962 AERIAL
PHOTO API-3 AND FEATURE 23
ON THE 1973 AERIAL PHOTO API-5

B544 B516 B522 B501-F B508 B509 B510 B511 B512 B513 B507 B540 B514 B545 B515 B503-F B504-F B505-F B600

J-291 J-290 J-289 K-304 K-303

6702 6704 6706 6709 6720

SERVICE ROAD NO. 3
SERVICE ROAD NO. 2
ARTERIAL ROAD

LEGEND

- PROPERTY TRANSFER PARCEL BOUNDARY
- SAMPLE LOCATION
- 160 — ANALYTICAL RESULT IN mg/kg
- (DL) — DILUTED SAMPLE
- J — VALUE REPORTED IS LESS THAN THE REPORTING LIMIT BUT GREATER THAN THE METHOD DETECTION LIMIT
- E — CONCENTRATION DETECTED EXCEEDED THE CALIBRATION RANGE OF THE INSTRUMENT
- P — GREATER THAN 25% DIFFERENCE FOR DETECTED PESTICIDE/AROCHLOR RESULTS BETWEEN THE TWO GAS CHROMATOGRAPH COLUMNS

N

150 75 0 150
SCALE IN FEET

Figure 7
AOC 71
Fort Wingate Depot Activity
McKinley County, New Mexico

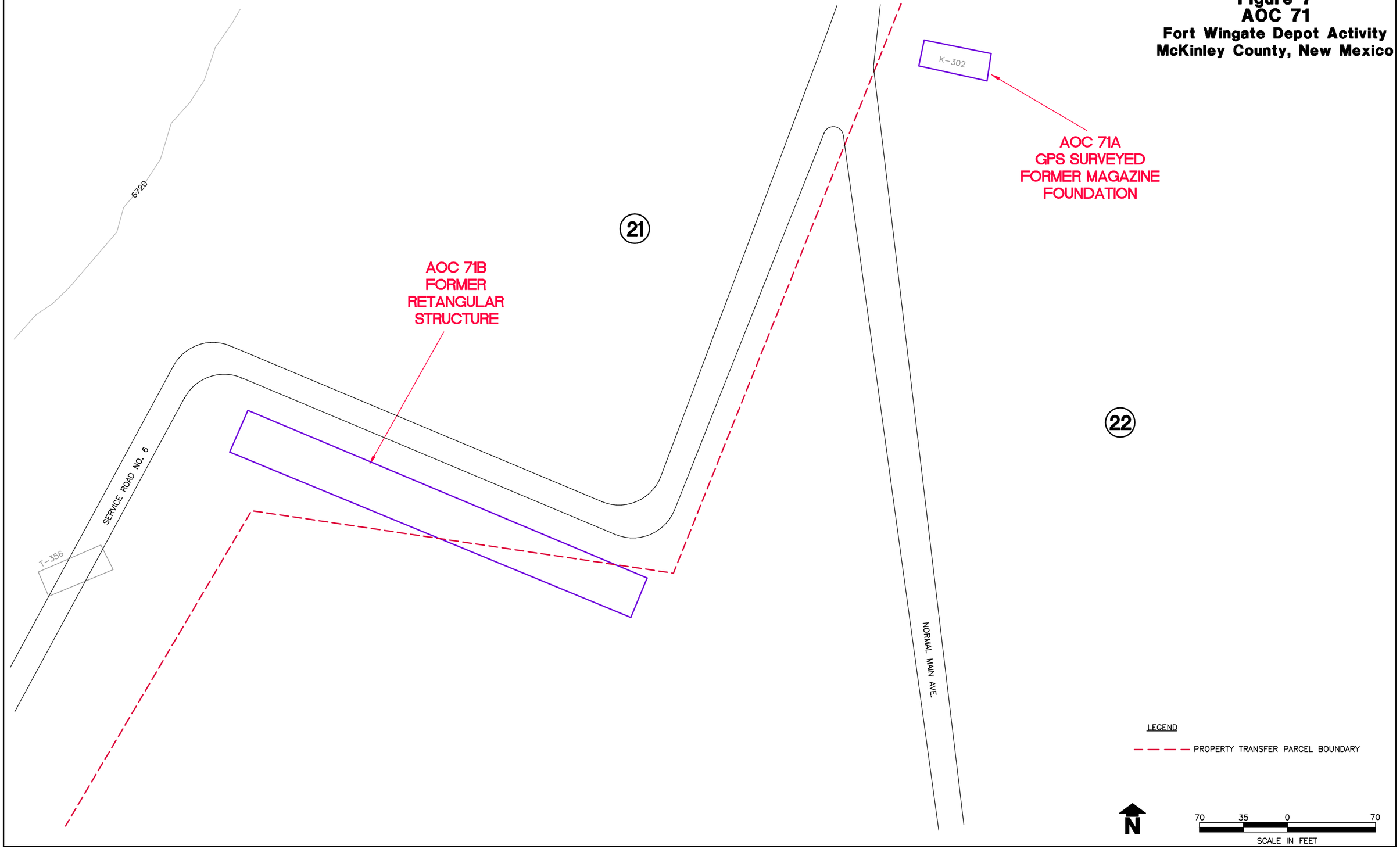


Figure 8
AOC 87
Fort Wingate Depot Activity
McKinley County, New Mexico

AOC 63
BUILDING 509
(PRIMARY COLLECTOR
BARRICADE)

AOC 64
BUILDING 510
(VACUUM
PRODUCER)

AOC 60
BUILDING 522
(AMMUNITION RENOVATION
BUILDING, FORMERLY
DESIGNATED AS BUILDING 500)

PART OF AOC 75
3 FORMER PAD
MOUNTED
TRANSFORMERS

AOC 62
BUILDING 508
(SMOKELESS POWDER
MAGAZINE)

AOC 65
BUILDING 511
(SERVICE
MAGAZINE)

AOC 66
BUILDING 512
(SERVICE
MAGAZINE)

AOC 67
BUILDING 513
(SERVICE
MAGAZINE)

AOC 68
STRUCTURE 514
(DEBOOSTERING
BARRICADE)
AND STRUCTURE 545
(EARTH BARRICADE)

PART OF AOC 75
3 FORMER POLE
MOUNTED
TRANSFORMERS

SWMU 19
BUILDING 501
(FORMER BOILER HOUSE
AND HEATING PLANT NO. 7)

SWMU 1
TNT LEACHING BEDS AND
BUILDING 503
(TNT WASHOUT/
FLAKER BUILDING)

SWMU 2
BUILDING 515
(CLEAN AND PAINT
BUILDING AND
ACID HOLDING POND)

AOC 87
FEATURE 18 ON THE 1962 AERIAL
PHOTO API-3 AND FEATURE 23
ON THE 1973 AERIAL PHOTO API-5

B544
B516
B522
B501-F
B508
B509
B510
B511
B512
B513
B507
B540
B503-F
B504-F
B505-F
B514
B545
B515
B600
J-291
J-290
J-289
K-304
K-303
SERVICE ROAD NO. 3
SERVICE ROAD NO. 2
ARTERIAL ROAD
DEBRIS PILE
DEBRIS AND HARD PAINT
STEEL OPEN TOP PAIL
RAISED AREA WITH NAILS
RAISED AREA WITH NAILS

LEGEND

PROPERTY TRANSFER PARCEL BOUNDARY

SITE RECONNAISSANCE FEATURE

N

150 75 0 150

SCALE IN FEET

TABLES

Table 1
Summary of Detected Constituents in Soil
AOC 62
Parcel 21 RAR
Fort Wingate Depot Activity
McKinley County, New Mexico

Sample ID	Collection Date	Depth (feet bgs)	Sample Delivery Group	Analytical Method	Analyte	Result (mg/kg)	MDL (mg/kg)	CRDL (mg/kg)	Report Flag	Screen CAS	NMED SSL Residential (mg/kg)	NMED SSL Industrial (mg/kg)	Region VI MSSL Residential (mg/kg)	Region VI MSSL Industrial (mg/kg)	Cleanup Level (mg/kg)	Cleanup Level Basis	Exceed Cleanup Level?
B508SO001	06/21/06	0.5	606159	SW8270C	2,4,6-Tribromophenol	5.90E+03	3.30E+01			118-79-6	NS	NS	NS	NS	No Standard	No Standard	
B508SO001	**06/21/06**	**0.5**	**606159**	**SW8270C**	**2,4-Dinitrotoluene**	**1.30E+03**	**3.20E+01**			**121-14-2**	**1.22E+02**	**1.37E+03**	**1.22E+02**	**1.37E+03**	**1.22E+02**	**NMED Residential**	**YES**
B508SO001	**06/21/06**	**0.5**	**606159**	**SW8330**	**2,4-Dinitrotoluene**	**3.40E+03**	**3.50E+01**			**121-14-2**	**1.22E+02**	**1.37E+03**	**1.22E+02**	**1.37E+03**	**1.22E+02**	**NMED Residential**	**YES**
B508SO001	**06/21/06**	**0.5**	**606159**	**SW8330**	**2,4-Dinitrotoluene**	**3.40E+03**	**3.50E+01**			**121-14-2**	**1.22E+02**	**1.37E+03**	**1.22E+02**	**1.37E+03**	**1.22E+02**	**NMED Residential**	**YES**
B508SO001	06/21/06	0.5	606159	SW8270C	2,6-Dinitrotoluene	4.40E+01	3.20E+01		J	606-20-2	NS	NS	6.11E+01	6.84E+02	6.11E+01	Proposed	
B508SO001	06/21/06	0.5	606159	SW8270C	2-Fluorobiphenyl	2.60E+03	3.30E+01			321-60-8	NS	NS	NS	NS	No Standard	No Standard	
B508SO001	06/21/06	0.5	606159	SW8270C	2-Fluorophenol	4.70E+03	3.30E+01			367-12-4	NS	NS	NS	NS	No Standard	No Standard	
B508SO001	06/21/06	0.5	606159	SW8330	4-Nitroaniline	3.10E+03	1.00E-03			100-01-6	NS	NS	NS	NS	No Standard	No Standard	
B508SO001	06/21/06	0.5	606159	SW8330	4-Nitroaniline	3.10E+03	1.00E-03			100-01-6	NS	NS	NS	NS	No Standard	No Standard	
B508SO001	06/21/06	0.5	606159	SW8270C	bis(2-ethylhexyl) phthalate	2.70E+02	3.20E+01		J	117-81-7	3.47E+02	1.37E+03	3.47E+01	1.37E+02	3.47E+02	NMED Residential	
B508SO001	06/21/06	0.5	606159	SW8082	Decachlorobiphenyl	4.10E+00	3.30E-01			2051-24-3	NS	NS	NS	NS	No Standard	No Standard	
B508SO001	06/21/06	0.5	606159	SW8082	Decachlorobiphenyl	7.90E+00	3.30E-01			2051-24-3	NS	NS	NS	NS	No Standard	No Standard	
B508SO001	06/21/06	0.5	606159	SW8270C	di-n-Butyl Phthalate	1.90E+03	4.80E+01			84-74-2	6.11E+03	6.84E+04	6.11E+03	6.84E+04	6.11E+03	NMED Residential	
B508SO001	06/21/06	0.5	606159	E353.2	Nitrate/Nitrite	2.30E+00	5.00E-01			NO CAS NN	7.82E+03	1.00E+05	NS	NS	7.82E+03	NMED Residential	
B508SO001	**06/21/06**	**0.5**	**606159**	**SW8330**	**Nitrobenzene**	**2.80E+02**	**1.60E+01**			**98-95-3**	**2.28E+01**	**1.47E+02**	**1.97E+01**	**1.15E+02**	**2.28E+01**	**NMED Residential**	**YES**
B508SO001	**06/21/06**	**0.5**	**606159**	**SW8330**	**Nitrobenzene**	**2.80E+02**	**1.60E+01**			**98-95-3**	**2.28E+01**	**1.47E+02**	**1.97E+01**	**1.15E+02**	**2.28E+01**	**NMED Residential**	**YES**
B508SO001	**06/21/06**	**0.5**	**606159**	**SW8270C**	**Nitrobenzene-d5**	**2.70E+03**	**3.30E+01**			**98-95-3**	**2.28E+01**	**1.47E+02**	**1.97E+01**	**1.15E+02**	**2.28E+01**	**NMED Residential**	**YES**
B508SO001	06/21/06	0.5	606159	IAAP	Nitrocellulose	6.20E+01	3.20E+01			9004-70-0	NS	NS	NS	NS	No Standard	No Standard	
B508SO001	06/21/06	0.5	606159	SW8270C	n-Nitrosodiphenylamine	1.40E+02	1.80E+01		J	86-30-6	9.93E+02	3.91E+03	9.93E+01	3.91E+02	9.93E+02	NMED Residential	
B508SO001	06/21/06	0.5	606159	SW8270C	Phenol-d5	5.00E+03	3.30E+01			108-95-2	1.83E+04	1.00E+05	1.83E+04	1.00E+05	1.83E+04	NMED Residential	
B508SO001	06/21/06	0.5	606159	SW8270C	p-Terphenyl-d14	2.90E+03	3.30E+01			1718-51-0	NS	NS	NS	NS	No Standard	No Standard	
B508SO001	06/21/06	0.5	606159	SW8082	Tetrachloro-m-xylene	5.30E+00	3.30E-01			877-09-8	NS	NS	NS	NS	No Standard	No Standard	
B508SO002	06/21/06	0.5	606159	SW8270C	2,4,6-Tribromophenol	5.00E+03	3.30E+01			118-79-6	NS	NS	NS	NS	No Standard	No Standard	
B508SO002	06/21/06	0.5	606159	SW8270C	2-Fluorobiphenyl	2.50E+03	3.30E+01			321-60-8	NS	NS	NS	NS	No Standard	No Standard	
B508SO002	06/21/06	0.5	606159	SW8270C	2-Fluorophenol	4.70E+03	3.30E+01			367-12-4	NS	NS	NS	NS	No Standard	No Standard	
B508SO002	06/21/06	0.5	606159	SW8330	4-Nitroaniline	1.80E+03	1.00E-03			100-01-6	NS	NS	NS	NS	No Standard	No Standard	
B508SO002	06/21/06	0.5	606159	SW8330	4-Nitroaniline	1.80E+03	1.00E-03			100-01-6	NS	NS	NS	NS	No Standard	No Standard	
B508SO002	06/21/06	0.5	606159	SW8082	Decachlorobiphenyl	4.60E+00	3.30E-01			2051-24-3	NS	NS	NS	NS	No Standard	No Standard	
B508SO002	06/21/06	0.5	606159	SW8082	Decachlorobiphenyl	4.80E+00	3.30E-01			2051-24-3	NS	NS	NS	NS	No Standard	No Standard	
B508SO002	06/21/06	0.5	606159	E353.2	Nitrate/Nitrite	2.70E+01	4.90E+00			NO CAS NN	7.82E+03	1.00E+05	NS	NS	7.82E+03	NMED Residential	
B508SO002	**06/21/06**	**0.5**	**606159**	**SW8330**	**Nitrobenzene**	**1.60E+02**	**1.60E+01**			**98-95-3**	**2.28E+01**	**1.47E+02**	**1.97E+01**	**1.15E+02**	**2.28E+01**	**NMED Residential**	**YES**
B508SO002	**06/21/06**	**0.5**	**606159**	**SW8330**	**Nitrobenzene**	**1.60E+02**	**1.60E+01**			**98-95-3**	**2.28E+01**	**1.47E+02**	**1.97E+01**	**1.15E+02**	**2.28E+01**	**NMED Residential**	**YES**
B508SO002	**06/21/06**	**0.5**	**606159**	**SW8270C**	**Nitrobenzene-d5**	**2.60E+03**	**3.30E+01**			**98-95-3**	**2.28E+01**	**1.47E+02**	**1.97E+01**	**1.15E+02**	**2.28E+01**	**NMED Residential**	**YES**
B508SO002	06/21/06	0.5	606159	IAAP	Nitrocellulose	4.10E+01	3.00E+01			9004-70-0	NS	NS	NS	NS	No Standard	No Standard	
B508SO002	06/21/06	0.5	606159	SW8270C	Phenol-d5	5.00E+03	3.30E+01			108-95-2	1.83E+04	1.00E+05	1.83E+04	1.00E+05	1.83E+04	NMED Residential	
B508SO002	06/21/06	0.5	606159	SW8270C	p-Terphenyl-d14	3.00E+03	3.30E+01			1718-51-0	NS	NS	NS	NS	No Standard	No Standard	
B508SO002	06/21/06	0.5	606159	SW8082	Tetrachloro-m-xylene	6.30E+00	3.30E-01			877-09-8	NS	NS	NS	NS	No Standard	No Standard	
B508SO002	06/21/06	0.5	606159	SW8082	Tetrachloro-m-xylene	6.40E+00	3.30E-01			877-09-8	NS	NS	NS	NS	No Standard	No Standard	

Notes:
mg/kg - milligrams per kilogram
NS - no standard
feet bgs - feet below ground surface

Flag Codes:
D - Duplicate
J - Estimated Concentration
F - Filtered Sampled
R - Rejected Data
U - Not Detected above the Detection Limit
E = For Organic analyses, indicates that the concentration detected exceeded the calibration range of the instrument
P = Indicates that there is greater than 25% difference for detected pesticide/Arochlor results between the two gas chromatograph columns

NMED SSL - New Mexico Environmental Department Soil Screening Level, as published in the Technical Background Document for Development of Soil Screening Levels, Revision 4.0. New Mexico Environmental Department, Hazardous Waste Bureau and Ground Water Quality Bureau Voluntary Remediation Program, June 2006.

Region VI MSSL - U.S. Environmental Protection Agency Region 6 Medium-Specific Screening Level, as published in the Region 6 Human Health Medium-Specific Screening Levels 2008. U.S. Environmental Protection Agency, Region 6, December 4, 2007.

Sample identifications with a "DL" added to the end were diluted by the laboratory to bring detected sample concentration within instrument calibration range

Table 2
Summary of Detected Constituents in Soil
AOC 63
Parcel 21 RAR
Fort Wingate Depot Activity
McKinley County, New Mexico

Sample ID	Collection Date	Depth (feet bgs)	Sample Delivery Group	Analytical Method	Analyte	Result (mg/kg)	MDL (mg/kg)	CRDL (mg/kg)	Report Flag	Screen CAS	NMED SSL Residential (mg/kg)	NMED SSL Industrial (mg/kg)	Region VI MSSL Residential (mg/kg)	Region VI MSSL Industrial (mg/kg)	Cleanup Level (mg/kg)	Cleanup Level Basis	Exceed Cleanup Level?
B509SO001	**06/21/06**	**0.5**	**606159**	**SW8330**	**1,3-Dinitrobenzene**	**1.90E+01**	**5.20E+00**		**J**	**99-65-0**	**NS**	**NS**	**6.11E+00**	**6.84E+01**	**6.11E+00**	**Proposed**	**YES**
B509SO001	**06/21/06**	**0.5**	**606159**	**SW8330**	**1,3-Dinitrobenzene**	**1.90E+01**	**5.20E+00**		**J**	**99-65-0**	**NS**	**NS**	**6.11E+00**	**6.84E+01**	**6.11E+00**	**Proposed**	**YES**
B509SO001	06/21/06	0.5	606159	SW8270C	2,4,6-Tribromophenol	5.40E+03	3.30E+01			118-79-6	NS	NS	NS	NS	No Standard	No Standard	
B509SO001	**06/21/06**	**0.5**	**606159**	**SW8330**	**2,4,6-Trinitrotoluene**	**2.40E+03**	**2.00E+01**			**118-96-7**	**3.06E+01**	**3.42E+02**	**1.62E+01**	**6.38E+01**	**3.06E+01**	**NMED Residential**	**YES**
B509SO001	**06/21/06**	**0.5**	**606159**	**SW8330**	**2,4,6-Trinitrotoluene**	**2.40E+03**	**2.00E+01**			**118-96-7**	**3.06E+01**	**3.42E+02**	**1.62E+01**	**6.38E+01**	**3.06E+01**	**NMED Residential**	**YES**
B509SO001	**06/21/06**	**0.5**	**606159**	**SW8330**	**2,4-Dinitrotoluene**	**2.20E+05**	**3.50E+01**			**121-14-2**	**1.22E+02**	**1.37E+03**	**1.22E+02**	**1.37E+03**	**1.22E+02**	**NMED Residential**	**YES**
B509SO001	**06/21/06**	**0.5**	**606159**	**SW8330**	**2,4-Dinitrotoluene**	**2.20E+05**	**3.50E+01**		**E**	**121-14-2**	**1.22E+02**	**1.37E+03**	**1.22E+02**	**1.37E+03**	**1.22E+02**	**NMED Residential**	**YES**
B509SO001	**06/21/06**	**0.5**	**606159**	**SW8330**	**2,6-Dinitrotoluene**	**1.00E+04**	**1.80E+01**			**606-20-2**	**NS**	**NS**	**6.11E+01**	**6.84E+02**	**6.11E+01**	**Proposed**	**YES**
B509SO001	**06/21/06**	**0.5**	**606159**	**SW8330**	**2,6-Dinitrotoluene**	**1.00E+04**	**1.80E+01**			**606-20-2**	**NS**	**NS**	**6.11E+01**	**6.84E+02**	**6.11E+01**	**Proposed**	**YES**
B509SO001	**06/21/06**	**0.5**	**606159**	**SW8270C**	**2,6-Dinitrotoluene**	**8.70E+03**	**3.20E+01**		**E**	**606-20-2**	**NS**	**NS**	**6.11E+01**	**6.84E+02**	**6.11E+01**	**Proposed**	**YES**
B509SO001	06/21/06	0.5	606159	SW8330	2-Amino-4,6-Dinitrotoluene	8.50E+02	2.50E+01			35572-78-2	NS	NS	NS	NS	No Standard	No Standard	
B509SO001	06/21/06	0.5	606159	SW8330	2-Amino-4,6-Dinitrotoluene	8.50E+02	2.50E+01			35572-78-2	NS	NS	NS	NS	No Standard	No Standard	
B509SO001	06/21/06	0.5	606159	SW8270C	2-Fluorobiphenyl	2.60E+03	3.30E+01			321-60-8	NS	NS	NS	NS	No Standard	No Standard	
B509SO001	06/21/06	0.5	606159	SW8270C	2-Fluorophenol	4.20E+03	3.30E+01			367-12-4	NS	NS	NS	NS	No Standard	No Standard	
B509SO001	06/21/06	0.5	606159	SW8330	4-Amino-2,6-Dinitrotoluene	2.90E+02	1.50E+01			19406-51-0	NS	NS	NS	NS	No Standard	No Standard	
B509SO001	06/21/06	0.5	606159	SW8330	4-Amino-2,6-Dinitrotoluene	2.90E+02	1.50E+01			19406-51-0	NS	NS	NS	NS	No Standard	No Standard	
B509SO001	06/21/06	0.5	606159	SW8330	4-Nitroaniline	2.10E+03	1.00E-03			100-01-6	NS	NS	NS	NS	No Standard	No Standard	
B509SO001	06/21/06	0.5	606159	SW8330	4-Nitroaniline	2.10E+03	1.00E-03			100-01-6	NS	NS	NS	NS	No Standard	No Standard	
B509SO001	06/21/06	0.5	606159	SW8270C	Benzyl Butyl Phthalate	7.40E+01	3.30E+01		J	85-68-7	NS	NS	2.40E+02	2.40E+02	2.40E+02	Proposed	
B509SO001	**06/21/06**	**0.5**	**606159**	**SW8270C**	**bis(2-ethylhexyl) phthalate**	**6.40E+02**	**3.20E+01**			**117-81-7**	**3.47E+02**	**1.37E+03**	**3.47E+01**	**1.37E+02**	**3.47E+02**	**NMED Residential**	**YES**
B509SO001	**06/21/06**	**0.5**	**606159**	**SW8270C**	**di-n-Butyl Phthalate**	**5.20E+04**	**4.80E+01**		**E**	**84-74-2**	**6.11E+03**	**6.84E+04**	**6.11E+03**	**6.84E+04**	**6.11E+03**	**NMED Residential**	**YES**
B509SO001	06/21/06	0.5	606159	SW8270C	Fluoranthene	4.40E+01	4.20E+01		J	206-44-0	2.29E+03	2.44E+04	2.29E+03	2.44E+04	2.29E+03	NMED Residential	
B509SO001	06/21/06	0.5	606159	SW8330	HMX	5.50E+02	3.00E+01			2691-41-0	3.06E+03	3.42E+04	3.06E+03	3.42E+04	3.06E+03	NMED Residential	
B509SO001	06/21/06	0.5	606159	SW8330	HMX	5.50E+02	3.00E+01			2691-41-0	3.06E+03	3.42E+04	3.06E+03	3.42E+04	3.06E+03	NMED Residential	
B509SO001	06/21/06	0.5	606159	E353.2	Nitrate/Nitrite	1.50E+01	5.00E-01			NO CAS NN	7.82E+03	1.00E+05	NS	NS	7.82E+03	NMED Residential	
B509SO001	**06/21/06**	**0.5**	**606159**	**SW8330**	**Nitrobenzene**	**5.80E+01**	**1.60E+01**		**J**	**98-95-3**	**2.28E+01**	**1.47E+02**	**1.97E+01**	**1.15E+02**	**2.28E+01**	**NMED Residential**	**YES**
B509SO001	**06/21/06**	**0.5**	**606159**	**SW8330**	**Nitrobenzene**	**5.80E+01**	**1.60E+01**		**J**	**98-95-3**	**2.28E+01**	**1.47E+02**	**1.97E+01**	**1.15E+02**	**2.28E+01**	**NMED Residential**	**YES**
B509SO001	**06/21/06**	**0.5**	**606159**	**SW8270C**	**Nitrobenzene-d5**	**2.60E+03**	**3.30E+01**			**98-95-3**	**2.28E+01**	**1.47E+02**	**1.97E+01**	**1.15E+02**	**2.28E+01**	**NMED Residential**	**YES**
B509SO001	06/21/06	0.5	606159	IAAP	Nitrocellulose	5.30E+03	3.20E+01			9004-70-0	NS	NS	NS	NS	No Standard	No Standard	
B509SO001	**06/21/06**	**0.5**	**606159**	**SW8270C**	**n-Nitrosodiphenylamine**	**1.70E+04**	**1.80E+01**		**E**	**86-30-6**	**9.93E+02**	**3.91E+03**	**9.93E+01**	**3.91E+02**	**9.93E+02**	**NMED Residential**	**YES**
B509SO001	06/21/06	0.5	606159	SW8270C	Phenol-d5	5.10E+03	3.30E+01			108-95-2	1.83E+04	1.00E+05	1.83E+04	1.00E+05	1.83E+04	NMED Residential	
B509SO001	06/21/06	0.5	606159	SW8270C	p-Terphenyl-d14	2.80E+03	3.30E+01			1718-51-0	NS	NS	NS	NS	No Standard	No Standard	
B509SO001	06/21/06	0.5	606159	SW8270C	Pyrene	3.80E+01	3.70E+01		J	129-00-0	2.29E+03	3.09E+04	2.31E+03	3.20E+04	2.29E+03	NMED Residential	
B509SO001	**06/21/06**	**0.5**	**606159**	**SW8330**	**RDX**	**6.00E+02**	**1.80E+02**			**121-82-4**	**4.42E+01**	**1.74E+02**	**4.42E+00**	**1.74E+01**	**4.42E+01**	**NMED Residential**	**YES**
B509SO001	**06/21/06**	**0.5**	**606159**	**SW8330**	**RDX**	**6.00E+02**	**1.80E+02**			**121-82-4**	**4.42E+01**	**1.74E+02**	**4.42E+00**	**1.74E+01**	**4.42E+01**	**NMED Residential**	**YES**
B509SO001DL	06/21/06	0.5	606159	SW8270C	2,4,6-Tribromophenol	1.80E+03	3.30E+03			118-79-6	NS	NS	NS	NS	No Standard	No Standard	
B509SO001DL	**06/21/06**	**0.5**	**606159**	**SW8330**	**2,4-Dinitrotoluene**	**2.30E+05**	**3.50E+02**			**121-14-2**	**1.22E+02**	**1.37E+03**	**1.22E+02**	**1.37E+03**	**1.22E+02**	**NMED Residential**	**YES**
B509SO001DL	**06/21/06**	**0.5**	**606159**	**SW8270C**	**2,6-Dinitrotoluene**	**6.30E+03**	**3.20E+03**		**J**	**606-20-2**	**NS**	**NS**	**6.11E+01**	**6.84E+02**	**6.11E+01**	**Proposed**	**YES**
B509SO001DL	06/21/06	0.5	606159	SW8270C	2-Fluorobiphenyl	2.30E+03	3.30E+03			321-60-8	NS	NS	NS	NS	No Standard	No Standard	
B509SO001DL	06/21/06	0.5	606159	SW8270C	2-Fluorophenol	2.80E+03	3.30E+03			367-12-4	NS	NS	NS	NS	No Standard	No Standard	
B509SO001DL	06/21/06	0.5	606159	SW8330	4-Nitroaniline	0.00E+00	1.00E-02			100-01-6	NS	NS	NS	NS	No Standard	No Standard	
B509SO001DL	06/21/06	0.5	606159	SW8082	Decachlorobiphenyl	7.50E+00	3.30E+00			2051-24-3	NS	NS	NS	NS	No Standard	No Standard	
B509SO001DL	06/21/06	0.5	606159	SW8082	Decachlorobiphenyl	1.60E+01	3.30E+00			2051-24-3	NS	NS	NS	NS	No Standard	No Standard	
B509SO001DL	**06/21/06**	**0.5**	**606159**	**SW8270C**	**di-n-Butyl Phthalate**	**1.50E+05**	**4.80E+03**			**84-74-2**	**6.11E+03**	**6.84E+04**	**6.11E+03**	**6.84E+04**	**6.11E+03**	**NMED Residential**	**YES**
B509SO001DL	**06/21/06**	**0.5**	**606159**	**SW8270C**	**Nitrobenzene-d5**	**1.80E+03**	**3.30E+03**			**98-95-3**	**2.28E+01**	**1.47E+02**	**1.97E+01**	**1.15E+02**	**2.28E+01**	**NMED Residential**	**YES**
B509SO001DL	**06/21/06**	**0.5**	**606159**	**SW8270C**	**n-Nitrosodiphenylamine**	**1.80E+04**	**1.80E+03**		**J**	**86-30-6**	**9.93E+02**	**3.91E+03**	**9.93E+01**	**3.91E+02**	**9.93E+02**	**NMED Residential**	**YES**
B509SO001DL	**06/21/06**	**0.5**	**606159**	**SW8082**	**PCB-1254**	**2.30E+03**	**1.60E+01**			**11097-69-1**	**1.12E+00**	**8.26E+00**	**2.22E-01**	**8.26E-01**	**1.12E+00**	**NMED Residential**	**YES**
B509SO001DL	06/21/06	0.5	606159	SW8270C	Phenol-d5	3.90E+03	3.30E+03			108-95-2	1.83E+04	1.00E+05	1.83E+04	1.00E+05	1.83E+04	NMED Residential	
B509SO001DL	06/21/06	0.5	606159	SW8270C	p-Terphenyl-d14	2.90E+03	3.30E+03			1718-51-0	NS	NS	NS	NS	No Standard	No Standard	
B509SO001DL	06/21/06	0.5	606159	SW8082	Tetrachloro-m-xylene	7.10E+00	3.30E+00			877-09-8	NS	NS	NS	NS	No Standard	No Standard	
B509SO001DL	06/21/06	0.5	606159	SW8082	Tetrachloro-m-xylene	7.50E+00	3.30E+00			877-09-8	NS	NS	NS	NS	No Standard	No Standard	
B509SO002	06/21/06	0.5	606159	SW8270C	2,4,6-Tribromophenol	4.80E+03	3.30E+01			118-79-6	NS	NS	NS	NS	No Standard	No Standard	
B509SO002	06/21/06	0.5	606159	SW8270C	2,4-Dinitrotoluene	4.10E+01	3.20E+01		J	121-14-2	1.22E+02	1.37E+03	1.22E+02	1.37E+03	1.22E+02	NMED Residential	
B509SO002	06/21/06	0.5	606159	SW8330	2,4-Dinitrotoluene	9.30E+01	3.50E+01		J	121-14-2	1.22E+02	1.37E+03	1.22E+02	1.37E+03	1.22E+02	NMED Residential	
B509SO002	06/21/06	0.5	606159	SW8330	2,4-Dinitrotoluene	9.30E+01	3.50E+01		J	121-14-2	1.22E+02	1.37E+03	1.22E+02	1.37E+03	1.22E+02	NMED Residential	
B509SO002	06/21/06	0.5	606159	SW8270C	2-Fluorobiphenyl	2.40E+03	3.30E+01			321-60-8	NS	NS	NS	NS	No Standard	No Standard	
B509SO002	06/21/06	0.5	606159	SW8270C	2-Fluorophenol	4.20E+03	3.30E+01			367-12-4	NS	NS	NS	NS	No Standard	No Standard	
B509SO002	06/21/06	0.5	606159	SW8330	4-Nitroaniline	2.70E+03	1.00E-03			100-01-6	NS	NS	NS	NS	No Standard	No Standard	
B509SO002	06/21/06	0.5	606159	SW8330	4-Nitroaniline	2.70E+03	1.00E-03			100-01-6	NS	NS	NS	NS	No Standard	No Standard	
B509SO002	06/21/06	0.5	606159	SW8082	Decachlorobiphenyl	4.40E+00	3.30E-01			2051-24-3	NS	NS	NS	NS	No Standard	No Standard	
B509SO002	06/21/06	0.5	606159	SW8270C	di-n-Butyl Phthalate	1.80E+02	4.70E+01		J	84-74-2	6.11E+03	6.84E+04	6.11E+03	6.84E+04	6.11E+03	NMED Residential	
B509SO002	06/21/06	0.5	606159	E353.2	Nitrate/Nitrite	4.50E+00	4.90E-01			NO CAS NN	7.82E+03	1.00E+05	NS	NS	7.82E+03	NMED Residential	
B509SO002	**06/21/06**	**0.5**	**606159**	**SW8330**	**Nitrobenzene**	**6.90E+01**	**1.60E+01**		**J**	**98-95-3**	**2.28E+01**	**1.47E+02**	**1.97E+01**	**1.15E+02**	**2.28E+01**	**NMED Residential**	**YES**
B509SO002	**06/21/06**	**0.5**	**606159**	**SW8330**	**Nitrobenzene**	**6.90E+01**	**1.60E+01**		**J**	**98-95-3**	**2.28E+01**	**1.47E+02**	**1.97E+01**	**1.15E+02**	**2.28E+01**	**NMED Residential**	**YES**
B509SO002	**06/21/06**	**0.5**	**606159**	**SW8270C**	**Nitrobenzene-d5**	**2.50E+03**	**3.30E+01**			**98-95-3**	**2.28E+01**	**1.47E+02**	**1.97E+01**	**1.15E+02**	**2.28E+01**	**NMED Residential**	**YES**
B509SO002	06/21/06	0.5	606159	IAAP	Nitrocellulose	2.60E+02	3.00E+01			9004-70-0	NS	NS	NS	NS	No Standard	No Standard	
B509SO002	06/21/06	0.5	606159	IAAP	Nitrocellulose	2.90E+02	3.00E+01			9004-70-0	NS	NS	NS	NS	No Standard	No Standard	
B509SO002	06/21/06	0.5	606159	SW8270C	Phenol-d5	4.60E+03	3.30E+01			108-95-2	1.83E+04	1.00E+05	1.83E+04	1.00E+05	1.83E+04	NMED Residential	
B509SO002	06/21/06	0.5	606159	SW8270C	p-Terphenyl-d14	3.10E+03	3.30E+01			1718-51-0	NS	NS	NS	NS	No Standard	No Standard	
B509SO002	06/21/06	0.5	606159	SW8082	Tetrachloro-m-xylene	5.60E+00	3.30E-01			877-09-8	NS	NS	NS	NS	No Standard	No Standard	
B509SO002	06/21/06	0.5	606159	SW8082	Tetrachloro-m-xylene	5.80E+00	3.30E-01			877-09-8	NS	NS	NS	NS	No Standard	No Standard	

Notes:
mg/kg - milligrams per kilogram

Table 3
Summary of Soil Constituents
AOC 64
Parcel 21 RAR
Fort Wingate Depot Activity
McKinley County, New Mexico

Sample ID	Collection Date	Depth (feet bgs)	Sample Delivery Group	Analytical Method	Analyte	Result (mg/kg)	MDL (mg/kg)	CRDL (mg/kg)	Report Flag	Screen CAS	NMED SSL Residential (mg/kg)	NMED SSL Industrial (mg/kg)	Region VI MSSL Residential (mg/kg)	Region VI MSSL Industrial (mg/kg)	Cleanup Level (mg/kg)	Cleanup Level Basis	Exceed Cleanup Level?
B510SO001	06/21/06	0.5	606159	SW8270C	2,4,6-Tribromophenol	6.00E+03	3.30E+01			118-79-6	NS	NS	NS	NS	No Standard	No Standard	
B510SO001	**06/21/06**	**0.5**	**606159**	**SW8270C**	**2,4-Dinitrotoluene**	**5.80E+02**	**3.20E+01**			**121-14-2**	**1.22E+02**	**1.37E+03**	**1.22E+02**	**1.37E+03**	**1.22E+02**	**NMED Residential**	**YES**
B510SO001	06/21/06	0.5	606159	SW8270C	2-Fluorobiphenyl	2.50E+03	3.30E+01			321-60-8	NS	NS	NS	NS	No Standard	No Standard	
B510SO001	06/21/06	0.5	606159	SW8270C	2-Fluorophenol	4.70E+03	3.30E+01			367-12-4	NS	NS	NS	NS	No Standard	No Standard	
B510SO001	06/21/06	0.5	606159	SW8082	Decachlorobiphenyl	5.00E+00	3.30E-01			2051-24-3	NS	NS	NS	NS	No Standard	No Standard	
B510SO001	06/21/06	0.5	606159	SW8082	Decachlorobiphenyl	5.20E+00	3.30E-01			2051-24-3	NS	NS	NS	NS	No Standard	No Standard	
B510SO001	06/21/06	0.5	606159	SW8270C	di-n-Butyl Phthalate	1.10E+03	4.70E+01			84-74-2	6.11E+03	6.84E+04	6.11E+03	6.84E+04	6.11E+03	NMED Residential	
B510SO001	**06/21/06**	**0.5**	**606159**	**SW8270C**	**Nitrobenzene-d5**	**2.70E+03**	**3.30E+01**			**98-95-3**	**2.28E+01**	**1.47E+02**	**1.97E+01**	**1.15E+02**	**2.28E+01**	**NMED Residential**	**YES**
B510SO001	06/21/06	0.5	606159	SW8270C	n-Nitrosodiphenylamine	2.90E+01	1.80E+01		J	86-30-6	9.93E+02	3.91E+03	9.93E+01	3.91E+02	9.93E+02	NMED Residential	
B510SO001	06/21/06	0.5	606159	SW8270C	Phenol-d5	5.20E+03	3.30E+01			108-95-2	1.83E+04	1.00E+05	1.83E+04	1.00E+05	1.83E+04	NMED Residential	
B510SO001	06/21/06	0.5	606159	SW8270C	p-Terphenyl-d14	2.90E+03	3.30E+01			1718-51-0	NS	NS	NS	NS	No Standard	No Standard	
B510SO001	06/21/06	0.5	606159	SW8082	Tetrachloro-m-xylene	6.20E+00	3.30E-01			877-09-8	NS	NS	NS	NS	No Standard	No Standard	
B510SO001	06/21/06	0.5	606159	SW8082	Tetrachloro-m-xylene	6.30E+00	3.30E-01			877-09-8	NS	NS	NS	NS	No Standard	No Standard	

Notes:
mg/kg - milligrams per kilogram
NS - no standard
feet bgs - feet below ground surface

Flag Codes:
D - Duplicate
J - Estimated Concentration
F - Filtered Sampled
R - Rejected Data
U - Not Detected above the Detection Limit
E = For Organic analyses, indicates that the concentration detected exceeded the calibration range of the instrument
P = Indicates that there is greater than 25% difference for detected pesticide/Arochlor results between the two gas chromatograph columns

NMED SSL - New Mexico Environmental Department Soil Screening Level, as published in the Technical Background Document for Development of Soil Screening Levels, Revision 4.0. New Mexico Environmental Department, Hazardous Waste Bureau and Ground Water Quality Bureau Voluntary Remediation Program, June 2006.

Region VI MSSL - U.S. Environmental Protection Agency Region 6 Medium-Specific Screening Level, as published in the Region 6 Human Health Medium-Specific Screening Levels 2008. U.S. Environmental Protection Agency, Region 6, December 4, 2007.

Sample identifications with a "DL" added to the end were diluted by the laboratory to bring detected sample concentration within instrument calibration range

Table 4
Summary of Detected Constituents in Soil
AOC 68
Parcel 21 RAR
Fort Wingate Depot Activity
McKinley County, New Mexico

Sample ID	Collection Date	Depth (feet bgs)	Sample Delivery Group	Analytical Method	Analyte	Result (mg/kg)	MDL (mg/kg)	CRDL (mg/kg)	Report Flag	Screen CAS	NMED SSL Residential (mg/kg)	NMED SSL Industrial (mg/kg)	Region VI MSSL Residential (mg/kg)	Region VI MSSL Industrial (mg/kg)	Cleanup Level (mg/kg)	Cleanup Level Basis	Exceed Cleanup Level?
B514SO001	06/21/06	0.5	606159	SW8270C	2,4,6-Tribromophenol	4.80E+03	3.30E+01			118-79-6	NS	NS	NS	NS	No Standard	No Standard	
B514SO001	**06/21/06**	**0.5**	**606159**	**SW8330**	**2,4,6-Trinitrotoluene**	**1.40E+02**	**2.00E+01**			**118-96-7**	**3.06E+01**	**3.42E+02**	**1.62E+01**	**6.38E+01**	**3.06E+01**	**NMED Residential**	**YES**
B514SO001	**06/21/06**	**0.5**	**606159**	**SW8330**	**2,4,6-Trinitrotoluene**	**1.40E+02**	**2.00E+01**			**118-96-7**	**3.06E+01**	**3.42E+02**	**1.62E+01**	**6.38E+01**	**3.06E+01**	**NMED Residential**	**YES**
B514SO001	06/21/06	0.5	606159	SW8330	2-Amino-4,6-Dinitrotoluene	2.10E+02	2.50E+01			35572-78-2	NS	NS	NS	NS	No Standard	No Standard	
B514SO001	06/21/06	0.5	606159	SW8330	2-Amino-4,6-Dinitrotoluene	2.10E+02	2.50E+01			35572-78-2	NS	NS	NS	NS	No Standard	No Standard	
B514SO001	06/21/06	0.5	606159	SW8270C	2-Fluorobiphenyl	2.40E+03	3.30E+01			321-60-8	NS	NS	NS	NS	No Standard	No Standard	
B514SO001	06/21/06	0.5	606159	SW8270C	2-Fluorophenol	4.00E+03	3.30E+01			367-12-4	NS	NS	NS	NS	No Standard	No Standard	
B514SO001	06/21/06	0.5	606159	SW8330	4-Amino-2,6-Dinitrotoluene	2.70E+02	1.50E+01			19406-51-0	NS	NS	NS	NS	No Standard	No Standard	
B514SO001	06/21/06	0.5	606159	SW8330	4-Amino-2,6-Dinitrotoluene	2.70E+02	1.50E+01			19406-51-0	NS	NS	NS	NS	No Standard	No Standard	
B514SO001	06/21/06	0.5	606159	SW8330	4-Nitroaniline	5.20E+03	1.00E-03			100-01-6	NS	NS	NS	NS	No Standard	No Standard	
B514SO001	06/21/06	0.5	606159	SW8330	4-Nitroaniline	5.20E+03	1.00E-03			100-01-6	NS	NS	NS	NS	No Standard	No Standard	
B514SO001	06/21/06	0.5	606159	SW8270C	bis(2-ethylhexyl) phthalate	3.70E+01	3.20E+01		J	117-81-7	3.47E+02	1.37E+03	3.47E+01	1.37E+02	3.47E+02	NMED Residential	
B514SO001	06/21/06	0.5	606159	SW8082	Decachlorobiphenyl	3.70E+00	3.30E-01			2051-24-3	NS	NS	NS	NS	No Standard	No Standard	
B514SO001	**06/21/06**	**0.5**	**606159**	**SW8330**	**HMX**	**2.40E+04**	**3.00E+01**			**2691-41-0**	**3.06E+03**	**3.42E+04**	**3.06E+03**	**3.42E+04**	**3.06E+03**	**NMED Residential**	**YES**
B514SO001	**06/21/06**	**0.5**	**606159**	**SW8330**	**HMX**	**2.40E+04**	**3.00E+01**			**2691-41-0**	**3.06E+03**	**3.42E+04**	**3.06E+03**	**3.42E+04**	**3.06E+03**	**NMED Residential**	**YES**
B514SO001	06/21/06	0.5	606159	E353.2	Nitrate/Nitrite	9.80E+00	4.90E-01			NO CAS NN	7.82E+03	1.00E+05	NS	NS	7.82E+03	NMED Residential	
B514SO001	**06/21/06**	**0.5**	**606159**	**SW8270C**	**Nitrobenzene-d5**	**2.40E+03**	**3.30E+01**			**98-95-3**	**2.28E+01**	**1.47E+02**	**1.97E+01**	**1.15E+02**	**2.28E+01**	**NMED Residential**	**YES**
B514SO001	06/21/06	0.5	606159	IAAP	Nitrocellulose	2.70E+02	3.00E+01			9004-70-0	NS	NS	NS	NS	No Standard	No Standard	
B514SO001	**06/21/06**	**0.5**	**606159**	**SW8082**	**PCB-1260**	**3.00E+01**	**1.30E+00**		**P**	**11096-82-5**	**1.12E+00**	**8.26E+00**	**2.22E-01**	**8.26E-01**	**1.12E+00**	**NMED Residential**	**YES**
B514SO001	06/21/06	0.5	606159	SW8270C	Phenol-d5	4.60E+03	3.30E+01			108-95-2	1.83E+04	1.00E+05	1.83E+04	1.00E+05	1.83E+04	NMED Residential	
B514SO001	06/21/06	0.5	606159	SW8270C	p-Terphenyl-d14	2.70E+03	3.30E+01			1718-51-0	NS	NS	NS	NS	No Standard	No Standard	
B514SO001	**06/21/06**	**0.5**	**606159**	**SW8330**	**RDX**	**1.30E+05**	**1.80E+02**			**121-82-4**	**4.42E+01**	**1.74E+02**	**4.42E+00**	**1.74E+01**	**4.42E+01**	**NMED Residential**	**YES**
B514SO001	**06/21/06**	**0.5**	**606159**	**SW8330**	**RDX**	**1.30E+05**	**1.80E+02**		**E**	**121-82-4**	**4.42E+01**	**1.74E+02**	**4.42E+00**	**1.74E+01**	**4.42E+01**	**NMED Residential**	**YES**
B514SO001	06/21/06	0.5	606159	SW8082	Tetrachloro-m-xylene	5.60E+00	3.30E-01			877-09-8	NS	NS	NS	NS	No Standard	No Standard	
B514SO001	06/21/06	0.5	606159	SW8082	Tetrachloro-m-xylene	5.80E+00	3.30E-01			877-09-8	NS	NS	NS	NS	No Standard	No Standard	
B514SO001DL	06/21/06	0.5	606159	SW8330	4-Nitroaniline	0.00E+00	1.00E-02			100-01-6	NS	NS	NS	NS	No Standard	No Standard	
B514SO001DL	**06/21/06**	**0.5**	**606159**	**SW8330**	**RDX**	**1.60E+05**	**1.80E+03**			**121-82-4**	**4.42E+01**	**1.74E+02**	**4.42E+00**	**1.74E+01**	**4.42E+01**	**NMED Residential**	**YES**
B514SO002	06/21/06	0.5	606159	SW8270C	2,4,6-Tribromophenol	6.30E+03	3.30E+01			118-79-6	NS	NS	NS	NS	No Standard	No Standard	
B514SO002	06/21/06	0.5	606159	SW8270C	2-Fluorobiphenyl	2.70E+03	3.30E+01			321-60-8	NS	NS	NS	NS	No Standard	No Standard	
B514SO002	06/21/06	0.5	606159	SW8270C	2-Fluorophenol	4.80E+03	3.30E+01			367-12-4	NS	NS	NS	NS	No Standard	No Standard	
B514SO002	06/21/06	0.5	606159	SW8330	4-Nitroaniline	2.80E+03	1.00E-03			100-01-6	NS	NS	NS	NS	No Standard	No Standard	
B514SO002	06/21/06	0.5	606159	SW8330	4-Nitroaniline	2.80E+03	1.00E-03			100-01-6	NS	NS	NS	NS	No Standard	No Standard	
B514SO002	06/21/06	0.5	606159	SW8082	Decachlorobiphenyl	3.50E+00	3.30E-01			2051-24-3	NS	NS	NS	NS	No Standard	No Standard	
B514SO002	06/21/06	0.5	606159	SW8082	Decachlorobiphenyl	3.60E+00	3.30E-01			2051-24-3	NS	NS	NS	NS	No Standard	No Standard	
B514SO002	06/21/06	0.5	606159	E353.2	Nitrate/Nitrite	6.60E+00	5.00E-01			NO CAS NN	7.82E+03	1.00E+05	NS	NS	7.82E+03	NMED Residential	
B514SO002	06/21/06	0.5	606159	E353.2	Nitrate/Nitrite	7.40E+00	5.00E-01			NO CAS NN	7.82E+03	1.00E+05	NS	NS	7.82E+03	NMED Residential	
B514SO002	06/21/06	0.5	606159	E353.2	Nitrate/Nitrite	1.70E+01	5.00E-01			NO CAS NN	7.82E+03	1.00E+05	NS	NS	7.82E+03	NMED Residential	
B514SO002	06/21/06	0.5	606159	E353.2	Nitrate/Nitrite	1.70E+01	5.00E-01			NO CAS NN	7.82E+03	1.00E+05	NS	NS	7.82E+03	NMED Residential	
B514SO002	**06/21/06**	**0.5**	**606159**	**SW8330**	**Nitrobenzene**	**6.00E+01**	**1.60E+01**		**J**	**98-95-3**	**2.28E+01**	**1.47E+02**	**1.97E+01**	**1.15E+02**	**2.28E+01**	**NMED Residential**	**YES**
B514SO002	**06/21/06**	**0.5**	**606159**	**SW8330**	**Nitrobenzene**	**6.00E+01**	**1.60E+01**		**J**	**98-95-3**	**2.28E+01**	**1.47E+02**	**1.97E+01**	**1.15E+02**	**2.28E+01**	**NMED Residential**	**YES**
B514SO002	**06/21/06**	**0.5**	**606159**	**SW8270C**	**Nitrobenzene-d5**	**2.70E+03**	**3.30E+01**			**98-95-3**	**2.28E+01**	**1.47E+02**	**1.97E+01**	**1.15E+02**	**2.28E+01**	**NMED Residential**	**YES**
B514SO002	06/21/06	0.5	606159	SW8270C	Phenol-d5	5.50E+03	3.30E+01			108-95-2	1.83E+04	1.00E+05	1.83E+04	1.00E+05	1.83E+04	NMED Residential	
B514SO002	06/21/06	0.5	606159	SW8270C	p-Terphenyl-d14	3.30E+03	3.30E+01			1718-51-0	NS	NS	NS	NS	No Standard	No Standard	
B514SO002	06/21/06	0.5	606159	SW8082	Tetrachloro-m-xylene	5.50E+00	3.30E-01			877-09-8	NS	NS	NS	NS	No Standard	No Standard	
B514SO002	06/21/06	0.5	606159	SW8082	Tetrachloro-m-xylene	5.60E+00	3.30E-01			877-09-8	NS	NS	NS	NS	No Standard	No Standard	

Notes:
mg/kg - milligrams per kilogram
NS - no standard
feet bgs - feet below ground surface

Flag Codes:
D - Duplicate
J - Estimated Concentration
F - Filtered Sampled
R - Rejected Data
U - Not Detected above the Detection Limit
E = For Organic analyses, indicates that the concentration detected exceeded the calibration range of the instrument
P = Indicates that there is greater than 25% difference for detected pesticide/Arochlor results between the two gas chromatograph columns

NMED SSL - New Mexico Environmental Department Soil Screening Level, as published in the Technical Background Document for Development of Soil Screening Levels, Revision 4.0. New Mexico Environmental Department, Hazardous Waste Bureau and Ground Water Quality Bureau Voluntary Remediation Program, June 2006.

Region VI MSSL - U.S. Environmental Protection Agency Region 6 Medium-Specific Screening Level, as published in the Region 6 Human Health Medium-Specific Screening Levels 2008. U.S. Environmental Protection Agency, Region 6, December 4, 2007.

Sample identifications with a "DL" added to the end were diluted by the laboratory to bring detected sample concentration within instrument calibration range

Table 2
Summary of Detected Constituents in Soil
AOC 63
Parcel 21 RAR
Fort Wingate Depot Activity
McKinley County, New Mexico

Sample ID	Collection Date	Depth (feet bgs)	Sample Delivery Group	Analytical Method	Analyte	Result (mg/kg)	MDL (mg/kg)	CRDL (mg/kg)	Report Flag	Screen CAS	NMED SSL Residential (mg/kg)	NMED SSL Industrial (mg/kg)	Region VI MSSL Residential (mg/kg)	Region VI MSSL Industrial (mg/kg)	Cleanup Level (mg/kg)	Cleanup Level Basis	Exceed Cleanup Level?

NS - no standard
feet bgs - feet below ground surface

Flag Codes:
D - Duplicate
J - Estimated Concentration
F - Filtered Sampled
R - Rejected Data
U - Not Detected above the Detection Limit
E = For Organic analyses, indicates that the concentration detected exceeded the calibration range of the instrument
P = Indicates that there is greater than 25% difference for detected pesticide/Arochlor results between the two gas chromatograph columns

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Region VI MSSL - U.S. Environmental Protection Agency Region 6 Medium-Specific Screening Level, as published in the Region 6 Human Health Medium-Specific Screening Levels 2008. U.S. Environmental Protection Agency, Region 6, December 4, 2007.

Sample identifications with a "DL" added to the end were diluted by the laboratory to bring detected sample concentration within instrument calibration range

APPENDIX A
SITE RECONNAISSANCE PHOTOGRAPHS

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 1: AOC 60, Building 522, looking east at exterior condition of building.

Photo 2: AOC 60, Building 522, looking west at exterior condition of building.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 3: AOC 60, Building 522, looking west at covered loading dock.

Photo 4: AOC 60, Building 522, looking east at exterior condition of building.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 5: AOC 60, Building 522, showing roofing debris on north side of building.

Photo 6: AOC 60, Building 522, looking east at interior condition of building.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 7: AOC 60, Building 522, looking east at blast walls and debris on floor.

Photo 8: AOC 62, Building 508, looking north at exterior condition of building.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 9: AOC 62, Building 508, looking south.

Photo 10: AOC 62, Building 508, showing propellant grains found at this location.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 11: AOC 63, Building 509, looking east at exterior condition of building.

Photo 12: AOC 63, Building 509, looking north at exterior condition of building.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 13: AOC 63, Building 509, looking west at exterior condition of building.

Photo 14: AOC 63, Building 509, looking southwest at exterior condition of building.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 15: AOC 63, Building 509, looking northwest at interior condition of building.

Photo 16: AOC 63, Building 509, looking southwest at interior condition of building.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 17: AOC 63, Building 509, showing propellant grains found at this location.

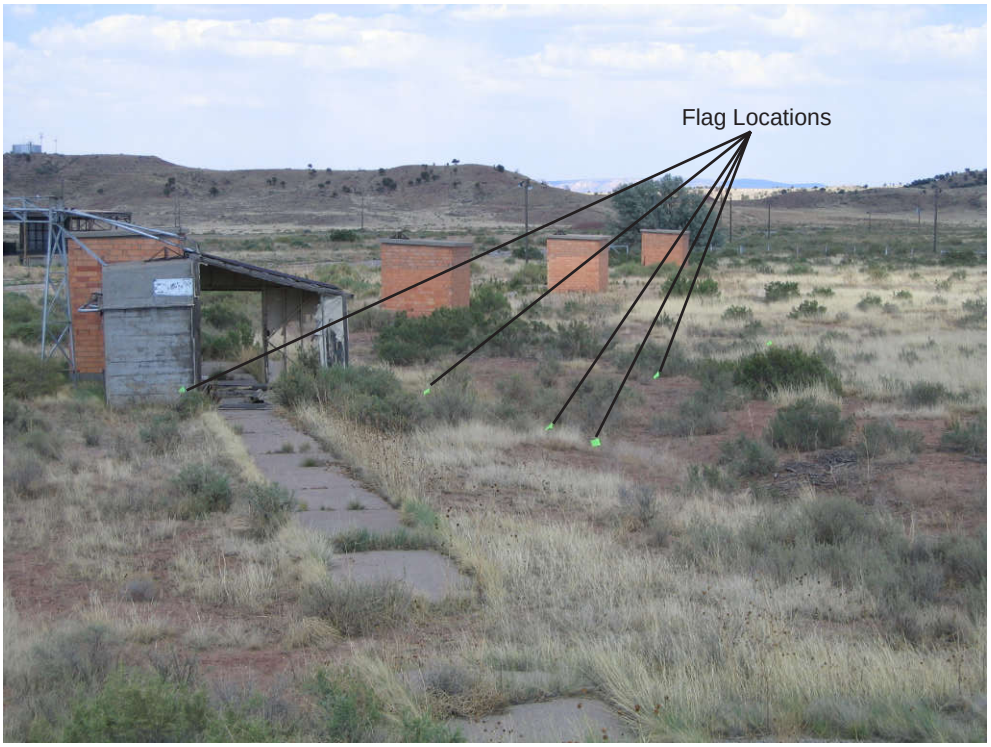


Photo 18: AOC 63, Building 509, looking east showing green flags marking propellant grain locations.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

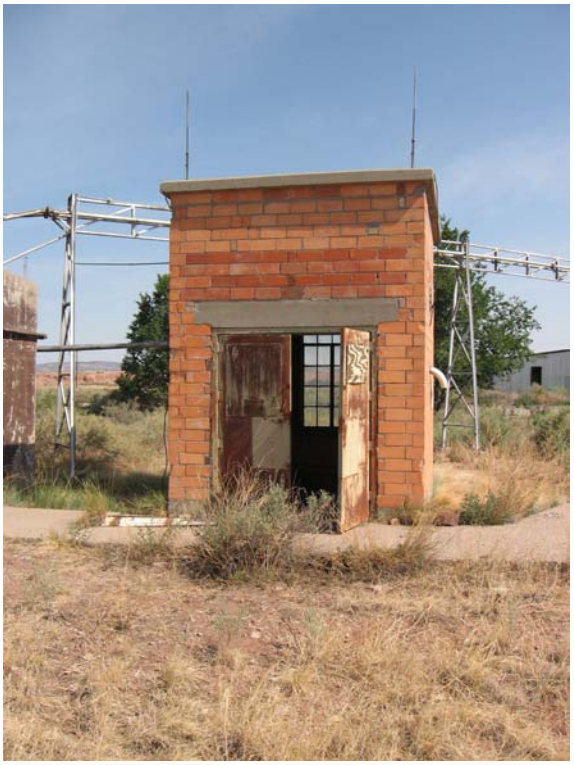


Photo 19: AOC 64, Building 510, looking north at exterior condition of building.

Photo 20: AOC 64, Building 510, looking west at exterior condition of building.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 21: AOC 64, Building 510, looking southwest at exterior condition of building.

Photo 22: AOC 64, Building 510, looking southeast at exterior condition of building.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 23: AOC 64, Building 510, looking north at interior condition of building.

Photo 24: AOC 65, Building 511, looking south at exterior condition of building.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 25: AOC 65, Building 511, looking west at exterior condition of building.

Photo 26: AOC 65, Building 511, looking north at exterior condition of building.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 27: AOC 65, Building 511, looking east at exterior condition of building.

Photo 28: AOC 66, Building 512, looking south at exterior condition of building.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 29: AOC 66, Building 512, looking west at exterior condition of building.

Photo 30: AOC 66, Building 512, looking north at exterior condition of building.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 31: AOC 66, Building 512, looking east at exterior condition of building.

Photo 32: AOC 67, Building 513, looking south at exterior condition of building.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 33: AOC 67, Building 513, looking west at exterior condition of building.

Photo 34: AOC 67, Building 513, looking north at exterior condition of building.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 35: AOC 67, Building 513, looking east at exterior condition of building.

Photo 36: AOC 67, Building 513, showing interior floor, typical of buildings 511, 512, and 513.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 37: AOC 67, Building 513, showing interior ceiling, typical of buildings 511, 512, and 513.

Photo 38: AOC 68, Building 514, looking southwest at exterior condition of building.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 39: AOC 68, Building 514, looking northwest at exterior condition of building.

Photo 40: AOC 68, Building 514, looking west at interior condition of building.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 41: AOC 68, Structure 545, looking west at earthern barricade.

Photo 42: AOC 68, Structure 545, looking west at top of earthern barricade.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 43: AOC 71, looking west at possible former location of Magazine K-302.

Photo 44: AOC 71, showing debris on ground at possible former location of Magazine K-302.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

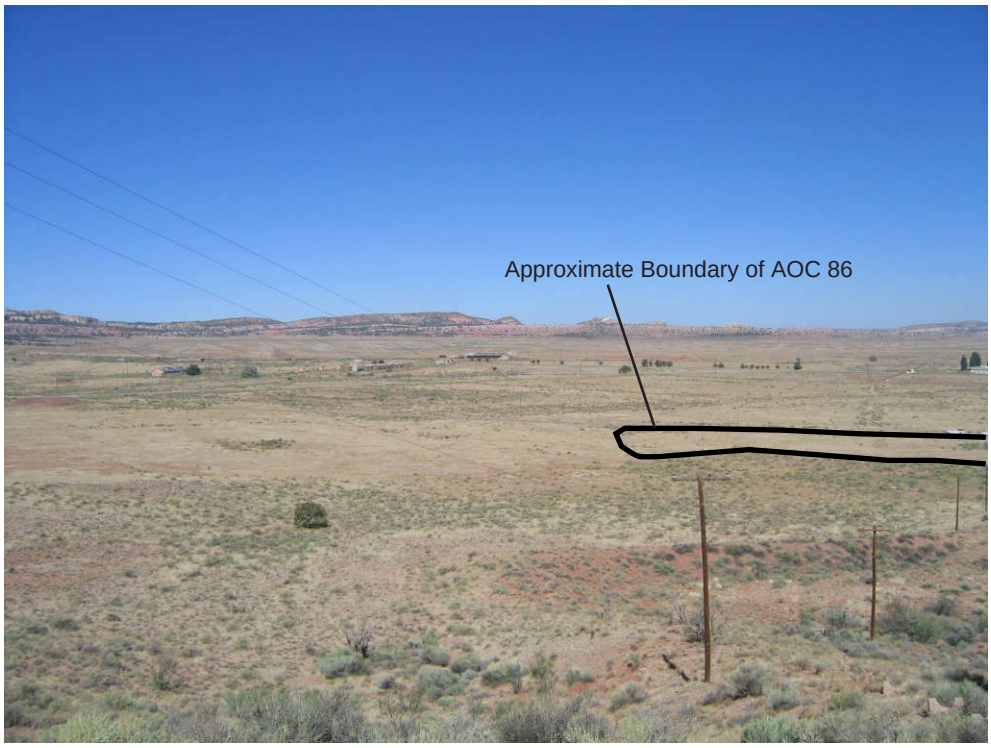


Photo 45: AOC 86, Feature 15, looking west at former open storage area and broken berm location.

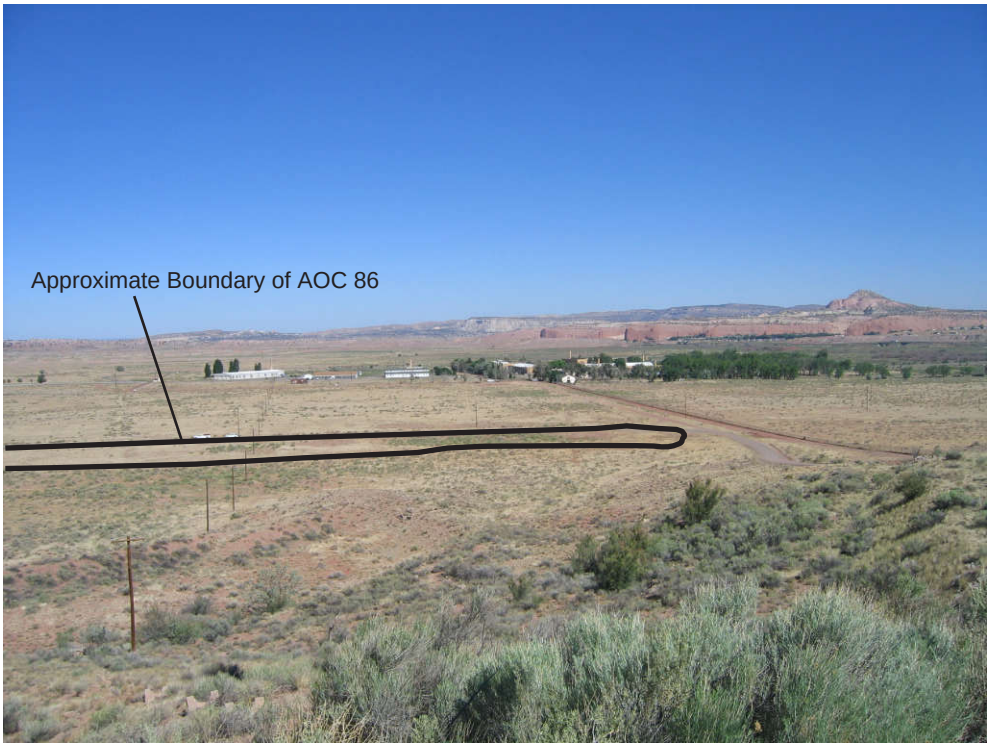


Photo 46: AOC 86, Feature 15, looking west at former open storage area and broken berm location.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 47: AOC 86, showing metal banding pieces.

Photo 48: AOC 86, showing metal disk.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 49: AOC 86, showing munition shipping container lid.

Photo 50: AOC 86, showing empty 3.25-inch rocket motor tube used as marker for drainage culvert end.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 51: AOC 87, Feature 18, looking northeast at possible location of former Magazine K-303; Building 515 (SWMU 2) is visible in upper left of photo.

Photo 52: AOC 87, Feature 18, showing debris at possible location of former Magazine K-303.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 53: AOC 87, Feature 18, looking east at location of "shallow pit in northeast quadrant"; note paved service road on left of photo.

Photo 54: AOC 87, Feature 18, showing hardened paint.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 55: AOC 87, Feature 23, looking north northwest from middle of location, showing magnetometer assisted walkover being performed; Building 508 (AOC 62) is visible in left center of photo.

Photo 56: AOC 87, Feature 18, looking northeast at possible "pit" area south of building 515.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 57: Part of AOC 75, former electrical substation north of former Building 501, looking north.

Photo 58: Part of AOC 75, looking southeast at concrete pad in former electrical substation.

Photographs
Parcel 21 Release Assessment Site Reconnaissance
Fort Wingate Depot Activity
McKinley County, New Mexico

Photo 59: Part of AOC 75, looking east at a former platform located on the west side of Building 515.

Photo 60: Empty 3.25-inch rocket motor tubes along concrete walkway north of Building 515.

APPENDIX B
RELEASE ASSESSMENT SAMPLING PLAN

Memorandum

TerranearPMC

835 Springdale Drive
Suite 201
Exton, PA 19341
(610) 862-5000
(610) 862-5050 (fax)

To: TPMC Field Team

From Eric Kammerer

Date 16 June 2006

Subject: FWDA Parcel 21 Site Visit
Week of 19 June 2006

The purpose of this memo is to provide background information, describe field activities to be conducted within Parcel 21, and to provide necessary health and safety information. These activities described herein are being performed in partial fulfillment of requirements outlined in FWDA's RCRA Permit, issued by NMED.

The contract Statement of Work (SOW) is provided as Attachment 1. Activities conducted during this field effort will be in partial fulfillment of SOW Sections 4.0, 4.1, and 3.8. A site drawing showing SWMUs and AOCs located within Parcel 21 is provided as Attachment 2.

SOW Section 4.0 provides a list of AOCs (11 listed) for which Release Assessments (RA) are being performed. SOW Section 4.1 provides a list of AOCs (4 total) at which soil sampling will be performed. SOW Section 3.8 describes the asbestos evaluation to be performed within Parcel 21.

Site Background

AOCs 60, and 62-68 are eight Workshop Area buildings associated with past munition maintenance, renovation, and demilitarization operations

AOC 60 is Building 522, Ammunition Renovation Building (formerly Building 500), and was built in 1948 on a concrete dock that was the former location of two bundle ammunition packing buildings (drawing A-1-16). The bundle ammunition packing buildings were removed, and a permanent structure with eight processing rooms (separated by concrete blast walls) was constructed. The one-story building is approximately 372 feet long by 32 feet wide. As described in historical SOPs, this building was used to disassemble various munitions into individual components or assemblies.

AOC 62 is Building 508, Smokeless Powder Magazine, and was built in 1948. This one-story building is approximately 11 feet long by 12 feet wide. As described in historical SOPs, this building was used to store containers of propellant filled in Building 509 (AOC 63) to await transport either to longer term storage or to the OB/OD Area for burning.

AOC 63 is Building 509, Primary Collector Barricade, and was built in 1948. This one-story building is approximately 7 feet long by 15 feet wide. As described in historical SOPs, this building was used to collect propellant (e.g., smokeless powder) removed from munitions being disassembled in Building 522. Propellant was conveyed from work stations in Building 522 to Building 509 via an overhead vacuum line running between the two buildings. Containers were placed in Building 509 to collect the recovered propellant; when full, the containers were closed and moved to Building 507 (AOC 61, Parcel 6) and Building 508 (AOC 62) to await transport either to longer term storage or to the OB/OD Area for burning.

AOC 64 is Building 510, Vacuum Producer Building, and was built in 1948. This one-story building is approximately 10 feet long by 10 feet wide. This building contained equipment to produce the vacuum used to convey recovered propellant from Building 522 to Building 509. In their basis for listing this location as an AOC, NMED cited the possible use/release of lubricants and maintenance chemicals associated with the machinery in Building 510.

AOCs 65, 66, and 67 are Buildings 511, 512, and 513, respectively. Each building is a Service Magazine, built in 1948. Each of these one-story buildings is approximately 10 feet long by 10 feet wide. As described in historical SOPs, these buildings were used to store containers of munitions components or assemblies following disassembly of munitions in Building 522.

AOC 68 is Building 514, Deboostering Barricade and the surrounding earthen barricade (Building 545); both were built in 1948. Building 514 is a one-story building, approximately 6 feet long by 8 feet wide; the earthen barricade was 10 feet high when constructed and is approximately 150 feet long. As described in historical SOPs, the Deboostering Barricade was used when a booster assembly could not be safely removed from a given munition in a “normal” operation in Building 522. The munition still containing the booster was carried on a cart to the Deboostering Barricade, where it was placed in the deboostering machinery and remotely manipulated to remove the booster. The booster and the remaining parts of the munition where then returned to the normal flow of operations in Building 522. The purpose of the earthen barricade (Building 545) was to protect personnel and facilities in the surrounding areas in the event of an explosion.

In addition to the above listed buildings that were part of Workshop Area operations, there are three additional AOCs within Parcel 21 listed in the Permit.

AOC 71 is listed in the Permit as a “Former rectangular structure near TMW-5 and north of Building 528.” In their basis for listing this location as an AOC, NMED cited a 6 March 2001 site visit where “a rectangular concrete foundation (16 feet by 40 feet) reinforced with rebar and anchor bolts was found located immediately north of TMW-5 and about 40 feet from Arterial Road No. 6” (FWDA maps show Arterial Road No. 6 as the road running south-southwest from the TNT Beds Area, looping around to Arterial

Road No. 2 by Building 530, the Deactivation Furnace; the road which "Ys" off Arterial 6 to Building 528 is "Normal Maintenance Ave."). It is possible that this location is a foundation of one of the pre-1940s magazines, specifically Magazine K-302. During preparation of the SWMU/AOC map included in the Permit, this AOC was shown in a slightly different location to the south (historical map A-7-70 shows this location as temporary storage, Building T-324, in 1945). Both locations will be evaluated during the RA walkover.

AOC 86 is listed in the Permit as "Feature 15 on 1973 aerial photo (API-5) in Archive Search Report" (ASR). In their basis for listing this location as an AOC, NMED cited the ASR description of this feature as "a pit scar with a broken berm around it, possible burn area." Historical map A-7-70 shows this location as temporary storage, Building T-312, in 1945. Historical map A-14-4 shows this location as temporary storage area Z-64 in 1967.

AOC 87 is listed in the Permit as "Feature 18 on 1962 aerial photo (API-3) and Feature 23 on 1973 aerial photo (API-5) in Archive Search Report". In their basis for listing this location as an AOC, NMED cited the ASR description of these features, as follows. "Feature 23 on API-5 is larger than and appears to include Feature 18 on API-3. Feature 18 is described by API-3 as a graded area, rough with a shallow pit in the northeast quadrant. Feature 23 is described by API-5 as a rough and scarred area, scarring may be from leaching." As shown in the site drawing (Attachment 2), these are two distinct areas. The area identified as Feature 23 appears in a 1935 aerial photo as an uneven area, possibly natural terrain/vegetation variation. Feature 18 appears to be the location of one of the pre-1940s magazines, specifically Magazine K-303.

In addition to these AOCs listed in the SOW, there are two locations in Parcel 21 that are part of AOC 75, Electrical Transformer locations. There is a concrete pad located north of the former location of Building 501 which contained six transformers. There is also a former pole mounted platform located on the west side of Building 515 that mounted three transformers. All transformers have been removed from these locations.

RELEASE ASSESSMENTS

There is no formal NMED guidance or NMAC requirements for the RA process. However, during permit negotiations and in subsequent correspondence during the beginning of the permit implementation effort, NMED has described the process to be generally along the lines of an ASTM Phase 1 Environmental Site Assessment (ESA). The efforts described in this memo would fall under the "Site Reconnaissance" portion of a Phase 1 ESA; a copy of the relevant portion of the Phase 1 ESA guidance is included as Attachment 3. The information to be collected as part of this effort is summarized below.

Building Interiors

Buildings will be entered and visually inspected to the extent possible. It is not necessary to look under floors, above ceilings, or behind walls. The following types of information will be documented and photographed:

- General interior conditions ;
- Stains or corrosion on floors, walls, or ceilings (except for water staining);
- Potential liquid waste discharge points (e.g., floor drains, sumps, work area sinks);
- Any other areas with the potential to serve as a release pathway to the outside environment; and
- Electrical or hydraulic equipment known to contain PCBs or likely to contain PCBs (fluorescent light ballasts likely to contain PCBs do not need to be documented)

Because each of the AOCs involved storage or handling of military munitions or components thereof, the interior of each AOC building will be visually inspected by a UXO-qualified person for the potential presence of these types of items. No records of previous explosive safety inspections for these buildings have been found. The results of this inspection will be documented in the field notes.

Comprehensive ACM surveys have been conducted for each of the buildings in question; there is no need to document ACM or suspect ACM as part of this effort. Likewise, there are past building evaluations documenting suspect LBP; there is no need to document suspect LBP as part of this effort.

Building Exteriors and AOCs Without Buildings

The exterior of each building and the entire land area of AOCs which do not have a building will be visually inspected to the extent possible. The following types of information will be documented and photographed:

- General exterior conditions;
- Stained soil or pavement;
- Stressed vegetation; and
- Waste disposal areas (areas that are apparently filled or graded by non-natural causes, or filled with materials of unknown origin, suggesting trash or other solid

waste disposal, or mounds or depressions suggesting trash or other solid waste disposal.

Because each of the AOCs involved storage or handling of military munitions or components thereof, the area around each AOC building (or the entire AOC land area, in the case of AOCs 71, 86, and 87) will be visually inspected by a UXO-qualified person for the potential presence of these types of items. In addition, a handheld magnetometer will be employed to evaluate the potential presence of subsurface anomalies immediately adjacent to selected AOCs. The extent of magnetometer sweeps will be marked in the field and surveyed using GPS instrumentation.

Soil Sampling

As outlined in SOW Section 4.1, a limited number of surface soil samples will be collected as part of this effort to assess conditions at AOCs that were determined (during preliminary records reviews) to have some potential for a release to soil.

The surface soil samples will be grab samples, collected from the 0 to 6 inch depth interval at each location. Pre-cleaned disposable sampling scoops will be used to collect the samples. No QA/QC samples will be collected. Sample locations will be marked in the field and surveyed using GPS instrumentation.

Two surface soil samples will be collected at each of three locations: AOC 62 (Building 508, Smokeless Powder Magazine), AOC 63 (Building 509, Primary Collector Barricade), and AOC 68 (Building 514, Deboostering Barricade). The sample locations will be selected in the field, and will be biased to the most likely release points (e.g., adjacent to doorways, at the edges of pavement, in adjacent low areas where runoff could pool, areas where staining or stressed vegetation has been observed). These samples will be analyzed for:explosives, Nitrocellulose, TCL SVOCs, Nitrate, and Perchlorate (two 8 oz. jars per sample location).

One surface soil sample will be collected at AOC 64 (Vacuum Producer Building). The sample location will be selected in the field, and will be biased to the most likely release point (e.g., adjacent to the doorway, at the edges of pavement, in adjacent low areas where runoff could pool, areas where staining or stressed vegetation has been observed). This sample will be analyzed for TCL SVOCs and PCBs (two 8 oz. jars per sample).

The laboratory for this effort is GPL Laboratories. The primary point of contact for now is Tim Mikesell, (801) 525-0456. A copy of the lab quote and bottle order is included as Attachment 4.

Sample IDs will be created using the convention established during past investigations, BxxxSOyyy, where:

xxx = building number, and

yyy = sequential sample number.

For example, the first soil sample collected at Building 508 will be B508SO001.

ASBESTOS EVALUATION

The asbestos evaluation will be performed by a licensed asbestos inspector from our subcontractor, Envirotech, Inc. The inspector and an environmental technician will perform a visual inspection of the entire 167 acre Parcel 21 area using a tightly spaced grid pattern search. Suspect asbestos will be sampled. Envirotech will mark any suspect materials for surveying by TPMC.

HEALTH AND SAFETY INFORMATION

No formal Site Safety and Health Plan was required to support the RA field effort. Because there is very limited potential for exposure to risk during performance of the field activities described herein, this section has been included to provide basic health and safety information.

Release Assessment Task Hazards

The hazards associated with this task will include those listed below. Site personnel performing activities for this task will use the information contained herein and information provided in daily safety briefings to safeguard themselves from these hazards.

- Explosion/fire hazards from possible Munitions and Explosives of Concern (MEC) items;
- Possible asbestos hazards in buildings;
- Possible chemical hazards from on-site contaminants;
- Physical hazards such as punctures and lacerations to feet, legs, arms and hands from debris, and slip, trip, and fall hazards from uneven surfaces;
- Heat stress and other inclement weather;
- Biological hazards

Task Hazard Analysis

Explosion/Fire Hazards

The potential for explosion/fire hazards will be minimized by oversight of a UXO-qualified person during all RA tasks; non-UXO-qualified personnel shall not touch or disturb any object that could potentially be MEC-related. Movement or handling of MEC or suspect MEC will not be permitted at any time. No smoking or possession or use of open-flame or spark sources will be allowed at the RA sites, unless approved by the SUXOS, and only then in designated areas. Vehicles with catalytic converters will not be driven or parked in areas where vegetation could come in contact with the hot exhaust parts.

Chemical Hazards

The potential for exposure to asbestos and on-site contaminants will be minimized by the use of personal protective equipment (PPE) described below.

Heat Stress and Inclement Weather Hazards

Potential hazards from heat stress will be minimized by maintaining adequate hydration. Potential hazards from inclement weather will be minimized by stopping work and seeking shelter during periods of severe thunder/lightning storms and/or high winds.

Biological Hazards

The FWDA location in the desert southwest presents several hazards associated with indigenous biological species. Site personnel will be briefed by the SSHO as to the potential biological hazards that may be encountered.

Poison/Oak Ivy

Personnel entering densely vegetated areas may encounter poison oak and ivy. Both plant species can cause red irritability blisters that form within 48 hours of skin contact. Personnel should become familiar with the characteristics of these plants and avoid contact with them. Personnel should wash the areas coming in contact with the leaves or stems of these plants with soap and water as soon as possible after exposure.

Animal Hazards

Several poisonous invertebrates and reptiles are found within the FWDA. These include scorpions (which live under rocks and debris), fire ants (which live in large mounds of dirt or sand on the land surface), and rattlesnakes (which may be found in burrows, heavy brush, and under rocks, logs or debris). To avoid these animals, field personnel will be instructed to not pick up or roll boulders or logs with hands or feet. Personnel will also be instructed to stay away from large mounds of dirt or sand (potential fire ant hills). Similarly, reaching into burrows, heavy brush or other debris where these animals hide will not be permitted. If the investigation requires entering areas where these animals could live or be hiding, caution should be used to prevent bites or stings.

Mammals such as feral dogs and other wildlife are also present and may pose a potential threat to personnel under certain conditions. Efforts should be made to avoid wildlife on the site to avoid aggressive acts by the animals.

Ticks

Ticks can transmit Rocky Mountain Spotted Fever and are prevalent in the spring and summer. Personnel should wear light colored clothing if they must enter densely vegetated areas. Personnel should periodically check for ticks during the workday, and complete a thorough check at the end of the day.

Hantavirus

Hantavirus is a disease of the respiratory system, which was first identified in the southwestern United States in 1993. A number of cases of the disease have been diagnosed in the area surrounding FWDA. The disease is a response to inhalation of rodent saliva, urine and feces in an aerosol form. Disease transmission may also occur when these dried materials are ingested, contacted with the eyes, or absorbed through cuts and breaks in the skin. The disease results in fever, muscle pain, coughing, and acute respiratory distress. Approximately 100 cases have been confirmed in 12 states since the disease was first identified in 1993. Of this number, at least 26 infected individuals died. This virus has been classified as a biosafety level four (the maximum level) agent for viral growth research.

Personnel may come in contact with rodents and their excrement in buildings, toolboxes, and vehicles. Personnel will not attempt to pick up or capture rodents to reduce the risk of being bitten. Where there is a potential for rodent nests and droppings in buildings, Level C PPE will be used as described below.

Personal Protective Equipment

All personnel performing operations on site shall be required to use the appropriate level of PPE, as specified below. The PPE levels presented in this Section will be reassessed and the ECC CESHM contacted if any of the following events occur.

1. Appearance of previously unidentified chemicals or conditions.

2. Changes in ambient weather conditions which impact the use of assigned PPE.

3. Introduction of new task or expansion of a previously assigned/evaluated task.

With the exception of inspection of building interiors, all tasks will be conducted in Level D PPE. The Level D PPE to be used will consist of the following:

1. Work clothes or coveralls;

2. Nitrile gloves (to be used when collecting soil samples or as needed to prevent skin contact with chemicals);

3. Leather work gloves (to be used whenever hands require protection from cuts and abrasions);

4. Hard hat (required anywhere an overhead hazard exists);

5. Safety-toe, steel-shank work boots; and

6. Safety glasses (to be used wherever an eye impact hazard exists.

When inspecting building interiors with the potential for exposure to asbestos or rodent nests/droppings, Level C PPE will be used. The Level C PPE to be used will consist of the following:

1. Same PPE as specified for Level D;

2. Tyvek suit;

3. Air-purifying respirator/mask with P-100/HEPA filter(s).

For this project, no additional or special levels of PPE are being specified for emergency situations.

Exposure Monitoring/Air Sampling

On-site monitoring will be performed using real-time, direct-monitoring during certain site activities to evaluate potential hazards that may be encountered. The on-site monitoring will be used to evaluate the need for upgrading PPE.

A PID/FID (Thermo TVA 1000B) will be used to detect unknown organic vapors in the breathing zone during inspection of building interiors and during soil sample collection. If readings greater than 5 ppm above background are noted in the breathing zone, Level C PPE specified above (with the addition of multi-contaminant/P-100 filter cartridges) will be used.

A gas monitor (oxygen and combustible gas) will be used during the inspection of building interiors. If oxygen-deficient (less than 19.5%) or oxygen-rich (greater than 23.5%) conditions are detected, the building will be evacuated. If combustible gases greater than 10% LEL are detected, the building will be evacuated.

Emergency Response and Contingency Procedures

The potential emergencies that may result during the conduct of site activities are as follows:

- Personal injury associated with sharp objects that may cause cut, scrape, puncture, splinter or laceration injuries;

- Injury or illness associated with site activities and on-site chemical, physical or biological hazards;

- Fire; and/or

- Inclement weather.

The primary means of obtaining off-site emergency services will be through the phone notification of the emergency services and contacts listed in Table 1.

Emergency communications will be available and maintained during all on-site activities. The field team will have radio and cellular phone communication to the FWDA caretakers and the FWDA BEC. In the event of an emergency, the FWDA caretakers will be the primary contact to summon off-site emergency services.

During the daily safety briefing, the SSHO will review the instructions for obtaining medical attention and transporting site personnel to the designated medical facilities. All site vehicles shall be provided with copies of the site map generated by the SSHO and the directions provided in this Section along with the hospital route map. Not all on-site injuries will require EMS and ambulance transportation to the hospital. If the SSHO determines that an injured party can be transported to medical attention using a site vehicle, the directions presented below and the Hospital Route Map will be used to transport the injured party to Rehoboth McKinley Christian Medical Center in Gallup, NM. Prior to the initiation of site activities, and periodically thereafter, the hospital route will be driven by the SSHO to ensure that the route to the hospital is free of unanticipated delays.

Directions and a hospital route map are included in Attachment 5.

TABLE 1: EMERGENCY TELEPHONE NUMBERS

Service/Contact	Agency/Position	Telephone Number
General Emergency Contact	FWDA Caretakers/FWDA BRAC Environmental Coordinator	Via radio communication Or Phone (505) 488-5411
Land or Air Ambulance	Med Star	911
Emergency Hospital Care	Rehoboth McKinley Christian Medical Center	(505) 863-7141 (Em. Room)
Minor Injuries	Rehoboth McKinley Christian Medical Center	(505) 863-7000 (General) (505) 863-7141 (Em. Room)
Police	McKinley County Sheriff's Office	911 (505) 722-7205
Police	New Mexico State Police	911 (505) 863-9353
Fire	Fort Wingate Fire Department	911 (505) 488-5261
Mark Patterson	FWDA BRAC Environmental Coordinator	(505) 488-5411
Steven Smith	USACE Project Manager	(817) 886-1879
Mike Scoville	USACE Site Manager	
David Holladay	USACE Military Munitions Safety Specialist	(505) 342-3463
Martin Eastridge	Missile Defense Agency (MDA) Caretaker	(505) 649-0352
Frank	TPL	(505) 488-5487
Eric Kammerer	TPMC Project Manager	(610) 659-5763
Bob Diekmann	TPMC SUXOS	(605) 484-7762
Steve Deeter	TPMC Site Manager/SSHO	(610) 517-3997 (610) 308-4060
Sumit Pokhrel	TPMC Field Crew	(732) 406-1295

APPENDIX C
ANALYTICAL RESULTS

Analytical Report For 606159

for

TerranearPMC

Project Manager : Eric Kammerer

Project Name : Parcel 21 Release Assessment Sampling

July 17, 2006

GPL

Laboratories

GPL Laboratories, LLLP Certifies that the test results meet all requirements of the NELAC Standards unless otherwise noted.

Reviewed by,
Project Manager

Approved by,
Laboratory Director

7210A Corporate CT Frederick, MD 21703 Phone (301) 694-5310 Fax: (301) 620-0731
www.gplab.com

Summary of Analytical Results

Client ID: B510SO001
GPL ID: 606159-001-001-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: CLP_SOLIDS
Date Analyzed: 06/27/2006
Time Analyzed: 10:33
Analysis Batch: 89252

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Percent Solids	99	1.0	%		1

Summary of Analytical Results

Client ID: B509SO001
GPL ID: 606159-002-002-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: CLP_SOLIDS
Date Analyzed: 06/27/2006
Time Analyzed: 10:33
Analysis Batch: 89252

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Percent Solids	99	1.0	%		1

Summary of Analytical Results

Client ID: B509SO002
GPL ID: 606159-003-003-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: CLP_SOLIDS
Date Analyzed: 06/27/2006
Time Analyzed: 10:33
Analysis Batch: 89252

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Percent Solids	100	1.0	%		1

Summary of Analytical Results

Client ID: B508SO001
GPL ID: 606159-004-004-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: CLP_SOLIDS
Date Analyzed: 06/27/2006
Time Analyzed: 10:33
Analysis Batch: 89252

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Percent Solids	98	1.0	%		1

Summary of Analytical Results

Client ID: B508SO002
GPL ID: 606159-005-005-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: CLP_SOLIDS
Date Analyzed: 06/27/2006
Time Analyzed: 10:33
Analysis Batch: 89252

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Percent Solids	99	1.0	%		1

Summary of Analytical Results

Client ID: B514SO001
GPL ID: 606159-006-006-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: CLP_SOLIDS
Date Analyzed: 06/27/2006
Time Analyzed: 10:33
Analysis Batch: 89252

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Percent Solids	99	1.0	%		1

Summary of Analytical Results

Client ID: B514SO002
GPL ID: 606159-007-007-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: CLP_SOLIDS
Date Analyzed: 06/27/2006
Time Analyzed: 10:33
Analysis Batch: 89252

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Percent Solids	99	1.0	%		1

Summary of Analytical Results

Client ID: B509SO001
GPL ID: 606159-002-009-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: E314.0
Date Analyzed: 07/05/2006
Time Analyzed: 16:46
Analysis Batch: 89482

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Perchlorate	BQL	9.8	ug/kg	U	1

Summary of Analytical Results

Client ID: B509SO002
GPL ID: 606159-003-010-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: E314.0
Date Analyzed: 07/05/2006
Time Analyzed: 17:04
Analysis Batch: 89482

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Perchlorate	BQL	9.3	ug/kg	U	1

Summary of Analytical Results

Client ID: B508SO001
GPL ID: 606159-004-011-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: E314.0
Date Analyzed: 07/05/2006
Time Analyzed: 17:21
Analysis Batch: 89482

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Perchlorate	BQL	10	ug/kg	U	1

Summary of Analytical Results

Client ID: B508SO002
GPL ID: 606159-005-012-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: E314.0
Date Analyzed: 07/05/2006
Time Analyzed: 17:39
Analysis Batch: 89482

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Perchlorate	BQL	9.7	ug/kg	U	1

Summary of Analytical Results

Client ID: B514SO001
GPL ID: 606159-006-013-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: E314.0
Date Analyzed: 07/05/2006
Time Analyzed: 17:56
Analysis Batch: 89482

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Perchlorate	BQL	9.1	ug/kg	U	1

Summary of Analytical Results

Client ID: B514SO002
GPL ID: 606159-007-014-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: E314.0
Date Analyzed: 07/05/2006
Time Analyzed: 18:13
Analysis Batch: 89482

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Perchlorate	BQL	9.7	ug/kg	U	1

Summary of Analytical Results

Client ID: B509SO001
GPL ID: 606159-002-009-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: E353.2
Date Analyzed: 07/12/2006
Time Analyzed: 16:16
Analysis Batch: 89704

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Nitrate/Nitrite	15	0.50	mg/kg		1

Summary of Analytical Results

Client ID: B509SO002
GPL ID: 606159-003-010-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: E353.2
Date Analyzed: 07/12/2006
Time Analyzed: 16:16
Analysis Batch: 89704

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Nitrate/Nitrite	4.5	0.49	mg/kg		1

Summary of Analytical Results

Client ID: B508SO001
GPL ID: 606159-004-011-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: E353.2
Date Analyzed: 07/12/2006
Time Analyzed: 16:16
Analysis Batch: 89704

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Nitrate/Nitrite	2.3	0.50	mg/kg		1

Summary of Analytical Results

Client ID: B508SO002
GPL ID: 606159-005-012-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: E353.2
Date Analyzed: 07/12/2006
Time Analyzed: 16:16
Analysis Batch: 89704

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Nitrate/Nitrite	27	4.9	mg/kg		10

Summary of Analytical Results

Client ID: B514SO001
GPL ID: 606159-006-013-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: E353.2
Date Analyzed: 07/12/2006
Time Analyzed: 16:16
Analysis Batch: 89704

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Nitrate/Nitrite	9.8	0.49	mg/kg		1

Summary of Analytical Results

Client ID: B514SO002
GPL ID: 606159-007-014-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: E353.2
Date Analyzed: 07/12/2006
Time Analyzed: 16:16
Analysis Batch: 89704

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Nitrate/Nitrite	6.6	0.50	mg/kg		1

Summary of Analytical Results

Client ID: B509SO001
GPL ID: 606159-002-009-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: IAAP
Date Analyzed: 07/05/2006
Time Analyzed: 16:14
Analysis Batch: 89487

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Nitrocellulose	5300	32	mg/kg		1

Summary of Analytical Results

Client ID: B509SO002
GPL ID: 606159-003-010-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: IAAP
Date Analyzed: 07/05/2006
Time Analyzed: 16:14
Analysis Batch: 89487

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Nitrocellulose	BQL	30	mg/kg	U	1

Summary of Analytical Results

Client ID: B508SO001
GPL ID: 606159-004-011-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: IAAP
Date Analyzed: 07/05/2006
Time Analyzed: 16:14
Analysis Batch: 89487

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Nitrocellulose	62	32	mg/kg		1

Summary of Analytical Results

Client ID: B508SO002
GPL ID: 606159-005-012-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: IAAP
Date Analyzed: 07/05/2006
Time Analyzed: 16:14
Analysis Batch: 89487

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Nitrocellulose	41	30	mg/kg		1

Summary of Analytical Results

Client ID: B514SO001
GPL ID: 606159-006-013-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: IAAP
Date Analyzed: 07/05/2006
Time Analyzed: 16:14
Analysis Batch: 89487

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Nitrocellulose	270	30	mg/kg		1

Summary of Analytical Results

Client ID: B514SO002
GPL ID: 606159-007-014-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: IAAP
Date Analyzed: 07/05/2006
Time Analyzed: 16:14
Analysis Batch: 89487

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Nitrocellulose	BQL	28	mg/kg	U	1

Summary of Analytical Results

Client ID: B510SO001
GPL ID: 606159-001-001-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: SW3550
Prep Date: 06/27/2006
Prep Time: 00:00
Prep Batch: 82339

Analytical Method: SW8082
Date Analyzed: 06/28/2006
Time Analyzed: 14:10
Analysis Batch: 89386

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
PCB-1016	BQL	17	ug/kg	U	1
PCB-1221	BQL	17	ug/kg	U	1
PCB-1232	BQL	17	ug/kg	U	1
PCB-1242	BQL	17	ug/kg	U	1
PCB-1248	BQL	17	ug/kg	U	1
PCB-1254	BQL	17	ug/kg	U	1
PCB-1260	BQL	17	ug/kg	U	1

Summary of Analytical Results

Client ID: B509SO001DL
GPL ID: 606159-002-002-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: SW3550
Prep Date: 06/27/2006
Prep Time: 00:00
Prep Batch: 82339

Analytical Method: SW8082
Date Analyzed: 06/30/2006
Time Analyzed: 09:20
Analysis Batch: 89386

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
PCB-1016	BQL	170	ug/kg	U	10
PCB-1221	BQL	170	ug/kg	U	10
PCB-1232	BQL	170	ug/kg	U	10
PCB-1242	BQL	170	ug/kg	U	10
PCB-1248	BQL	170	ug/kg	U	10
PCB-1254	2300	170	ug/kg		10
PCB-1260	BQL	170	ug/kg	U	10

Summary of Analytical Results

Client ID: B509SO002
GPL ID: 606159-003-003-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: SW3550
Prep Date: 06/27/2006
Prep Time: 00:00
Prep Batch: 82339

Analytical Method: SW8082
Date Analyzed: 06/28/2006
Time Analyzed: 15:09
Analysis Batch: 89386

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
PCB-1016	BQL	17	ug/kg	U	1
PCB-1221	BQL	17	ug/kg	U	1
PCB-1232	BQL	17	ug/kg	U	1
PCB-1242	BQL	17	ug/kg	U	1
PCB-1248	BQL	17	ug/kg	U	1
PCB-1254	BQL	17	ug/kg	U	1
PCB-1260	BQL	17	ug/kg	U	1

Summary of Analytical Results

Client ID: B508SO001
GPL ID: 606159-004-004-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: SW3550
Prep Date: 06/27/2006
Prep Time: 00:00
Prep Batch: 82339

Analytical Method: SW8082
Date Analyzed: 06/28/2006
Time Analyzed: 15:39
Analysis Batch: 89386

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
PCB-1016	BQL	17	ug/kg	U	1
PCB-1221	BQL	17	ug/kg	U	1
PCB-1232	BQL	17	ug/kg	U	1
PCB-1242	BQL	17	ug/kg	U	1
PCB-1248	BQL	17	ug/kg	U	1
PCB-1254	BQL	17	ug/kg	U	1
PCB-1260	BQL	17	ug/kg	U	1

Summary of Analytical Results

Client ID: B508SO002
GPL ID: 606159-005-005-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: SW3550
Prep Date: 06/27/2006
Prep Time: 00:00
Prep Batch: 82339

Analytical Method: SW8082
Date Analyzed: 06/28/2006
Time Analyzed: 16:09
Analysis Batch: 89386

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
PCB-1016	BQL	17	ug/kg	U	1
PCB-1221	BQL	17	ug/kg	U	1
PCB-1232	BQL	17	ug/kg	U	1
PCB-1242	BQL	17	ug/kg	U	1
PCB-1248	BQL	17	ug/kg	U	1
PCB-1254	BQL	17	ug/kg	U	1
PCB-1260	BQL	17	ug/kg	U	1

Summary of Analytical Results

Client ID: B514SO001
GPL ID: 606159-006-006-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: SW3550
Prep Date: 06/27/2006
Prep Time: 00:00
Prep Batch: 82339

Analytical Method: SW8082
Date Analyzed: 06/28/2006
Time Analyzed: 16:38
Analysis Batch: 89386

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
PCB-1016	BQL	17	ug/kg	U	1
PCB-1221	BQL	17	ug/kg	U	1
PCB-1232	BQL	17	ug/kg	U	1
PCB-1242	BQL	17	ug/kg	U	1
PCB-1248	BQL	17	ug/kg	U	1
PCB-1254	BQL	17	ug/kg	U	1
PCB-1260	30	17	ug/kg	P	1

Summary of Analytical Results

Client ID: B514SO002
GPL ID: 606159-007-007-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: SW3550
Prep Date: 06/27/2006
Prep Time: 00:00
Prep Batch: 82339

Analytical Method: SW8082
Date Analyzed: 06/28/2006
Time Analyzed: 17:08
Analysis Batch: 89386

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
PCB-1016	BQL	17	ug/kg	U	1
PCB-1221	BQL	17	ug/kg	U	1
PCB-1232	BQL	17	ug/kg	U	1
PCB-1242	BQL	17	ug/kg	U	1
PCB-1248	BQL	17	ug/kg	U	1
PCB-1254	BQL	17	ug/kg	U	1
PCB-1260	BQL	17	ug/kg	U	1

Summary of Analytical Results

Client ID: B510SO001
GPL ID: 606159-001-001-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: SW3550
Prep Date: 06/27/2006
Prep Time: 08:48
Prep Batch: 82320

Analytical Method: SW8270C
Date Analyzed: 07/07/2006
Time Analyzed: 16:35
Analysis Batch: 89564

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
1,1- Biphenyl	BQL	340	ug/kg	U	1
2,2-Oxybis(1-Chloropropane)	BQL	340	ug/kg	U	1
2,4,5-Trichlorophenol	BQL	340	ug/kg	U	1
2,4,6-Trichlorophenol	BQL	340	ug/kg	U	1
2,4-Dichlorophenol	BQL	340	ug/kg	U	1
2,4-Dimethylphenol	BQL	340	ug/kg	U	1
2,4-Dinitrophenol	BQL	670	ug/kg	U	1
2,4-Dinitrotoluene	580	340	ug/kg		1
2,6-Dinitrotoluene	BQL	340	ug/kg	U	1
2-Chloronaphthalene	BQL	340	ug/kg	U	1
2-Chlorophenol	BQL	340	ug/kg	U	1
2-Methylnaphthalene	BQL	340	ug/kg	U	1
2-Nitroaniline	BQL	340	ug/kg	U	1
2-Nitrophenol	BQL	340	ug/kg	U	1
2-methylphenol	BQL	340	ug/kg	U	1
3,3-Dichlorobenzidine	BQL	670	ug/kg	U	1
3-Nitroaniline	BQL	340	ug/kg	U	1
4,6-dinitro-2-methyl phenol	BQL	670	ug/kg	U	1
4-Bromophenyl-phenylether	BQL	340	ug/kg	U	1
4-Chloroaniline	BQL	340	ug/kg	U	1
4-Chlorophenyl Phenyl Ether	BQL	340	ug/kg	U	1
4-Nitroaniline	BQL	340	ug/kg	U	1
4-Nitrophenol	BQL	670	ug/kg	U	1
4-chloro-3-methylphenol	BQL	340	ug/kg	U	1
4-methylphenol	BQL	340	ug/kg	U	1
Acenaphthene	BQL	340	ug/kg	U	1
Acenaphthylene	BQL	340	ug/kg	U	1
Acetophenone	BQL	340	ug/kg	U	1
Anthracene	BQL	340	ug/kg	U	1
Atrazine	BQL	340	ug/kg	U	1
Benzaldehyde	BQL	340	ug/kg	U	1
Benzo(a)anthracene	BQL	340	ug/kg	U	1
Benzo(a)pyrene	BQL	340	ug/kg	U	1
Benzo(b)fluoranthene	BQL	340	ug/kg	U	1
Benzo(g,h,i)perylene	BQL	340	ug/kg	U	1
Benzo(k)fluoranthene	BQL	340	ug/kg	U	1
Benzyl Butyl Phthalate	BQL	340	ug/kg	U	1
Caprolactam	BQL	340	ug/kg	U	1
Carbazole	BQL	340	ug/kg	U	1

Summary of Analytical Results

Client ID: B510SO001
GPL ID: 606159-001-001-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: SW3550
Prep Date: 06/27/2006
Prep Time: 08:48
Prep Batch: 82320

Analytical Method: SW8270C
Date Analyzed: 07/07/2006
Time Analyzed: 16:35
Analysis Batch: 89564

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Chrysene	BQL	340	ug/kg	U	1
Dibenz(a,h)Anthracene	BQL	340	ug/kg	U	1
Dibenzofuran	BQL	340	ug/kg	U	1
Diethyl Phthalate	BQL	340	ug/kg	U	1
Dimethyl Phthalate	BQL	340	ug/kg	U	1
Fluoranthene	BQL	340	ug/kg	U	1
Fluorene	BQL	340	ug/kg	U	1
Hexachlorobenzene	BQL	340	ug/kg	U	1
Hexachlorobutadiene	BQL	340	ug/kg	U	1
Hexachlorocyclopentadiene	BQL	340	ug/kg	U	1
Hexachloroethane	BQL	340	ug/kg	U	1
Indeno(1,2,3-c,d)Pyrene	BQL	340	ug/kg	U	1
Isophorone	BQL	340	ug/kg	U	1
Naphthalene	BQL	340	ug/kg	U	1
Nitrobenzene	BQL	340	ug/kg	U	1
Pentachlorophenol	BQL	670	ug/kg	U	1
Phenanthrene	BQL	340	ug/kg	U	1
Phenol	BQL	340	ug/kg	U	1
Pyrene	BQL	340	ug/kg	U	1
bis(2-chloroethoxy) methane	BQL	340	ug/kg	U	1
bis(2-chloroethyl) ether	BQL	340	ug/kg	U	1
bis(2-ethylhexyl) phthalate	BQL	340	ug/kg	U	1
di-n-Butyl Phthalate	1100	340	ug/kg		1
di-n-Octyl Phthalate	BQL	340	ug/kg	U	1
n-Nitrosodi-n-Propylamine	BQL	340	ug/kg	U	1
n-Nitrosodiphenylamine	29	340	ug/kg	J	1

Summary of Analytical Results

Client ID: B509SO001
GPL ID: 606159-002-002-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: SW3550
Prep Date: 06/27/2006
Prep Time: 08:48
Prep Batch: 82320

Analytical Method: SW8270C
Date Analyzed: 07/07/2006
Time Analyzed: 20:38
Analysis Batch: 89564

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
1,1- Biphenyl	BQL	340	ug/kg	U	1
2,2-Oxybis(1-Chloropropane)	BQL	340	ug/kg	U	1
2,4,5-Trichlorophenol	BQL	340	ug/kg	U	1
2,4,6-Trichlorophenol	BQL	340	ug/kg	U	1
2,4-Dichlorophenol	BQL	340	ug/kg	U	1
2,4-Dimethylphenol	BQL	340	ug/kg	U	1
2,4-Dinitrophenol	BQL	680	ug/kg	U	1
2,4-Dinitrotoluene	140000	340	ug/kg	E	1
2,6-Dinitrotoluene	8700	340	ug/kg	E	1
2-Chloronaphthalene	BQL	340	ug/kg	U	1
2-Chlorophenol	BQL	340	ug/kg	U	1
2-Methylnaphthalene	BQL	340	ug/kg	U	1
2-Nitroaniline	BQL	340	ug/kg	U	1
2-Nitrophenol	BQL	340	ug/kg	U	1
2-methylphenol	BQL	340	ug/kg	U	1
3,3-Dichlorobenzidine	BQL	680	ug/kg	U	1
3-Nitroaniline	BQL	340	ug/kg	U	1
4,6-dinitro-2-methyl phenol	BQL	680	ug/kg	U	1
4-Bromophenyl-phenylether	BQL	340	ug/kg	U	1
4-Chloroaniline	BQL	340	ug/kg	U	1
4-Chlorophenyl Phenyl Ether	BQL	340	ug/kg	U	1
4-Nitroaniline	BQL	340	ug/kg	U	1
4-Nitrophenol	BQL	680	ug/kg	U	1
4-chloro-3-methylphenol	BQL	340	ug/kg	U	1
4-methylphenol	BQL	340	ug/kg	U	1
Acenaphthene	BQL	340	ug/kg	U	1
Acenaphthylene	BQL	340	ug/kg	U	1
Acetophenone	BQL	340	ug/kg	U	1
Anthracene	BQL	340	ug/kg	U	1
Atrazine	BQL	340	ug/kg	U	1
Benzaldehyde	BQL	340	ug/kg	U	1
Benzo(a)anthracene	BQL	340	ug/kg	U	1
Benzo(a)pyrene	BQL	340	ug/kg	U	1
Benzo(b)fluoranthene	BQL	340	ug/kg	U	1
Benzo(g,h,i)perylene	BQL	340	ug/kg	U	1
Benzo(k)fluoranthene	BQL	340	ug/kg	U	1
Benzyl Butyl Phthalate	74	340	ug/kg	J	1
Caprolactam	BQL	340	ug/kg	U	1
Carbazole	BQL	340	ug/kg	U	1

Summary of Analytical Results

Client ID: B509SO001
GPL ID: 606159-002-002-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: SW3550
Prep Date: 06/27/2006
Prep Time: 08:48
Prep Batch: 82320

Analytical Method: SW8270C
Date Analyzed: 07/07/2006
Time Analyzed: 20:38
Analysis Batch: 89564

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Chrysene	BQL	340	ug/kg	U	1
Dibenz(a,h)Anthracene	BQL	340	ug/kg	U	1
Dibenzofuran	BQL	340	ug/kg	U	1
Diethyl Phthalate	BQL	340	ug/kg	U	1
Dimethyl Phthalate	BQL	340	ug/kg	U	1
Fluoranthene	44	340	ug/kg	J	1
Fluorene	BQL	340	ug/kg	U	1
Hexachlorobenzene	BQL	340	ug/kg	U	1
Hexachlorobutadiene	BQL	340	ug/kg	U	1
Hexachlorocyclopentadiene	BQL	340	ug/kg	U	1
Hexachloroethane	BQL	340	ug/kg	U	1
Indeno(1,2,3-c,d)Pyrene	BQL	340	ug/kg	U	1
Isophorone	BQL	340	ug/kg	U	1
Naphthalene	BQL	340	ug/kg	U	1
Nitrobenzene	BQL	340	ug/kg	U	1
Pentachlorophenol	BQL	680	ug/kg	U	1
Phenanthrene	BQL	340	ug/kg	U	1
Phenol	BQL	340	ug/kg	U	1
Pyrene	38	340	ug/kg	J	1
bis(2-chloroethoxy) methane	BQL	340	ug/kg	U	1
bis(2-chloroethyl) ether	BQL	340	ug/kg	U	1
bis(2-ethylhexyl) phthalate	640	340	ug/kg		1
di-n-Butyl Phthalate	52000	340	ug/kg	E	1
di-n-Octyl Phthalate	BQL	340	ug/kg	U	1
n-Nitrosodi-n-Propylamine	BQL	340	ug/kg	U	1
n-Nitrosodiphenylamine	17000	340	ug/kg	E	1

Summary of Analytical Results

Client ID: B509SO002
GPL ID: 606159-003-003-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: SW3550
Prep Date: 06/27/2006
Prep Time: 08:48
Prep Batch: 82320

Analytical Method: SW8270C
Date Analyzed: 07/07/2006
Time Analyzed: 19:17
Analysis Batch: 89564

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
1,1- Biphenyl	BQL	330	ug/kg	U	1
2,2-Oxybis(1-Chloropropane)	BQL	330	ug/kg	U	1
2,4,5-Trichlorophenol	BQL	330	ug/kg	U	1
2,4,6-Trichlorophenol	BQL	330	ug/kg	U	1
2,4-Dichlorophenol	BQL	330	ug/kg	U	1
2,4-Dimethylphenol	BQL	330	ug/kg	U	1
2,4-Dinitrophenol	BQL	670	ug/kg	U	1
2,4-Dinitrotoluene	41	330	ug/kg	J	1
2,6-Dinitrotoluene	BQL	330	ug/kg	U	1
2-Chloronaphthalene	BQL	330	ug/kg	U	1
2-Chlorophenol	BQL	330	ug/kg	U	1
2-Methylnaphthalene	BQL	330	ug/kg	U	1
2-Nitroaniline	BQL	330	ug/kg	U	1
2-Nitrophenol	BQL	330	ug/kg	U	1
2-methylphenol	BQL	330	ug/kg	U	1
3,3-Dichlorobenzidine	BQL	670	ug/kg	U	1
3-Nitroaniline	BQL	330	ug/kg	U	1
4,6-dinitro-2-methyl phenol	BQL	670	ug/kg	U	1
4-Bromophenyl-phenylether	BQL	330	ug/kg	U	1
4-Chloroaniline	BQL	330	ug/kg	U	1
4-Chlorophenyl Phenyl Ether	BQL	330	ug/kg	U	1
4-Nitroaniline	BQL	330	ug/kg	U	1
4-Nitrophenol	BQL	670	ug/kg	U	1
4-chloro-3-methylphenol	BQL	330	ug/kg	U	1
4-methylphenol	BQL	330	ug/kg	U	1
Acenaphthene	BQL	330	ug/kg	U	1
Acenaphthylene	BQL	330	ug/kg	U	1
Acetophenone	BQL	330	ug/kg	U	1
Anthracene	BQL	330	ug/kg	U	1
Atrazine	BQL	330	ug/kg	U	1
Benzaldehyde	BQL	330	ug/kg	U	1
Benzo(a)anthracene	BQL	330	ug/kg	U	1
Benzo(a)pyrene	BQL	330	ug/kg	U	1
Benzo(b)fluoranthene	BQL	330	ug/kg	U	1
Benzo(g,h,i)perylene	BQL	330	ug/kg	U	1
Benzo(k)fluoranthene	BQL	330	ug/kg	U	1
Benzyl Butyl Phthalate	BQL	330	ug/kg	U	1
Caprolactam	BQL	330	ug/kg	U	1
Carbazole	BQL	330	ug/kg	U	1

Summary of Analytical Results

Client ID: B509SO002
GPL ID: 606159-003-003-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: SW3550
Prep Date: 06/27/2006
Prep Time: 08:48
Prep Batch: 82320

Analytical Method: SW8270C
Date Analyzed: 07/07/2006
Time Analyzed: 19:17
Analysis Batch: 89564

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Chrysene	BQL	330	ug/kg	U	1
Dibenz(a,h)Anthracene	BQL	330	ug/kg	U	1
Dibenzofuran	BQL	330	ug/kg	U	1
Diethyl Phthalate	BQL	330	ug/kg	U	1
Dimethyl Phthalate	BQL	330	ug/kg	U	1
Fluoranthene	BQL	330	ug/kg	U	1
Fluorene	BQL	330	ug/kg	U	1
Hexachlorobenzene	BQL	330	ug/kg	U	1
Hexachlorobutadiene	BQL	330	ug/kg	U	1
Hexachlorocyclopentadiene	BQL	330	ug/kg	U	1
Hexachloroethane	BQL	330	ug/kg	U	1
Indeno(1,2,3-c,d)Pyrene	BQL	330	ug/kg	U	1
Isophorone	BQL	330	ug/kg	U	1
Naphthalene	BQL	330	ug/kg	U	1
Nitrobenzene	BQL	330	ug/kg	U	1
Pentachlorophenol	BQL	670	ug/kg	U	1
Phenanthrene	BQL	330	ug/kg	U	1
Phenol	BQL	330	ug/kg	U	1
Pyrene	BQL	330	ug/kg	U	1
bis(2-chloroethoxy) methane	BQL	330	ug/kg	U	1
bis(2-chloroethyl) ether	BQL	330	ug/kg	U	1
bis(2-ethylhexyl) phthalate	BQL	330	ug/kg	U	1
di-n-Butyl Phthalate	180	330	ug/kg	J	1
di-n-Octyl Phthalate	BQL	330	ug/kg	U	1
n-Nitrosodi-n-Propylamine	BQL	330	ug/kg	U	1
n-Nitrosodiphenylamine	BQL	330	ug/kg	U	1

Summary of Analytical Results

Client ID: B508SO001
GPL ID: 606159-004-004-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: SW3550
Prep Date: 06/27/2006
Prep Time: 08:48
Prep Batch: 82320

Analytical Method: SW8270C
Date Analyzed: 07/07/2006
Time Analyzed: 19:58
Analysis Batch: 89564

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
1,1- Biphenyl	BQL	340	ug/kg	U	1
2,2-Oxybis(1-Chloropropane)	BQL	340	ug/kg	U	1
2,4,5-Trichlorophenol	BQL	340	ug/kg	U	1
2,4,6-Trichlorophenol	BQL	340	ug/kg	U	1
2,4-Dichlorophenol	BQL	340	ug/kg	U	1
2,4-Dimethylphenol	BQL	340	ug/kg	U	1
2,4-Dinitrophenol	BQL	680	ug/kg	U	1
2,4-Dinitrotoluene	1300	340	ug/kg		1
2,6-Dinitrotoluene	44	340	ug/kg	J	1
2-Chloronaphthalene	BQL	340	ug/kg	U	1
2-Chlorophenol	BQL	340	ug/kg	U	1
2-Methylnaphthalene	BQL	340	ug/kg	U	1
2-Nitroaniline	BQL	340	ug/kg	U	1
2-Nitrophenol	BQL	340	ug/kg	U	1
2-methylphenol	BQL	340	ug/kg	U	1
3,3-Dichlorobenzidine	BQL	680	ug/kg	U	1
3-Nitroaniline	BQL	340	ug/kg	U	1
4,6-dinitro-2-methyl phenol	BQL	680	ug/kg	U	1
4-Bromophenyl-phenylether	BQL	340	ug/kg	U	1
4-Chloroaniline	BQL	340	ug/kg	U	1
4-Chlorophenyl Phenyl Ether	BQL	340	ug/kg	U	1
4-Nitroaniline	BQL	340	ug/kg	U	1
4-Nitrophenol	BQL	680	ug/kg	U	1
4-chloro-3-methylphenol	BQL	340	ug/kg	U	1
4-methylphenol	BQL	340	ug/kg	U	1
Acenaphthene	BQL	340	ug/kg	U	1
Acenaphthylene	BQL	340	ug/kg	U	1
Acetophenone	BQL	340	ug/kg	U	1
Anthracene	BQL	340	ug/kg	U	1
Atrazine	BQL	340	ug/kg	U	1
Benzaldehyde	BQL	340	ug/kg	U	1
Benzo(a)anthracene	BQL	340	ug/kg	U	1
Benzo(a)pyrene	BQL	340	ug/kg	U	1
Benzo(b)fluoranthene	BQL	340	ug/kg	U	1
Benzo(g,h,i)perylene	BQL	340	ug/kg	U	1
Benzo(k)fluoranthene	BQL	340	ug/kg	U	1
Benzyl Butyl Phthalate	BQL	340	ug/kg	U	1
Caprolactam	BQL	340	ug/kg	U	1
Carbazole	BQL	340	ug/kg	U	1

Summary of Analytical Results

Client ID: B508SO001
GPL ID: 606159-004-004-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: SW3550
Prep Date: 06/27/2006
Prep Time: 08:48
Prep Batch: 82320

Analytical Method: SW8270C
Date Analyzed: 07/07/2006
Time Analyzed: 19:58
Analysis Batch: 89564

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Chrysene	BQL	340	ug/kg	U	1
Dibenz(a,h)Anthracene	BQL	340	ug/kg	U	1
Dibenzofuran	BQL	340	ug/kg	U	1
Diethyl Phthalate	BQL	340	ug/kg	U	1
Dimethyl Phthalate	BQL	340	ug/kg	U	1
Fluoranthene	BQL	340	ug/kg	U	1
Fluorene	BQL	340	ug/kg	U	1
Hexachlorobenzene	BQL	340	ug/kg	U	1
Hexachlorobutadiene	BQL	340	ug/kg	U	1
Hexachlorocyclopentadiene	BQL	340	ug/kg	U	1
Hexachloroethane	BQL	340	ug/kg	U	1
Indeno(1,2,3-c,d)Pyrene	BQL	340	ug/kg	U	1
Isophorone	BQL	340	ug/kg	U	1
Naphthalene	BQL	340	ug/kg	U	1
Nitrobenzene	BQL	340	ug/kg	U	1
Pentachlorophenol	BQL	680	ug/kg	U	1
Phenanthrene	BQL	340	ug/kg	U	1
Phenol	BQL	340	ug/kg	U	1
Pyrene	BQL	340	ug/kg	U	1
bis(2-chloroethoxy) methane	BQL	340	ug/kg	U	1
bis(2-chloroethyl) ether	BQL	340	ug/kg	U	1
bis(2-ethylhexyl) phthalate	270	340	ug/kg	J	1
di-n-Butyl Phthalate	1900	340	ug/kg		1
di-n-Octyl Phthalate	BQL	340	ug/kg	U	1
n-Nitrosodi-n-Propylamine	BQL	340	ug/kg	U	1
n-Nitrosodiphenylamine	140	340	ug/kg	J	1

Summary of Analytical Results

Client ID: B508SO002
GPL ID: 606159-005-005-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: SW3550
Prep Date: 06/27/2006
Prep Time: 08:48
Prep Batch: 82320

Analytical Method: SW8270C
Date Analyzed: 07/07/2006
Time Analyzed: 18:37
Analysis Batch: 89564

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
1,1- Biphenyl	BQL	340	ug/kg	U	1
2,2-Oxybis(1-Chloropropane)	BQL	340	ug/kg	U	1
2,4,5-Trichlorophenol	BQL	340	ug/kg	U	1
2,4,6-Trichlorophenol	BQL	340	ug/kg	U	1
2,4-Dichlorophenol	BQL	340	ug/kg	U	1
2,4-Dimethylphenol	BQL	340	ug/kg	U	1
2,4-Dinitrophenol	BQL	670	ug/kg	U	1
2,4-Dinitrotoluene	BQL	340	ug/kg	U	1
2,6-Dinitrotoluene	BQL	340	ug/kg	U	1
2-Chloronaphthalene	BQL	340	ug/kg	U	1
2-Chlorophenol	BQL	340	ug/kg	U	1
2-Methylnaphthalene	BQL	340	ug/kg	U	1
2-Nitroaniline	BQL	340	ug/kg	U	1
2-Nitrophenol	BQL	340	ug/kg	U	1
2-methylphenol	BQL	340	ug/kg	U	1
3,3-Dichlorobenzidine	BQL	670	ug/kg	U	1
3-Nitroaniline	BQL	340	ug/kg	U	1
4,6-dinitro-2-methyl phenol	BQL	670	ug/kg	U	1
4-Bromophenyl-phenylether	BQL	340	ug/kg	U	1
4-Chloroaniline	BQL	340	ug/kg	U	1
4-Chlorophenyl Phenyl Ether	BQL	340	ug/kg	U	1
4-Nitroaniline	BQL	340	ug/kg	U	1
4-Nitrophenol	BQL	670	ug/kg	U	1
4-chloro-3-methylphenol	BQL	340	ug/kg	U	1
4-methylphenol	BQL	340	ug/kg	U	1
Acenaphthene	BQL	340	ug/kg	U	1
Acenaphthylene	BQL	340	ug/kg	U	1
Acetophenone	BQL	340	ug/kg	U	1
Anthracene	BQL	340	ug/kg	U	1
Atrazine	BQL	340	ug/kg	U	1
Benzaldehyde	BQL	340	ug/kg	U	1
Benzo(a)anthracene	BQL	340	ug/kg	U	1
Benzo(a)pyrene	BQL	340	ug/kg	U	1
Benzo(b)fluoranthene	BQL	340	ug/kg	U	1
Benzo(g,h,i)perylene	BQL	340	ug/kg	U	1
Benzo(k)fluoranthene	BQL	340	ug/kg	U	1
Benzyl Butyl Phthalate	BQL	340	ug/kg	U	1
Caprolactam	BQL	340	ug/kg	U	1
Carbazole	BQL	340	ug/kg	U	1

Summary of Analytical Results

Client ID: B508SO002
GPL ID: 606159-005-005-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: SW3550
Prep Date: 06/27/2006
Prep Time: 08:48
Prep Batch: 82320

Analytical Method: SW8270C
Date Analyzed: 07/07/2006
Time Analyzed: 18:37
Analysis Batch: 89564

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Chrysene	BQL	340	ug/kg	U	1
Dibenz(a,h)Anthracene	BQL	340	ug/kg	U	1
Dibenzofuran	BQL	340	ug/kg	U	1
Diethyl Phthalate	BQL	340	ug/kg	U	1
Dimethyl Phthalate	BQL	340	ug/kg	U	1
Fluoranthene	BQL	340	ug/kg	U	1
Fluorene	BQL	340	ug/kg	U	1
Hexachlorobenzene	BQL	340	ug/kg	U	1
Hexachlorobutadiene	BQL	340	ug/kg	U	1
Hexachlorocyclopentadiene	BQL	340	ug/kg	U	1
Hexachloroethane	BQL	340	ug/kg	U	1
Indeno(1,2,3-c,d)Pyrene	BQL	340	ug/kg	U	1
Isophorone	BQL	340	ug/kg	U	1
Naphthalene	BQL	340	ug/kg	U	1
Nitrobenzene	BQL	340	ug/kg	U	1
Pentachlorophenol	BQL	670	ug/kg	U	1
Phenanthrene	BQL	340	ug/kg	U	1
Phenol	BQL	340	ug/kg	U	1
Pyrene	BQL	340	ug/kg	U	1
bis(2-chloroethoxy) methane	BQL	340	ug/kg	U	1
bis(2-chloroethyl) ether	BQL	340	ug/kg	U	1
bis(2-ethylhexyl) phthalate	BQL	340	ug/kg	U	1
di-n-Butyl Phthalate	BQL	340	ug/kg	U	1
di-n-Octyl Phthalate	BQL	340	ug/kg	U	1
n-Nitrosodi-n-Propylamine	BQL	340	ug/kg	U	1
n-Nitrosodiphenylamine	BQL	340	ug/kg	U	1

Summary of Analytical Results

Client ID: B514SO001
GPL ID: 606159-006-006-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: SW3550
Prep Date: 06/27/2006
Prep Time: 08:48
Prep Batch: 82320

Analytical Method: SW8270C
Date Analyzed: 07/07/2006
Time Analyzed: 21:59
Analysis Batch: 89564

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
1,1- Biphenyl	BQL	340	ug/kg	U	1
2,2-Oxybis(1-Chloropropane)	BQL	340	ug/kg	U	1
2,4,5-Trichlorophenol	BQL	340	ug/kg	U	1
2,4,6-Trichlorophenol	BQL	340	ug/kg	U	1
2,4-Dichlorophenol	BQL	340	ug/kg	U	1
2,4-Dimethylphenol	BQL	340	ug/kg	U	1
2,4-Dinitrophenol	BQL	670	ug/kg	U	1
2,4-Dinitrotoluene	BQL	340	ug/kg	U	1
2,6-Dinitrotoluene	BQL	340	ug/kg	U	1
2-Chloronaphthalene	BQL	340	ug/kg	U	1
2-Chlorophenol	BQL	340	ug/kg	U	1
2-Methylnaphthalene	BQL	340	ug/kg	U	1
2-Nitroaniline	BQL	340	ug/kg	U	1
2-Nitrophenol	BQL	340	ug/kg	U	1
2-methylphenol	BQL	340	ug/kg	U	1
3,3-Dichlorobenzidine	BQL	670	ug/kg	U	1
3-Nitroaniline	BQL	340	ug/kg	U	1
4,6-dinitro-2-methyl phenol	BQL	670	ug/kg	U	1
4-Bromophenyl-phenylether	BQL	340	ug/kg	U	1
4-Chloroaniline	BQL	340	ug/kg	U	1
4-Chlorophenyl Phenyl Ether	BQL	340	ug/kg	U	1
4-Nitroaniline	BQL	340	ug/kg	U	1
4-Nitrophenol	BQL	670	ug/kg	U	1
4-chloro-3-methylphenol	BQL	340	ug/kg	U	1
4-methylphenol	BQL	340	ug/kg	U	1
Acenaphthene	BQL	340	ug/kg	U	1
Acenaphthylene	BQL	340	ug/kg	U	1
Acetophenone	BQL	340	ug/kg	U	1
Anthracene	BQL	340	ug/kg	U	1
Atrazine	BQL	340	ug/kg	U	1
Benzaldehyde	BQL	340	ug/kg	U	1
Benzo(a)anthracene	BQL	340	ug/kg	U	1
Benzo(a)pyrene	BQL	340	ug/kg	U	1
Benzo(b)fluoranthene	BQL	340	ug/kg	U	1
Benzo(g,h,i)perylene	BQL	340	ug/kg	U	1
Benzo(k)fluoranthene	BQL	340	ug/kg	U	1
Benzyl Butyl Phthalate	BQL	340	ug/kg	U	1
Caprolactam	BQL	340	ug/kg	U	1
Carbazole	BQL	340	ug/kg	U	1

Summary of Analytical Results

Client ID: B514SO001
GPL ID: 606159-006-006-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: SW3550
Prep Date: 06/27/2006
Prep Time: 08:48
Prep Batch: 82320

Analytical Method: SW8270C
Date Analyzed: 07/07/2006
Time Analyzed: 21:59
Analysis Batch: 89564

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Chrysene	BQL	340	ug/kg	U	1
Dibenz(a,h)Anthracene	BQL	340	ug/kg	U	1
Dibenzofuran	BQL	340	ug/kg	U	1
Diethyl Phthalate	BQL	340	ug/kg	U	1
Dimethyl Phthalate	BQL	340	ug/kg	U	1
Fluoranthene	BQL	340	ug/kg	U	1
Fluorene	BQL	340	ug/kg	U	1
Hexachlorobenzene	BQL	340	ug/kg	U	1
Hexachlorobutadiene	BQL	340	ug/kg	U	1
Hexachlorocyclopentadiene	BQL	340	ug/kg	U	1
Hexachloroethane	BQL	340	ug/kg	U	1
Indeno(1,2,3-c,d)Pyrene	BQL	340	ug/kg	U	1
Isophorone	BQL	340	ug/kg	U	1
Naphthalene	BQL	340	ug/kg	U	1
Nitrobenzene	BQL	340	ug/kg	U	1
Pentachlorophenol	BQL	670	ug/kg	U	1
Phenanthrene	BQL	340	ug/kg	U	1
Phenol	BQL	340	ug/kg	U	1
Pyrene	BQL	340	ug/kg	U	1
bis(2-chloroethoxy) methane	BQL	340	ug/kg	U	1
bis(2-chloroethyl) ether	BQL	340	ug/kg	U	1
bis(2-ethylhexyl) phthalate	37	340	ug/kg	J	1
di-n-Butyl Phthalate	BQL	340	ug/kg	U	1
di-n-Octyl Phthalate	BQL	340	ug/kg	U	1
n-Nitrosodi-n-Propylamine	BQL	340	ug/kg	U	1
n-Nitrosodiphenylamine	BQL	340	ug/kg	U	1

Summary of Analytical Results

Client ID: B514SO002
GPL ID: 606159-007-007-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: SW3550
Prep Date: 06/27/2006
Prep Time: 08:48
Prep Batch: 82320

Analytical Method: SW8270C
Date Analyzed: 07/07/2006
Time Analyzed: 21:18
Analysis Batch: 89564

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
1,1- Biphenyl	BQL	340	ug/kg	U	1
2,2-Oxybis(1-Chloropropane)	BQL	340	ug/kg	U	1
2,4,5-Trichlorophenol	BQL	340	ug/kg	U	1
2,4,6-Trichlorophenol	BQL	340	ug/kg	U	1
2,4-Dichlorophenol	BQL	340	ug/kg	U	1
2,4-Dimethylphenol	BQL	340	ug/kg	U	1
2,4-Dinitrophenol	BQL	670	ug/kg	U	1
2,4-Dinitrotoluene	BQL	340	ug/kg	U	1
2,6-Dinitrotoluene	BQL	340	ug/kg	U	1
2-Chloronaphthalene	BQL	340	ug/kg	U	1
2-Chlorophenol	BQL	340	ug/kg	U	1
2-Methylnaphthalene	BQL	340	ug/kg	U	1
2-Nitroaniline	BQL	340	ug/kg	U	1
2-Nitrophenol	BQL	340	ug/kg	U	1
2-methylphenol	BQL	340	ug/kg	U	1
3,3-Dichlorobenzidine	BQL	670	ug/kg	U	1
3-Nitroaniline	BQL	340	ug/kg	U	1
4,6-dinitro-2-methyl phenol	BQL	670	ug/kg	U	1
4-Bromophenyl-phenylether	BQL	340	ug/kg	U	1
4-Chloroaniline	BQL	340	ug/kg	U	1
4-Chlorophenyl Phenyl Ether	BQL	340	ug/kg	U	1
4-Nitroaniline	BQL	340	ug/kg	U	1
4-Nitrophenol	BQL	670	ug/kg	U	1
4-chloro-3-methylphenol	BQL	340	ug/kg	U	1
4-methylphenol	BQL	340	ug/kg	U	1
Acenaphthene	BQL	340	ug/kg	U	1
Acenaphthylene	BQL	340	ug/kg	U	1
Acetophenone	BQL	340	ug/kg	U	1
Anthracene	BQL	340	ug/kg	U	1
Atrazine	BQL	340	ug/kg	U	1
Benzaldehyde	BQL	340	ug/kg	U	1
Benzo(a)anthracene	BQL	340	ug/kg	U	1
Benzo(a)pyrene	BQL	340	ug/kg	U	1
Benzo(b)fluoranthene	BQL	340	ug/kg	U	1
Benzo(g,h,i)perylene	BQL	340	ug/kg	U	1
Benzo(k)fluoranthene	BQL	340	ug/kg	U	1
Benzyl Butyl Phthalate	BQL	340	ug/kg	U	1
Caprolactam	BQL	340	ug/kg	U	1
Carbazole	BQL	340	ug/kg	U	1

Summary of Analytical Results

Client ID: B514SO002
GPL ID: 606159-007-007-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: SW3550
Prep Date: 06/27/2006
Prep Time: 08:48
Prep Batch: 82320

Analytical Method: SW8270C
Date Analyzed: 07/07/2006
Time Analyzed: 21:18
Analysis Batch: 89564

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Chrysene	BQL	340	ug/kg	U	1
Dibenz(a,h)Anthracene	BQL	340	ug/kg	U	1
Dibenzofuran	BQL	340	ug/kg	U	1
Diethyl Phthalate	BQL	340	ug/kg	U	1
Dimethyl Phthalate	BQL	340	ug/kg	U	1
Fluoranthene	BQL	340	ug/kg	U	1
Fluorene	BQL	340	ug/kg	U	1
Hexachlorobenzene	BQL	340	ug/kg	U	1
Hexachlorobutadiene	BQL	340	ug/kg	U	1
Hexachlorocyclopentadiene	BQL	340	ug/kg	U	1
Hexachloroethane	BQL	340	ug/kg	U	1
Indeno(1,2,3-c,d)Pyrene	BQL	340	ug/kg	U	1
Isophorone	BQL	340	ug/kg	U	1
Naphthalene	BQL	340	ug/kg	U	1
Nitrobenzene	BQL	340	ug/kg	U	1
Pentachlorophenol	BQL	670	ug/kg	U	1
Phenanthrene	BQL	340	ug/kg	U	1
Phenol	BQL	340	ug/kg	U	1
Pyrene	BQL	340	ug/kg	U	1
bis(2-chloroethoxy) methane	BQL	340	ug/kg	U	1
bis(2-chloroethyl) ether	BQL	340	ug/kg	U	1
bis(2-ethylhexyl) phthalate	BQL	340	ug/kg	U	1
di-n-Butyl Phthalate	BQL	340	ug/kg	U	1
di-n-Octyl Phthalate	BQL	340	ug/kg	U	1
n-Nitrosodi-n-Propylamine	BQL	340	ug/kg	U	1
n-Nitrosodiphenylamine	BQL	340	ug/kg	U	1

Summary of Analytical Results

Client ID: B509SO001
GPL ID: 606159-002-002-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: EXT_SW8330
Prep Date: 06/27/2006
Prep Time: 00:00
Prep Batch: 82329

Analytical Method: SW8330A
Date Analyzed: 07/13/2006
Time Analyzed: 05:31
Analysis Batch: 89776

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
1,3,5-Trinitrobenzene	BQL	100	ug/kg	U	1
1,3-Dinitrobenzene	19	100	ug/kg	J	1
2,4,6-Trinitrotoluene	2400	100	ug/kg		1
2,4-Dinitrotoluene	220000	100	ug/kg		1
2,6-Dinitrotoluene	10000	100	ug/kg		1
2-Amino-4,6-Dinitrotoluene	850	100	ug/kg		1
4-Amino-2,6-Dinitrotoluene	290	100	ug/kg		1
HMX	550	200	ug/kg		1
Nitrobenzene	58	100	ug/kg	J	1
RDX	600	200	ug/kg		1
Tetryl	BQL	200	ug/kg	U	1
m-Nitrotoluene	BQL	200	ug/kg	U	1
o-Nitrotoluene	BQL	200	ug/kg	U	1
p-Nitrotoluene	BQL	200	ug/kg	U	1

Summary of Analytical Results

Client ID: B509SO002
GPL ID: 606159-003-003-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: EXT_SW8330
Prep Date: 06/27/2006
Prep Time: 00:00
Prep Batch: 82329

Analytical Method: SW8330A
Date Analyzed: 07/13/2006
Time Analyzed: 08:15
Analysis Batch: 89776

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
1,3,5-Trinitrobenzene	BQL	100	ug/kg	U	1
1,3-Dinitrobenzene	BQL	100	ug/kg	U	1
2,4,6-Trinitrotoluene	BQL	100	ug/kg	U	1
2,4-Dinitrotoluene	92	100	ug/kg	J	1
2,6-Dinitrotoluene	BQL	100	ug/kg	U	1
2-Amino-4,6-Dinitrotoluene	BQL	100	ug/kg	U	1
4-Amino-2,6-Dinitrotoluene	BQL	100	ug/kg	U	1
HMX	BQL	200	ug/kg	U	1
Nitrobenzene	69	100	ug/kg	J	1
RDX	BQL	200	ug/kg	U	1
Tetryl	BQL	200	ug/kg	U	1
m-Nitrotoluene	BQL	200	ug/kg	U	1
o-Nitrotoluene	BQL	200	ug/kg	U	1
p-Nitrotoluene	BQL	200	ug/kg	U	1

Summary of Analytical Results

Client ID: B508SO001
GPL ID: 606159-004-004-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: EXT_SW8330
Prep Date: 06/27/2006
Prep Time: 00:00
Prep Batch: 82329

Analytical Method: SW8330A
Date Analyzed: 07/13/2006
Time Analyzed: 09:10
Analysis Batch: 89776

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
1,3,5-Trinitrobenzene	BQL	100	ug/kg	U	1
1,3-Dinitrobenzene	BQL	100	ug/kg	U	1
2,4,6-Trinitrotoluene	BQL	100	ug/kg	U	1
2,4-Dinitrotoluene	3400	100	ug/kg		1
2,6-Dinitrotoluene	BQL	100	ug/kg	U	1
2-Amino-4,6-Dinitrotoluene	BQL	100	ug/kg	U	1
4-Amino-2,6-Dinitrotoluene	BQL	100	ug/kg	U	1
HMX	BQL	200	ug/kg	U	1
Nitrobenzene	280	100	ug/kg		1
RDX	BQL	200	ug/kg	U	1
Tetryl	BQL	200	ug/kg	U	1
m-Nitrotoluene	BQL	200	ug/kg	U	1
o-Nitrotoluene	BQL	200	ug/kg	U	1
p-Nitrotoluene	BQL	200	ug/kg	U	1

Summary of Analytical Results

Client ID: B508SO002
GPL ID: 606159-005-005-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: EXT_SW8330
Prep Date: 06/27/2006
Prep Time: 00:00
Prep Batch: 82329

Analytical Method: SW8330A
Date Analyzed: 07/13/2006
Time Analyzed: 10:04
Analysis Batch: 89776

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
1,3,5-Trinitrobenzene	BQL	99	ug/kg	U	1
1,3-Dinitrobenzene	BQL	99	ug/kg	U	1
2,4,6-Trinitrotoluene	BQL	99	ug/kg	U	1
2,4-Dinitrotoluene	BQL	99	ug/kg	U	1
2,6-Dinitrotoluene	BQL	99	ug/kg	U	1
2-Amino-4,6-Dinitrotoluene	BQL	99	ug/kg	U	1
4-Amino-2,6-Dinitrotoluene	BQL	99	ug/kg	U	1
HMX	BQL	200	ug/kg	U	1
Nitrobenzene	160	99	ug/kg		1
RDX	BQL	200	ug/kg	U	1
Tetryl	BQL	200	ug/kg	U	1
m-Nitrotoluene	BQL	200	ug/kg	U	1
o-Nitrotoluene	BQL	200	ug/kg	U	1
p-Nitrotoluene	BQL	200	ug/kg	U	1

Summary of Analytical Results

Client ID: B514SO001
GPL ID: 606159-006-006-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: EXT_SW8330
Prep Date: 06/27/2006
Prep Time: 00:00
Prep Batch: 82329

Analytical Method: SW8330A
Date Analyzed: 07/13/2006
Time Analyzed: 10:59
Analysis Batch: 89776

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
1,3,5-Trinitrobenzene	BQL	100	ug/kg	U	1
1,3-Dinitrobenzene	BQL	100	ug/kg	U	1
2,4,6-Trinitrotoluene	140	100	ug/kg		1
2,4-Dinitrotoluene	BQL	100	ug/kg	U	1
2,6-Dinitrotoluene	BQL	100	ug/kg	U	1
2-Amino-4,6-Dinitrotoluene	210	100	ug/kg		1
4-Amino-2,6-Dinitrotoluene	270	100	ug/kg		1
HMX	24000	200	ug/kg		1
Nitrobenzene	BQL	100	ug/kg	U	1
RDX	130000	200	ug/kg		1
Tetryl	BQL	200	ug/kg	U	1
m-Nitrotoluene	BQL	200	ug/kg	U	1
o-Nitrotoluene	BQL	200	ug/kg	U	1
p-Nitrotoluene	BQL	200	ug/kg	U	1

Summary of Analytical Results

Client ID: B514SO002
GPL ID: 606159-007-007-1/1
Matrix: SOIL
Date Collected: 06/21/2006
Date Received: 06/22/2006

Prep Method: EXT_SW8330
Prep Date: 06/27/2006
Prep Time: 00:00
Prep Batch: 82329

Analytical Method: SW8330A
Date Analyzed: 07/13/2006
Time Analyzed: 11:54
Analysis Batch: 89776

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
1,3,5-Trinitrobenzene	BQL	100	ug/kg	U	1
1,3-Dinitrobenzene	BQL	100	ug/kg	U	1
2,4,6-Trinitrotoluene	BQL	100	ug/kg	U	1
2,4-Dinitrotoluene	BQL	100	ug/kg	U	1
2,6-Dinitrotoluene	BQL	100	ug/kg	U	1
2-Amino-4,6-Dinitrotoluene	BQL	100	ug/kg	U	1
4-Amino-2,6-Dinitrotoluene	BQL	100	ug/kg	U	1
HMX	BQL	200	ug/kg	U	1
Nitrobenzene	60	100	ug/kg	J	1
RDX	BQL	200	ug/kg	U	1
Tetryl	BQL	200	ug/kg	U	1
m-Nitrotoluene	BQL	200	ug/kg	U	1
o-Nitrotoluene	BQL	200	ug/kg	U	1
p-Nitrotoluene	BQL	200	ug/kg	U	1

GPL LABORATORIES, LLP
ANALYTICAL RESULTS

Project Name : OB/OD Area/FWDA

Date Printed July 14, 2006

GPL ID	Client ID
606159-004-004-1/1	B508SO001
606159-004-011-1/1	B508SO001
606159-005-005-1/1	B508SO002
606159-005-012-1/1	B508SO002
606159-002-002-1/1	B509SO001
606159-002-009-1/1	B509SO001
606159-002-002-1/1	B509SO001DL
606159-003-003-1/1	B509SO002
606159-003-010-1/1	B509SO002
606159-001-001-1/1	B510SO001
606159-006-006-1/1	B514SO001
606159-006-013-1/1	B514SO001
606159-007-007-1/1	B514SO002
606159-007-014-1/1	B514SO002

APPENDIX D
ASBESTOS EVALUATION REPORT

July 6, 2006

Job No. 06104-001

Mr. Eric Kammerer, P.E.
Terranear PMC, LLC
835 Springdale Dr.
Exton, PA 19341-2843

Phone: (610) 862-5000
Fax: (610) 862-5050

RE: ASBESTOS SAMPLING RESULTS FOR THE 167 ACRE PARCEL NO. 21, LOCATED AT FT. WINGATE DEPOT, GALLUP, NEW MEXICO

Dear Mr. Kammerer,

On June 19, 2006, Certified Asbestos Inspector, Donald P. Ortiz, Certification No. 040906-02, inspected the entire 167 acres of parcel No. 21 for suspected Asbestos Containing Material (ACM). All suspected asbestos materials were sampled for laboratory analysis.

The Inspector transected the entire area using a two seat four-wheel ATV. Each pass made was approximately 20' apart and ran the entire length of the property. Due to safety concerns, two areas designated as TNT leach fields were not passed over. The two (2) leach fields were inspected on foot from the associated berms, and it is the Inspectors judgment that no asbestos debris was detected in these fields. None of the buildings on site were sampled during this inspection as they were not included in the scope of work and we were informed that they had been previously sampled.

All Suspect Asbestos containing Materials were sampled. A total of nine (9) asbestos bulk samples were collected. The samples were shipped under Chain-of-Custody Record No. 15993 to EMC Labs Inc. in Phoenix, Arizona. EMC Labs Inc. is a NVLAP Accredited Asbestos Analytical Laboratory, Accreditation No. 101926-0. One of the samples collected contained multiple layers making a total of 10 separate and distinct analytical results as shown in the below table:

SAMPLE #	LAYER #	LOCATION	DESCRIPTION *	ASBESTOS DETECTED
FW-1	***Layer 1***	***N 35° 30.841' W 108° 35.349'***	***Transite, Gray***	***15% Chrysotile***
FW-2	Layer 1	N 35° 30.841' W 108° 35.349'	Shingles, Black/Green	Non Detect
FW-3	***Layer 1***	***N 35° 30.723' W 108° 35.320'***	***Pipe Wrap, Black***	***40 % Chrysotile***
FW-4	Layer 1	N 35° 30.661' W 108° 35.267'	Unknown/Concrete-like, Lt Gray	Non Detect
FW-5	***Layer 1***	***N 35° 30.501' W 108° 35.326'***	***Unknown/Insulation-like, Off White/Black***	***60% Chrysotile***
FW-6	Layer 1	N 35° 30.212' W 108° 35.373'	Tar, Black	Non Detect
FW-7	***Layer 1***	***N 35° 30.479' W 108° 35.257'***	***Tar, Black***	***5% Chrysotile***
	Layer 2		Tar, Black	Non Detect
FW-8	***Layer 1***	***N 35° 30.563' W 108° 35.506'***	***Transite Pipe, Gray***	***10% Chrysotile 5% Crocidolite***
FW-9	***Layer 1***	***N 35° 30.523' W 108° 35.404'***	***Transite, Tan***	***12% Chrysotile***

***** Description is as read in the analytical results.

As per the attached results, the inspector located several areas with confirmed asbestos. The biggest concern is FW-5, which is widely scattered through-out the area north and east of buildings B522 and B501-F. The areas in which the scatter is present should be combed thoroughly and all scatter picked up. Additionally the soil surrounding the scatter needs to be excavated 2" below with a 3' radius around the scatted material to adequately abate the area. If the areas cannot be excavated discretely, then the entire area north of B522 and B501-F should be excavated. The transite in FW-1 and FW-9 are single pieces that were picked up for the sample. FW-3 was a single item in the field and no other piles were found. Sample FW-8, which is the transite pipe, was a vent extending from the ground and is not considered an asbestos spill. FW-7 was a group of medium sized mounds of black tar with gravel located northwest of B504-F.

We appreciate the opportunity to provide service and look forward to working with you in the future. If you should require additional information or have any questions, please contact our office at (505) 632-0615.

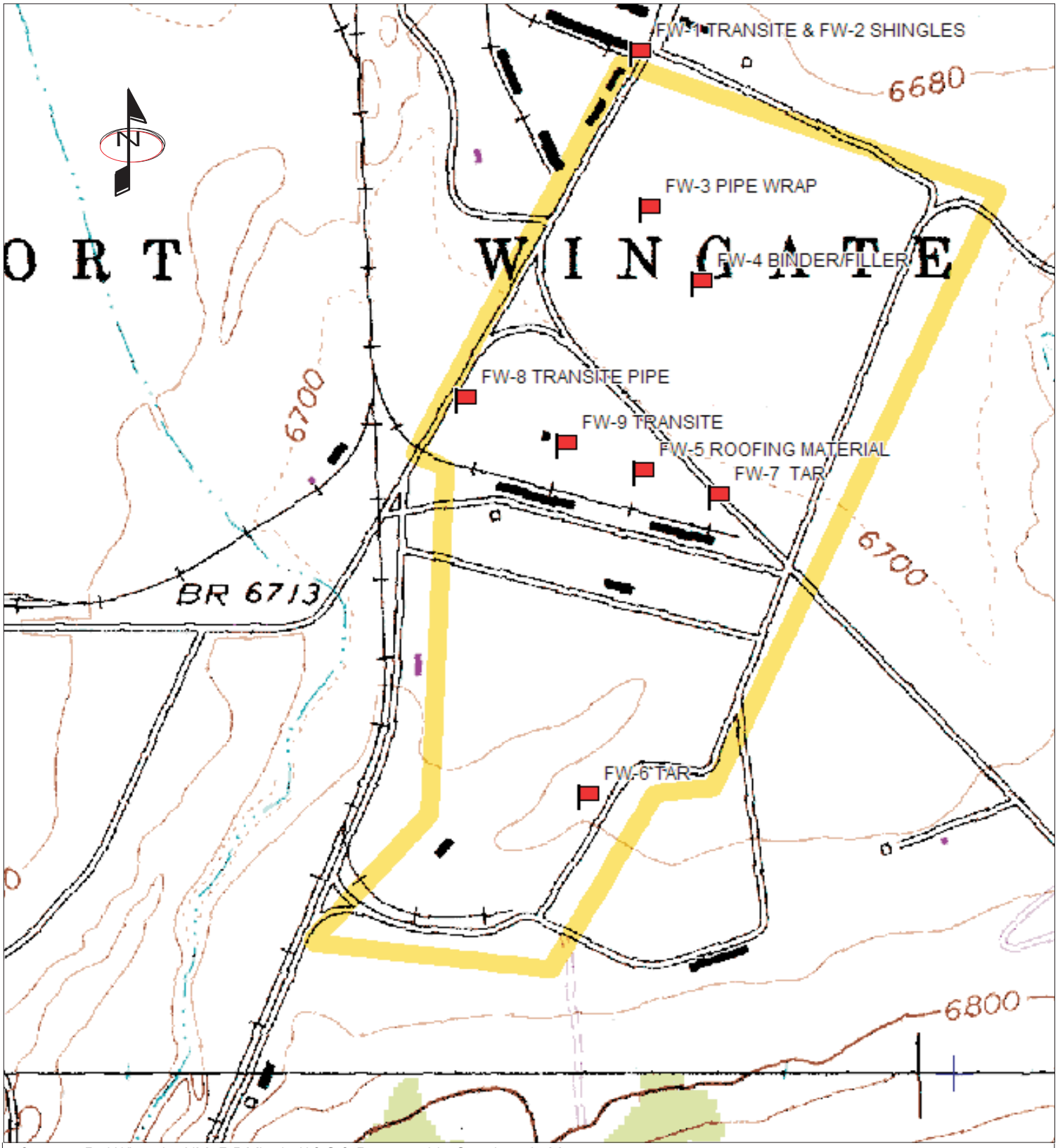
Sincerely,

ENVIROTECH, INC.

Donald P. Ortiz
New Mexico Asbestos Inspector No. 042305-02
dortiz@envirotech-inc.com

Attachment: Analytical Results

DPO:/office/client/acm/06086DarrylDeCora/06086-001/ACMResults.doc



Source: Fort Wingate, NM 7.5 Minute U.S.G.S. Topographic Quadrangle Map

PARCEL 21 Fort Wingate Depot Activity Fort Wingate, New Mexico	ENVIROTECH INC. ENVIRONMENTAL SCIENTISTS & ENGINEERS 5796 U.S. HIGHWAY 64 FARMINGTON, NEW MEXICO 87401 PHONE (505) 632-0615	Vicinity Map	
		Figure 1	
PROJECT No 06104-001	Date Drawn: 06/28/06	DRAWN BY: David Young	PROJECT MANAGER: Donald Ortiz

Table 1: Asbestos Sampling Information Summary

SAMPLE No.	GPS	DESCRIPTION	RESULT
FW-1	N 35˚30.841’ W 108˚35.349’	Transite	Chrysotile 15%
FW-2	N 35˚30.841’ W 108˚35.349’	Shingles	NON-Asbestos
FW-3	N 35˚30.723’ W 108˚35.320’	Pipe Wrap	Chrysotile 40%
FW-4	N 35˚30.661’ W 108˚35.267’	Binder/Filler	NON-Asbestos
FW-5	N 35˚30.501’ W 108˚35.326’	Roof Material	Chrysotile 60%
FW-6	N 35˚30.212’ W 108˚35.373’	Tar	NON-Asbestos
FW-7	N 35˚30.479’ W 108˚35.257’	Tar	Chrysotile 5%
FW-8	N 35˚30.562’ W 108˚35.506’	Transite Pipe	Chrysotile 10% Crocidolite 5%
FW-9	N 35˚30.523’ W 108˚35.404’	Transite	Chrysotile 12%

INCLUDES INFORMATION FOR CLOTH COVERING ON BUILDING 509, AOC 63 PARCEL 21

December 21, 2006

Job No. 06104-002

Mr. Stephen Deeter
Terranear PMC, LLC
222 Valley Creek Blvd., Suite 210
Exton, PA 19341-2843

Phone: (610) 862-5043
Fax: (610) 862-5050

RE: ASBESTOS SAMPLING RESULTS FOR THE 334 ACRE PARCELS NO. 11 AND 12 LOCATED AT FT. WINGATE DEPOT, GALLUP, NEW MEXICO

Dear Mr. Deter,

On October 23, 2006, Certified Asbestos Inspector, Donald P. Ortiz, Certification No. 040906-02, inspected the entire 334 acres of parcels No. 11 and 12 for suspected Asbestos Containing Material (ACM). All suspected asbestos materials were sampled for laboratory analysis.

The Inspectors transected the entire area using a two seat four-wheel ATV. Each pass made was approximately 20' apart and ran the entire length of the property. Due to weather in the area prior to our arrival, the North West corner and the South East corner of Parcel No. 12 were not accessible due to water in each of the corners. None of the buildings on site were sampled during this inspection as they were not included in the scope of work and we were informed that they had been previously sampled.

All Suspect ACM were sampled. A total of nine (9) asbestos bulk samples were collected. The samples were shipped under Chain-of-Custody Record No. 1619 to EMC Labs Inc. in Phoenix, Arizona. EMC Labs Inc. is a NVLAP Accredited Asbestos Analytical Laboratory, Accreditation No. 101926-0. Numerous samples collected contained multiple layers making a total of 14 separate and distinct analytical results as shown in the attached table.

As per the analytical results, the Inspector located several areas with confirmed asbestos. ***Sample A1*** is scattered around the southern area located near building ***B029-F***, some being in some nearby dirt. The areas in which the scatter is present should be combed thoroughly and all scatter picked up. Additionally the soil surrounding the scatter needs to be excavated 2" below with a 3' radius around the scatted material to adequately abate the area. ***Sample A2*** is the roofing material that has been blown off of the roof of building ***B013*** adjacent to where the sample was collected from. ***Sample A5*** is transite from the nearby building which the transite is the exterior of the building. ***Sample A6*** is transite located next to building ***B021*** in the sewage treatment facility and there are several large pieces located in this area. This same material was also found in the eastern half of parcel 12 near the borrow pit. The GPS points for this location are ***N 35° 30.863' W 108° 35.194'***. On the vicinity map it is flagged as A9 is a reference point to A6, but is not actually a sample point. ***Sample A9 was collected from Parcel No. 21 and is a cloth curtain from an old small building.*** *

MW 21 was used as a stationary object to collect a GPS point from for Terranear PMC, LLC to use to relate the difference between Envirotech, Inc.'s GPS points and Terranear PMC, LLC GPS points. The daily points are listed in the table below the Asbestos Sample Table.

Asbestos Sample Table

SAMPLE #	LAYER #	LOCATION	DESCRIPTION *	ASBESTOS DETECTED
A1	*Layer 1*	*N 35° 30.892' W 108° 35.369'*	*Roofing, Black*	*30% Chrysotile*
	Layer 2	*N 35° 30.892' W 108° 35.369'*	*Roofing, Black*	*30% Chrysotile*
A2	*Layer 1*	*N 35° 30.916' W 108° 35.335'*	*Roofing, Black*	*10 % Chrysotile*
A3	Layer 1	N 35° 30.983' W 108° 35.384'	Roofing, Silver	Non Detect
	Layer 2	N 35° 30.983' W 108° 35.384'	Roofing, Black	Non Detect
	Layer 3	N 35° 30.983' W 108° 35.384'	Roofing, Black	Non Detect
	Layer 4	N 35° 30.983' W 108° 35.384'	Roofing, Black	Non Detect
A4	Layer 1	N 35° 30.995' W 108° 35.276'	Roofing, Green/Black	Non Detect
A5	*Layer 1*	*N 35° 30.884' W 108° 35.227'*	*Transite, Tan*	*12% Chrysotile*
A6	*Layer 1*	*N 35° 31.137' W 108° 35.404'*	*Transite, Tan*	*8% Chrysotile 7% Crocidolite*
A7	Layer 1	N 35° 31.051' W 108° 35.528'	Roofing/Tar, Black	Non Detect
A8	Layer 1	N 35° 30.863' W 108° 35.194'	Roofing, Green/Black	Non Detect
	Layer 2	N 35° 30.863' W 108° 35.194'	Roofing, Black	Non Detect
A9	Layer 1		Cloth Covering, Beige/Green	Non Detect

GPS Points for Monitor Well 21

Location	Date	Time Of Day	GPS Points
MW 21	10/24/06	16:15	N 35° 30.752' W 108° 35.358'
MW 21	10/25/06	08:00	N 35° 30.750' W 108° 35.358'
Mw 21	10/27/06	08:10	N 35° 30.754' W 108° 35.358'

We appreciate the opportunity to provide service and look forward to working with you in the future. If you should require additional information or have any questions, please contact our office at (505) 632-0615.

Sincerely,

ENVIROTECH, INC.

Donald P. Ortiz

Donald P. Ortiz
New Mexico Asbestos Inspector No. 042305-02
dortiz@envirotech-inc.com

Attachments: Vicinity Map
Asbestos Sampling Information Summary
Analytical Results

Table 1: Asbestos Sampling Information Summary

SAMPLE No.	GPS	DESCRIPTION	RESULT
A1	N 35°30.892' W 108°35.369'	Roofing, Black	Yes, Chrysotile 30%
A1-1	N 35°30.864' W 108°35.319'	Same material identified as A1	Yes, Chrysotile 30%
A1-2	N 35°30.891' W 108°35.418'	Same material identified as A1	Yes, Chrysotile 30%
A2	N 35°30.916' W 108°35.335'	Roofing, Black	Yes, Chrysolite 10%
A3	N 35°30.983' W 108°35.384'	Roofing, Layers	No
A4	N 35°30.995' W 108°35.276'	Roofing, Green / Black	No
A4-1	N 35°30.957' W 108°35.234'	Same material identified as A4	No
A5	N 35°30.884' W 108°35.227'	Transite, Tan	Yes, Chrysotile 12%
A6	N 35°31.137' W 108°35.404'	Transite, Tan	Yes, Chrysotile 8% Crocidolite 7%
A7	N 35°31.051' W 108°35.528'	Roofing / Tar, Black	No
A8	N 35°30.863' W 108°35.194'	Roofing, Green / Black, Layers	No
A9	Parcel 21	Clothing Covering, Beige / Green	No

EMC LABS, INC.

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Laboratory Report
0047930

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	ENVIROTECH	Job# / P.O. #:	06184-002	5112
Address:	5796 HIGHWAY 64-3014	Date Received:	11/02/2006	
	FARMINGTON NM 87401	Date Analyzed:	11/03/2006	
Collected:	10/26/2006	Date Reported:	11/03/2006	
Project Name/	TERRANEAR PMC	EPA Method:	EPA 600/M4-82-020	
Address:		Submitted By:	CHRISTINE WALTERS	
		Collected By:	Customer	

Lab ID / Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents	
0047930-009 / 39002-A9	FT WINGATE PARCELS 11 & 12	Cloth Covering, Beige/ Green	No		Synthetic Fiber	90%
					Carbonates Gypsum Binder/Filler	10%

Analyst - Kurt Kettler

Signatory - Lab Director - Kurt Kettler

APPENDIX E
CONSULTATION PROCESS DOCUMENTATION

Release Assessment Report Parcel 21 Comments

Cmt. No.	Page No./Line No.	Comment	Recommendation	Response
		Commenter name		
1		When we did the walk through, we observed a structure at the east end of Service Road No.2, north side, which was not included on any of the maps, in the release assessment or RFI Work Plan. This structure and area need to addressed in the documents.	Blakeslee/Hempel	The structure in question is identified on historical maps as Structure 526, which is a timber safety shelter with earthen cover. It has no utility service connections, and no known use other than as a safety shelter. No issues regarding this structure were identified in the historical aerial photo analysis. It is believed that this response contains sufficient information as to the function of this structure; it has not been added to the document.
2		Pre-1940s magazines are mentioned associated with AOCs, with the comment that they will be "part of a future action." Is there some way to document and insure these areas will be assessed at a future date?	Blakeslee/Hempel	The pre-1940s (World War I magazines) will be located and sampled in the spring of 2007 to determine if a release has occurred. FWDA will supply the results to the Tribes and NMED for appropriate consideration and disposition. Cultural artifacts and sites will be avoided.
3		There are plans to do additional sampling near AOCs 62 (magazine), 63 (collector building) and 64 (vacuum producer building). DOI is concerned that sampling should also be conducted under the vacuum line between buildings 522 (AOC 60) and the collector building (AOC 63).	Blakeslee/Hempel	An additional MI sampling area has been added under the alignment of the former overhead vacuum lines.
4		DOI is concerned about the proposed size of the areas for taking multi-incremental sample may be too large. If you are including increments far away from the potential contamination source, it would appear you may be diluting the contaminants in the sample to be tested. Wouldn't a smaller (1/8 acre) area be more appropriate and representative?	Blakeslee/Hempel	Text has been added to the MI sampling language to clarify the intent of the sampling as follows: "In the event that visibly impacted areas (e.g., stained soil) are observed within an MI sampling area during sampling activities, discrete samples will be collected to allow the potential "hot spot" to be evaluated separately. It is not the intent of the MI sampling process to dilute reasonably observable "hot spots" with material from unimpacted locations."

Release Assessment Report Parcel 21 Comments

Cmt. No.	Page No./Line No.	Comment	Recommendation	Response
5		DOI assumes the laboratory processing the samples will use EPA's new 8330B procedure	Blakeslee/Hempel	That is correct; the most current versions of all specified analytical methods will be used as noted in the RFI Work Plan.
6	p.5-1, line 13	Waste propellants are not a hazardous waste?	Blakeslee/Hempel	FWDA operations at this location pre-date RCRA; under the current 40 CFR 266 Subpart M regulations, the recovered propellant would not be defined as a solid waste, and could not therefore be a hazardous waste.
7	p.5-3, line 4	¼ acre sample area – too large? Dilute sample? (See comment 4 above.)	Blakeslee/Hempel	See response to Comment #4.
8	p. 6-1, line 17	Waste propellants are not a hazardous waste?	Blakeslee/Hempel	See response to Comment #6.
9	p. 6-3, line 12	¼ acre sample area – too large? Dilute sample? (See comment 4 above.)	Blakeslee/Hempel	See response to Comment #4.
10	p. 6-3, line 20	ACM sampling needs to include soil in the area too	Blakeslee/Hempel	The cloth covering at Building 509 was sampled in October 2006; asbestos was not detected. A copy of the sampling result has been added to Appendix F.
11	p. 7-1, line 13	Waste propellants are not a hazardous waste?	Blakeslee/Hempel	See response to Comment #6.
12	p. 7-3, line 12	¼ acre sample area – too large? Dilute sample? (See comment 4 above.)	Blakeslee/Hempel	See response to Comment #4.
13	p. 7-3, line 21	AOC 64 will be addressed under AOC 63, so Army recommends "Corrective Action Complete Without Controls". This should be handled separately or jointly without the final conclusion.	Blakeslee/Hempel	Because of the close proximity of the two sites, the Army is proposing to address both sites jointly and eliminate AOC 64 as a redundant site.
14	AOC 65, 66 and 67 - Buildings 511, 512, 513	If we are comfortable that everything was containerized, then no sampling is needed	Blakeslee/Hempel	Comment noted.
15	p. 9-3, line 12	¼ acre sample area – too large? Dilute sample? (See general comment 4 above.)	Blakeslee/Hempel	See response to Comment #4.

Release Assessment Report Parcel 21 Comments

Cmt. No.	Page No./Line No.	Comment	Recommendation	Response
16	Appendix F	datum used for the ACM sample GPS locations needs to be noted.	Blakeslee/Hempel	A reference to the datum used has been added.
		Zuni Tribe –Stephen Beran, Environmental Protection Program		
1	RAR(1) - general comment for all AOC buildings and structures	The report does not address an investigation of buildings and other structures for hazards and possible demolition. The RAR describes buildings in poor repair. Building structures potentially contain hazardous components including, but not limited to, lead paint, asbestos, PCBs, and explosives contamination as well as physical hazards. Historical building survey information is not incorporated into the RAR.	The closure of Fort Wingate should address environmental and safety concerns associated with buildings and other structures; and, determine disposition of structures in coordination with the tribes. Explosives contaminations existing within buildings and equipment needs to be ascertained and decontaminated as indicated.	Potential hazards inside FWDA buildings are not regulated under RCRA unless there has been or there is a potential for a release to the environment. To date, FWDA and the Army have chosen to address these types of issues on a case by case basis. The FWDA Information Repository contains information on surveys for asbestos and lead-based paint. FWDA will continue to address these issues in accordance with Army policy and federal, state, and local requirements regarding these materials, but they will typically not be included in documents (such as this Release Assessment Report) required by the RCRA Permit.
2	RAR Appendix C, Photo 2.	AOC 60-Bldg 522: An overhead line leading to Building 522 may be an explosives vacuum line.	Explosives contaminated equipment should be removed.	Buildings, structures, and other related facilities potentially containing explosives residues will be addressed in accordance with Army policy and federal, state, and local requirements regarding these materials, but they will typically not be included in documents (such as this Release Assessment Report) required by the RCRA Permit.
3	RAR Appendix C, Photo 12 to 16.	AOC 63-Bldg 509: An overhead line leading to Building 509 is an explosives vacuum line. Other piping on the floor.	Explosives contaminated equipment should be removed.	Buildings, structures, and other related facilities potentially containing explosives residues will be addressed in accordance with Army policy and federal, state, and local requirements regarding these materials, but they will typically not be included in documents (such as this Release Assessment Report) required by the RCRA Permit.
4	RAR, Section 7.3.1. Appendix C,	AOC 64-Bldg 510: the building contained wet explosives separators and handled explosives	Interior sub-floor sample(s) should be collected.	Based on observations made during the site reconnaissance, places where electrical conduits and water supply lines penetrate the

Release Assessment Report Parcel 21 Comments

Cmt. No.	Page No./Line No.	Comment	Recommendation	Response
	Photo 23	contaminated sludges. The floor has potential conduits (metal water and electrical lines) to the underlying floor foundation where lines penetrate the slab.		floor in Building 510 were in good condition with no obvious cracks or gaps which could have served as a migration pathway to the soil beneath the building during the time the building was in operation.
5	RAR, Section 7.3.2 Appendix C, Photo 23	AOC 64-Bldg 510: The building appears to contain explosives proof switches.	Oil-filled switches and other electrical devises potentially containing PCBs should be removed.	See response to Comment #1.
6	RAR, Appendix F	The asbestos survey is limited to areas exterior to the buildings	Asbestos survey information should be compiled and examined in determining the final disposition of the buildings.	The asbestos evaluation was performed as required by Permit Section VIII.A.1.e. As noted in the response to Comment #1 above, asbestos inside or on the buildings that has not been released to the environment will be addressed outside the Permit compliance process.
7	RAR, Appendix C, Photos 1 - 60	Buildings and structures have numerous metal and wood surfaces where lead based paint could have been used.	Lead based paint survey information should be compiled and examined in determining the final disposition of the buildings. Building component as well as lead contamination in soil information should be evaluated.	As noted in the response to Comment #1 above, potential lead-based paint inside or on the buildings that has not been released to the environment will be addressed outside the Permit compliance process.