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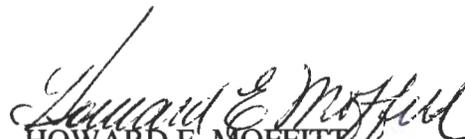
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SUBJECT: Final Report – Preliminary Assessment/Site Inspection of DP-63

1. Enclosed is the Final Report – Preliminary Assessment/Site Inspection of DP-63.
2. If you have any questions, please contact Mr. Court Fesmire or Mr. Jose Gallegos at (505) 572-5395.


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Final Report – Preliminary Assessment/Site Inspection of DP-63

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*Final Report
for the Preliminary Assessment/Site Inspection
of DP-63—Disposal Pit 63*

*Holloman Air Force Base,
New Mexico*

January 2001



*49 CES/CEV
Holloman Air Force Base,
New Mexico*

Project Number: KWRD19997001

**FINAL REPORT
FOR THE PRELIMINARY ASSESSMENT/SITE INSPECTION
OF DP-63—DISPOSAL PIT 63**

HOLLOMAN AIR FORCE BASE, NEW MEXICO

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LIST OF ACRONYMS

AFB	Air Force Base
bgs	below ground surface
DP-63	Disposal Pit 63
EMI	electromagnetic induction
EOD	explosive ordnance disposal
EPA	United States Environmental Protection Agency
ft	feet
GPS	global position system
mg/kg	milligrams per kilograms
mg/L	milligrams per liter
msl	mean sea level
NMED	New Mexico Environment Department
PA	Preliminary Assessment
PCB	polychlorinated biphenyl
PID	photoionization detector
POL	petroleum, oil, and lubricants
PVC	polyvinyl chloride
QAPP	Quality Assurance Project Plan
RCRA	Resource Conservation and Recovery Act
SI	Site Inspection
SVOC	semivolatile organic compound
SWMU	Solid Waste Management Unit
TAL	target analyte list
TDS	total dissolved solids
TPH	total petroleum hydrocarbons

LIST OF ACRONYMS (Continued)

USACE	U. S. Army Corps of Engineers
UST	underground storage tank
UXO	unexploded ordnance
VOC	volatile organic compound
WQCC	Water Quality Control Commission

EXECUTIVE SUMMARY

A Preliminary assessment (PA)/Site Inspection (SI) was conducted at Disposal Pit 63 (DP-63) at Holloman Air Force Base (AFB), New Mexico. The investigation was required to evaluate the extent of abandoned ammunition disposal pits in the area and to determine whether past releases there have impacted soil and groundwater. DP-63 is located in the northern portion of the Ammunition Storage Facility on the eastern side of Holloman AFB.

During the PA/SI, three areas were investigated within DP-63: the East Area; the West Area; and the North Area, which was discovered as a potential site during this investigation. Geophysical surveys were performed in all three areas to locate and determine the extent of any buried metal debris. Based on a record search, review of utility data and the geophysical survey, four DPT (direct push technology) sampling locations were selected. Samples were collected from these four DPT borings in order to assess the impact of site activities on the soil and groundwater at DP-63.

Analytical results for the soil samples collected at DP-63 showed detections of total recoverable petroleum hydrocarbons (TRPH), volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), cyanide, and metals. VOC and SVOC detections in the East Area are likely due to the presence of fuels that remain in the place since disposal operations ceased. TRPH detections indicate a low-level presence of fuel remaining in the soil at the East and West Areas. Analytical results confirmed that the groundwater at DP-63 contains no explosives and that free-phase fuel product was not observed in any groundwater samples. However, the presence of organic constituents in saturated soil samples collected, indicates that groundwater is potentially impacted by dissolved constituents.

Based on the results of the PA/SI investigation at DP-63, additional investigation and data evaluation is warranted. Due to the North Area being discovered as a potential disposal site during this investigation, only geophysical survey was conducted in this area. Therefore, it is recommended that an additional investigation include soil and groundwater sampling in the North Area to determine whether the environment has been impacted by past site activities.

Based on the detections in the saturated soils of the East and West Areas, it is also recommended that additional groundwater samples be collected for analysis of VOCs and SVOCs. Finally, a screening-level risk assessment should be conducted at DP-63 to evaluate the risk to human health and the environment.

1.0 INTRODUCTION

This report presents the results of the Foster Wheeler Environmental Corporation (Foster Wheeler) Preliminary Assessment (PA)/Site Inspection (SI) of Disposal Pit 63 (DP-63) at Holloman Air Force Base (AFB), New Mexico (Figure 1-1). The investigation, performed under the oversight of the New Mexico Environment Department (NMED), was required to evaluate the location and extent of abandoned ammunition disposal pits in the area and determine whether past releases there have impacted soil and groundwater. The PA/SI, which was conducted following United States Environmental Protection Agency (EPA) guidance under the Comprehensive Environmental Response, Compensation, and Liability Act (EPA, 1991; 1992), was performed for the U.S. Army Corps of Engineers (USACE), Omaha District, under Total Environmental Restoration Contract Number DACW-45-94-D0003. The PA/SI field activities were conducted in accordance with the work plan (Foster Wheeler, 2000a), as described in Section 2.0.

1.1 PURPOSE

The purpose of this report is to present the results of the PA/SI of DP-63 and the surrounding area. These results were used to complete the following assessments:

- Confirm the existence of disposal features at three investigation sites
- Evaluate soil and groundwater sampling results, along with information on site cultural features, to assess whether soil and/or groundwater have been impacted by site activities

The conclusions of the assessments listed above were then used to support recommendations for the future investigation of DP-63.

Foster Wheeler personnel conducted interviews with Base personnel, performed a records search, and conducted a geophysical survey of three sites to determine the presence of the buried metal debris and other potential sources. Based on these results, Foster Wheeler personnel located, drilled, and sampled four direct-push technology (DPT) soil borings to assess the presence and extent of soil and groundwater contamination.

1.2 SITE DESCRIPTION AND BACKGROUND

DP-63 is located in the northern portion of the Ammunition Storage Facility on the eastern side

of the Base (Figure 1-2). Originally, the disposal pit areas were located immediately north and outside of the facility, but expansion of the storage yard in the 1960s enclosed the site within the compound. Two separate disposal pit areas were originally identified by Base Explosive Ordnance Disposal (EOD) personnel:

- Site 1— East Area: Located on the east side of DP-63, this site covers an area of approximately 15,000 square feet (ft) and may contain up to several distinct disposal pits that extend to depths ranging from 6 to 8 ft below ground surface (bgs).
- Site 2 — West Area: Located on the west side of DP-63, this small disposal feature covers an area up to 100 square ft and extends to a depth of 6 ft bgs.

An additional site was discovered during reconnaissance activities in April 2000. This site, designated the North Area in this report, is located north of the Ammunition Storage Facility outside of the fence and was previously noted by Base personnel as an area of potential disposal. No investigations of these three sites were performed prior to the PA/SI. All information presented in this report was acquired through discussions with USACE and Base personnel.

During past operations, munitions were placed into the disposal pits with diesel fuel and wood pallets and ignited to render the ordnance inert. Fuel may have seeped into the soil directly below the disposal areas. The types of ordnance that were treated include munitions ranging from 20-caliber to 50-caliber small arms rounds and grenades. DP-63 was previously referred to as the “bomb dump” by Base EOD personnel. Base environmental personnel performed a visual inspection of the area during summer 1997 and found scrap metal fragments from disposed munitions exposed on the ground surface throughout the area as a result of erosion. The Holloman AFB Resource Conservation and Recovery Act (RCRA) Part B permit requires the Base to identify potential solid waste management units (SWMUs) and determine whether this site should be classified as a SWMU requiring corrective action investigation under RCRA.

1.3 DOCUMENT ORGANIZATION

This PA/SI report presents information gathered as a result of personal interviews conducted with Base personnel, a search of available Base records, and field investigation activities, to support recommendations for DP-63. The remainder of this report is organized into the

following sections:

- Section 2.0 — PA/SI Field Investigation
- Section 3.0 — Physical Setting
- Section 4.0 — Contamination Assessment
- Section 5.0 — Conclusions and Recommendations
- Section 6.0 — References

Figures and tables are found at the end of each section.

Appendix A provides supporting information necessary to evaluate the chemical analytical data, and it is presented in the form of the Data Quality Control Summary Report and accompanying laboratory reports. Appendix B presents field borehole logs. Current photographs and historical aerial photographs of DP-63 and the surrounding area are provided in Appendix C.

2.0 PA/SI FIELD INVESTIGATION

This section of the PA/SI Report explains the objectives and technical approach of each field activity performed for DP-63 investigation. This section also explains the sampling rationale, techniques, and locations for the PA/SI effort that were used to evaluate the extent of any soil and/or groundwater contamination in the area.

The PA/SI field activities were conducted in the following series of steps:

1. A records search was performed and Holloman AFB utility maps were reviewed to determine the areas of potential concern.
2. A geophysical survey was performed to locate and determine the extent of any buried metal debris in the area.
3. Four DPT sampling locations were selected to assess the presence and extent of any munitions along with the extent of any soil and/or groundwater contamination.

With this approach, information obtained from steps 1 and 2 was used to select the location of the four DPT borings (Step 3). The investigative steps and related activities are described in more detail in the following sections.

2.1 GEOPHYSICAL INVESTIGATION

The final work plan presented the procedures for conducting a geophysical investigation at two areas in the vicinity of DP-63. Geophysical surveys were conducted in the West and East Areas of the site as shown in Figure 2-1. The geophysical surveys at DP-63 took place March 13–16, 2000.

A supplemental geophysical investigation took place at DP-63 on September 25–27, 2000, to support the PA/SI. The objectives of the geophysical investigations at the two original sites included detecting, locating, and characterizing the extent of metal debris associated with a suspected munitions disposal site. The additional site, designated the North Area, is located approximately 200 ft from the Ammunition Storage Facility fence line, directly north of the area investigated during the PA/SI in April 2000. The supplemental geophysical survey area appears to have been cleared of vegetation and graded prior to the expansion of the Ammunition Storage

Facility and the installation of the northern perimeter fence. Spent munitions are currently present on the ground surface in the North Area that primarily consist of small arms casings, and is similar to the areas investigated during the PA/SI field program.

The objective of the Phase II geophysical investigation at DP-63 was to determine the location and extent of an abandoned ammunition disposal site. The geophysical method best suited and used for this type of characterization was electromagnetic induction (EMI). EMI instruments are sensitive to both ferrous and nonferrous metals and are able to detect a buried 55-gallon drum or a 10-inch pipe to depths approaching 10 ft.

2.1.1 Methodology

EMI techniques can also detect lateral changes in ground conductivity. Conductivity contrasts in the earth can be caused by natural phenomena such as lithologic changes, or by man-made phenomena such as disturbed ground, buried materials, or contaminants in the soil or groundwater.

EMI instrumentation operates on one of two principles, commonly referred to as time-domain EMI (EM61) or frequency-domain EMI (GEM 3, EM38, and EM31). The time-domain EMI system used during the PA/SI employs a coil that generates a pulsed (i.e., time-based) primary magnetic field in the earth, which induces eddy currents in conductive media. The decay of these eddy currents produces a secondary magnetic field measured by the same coil. If the secondary field is measured at a relatively long time after the start of the decay, the current induced in the relatively nonconductive ground will fully dissipate, while the current in the conductive media (usually metallic objects) continues to produce a secondary magnetic field. The measured response is reported in units of millivolts.

2.1.2 Data Acquisition, Processing, and Interpretation

Three areas at DP-63 were surveyed using geophysics as presented below:

- West Area — Survey grid was approximately 120 ft by 120 ft.
- East Area — Survey grid was approximately 275 ft by 150 ft.

- North Area — Survey grid was approximately 290 ft by 290 ft.

The EMI data were collected approximately every 0.5 ft (7 samples per second) along lines spaced 3 ft apart at each area. A Geonics EM61 Time-Domain electromagnetic instrument was used to collect EMI data at each area. Data were acquired using the procedures discussed in the work plan addendum (Foster Wheeler, 2000b). Site cultural features were mapped to achieve a more complete understanding of the relationships between the observed site characteristics and the geophysical data. The locations of the geophysical survey areas are presented in Figure 2-1.

Data files for the survey areas were checked for proper geometry and recording interval with internally developed software in conjunction with Geonics software. Relative X (east-west) and Y (north-south) location coordinates were assigned to each EMI data point. Data were then formatted for input into the Geosoft software package for analysis and interpretation. The objective of the data analysis and interpretation phase was to characterize the responses from the geophysical data in terms of their most probable sources (i.e., underground storage tank (UST), pipeline, debris trench or pit, etc.).

A color-coded map was generated for each area showing the Channel 2 EMI response (Figures 2-2 through 2-4). Two channels were recorded by the EM61 instrument, and both were used for the interpretation. However, for display purposes, the Channel 2 map was sufficient for presenting the geophysical data. Background values are colored green, and anomalies are colored blue, yellow, red, and pink, depending on the intensity (note color bar on figure). Many of the anomalies are due to surface features such as miscellaneous metal debris and fragments.

There was only one significant anomaly detected at the West Area, located at approximately 62E, 52N. This anomaly is shallow (less than 1 ft), not very large in area, and does not appear to contain a significant amount of buried metal (equivalent to the size and metallic content of a crushed 55-gallon drum). There are miscellaneous small arms (30-caliber and 50-caliber cartridges and bullets) scattered throughout the area.

At the East Area, there appears to be an area of subsurface disposal at approximately 50E to 90E and 75N to 100N. The depth of the anomaly is shallow (less than 2 ft) and contains the equivalent volume and metallic content of two or three 55-gallon drums. There are

miscellaneous small arms (30-caliber and 50-caliber cartridges and bullets) scattered throughout the area.

At the North Area, there were large amounts of scrap metal and exploded ordnance fragments scattered throughout the area. There are numerous EM61 anomalies within the survey area, some of which are due to surface scrap and/or exploded ordnance fragments and some due to subsurface metal. At the center of the survey area (140E, 150N), there was a higher concentration of scrap and exploded ordnance fragments that coincided with anomalous EM61 readings representative of significant amounts of buried metal (equivalent in volume and metallic content of five, or more, 55-gallon drums). Within the survey area, there is a low soil berm (approximately 6 inches high) that surrounds the area that may be related to previous open burning and open detonation activities.

2.2 DIRECT-PUSH TECHNOLOGY SOIL AND GROUNDWATER SAMPLING

Based on the results of the records search and geophysical surveys of the West and East Areas, four DPT boring locations (DP01, DP02, DP03, and DP04) were selected to assess the presence of any soil and/or groundwater contamination. The locations of these DPT locations are presented in Figure 2-1. Table 2-1 presents a summary of the DPT locations and the rationale for each location sampled during the PA/SI.

2.2.1 Direct-Push Technology Soil Sampling

Prior to drilling, the ground surface at all borehole locations was cleared for unexploded ordnance (UXO) by trained personnel. A downhole UXO clearance was then performed for every 2 ft of drilling to a depth of 12 ft. All UXO clearance activities were conducted in accordance with the final work plan (Foster Wheeler, 2000a). As a result of the UXO clearance, boring DP-63 was moved 4 ft south of its original location because subsurface metallic debris was detected at a depth of 3 to 4 ft.

Subsurface soil samples were collected at DPT locations DP01, DP02, DP03, and DP04. Three subsurface soil samples were collected at each of the DPT locations. A total of 12 subsurface soil samples, plus 1 field duplicate were collected from the four DPT locations. Soil samples were analyzed off site for volatile organic compounds (VOCs), semivolatile organic compounds

(SVOCs), pesticides, polychlorinated biphenyls (PCBs), total recoverable petroleum hydrocarbons (TRPH), and target analyte list (TAL) metals. The samples were analyzed in accordance with the Quality Assurance Project Plan (QAPP) presented in the final work plan (Foster Wheeler, 2000a).

Using the DPT drilling rig, subsurface soil cores (4-ft in length) were collected continuously from the ground surface to the water table at each DPT location. Soil contained within the core was used for lithologic description and subsequent sample collection. Sampling intervals were selected during drilling for off-site chemical analysis from soil that exhibited any noticeable odor, staining, or elevated photoionization detector (PID) readings based on field headspace screening. Soil samples were collected in 8-ounce glass jars and immediately placed on ice. Soil drilling logs containing a description of the soil encountered during drilling are presented in Appendix B.

During drilling, no odor, staining, or elevated PID readings were detected in the soil cores brought to the surface. Samples were collected at the following approximate depths: 7 ft, 20 ft, and at the water table. Samples were collected at approximately 7 ft because the disposal pits at DP-63 were noted by Base personnel as “being 6 to 10 feet in depth” (Cimino, 2000). Samples collected at 20 ft were selected because, at the time of sampling, this depth represented the approximate depth one-half of the distance to the water table. Samples were also collected at the water table to aid in evaluating the potential presence of contamination in saturated soil at the capillary fringe. Based on hydrogeologic information available for the area of Holloman AFB, the depth to groundwater at DP-63 was originally expected at 35 to 40 ft bgs; instead, groundwater was encountered at depths ranging from 41 to 46 ft bgs across this site.

An evaluation of the soil sample analytical results is presented in Section 4.2.

2.2.2 Direct-Push Technology Groundwater Sampling

The four DPT boreholes were converted to groundwater sampling points by extending the DPT drill rods approximately 3 to 5 ft below the water table. The DPT drill rods were then retracted from the borehole to the ground surface and a temporary 2-inch-diameter, schedule 40 polyvinyl chloride (PVC) well was installed. Each well consisted of 10-ft of screen with approximately 5

ft of screen below the water table and 5 ft of screen above the water table. The remaining length of the borehole consisted of 2-inch-diameter schedule 40 PVC blank PVC.

Three of the four temporary well points (DP02, DP03, and DP04) were sampled using a 1/2-inch-diameter disposable bailer, while the other well (DP01) was sampled using Teflon[®] tubing attached to a peristaltic pump. Prior to collection of each groundwater sample, a single volume of groundwater contained in the sampling device was purged.

During sampling, the groundwater was visually inspected for any sign of a petroleum sheen and checked for odor. There were no visual signs of free-phase product, or oily sheen, and no distinguishable odor was noted in the groundwater sampled at DP-63. After the groundwater samples were collected, the temporary well point was removed and the boreholes were abandoned with hydrated bentonite chips. The water table was initially encountered at approximately 45 to 47 ft bgs. After the well points were installed and groundwater was allowed to stabilize, the depth to groundwater ranged from 41 to 46 ft bgs.

A total of four DPT groundwater samples, including one field duplicate, were collected during the PA/SI field investigation. The groundwater samples were analyzed for explosives (EPA Method 8330). An evaluation of the groundwater sample analytical results is presented in Section 4.3.

2.4 LOCATION AND ELEVATION SURVEYING

Trained site personnel operated a portable global positioning system (GPS) unit to survey PA/SI sample locations, geophysical survey area corners, and the position of important site cultural features. These data were used to create an accurate map for the PA/SI Report. All survey data obtained with the GPS unit are reported in New Mexico state planar coordinates and are based on the 1983 North American Datum used by the Holloman AFB geographic information system. The survey data have been entered into the Environmental Resource Program Information Management System for data storage and reporting.

3.0 PHYSICAL SETTING

This section describes the environmental setting of Holloman AFB including detailed discussions of physiography, geology, hydrology, and hydrogeology. The information was compiled from existing Base records, published literature, previous reports, and the PA/SI field activities.

3.1 GEOGRAPHY

Holloman AFB is situated in south-central New Mexico, in the northwest-central part of Otero County (Figure 1-1). The Base occupies about 50,000 acres in the northeast quarter of Township 17S, Range 8E. The White Sands Missile Range testing facilities occupy additional land to the north. Private and public lands border the remainder of the Base. The major highway serving the Base is New Mexico Highway 70, which runs southwest from the City of Alamogordo and forms a boundary between the Base and public lands. The City of Alamogordo is located approximately 7 miles east of the Base. With a population of approximately 31,000, it is the only town of appreciable size within 40 miles of the Base. Holloman AFB has a population of approximately 5,500.

3.2 PHYSIOGRAPHY

The Base is located in the Tularosa Basin, which is bounded by the San Andres Mountains approximately 30 miles to the west and the Sacramento Mountains located approximately 10 miles to the east. The interior of the Tularosa Basin plain has low relief, with elevation ranging from about 4,000 ft above mean sea level (msl) in the southwest to about 4,400 ft above msl in the northeast. The surrounding mountains reach 7,000 to 12,000 ft in elevation.

The climate in the Tularosa Basin is arid with low annual rainfall and low relative humidity. The surrounding mountain ranges greatly influence local weather, since they modify approaching weather systems and provide orographic lifting, which produces summer thunderstorms. The mean annual precipitation is 7.9 inches, mostly from thunderstorm activity from May through October. Winter is generally dry and is characterized by clear skies and occasional snowfall. The period from March through May is characterized by strong southerly wind flow and periods of blowing dust and sand.

3.3 REGIONAL GEOLOGY

The Tularosa Basin is a bolson, or a basin that has no surface drainage outlet. Bolson deposits are sediments carried by water into a closed basin. The bolson fill in the Tularosa Basin is derived from the erosion of limestone, dolomite, and gypsum in the surrounding mountains. Coarser material is deposited at the base of the mountains; finer material is carried to the basin's interior. The near-surface bolson deposits consist of sediments that are of alluvial, eolian (wind-blown), and lacustrine (lake-bed), or playa origin.

Alluvial fan deposits are characteristically laterally discontinuous units of interbedded sand, silt, and clay; the eolian deposits consist primarily of gypsum sand. Alluvial and eolian deposits are often indistinguishable because of the reworking of alluvial sediments by eolian processes. Lacustrine, or playa, deposits in the area consist of clay containing gypsum crystals and are juxtaposed with alluvial fan and eolian deposits throughout the base (Foster Wheeler and Radian, 1994).

3.4 HYDROLOGY AND HYDROGEOLOGY

Both surface water and groundwater contribute to the hydrological and hydrogeological setting at Holloman AFB and are described in detail below, along with a discussion of the hydrology specific to DP-63.

3.4.1 Regional Surface Water Hydrology

Since the Tularosa Basin is a closed basin with no surface water outlet, water is lost to evaporation, transpiration, and infiltration. Water also collects in Lake Lucero, the lowest point in the basin, which is approximately 20 miles southwest of Holloman AFB.

Holloman AFB is crossed by several southwest-trending arroyos that control surface drainage in the undeveloped part of the Base (Figure 3-1). These arroyos consist of Hay Draw, in the far northern part of the Base; Malone Draw and Ritas Draw, which drain into Lost River; and Dillard Draw to the east, which runs in a southwesterly direction along the eastern and southern boundaries of the Base. Lost River, the largest arroyo, is dammed within the Base, near the western boundary, and runoff from Lost River, Malone Draw, and Ritas Draw collects in the dammed area. Drainage within the developed portions of the Base flows through ditches and

culverts to various outfall areas.

The mean annual lake evaporation rate, commonly used as an estimate of the mean annual evapotranspiration potential, is approximately 67 inches per year (Foster Wheeler and Radian, 1997). Therefore, the amount of precipitation that infiltrates the soil in this part of the basin is very low.

3.4.2 Regional Groundwater Hydrogeology

Groundwater occurs under unconfined conditions in the unconsolidated bolson deposits beneath Holloman AFB. The primary source of recharge for groundwater in the bolson aquifer is percolation of rainfall and stream runoff through the coarse, unconsolidated alluvial fan deposits along the western flank of the Sacramento Mountains. Water migrates downward into the alluvial sediment at the edge of the shallow bolson aquifer and flows downgradient through progressively finer-grained sediment into the basin. Beneath Holloman AFB, the depth to groundwater ranges from less than 5 ft to nearly 50 ft bgs.

In the vicinity of Holloman AFB, groundwater generally flows toward the west and southwest, following surface topography. In the southeastern portion of the Base, groundwater generally flows southwest toward the Dillard Draw surficial drainage system. In the northern and western portions of the Base, groundwater flows more to the west toward the Ritas Draw, Malone Draw, and Lost River drainages. Groundwater flow is affected by local topography in areas immediately adjacent to arroyos, where groundwater flows directly toward the drainages regardless of the regional flow pattern.

Water quality in the Tularosa Basin is relatively fresh near the recharge areas at the base of the mountains, but degrades as a result of an increase in dissolved solids as the groundwater flows toward the interior of the basin.

On the basis of New Mexico Water Quality Control Commission (WQCC) Regulations (New Mexico WQCC 82-1, as amended through August 18, 1991, Parts 3-100 through 3-103), the groundwater beneath Holloman AFB is designated as unfit for human consumption because it exceeds New Mexico human health standards for total dissolved solids (TDS) and sulfate. Using EPA guidelines (EPA, 1986), the groundwater is Class IIIB. Class III groundwater is

characterized by a TDS concentration greater than 10,000 milligrams per liter (mg/L) and is, therefore, not considered a source or a potential source of drinking water. Class IIIB groundwater is also characterized by a low degree of interconnection with adjacent surface waters or groundwater of a higher class. Groundwater does not discharge or connect to any adjacent aquifers because the Tularosa Basin is a closed basin. Adjacent surface waters include Lost River and Lake Holloman, which also have high concentrations of TDS, and are not considered potential drinking water sources.

3.4.3 Site-Specific Hydrology

The DP-63 area is underlain by silts, clays, and silty clays that contain an abundance of gypsum crystals within the unsaturated vadose zone. These lithologies are laterally discontinuous over the distance between the West and East Areas.

The depth to groundwater in the DP-63 area ranges from approximately 41 ft bgs in the Western Area to a maximum depth of 46 ft bgs in the Eastern Area.

Surface water features do not exist within the DP-63 area. The closest surface water features proximal to DP-63 are Ritas Draw, approximately 1 mile to the northwest, and Dillard Draw, an unnamed draw located due east within one-half mile. DP-63 is relatively flat and slopes toward the east. There are no culverts emanating from the site that flow directly into any of the draws in the vicinity.

3.5 CURRENT AND FUTURE LAND USE

The land surrounding Holloman AFB consists of residential areas to the east and northeast (City of Alamogordo), rangeland to the south, the White Sands National Monument to the west, and areas where military activities are conducted to the north. The desert terrain of the area immediately surrounding Holloman AFB has limited development, and there are no agricultural operations, residential communities, or large industrial operations located adjacent to the Base. Holloman AFB is an active military installation and is expected to remain active for the foreseeable future. No transfer of military property to the public is anticipated, and public access to the Base is restricted.

Residential development on the Base is limited by environmental and operational constraints imposed by the 100-year floodplain, historic sites, and areas identified under the Installation Restoration Program. Safety and noise zones also limit residential development on Holloman AFB. Future plans for residential development on the Base include renovation of existing structures, replacement of inefficient buildings, and expansion into open areas in the southeast corner of the Base (Horizons 2000 Facility Improvement Plan II, 1987). Future land use is not expected to differ significantly from current land use practices.

3.6 CURRENT AND FUTURE WATER USE

At present, the primary fresh water resource for the City of Alamogordo and Holloman AFB is Lake Bonita, 60 miles northeast of the Tularosa Basin. Currently, there are no potable supplies of groundwater or surface water located on the Base. Holloman AFB obtains its water supply from the City of Alamogordo and the Holloman AFB wells in the Boles, San Andres, and Douglas well fields at the base of the Sacramento Mountains. No water supply wells are located on or near the Base because of poor groundwater quality. The nearest production well downgradient from Holloman AFB is a livestock well located 3.5 miles west of the Base (Foster Wheeler and Radian, 1994). There are no potable or irrigation wells near to or downgradient of the Base.

4.0 CONTAMINATION ASSESSMENT

Sampling was conducted during the PA/SI in order to assess the impact of site activities on the soil and groundwater at DP-63. The assessment of contamination is based on the analytical results for samples collected during the PA/SI field investigation in April 2000. Sampling was conducted in accordance with the final work plan (Foster Wheeler, 2000a). A summary of the sample results is presented below for soil and groundwater.

4.1 GUIDELINES FOR CONTAMINANT CHARACTERIZATION

Analytical data for samples collected during the PA/SI must be evaluated in a manner consistent with previous investigations at Holloman AFB. Comparative baseline values are used to determine whether organic and inorganic constituents present in soil and groundwater at DP-63 present any potential risks and to support recommendations for the future status of the site. Comparative values appropriate for this evaluation include the following:

- Basewide background values for metals in soil
- Action-levels for TRPH in soil
- Risk-based screening levels for organic compounds in soil

In order to evaluate and assess detected analytes that occur naturally within soil comparisons were made against Holloman AFB Basewide background values. The background values were computed and reported in the Basewide Background Study—Sewage Lagoons and Lakes Investigation (Radian, 1993). Table 4-2 presents values from the Basewide background study (Radian, 1993) used for evaluating soil contamination in this report. The background value for each metal constituent was determined as the 95 percent upper tolerance limit for data collected in areas at the Base that have not been impacted by site activities. Background values for organic compounds and cyanide are considered the method detection limit. Therefore, it is assumed that any detected organic compounds exceed background.

Data presented in this report consist of results that have been validated using EPA protocol as presented in Appendix A. Only valid analytical results that were detected above method reporting limits are presented in the data summary tables (Tables 4-1 through 4-3). The data

presented in Figure 4-1 consist of detections of organic compounds and cyanide, and metals detections greater than Holloman AFB Basewide background values.

4.2 SOIL CHARACTERIZATION

The off-site laboratory analyzed 12 DPT soil samples and 1 field duplicate for the following constituents using EPA methods:

- VOCs—EPA SW-846 Methods 5030/8260B
- SVOCs—EPA SW-846 Method 8270C
- Pesticides/PCBs—EPA SW-846 Methods 8081A/8082
- TAL metals—EPA SW-846 Methods 6010B and 7471A
- Cyanide—EPA SW-846 Method 9013
- TRPH—EPA SW-846 Method 9071/418.1

A summary of the analytical results for soil samples collected at DP-63 is provided in Tables 4-1 and 4-2. The distribution of analytical constituents detected in soil at DP-63 is presented in Figure 4-1.

TRPH was detected in 9 of the 12 soil samples and in the field duplicate sample collected during the PA/SI. Soil concentrations of TRPH ranged from 37.7 to 263 mg/kg, and the highest concentration of TRPH was detected in a sample collected at the water table in the East Area at DP03. It is apparent that TRPH in soil is the result of past activities in the West and East Areas at DP-63.

VOCs were detected in five samples collected in the East Area at DP01 and DP03. The VOCs detected in these soil samples included carbon disulfide, 2-butanone, and toluene (Table 4-1). At DP01, VOCs were only detected in the soil samples (including the field duplicate) collected at the water table, within the capillary fringe (Figure 4-1). At DP03, VOCs were detected in all samples collected at depths ranging from 12 ft to the water table (Figure 4-1). The contaminants detected at DP01 and DP03 are most likely due to releases at DP-63 during site activities. The VOCs may be remnants of fuels used during burning operations.

SVOCs were only detected in two samples collected at DP-63. Diethylphthalate and bis(2-ethylhexyl)phthalate were the only SVOCs detected in soil samples, which were collected at a depth of 12 ft and at the water table within the capillary fringe (Table 4-1 and Figure 4-1). SVOCs were only detected in samples collected at DP03 and are likely present due to burning activities at the site.

No pesticides or PCBs were detected in any soil samples collected at DP-63 during the PA/SI field investigation.

Cyanide was only detected in one soil sample collected at DP-63, from DP03 at a depth of 21 ft.

Metals were detected in all 12 samples and in the field duplicate sample collected during the PA/SI field investigation. Seventeen metals were detected in soil samples and these metals include: aluminum, arsenic, barium, beryllium, calcium, chromium, cobalt, copper, iron, lead, potassium, magnesium, manganese, nickel, sodium, vanadium, and zinc. The analytical results for metals samples are presented in Table 4-2.

Of the 17 metals detected in soil, 14 metals occurred at concentrations above the Basewide background values. Based on evaluation criteria presented in EPA guidance for conducting site inspections (EPA 1992), only six metals (beryllium, cobalt, chromium, copper, manganese, and nickel) detected in soil were at concentrations greater than three times background values. There was no apparent pattern of metals contamination in soil at DP-63, and it is likely that the sporadic occurrence of metals greater than three times background represents natural variability in soil geochemistry.

4.3 GROUNDWATER CHARACTERIZATION

Five groundwater samples and one field duplicate sample were collected during the PA/SI field investigation and were analyzed for explosives using EPA method 8330. Explosives were not detected in any of the groundwater samples.

Free-phase fuel product was not observed in groundwater samples collected during the PA/SI field investigation.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The PA/SI field program took place in April 2000. During the field investigation, geophysical surveys were conducted in the designated West and East Areas of the site. The geophysical surveys indicated that anomalies exist in these areas identified by Base EOD personnel as sites where burning and disposal of munitions took place in the past. DPT soil and groundwater samples were collected in the vicinity of the geophysical anomalies to determine whether past operations at the site have impacted soil and/or groundwater in the area.

DPT sample results indicated that TRPH, VOCs, SVOCs, cyanide, and metals were detected in soil samples. VOCs and SVOCs detected in soil samples in the East Area are likely due to the presence of fuels remaining in place since disposal operations ceased. TRPH concentrations detected in soil samples at the West and East Areas indicate a low-level presence of fuel remaining in soil at the site. Some of the soil samples that were collected at the water table, which were water-saturated, contained TRPH, VOCs, and SVOCs. Although explosives were not detected in groundwater at the site, the presence of organic constituents in saturated soil samples indicates that groundwater is potentially impacted by dissolved constituents. Oily sheens or free-phase product was not observed in water samples collected at DP-63 during the PA/SI field investigation.

As a result of the investigation in April 2000 and the discovery of a third potential disposal site, an additional geophysical survey took place in September 2000 in an area designated the North Area. An anomaly was identified in this area, and features identified at this site indicate that munitions disposal activities could have taken place similar to those identified for the West and East Areas.

Based on the results of the PA/SI field investigation, additional investigation and data evaluation is warranted. An additional investigation of DP-63 should include the following activities:

- Conduct soil and groundwater sampling in the North Area to determine whether past site operations have impacted the environment.
- Collect groundwater samples in the West and East Areas for analysis of VOCs and SVOCs to further characterize potential groundwater contamination in the area.

- Evaluate the risk to human health and the environment by conducting a screening-level risk assessment.

6.0 REFERENCES

Cimino, M.

1999 Personal Communication. EOD Officer, Holloman AFB, NM. March 17, 2000.

EPA (United States Environmental Protection Agency)

1992 USEPA Guidance for Performing Site Inspections Under CERCLA, Interim Final. EPA/540-R-92-021.

1991 USEPA Guidance for Performing Preliminary Assessments Under CERCLA. EPA/540/G-91-/013.

1986 Guidelines for Groundwater Classification Under the EPA Groundwater Protection Strategy.

Foster Wheeler (Foster Wheeler Environmental Corporation)

2000a. Final Work Plan, Field Sampling and Analysis Plan and Quality Assurance Project Plan for the Preliminary Assessment/Site Inspection of Disposal Pit DP-63. April 2000.

2000b. Work Plan Addendum—Supplemental Geophysical Survey at DP-63, Holloman AFB, NM. September 2000.

Foster Wheeler and Radian (Foster Wheeler Environmental Corporation and Radian Corporation)

1997. Phase II RCRA Facility Investigation Report, Table 1 Solid Waste Management Units, Holloman AFB, NM. June 1997.

1994. Phase I RCRA Facility Investigation Report, Table 2 Solid Waste Management Units, Holloman AFB, NM. July 1994.

Holloman Air Force Base

2000. Horizons 2000 Facility Improvement Plan.

NMED (New Mexico Environment Department)

1995. Letter to Mr. Howard E. Moffitt, Deputy Base Civil Engineer, 49 CES/CEV, Holloman AFB, from New Mexico Environment Department regarding TPH action levels. May 15, 1995.

Radian (Radian Corporation)

1993. Basewide Background Study—Sewage Lagoons and Lakes Characterization Report.

Tables

Table 2-1. Samples Collected during the PA/SI Field Investigation at DP-63

Site ID	Location	Sampling Rationale	Samples Collected	
			Groundwater	Soil
DP63-DP01	East Area of DP-63 at disposal pit Site 1	Determine impact to soil and groundwater	1	7 - 8 ft, 21 - 22 ft, 44 - 45 ft, 44 - 45 (D)
DP63-DP02	East Area of DP-63 at disposal pit Site 1	Determine impact to soil and groundwater	1 (plus field duplicate)	7 - 8 ft, 17 - 18 ft, 46 - 47 ft
DP63-DP03	East Area of DP-63 at disposal pit Site 1	Determine impact to soil and groundwater	1	12 - 13 ft, 21 - 22 ft, 45 - 46 ft
DP63-DP04	West Area of DP-63 at disposal pit Site 2	Determine impact to soil and groundwater	1	5 - 6 ft, 20 - 21 ft, 44 - 45 ft

* The following analyses were performed on groundwater and soil samples:

Groundwater: Explosives by EPA SW-846 Method 8330

Soil: VOCs by EPA SW-846 Methods 5035/8260B

SVOCs by EPA SW-846 Method 8270C

Pesticides/PCBs by EPA SW-846 Methods 8081A/8082

TRPH by EPA SW-846 Method 9071/418.1

Metals by EPA SW-846 Methods 6010B/7471A

Cyanide by EPA SW-846 Method 9013

D - field duplicate sample collected

ft - feet

Table 4-1. Analytical Results for Organic Compounds Detected in Soil Samples Collected at DP-63

Location	Depth Interval (ft)	TRPH (mg/kg)	Explosives (µg/kg)	VOCs (µg/kg)			SVOCs (µg/kg)		Pesticides/PCBs (µg/kg)
				Carbon disulfide	2-Butanone	Toluene	Diethyl-phthalate	bis(2-Ethylhexyl) phthalate	
DP63-DP01	7 - 8	ND	NA	ND	ND	ND	ND	ND	ND
DP63-DP01	21 - 22	62.5	NA	ND	ND	ND	ND	ND	ND
DP63-DP01	44 - 45 *	41.4	NA	4497	1526	ND	ND	ND	ND
DP63-DP01 (dup)	44 - 45 *	38.5	NA	8876	4356	440	ND	ND	ND
DP63-DP02	7 - 8	ND	NA	ND	ND	ND	ND	ND	ND
DP63-DP02	17 - 18	37.7	NA	ND	ND	ND	ND	ND	ND
DP63-DP02	46 - 47 *	71.4	NA	ND	ND	ND	ND	ND	ND
DP63-DP03	12 -13	38.5	NA	7904	2705	308	750	1500	ND
DP63-DP03	21 - 22	79	NA	7406	2752	328	ND	ND	ND
DP63-DP03	45 - 46 *	263	NA	7242	2946	ND	100	ND	ND
DP63-DP04	5 - 6	ND	NA	ND	ND	ND	ND	ND	ND
DP63-DP04	20 - 21	39.7	NA	ND	ND	ND	ND	ND	ND
DP63-DP04	44 - 45 *	70.7	NA	ND	ND	ND	ND	ND	ND

* Sample collected below the water table

NOTE: Pesticides and PCBs were analyzed for but not detected

dup - field duplicate sample

ft - feet

mg/kg - milligrams per kilogram

µg/kg - micrograms per kilogram

NA - not analyzed

ND - analyte not detected above the method reporting limit

PCBs - polychlorinated biphenyls

SVOCs - semivolatile organic compounds

VOCs - volatile organic compounds

Table 4-2. Analytical Results for Cyanide and Metals Detected in Soil Samples Collected at DP-63

Location	Depth Interval (ft)	Cyanide (mg/kg)	TAL Metals (mg/kg)							
			Aluminum	Arsenic	Barium	Beryllium	Calcium	Cobalt	Chromium	Copper
DP63-DP01	7 - 8	ND	2,070	ND	ND	ND	213,000	ND	2.3	ND
DP63-DP01	21 - 22	ND	4,240	ND	65.8	ND	88,300	ND	6.4	ND
DP63-DP01	44 - 45 ¹	ND	5,650	ND		ND	170,000	ND		ND
DP63-DP01 (dup)	44 - 45 ¹	ND	3,650	ND	52.8	ND	203,000	ND	4.9	ND
DP63-DP02	7 - 8	ND	1,360	ND	ND	ND	196,000	ND	ND	ND
DP63-DP02	17 - 18	ND	4,960	ND	ND	ND	190,000	ND		ND
DP63-DP02	46 - 47 ¹	ND	6,930	5.2		ND	108,000			
DP63-DP03	12 -13	ND	4,560	ND	53.5	ND	142,000	ND	6.2	ND
DP63-DP03	21 - 22	0.26	5,970	ND	50.4	ND	190,000	ND	6.3	
DP63-DP03	45 - 46 ¹	ND	1,940	ND	ND	ND	76,700	ND	3.9	ND
DP63-DP04	5 - 6	ND	4,090	ND	ND	ND	177,000	ND	4.4	ND
DP63-DP04	20 - 21	ND					135,000	ND		
DP63-DP04	44 - 45 ¹	ND	7,970	2.6		ND	98,800	ND	ND	
Background Value ²		NB	8,760	6.88	84.4	0.400	250,000	2.49	6.60	4.84

¹ Sample collected below the water table

² Background values are 95 percent upper tolerance limits as presented in the Basewide Background Study (Radian 1993)

Note: Metals detections above background values are shaded and are the only detections presented on Figure 4-1.

dup - field duplicate sample

ft - feet

mg/kg - milligrams per kilogram

NB - no background value established

ND - analyte not detected above the method reporting limit

TAL - target analyte list

Table 4-2. Analytical Results for Cyanide and Metals Detected in Soil Samples Collected at DP-63

Location	Depth Interval (ft)	TAL Metals (mg/kg)								
		Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Sodium	Vanadium	Zinc
DP63-DP01	7 - 8	1,940	0.69	1,260	25.7	ND	ND	ND	ND	5.1
DP63-DP01	21 - 22	6,140	3.6	4,410	91.7	ND	ND	1,500	14	14.7
DP63-DP01	44 - 45 1	5,510	3	3,270	77.8	ND	ND	2,600	ND	18.8
DP63-DP01 (dup)	44 - 45 1	3,200	2.1	2,290	36.9	ND	ND	2,240	ND	10.3
DP63-DP02	7 - 8	1,280	2.8	1,270	21	ND	ND	ND	ND	ND
DP63-DP02	17 - 18	4,920	3.5	2,970	74.5	ND	1,260	1,540	ND	15.1
DP63-DP02	46 - 47 1	5,850	0.5	4,340	130	ND	1,270	2,480	ND	ND
DP63-DP03	12 -13	5,130	3.5	3,950	102	ND	ND	1,390	11.4	15.1
DP63-DP03	21 - 22	5,890	3.5	3,770	67.1	ND	1,520	2,290	ND	ND
DP63-DP03	45 - 46 1	2,690	2.8	1,610	59.6	ND	ND	1,560	ND	9.5
DP63-DP04	5 - 6	3,640	1.8	2,300	62	ND	1,180	ND	ND	10.7
DP63-DP04	20 - 21	ND	ND	9,370	ND	ND	3,900	ND	ND	ND
DP63-DP04	44 - 45 1	ND	5.7	4,570	122	ND	1,510	2,190	ND	ND
Background Value 2		6,360	8	14,700	165	5.61	2,500	5,000	15.5	20.2

¹ Sample collected below the water table

² Background values are 95 percent upper tolerance limits as presented in the Basewide Background Study (Radian 1993)

Note: Metals detections above background values are shaded and are the only detections presented on Figure 4-1.

dup - field duplicate sample

ft - feet

mg/kg - milligrams per kilogram

NB - no background value established

ND - analyte not detected above the method reporting limit

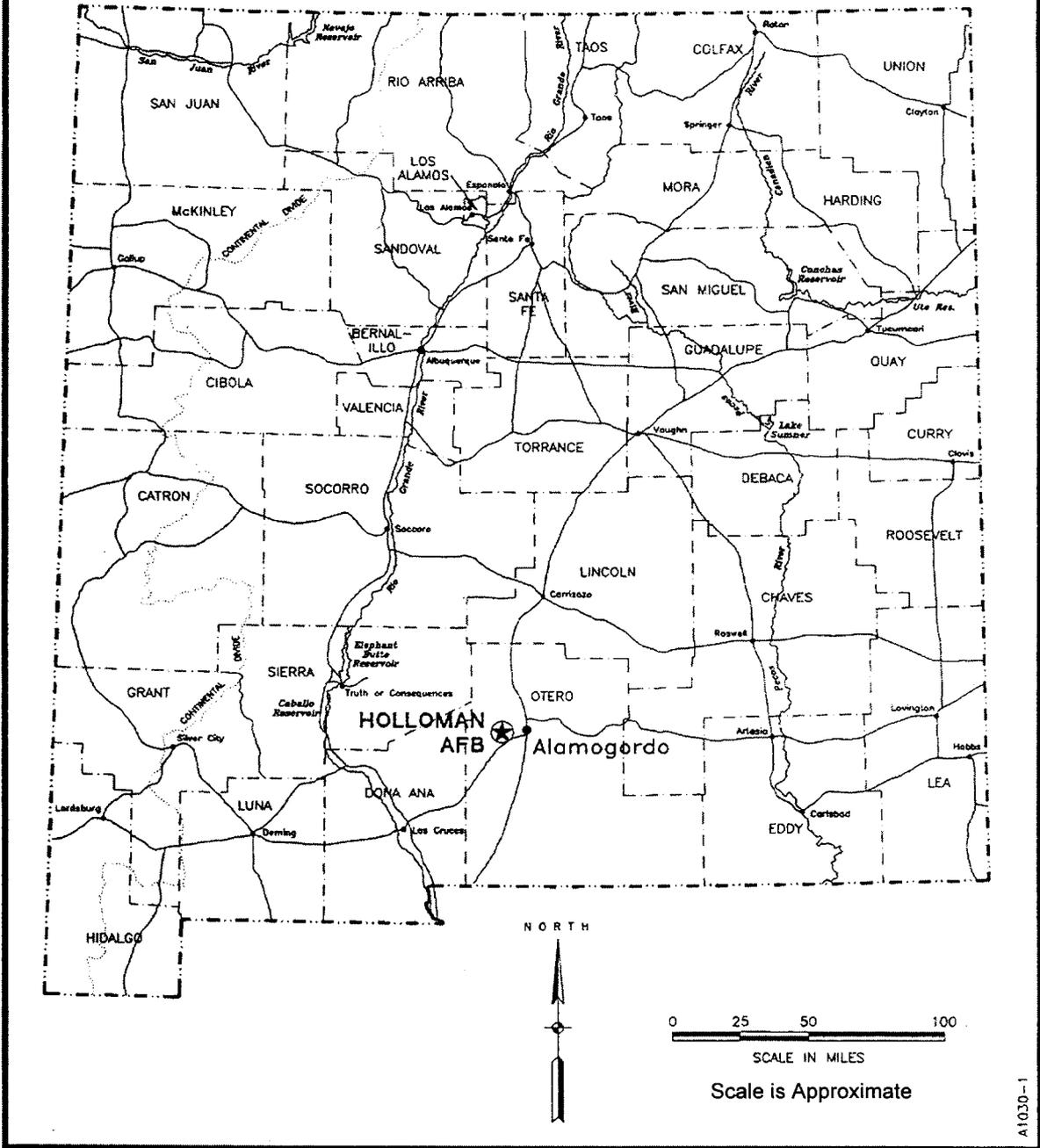
TAL - target analyte list

Table 4-3. Analytical Results for Groundwater Water Samples Collected at DP-63

Location	Groundwater Depth (feet bgs)	TRPH (mg/L)	VOCs (µg/L)	SVOCs (µg/L)	Explosives (µg/L)	Pesticides/PCBs (µg/L)	TAL Metals (mg/L)
DP63-DP01	45	NA	NA	NA	ND	NA	NA
DP63-DP02	46	NA	NA	NA	ND	NA	NA
DP63-DP02 (dup)	46	NA	NA	NA	ND	NA	NA
DP63-DP03	46	NA	NA	NA	ND	NA	NA
DP63-DP04	41	NA	NA	NA	ND	NA	NA

bgs - below ground surface
 dup - field duplicate sample
 mg/L - milligrams per liter
 NA - not analyzed
 ND - analyte not detected above method reporting limit
 PCB - polychlorinated biphenyl
 SVOC - semivolatile organic compound
 TAL - target analyte list
 TRPH - total recoverable petroleum hydrocarbons
 VOC - volatile organic compound
 µg/L - micrograms per liter

Figures



DP-63 PA/SI REPORT

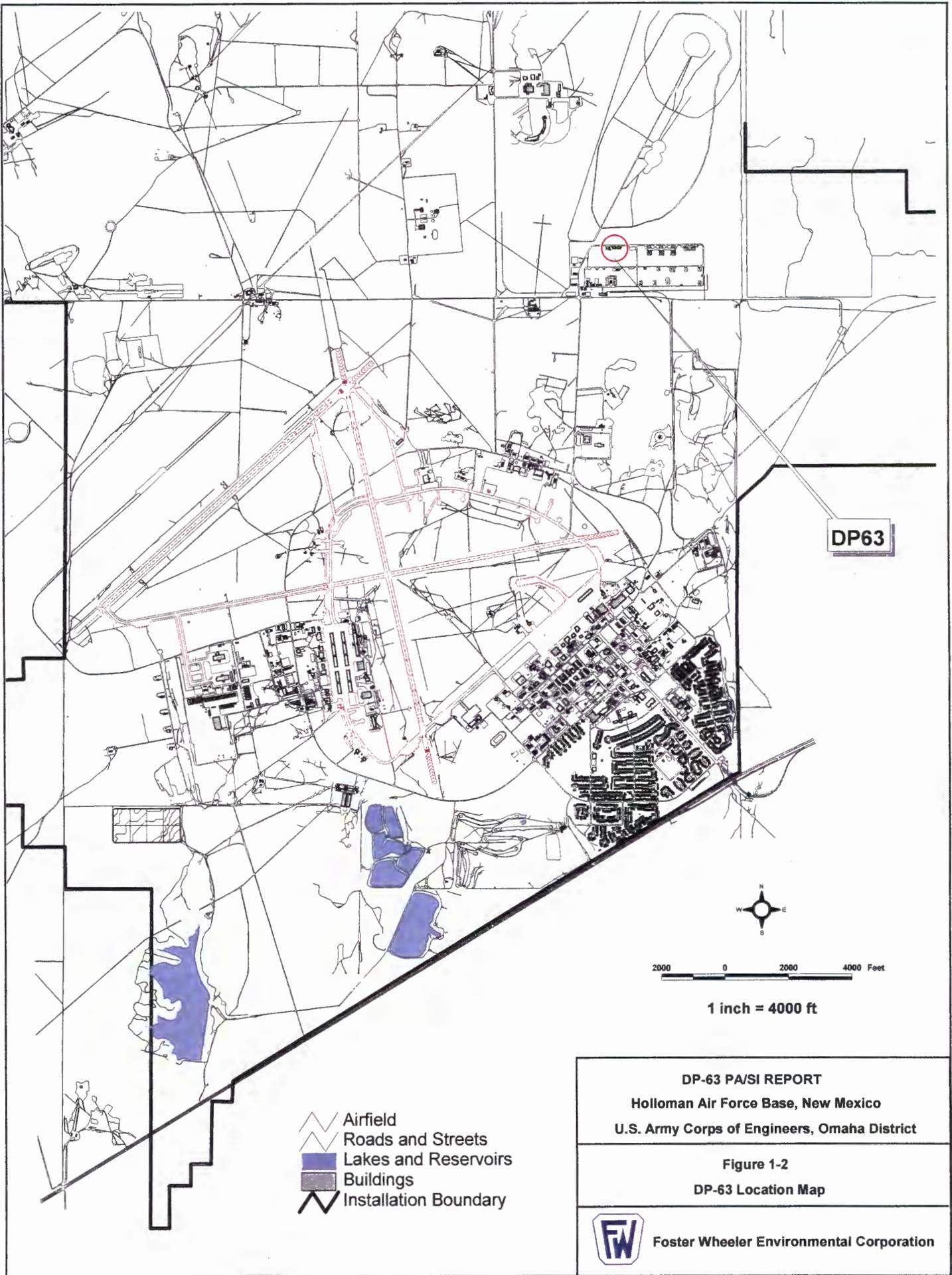
Holloman Air Force Base, New Mexico

U.S. Army Corps of Engineers, Omaha District

Figure 1-1

Location of Holloman Air Force Base

 **FOSTER WHEELER ENVIRONMENTAL CORPORATION**



DP63



2000 0 2000 4000 Feet

1 inch = 4000 ft

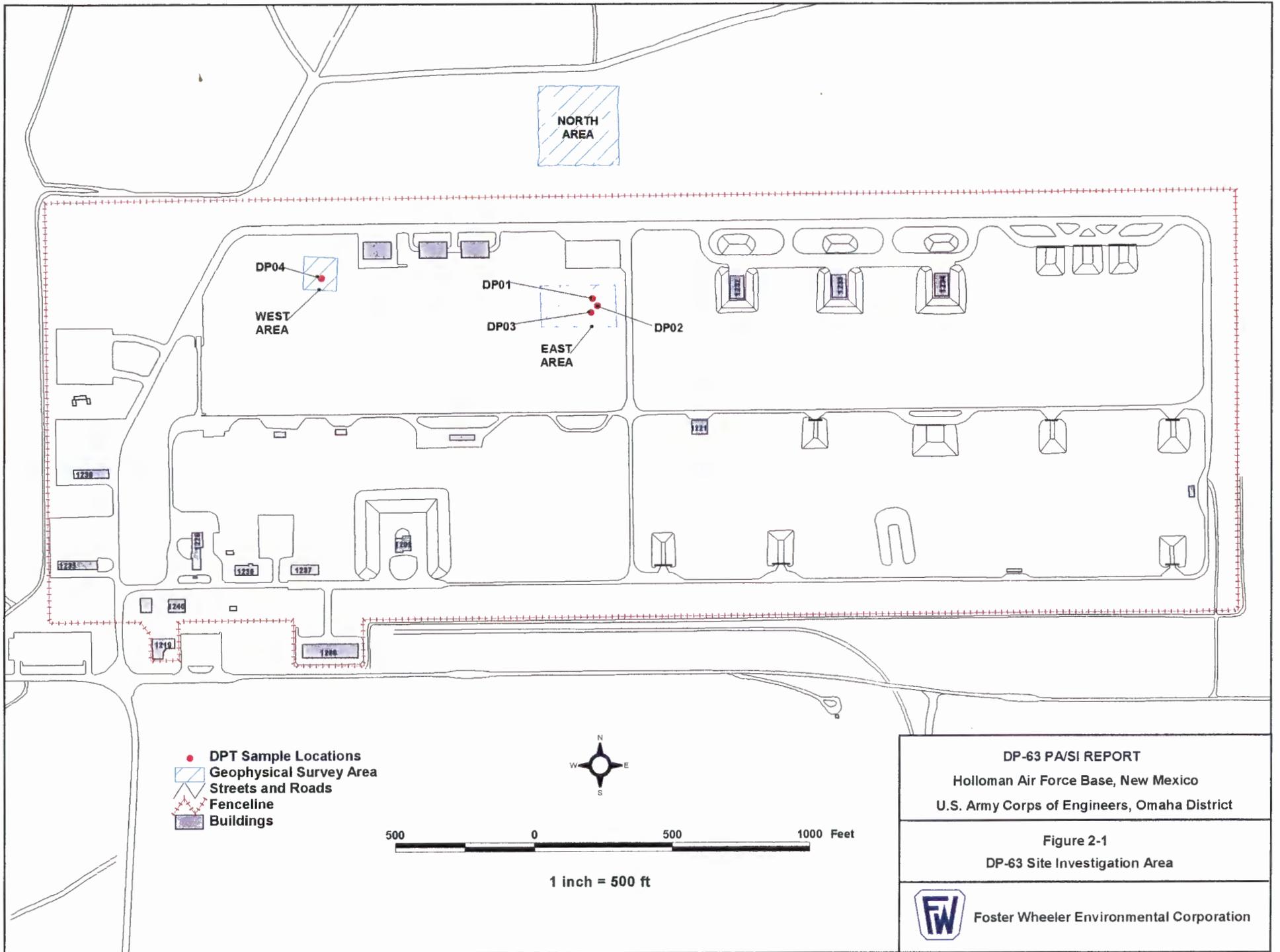
-  Airfield
-  Roads and Streets
-  Lakes and Reservoirs
-  Buildings
-  Installation Boundary

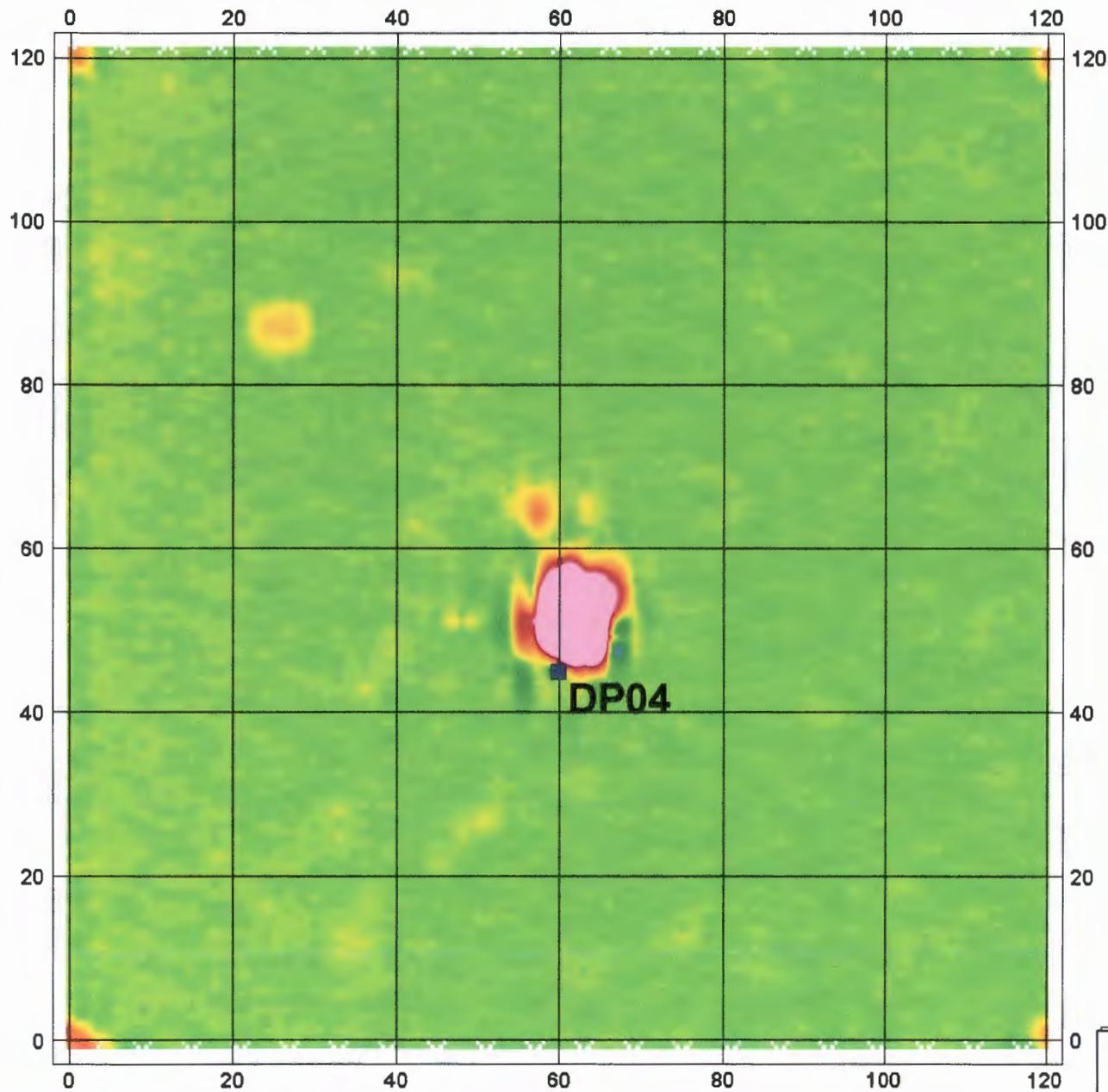
DP-63 PA/SI REPORT
Holloman Air Force Base, New Mexico
U.S. Army Corps of Engineers, Omaha District

Figure 1-2
DP-63 Location Map

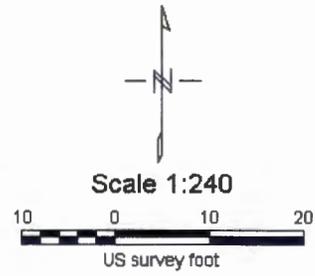
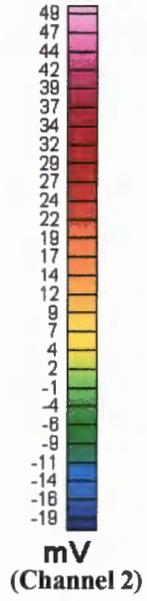


Foster Wheeler Environmental Corporation





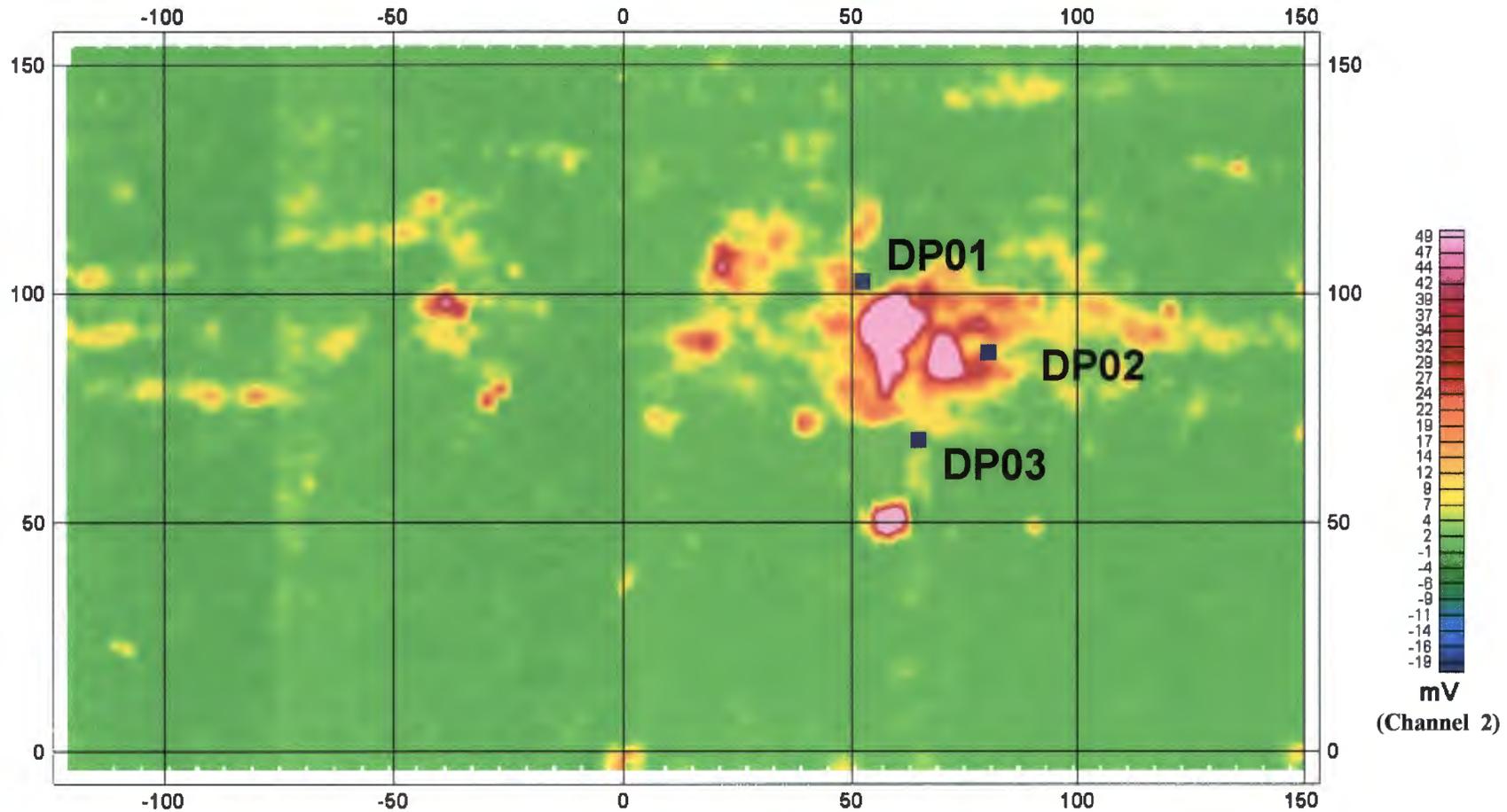
Site 2--West Area



Note: Survey completed in March 2000.

Figure 2-2
DP-63 West Area
Geophysical Map

Site 1--East Area



Note: Survey completed in March 2000.

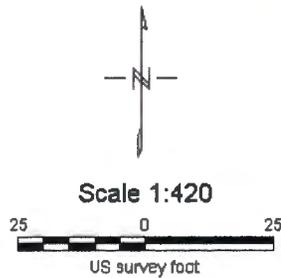
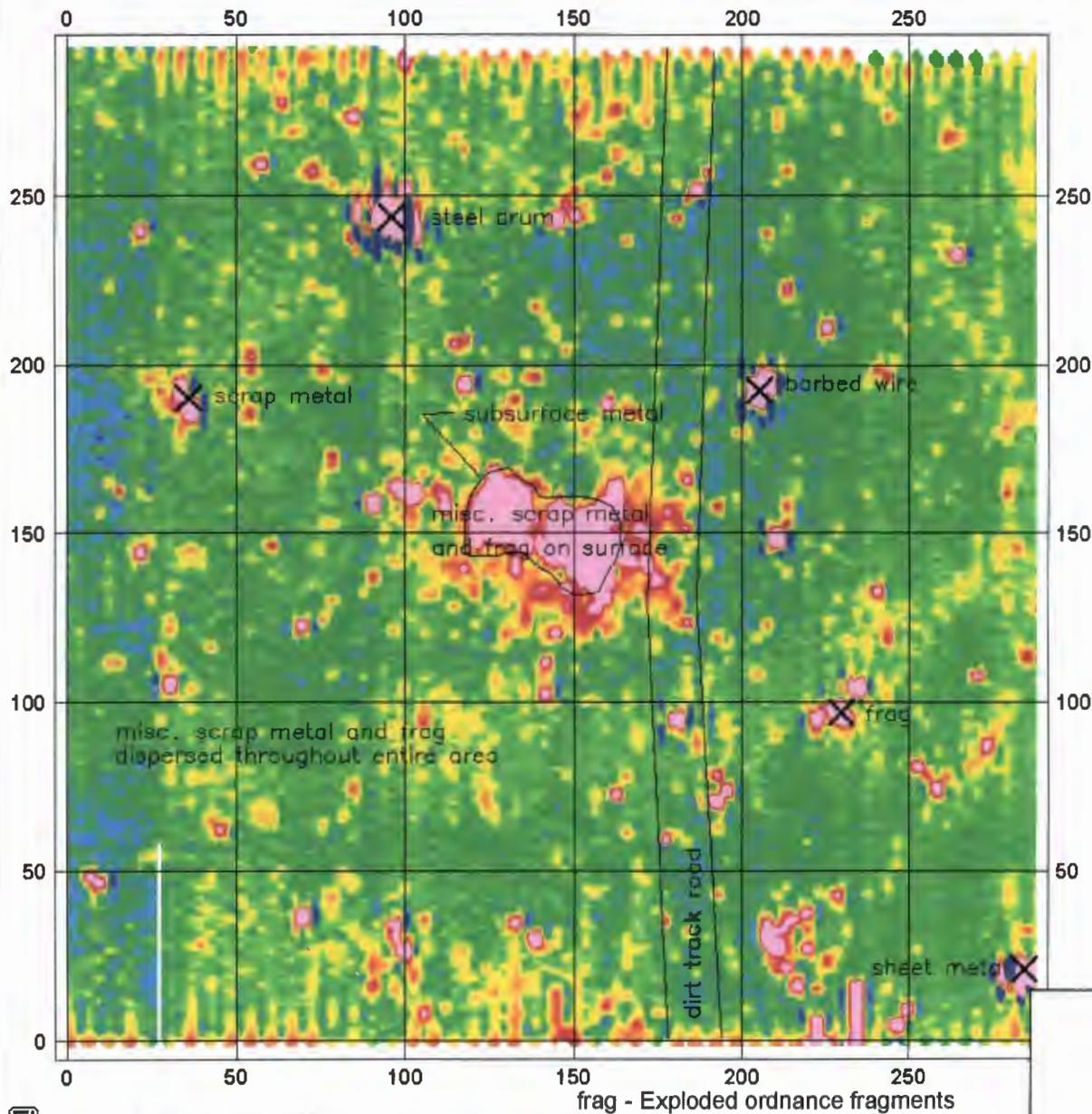


Figure 2-3
DP-63 East Area
Geophysical Map

Note: Survey completed in September 2000.



North Area



Channel 2 (mv)

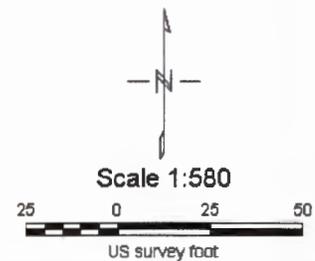
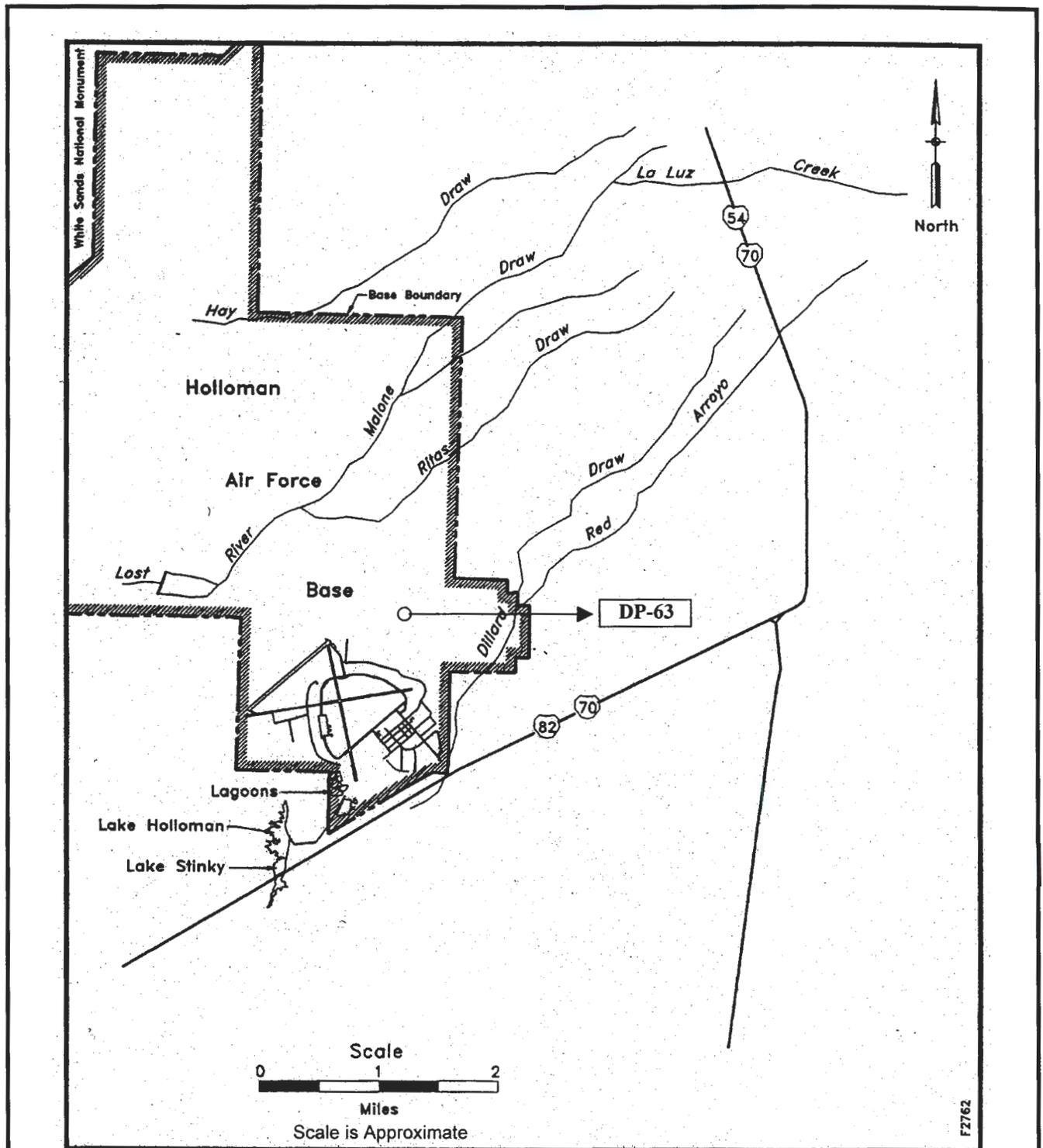


Figure 2-4
DP-63 North Area
Geophysical Map



DP-63 PA/SI REPORT

Holloman Air Force Base, New Mexico

U.S. Army Corps of Engineers, Omaha District

Figure 3-1

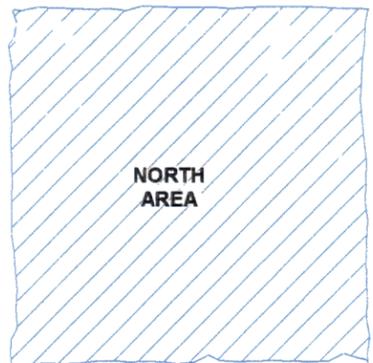
Drainages in the Vicinity of Holloman Air Force Base

F FOSTER WHEELER ENVIRONMENTAL CORPORATION

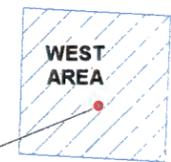
Notes:
 TRPH units are mg/kg.
 Organic units are ug/kg.
 Inorganic units are mg/kg.
 dup - Denotes field duplicate sample.
 ND - Analyte not detected above the method reporting limit.
 <Bkgd - Analyte detected below the Basewide background value.

Only metals concentrations above Holloman AFB Basewide background values are presented on this map.

Table 4-2 presents all data for metals detected in soil above method reporting limits.

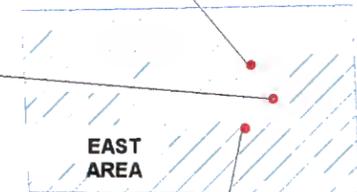


DP01	7 - 8 ft	21 - 22 ft	44 - 45 ft	44 - 45 ft (dup)
TRPH	ND	82.5	41.4	38.5
Carbon Disulfide	ND	ND	4,497	8,876
2-Butanone	ND	ND	1,528	4,356
Toluene	ND	ND	ND	440
Barium	ND	<Bkgd	94.4	<Bkgd
Chromium	<Bkgd	<Bkgd	7.4	<Bkgd



DP04	5 - 6 ft	20 - 21 ft	44 - 45 ft
TRPH	ND	39.7	70.7
Aluminum	<Bkgd	19,800	<Bkgd
Arsenic	ND	7.3	<Bkgd
Barium	ND	227	120
Beryllium	ND	1.3	ND
Chromium	<Bkgd	22.4	ND
Copper	ND	13.6	4.9
Iron	<Bkgd	17,800	8,050
Manganese	<Bkgd	308	<Bkgd
Nickel	ND	19.5	7.3
Lead	<Bkgd	12.3	<Bkgd
Potassium	<Bkgd	3,700	<Bkgd
Vanadium	ND	37.3	38.4
Zinc	<Bkgd	58.4	22.8

DP02	7 - 8 ft	17 - 18 ft	46 - 47 ft
TRPH	ND	37.7	71.4
Barium	ND	ND	334
Cobalt	ND	ND	75.7
Chromium	ND	7.3	8.3
Copper	ND	ND	21.2
Iron	<Bkgd	<Bkgd	8,890
Manganese	<Bkgd	<Bkgd	4,930
Nickel	ND	ND	33.2
Lead	<Bkgd	<Bkgd	10.5
Vanadium	ND	ND	45.9
Zinc	ND	<Bkgd	22.1



DP03	12 - 13 ft	21 - 22 ft	45 - 46 ft
TRPH	38.5	79	283
Carbon Disulfide	7,904	7,408	7,242
2-Butanone	2,705	2,752	2,946
Toluene	308	328	ND
Diethylphthalate	750	ND	100
bis(2-ethylhexyl)phthalate	1,500	ND	ND
Cyanide	ND	0.28	ND
Copper	ND	8.2	ND
Zinc	<Bkgd	29	<Bkgd

- DPT Sample Locations
- ▨ Geophysical Survey Areas
- Streets and Roads
- ⊠ Fenceline
- Buildings



1 Inch = 150 ft

DP-63 PA/SI REPORT
 Holloman Air Force Base, New Mexico
 U.S. Army Corps of Engineers, Omaha District

Figure 4-1
 Distribution of Organic and Inorganic
 Constituents in Soil at DP-63

Appendix A

Data Quality Control Summary Report and Analytical Data

DATA QUALITY CONTROL SUMMARY REPORT

The analytical program for the Preliminary Assessment/Site Inspection (PA/SI) at Disposal Pit 63 (DP-63) consisted of chemical testing performed by GPL Laboratories (GPL), Gaithersburg, Maryland. Analytical methods for chemical analysis are taken from the latest revision of the United States Environmental Protection Agency (EPA) Test Methods for Evaluating Solid Waste, SW-846 Third Edition (1986); and EPA Methods for Chemical Analysis of Water and Waste, Manual 600/4-79-020 (1979). The specific analytical methods used for the PA/SI are as follows:

- Volatile organic compounds (VOCs)—Method 8260B
- Semivolatile organic compounds (SVOCs)—Method 8270C
- Pesticides—Method 8081A
- Polychlorinated biphenyls (PCBs)—Method 8082
- Target Analyte List (TAL) metals—Methods 6010B/7471A
- Cyanide—EPA SW-846 Method 9014
- Total recoverable petroleum hydrocarbons (TRPH)—Method 418.1
- Explosives (water only)—Method 8330

1.0 DATA VALIDATION

The data validation procedure used for the PA/SI is in accordance with the EPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (USEPA, 1994) and the EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (USEPA, 1994). One hundred percent of the analytical data were reviewed for the following criteria:

- Completeness of data deliverables

- Extraction and analysis holding times
- Blank data
- System monitoring compounds (surrogate recoveries)
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries
- Laboratory control sample (LCS) recovery
- Overall data assessment

1.1 DATA PRESENTATION AND EVALUATION

The types of laboratory quality control (QC) samples associated with the PA/SI include method blank, LCS, and MS/MSD samples. These QC samples are used to measure the analytical method precision and accuracy. Method blank samples are used to assess laboratory contamination. The results of the laboratory QC sample data are summarized below.

Field QC samples were also collected in support of the PA/SI. Field duplicate samples were collected to assess the precision associated with the sampling activities and laboratory analyses, as well as to determine data comparability. The results of the field QC samples are summarized below.

1.1.1 Holding Times

Representativeness of the data is determined through review of extraction and analysis holding times in conjunction with review of blank data in accordance with EPA analytical method holding time guidelines. All holding times were met for the PA/SI samples with the exception of samples DP63DP04S05 and DP63DP01S07 for VOC analysis. These two samples required reanalysis outside of the recommended 14 day holding time, due to surrogate spike and matrix spike recoveries above the method control limits for the initial analysis. Reanalysis was performed on day 15 of the holding time. No VOCs were reported in these these two samples, and no data required qualification.

1.1.2. Laboratory Method Blank Samples

Laboratory method blank samples were analyzed with each sample delivery group (SDG) for each analytical method. An SDG contains a maximum of 20 field samples, grouped and analyzed together based on date of receipt at the laboratory. Method blank detections were evaluated as part of the validation process. Detections of methylene chloride, chloroform, and trichloroethene were reported in the VOC method blank samples for SDGs 0004222, 000426, 0005029, and 0005032. The detections of these VOC compounds in the associated field samples were B-qualified, signifying method blank contamination. The method blank contaminated samples include the following:

- DP63DP04S05RE – methylene chloride, chloroform
- DP63DP01S07RE – methylene chloride, chloroform
- DP63DP02S07 – methylene chloride, chloroform
- DP63DP02S17 – methylene chloride, chloroform
- DP63DP02S46 – methylene chloride, chloroform
- DP63DP04S20 – methylene chloride, chloroform, trichloroethene
- DP63DP04S44 – methylene chloride, trichloroethene
- DP63DP01S21 – methylene chloride, chloroform, trichloroethene
- DP63DP01S44RE – methylene chloride, chloroform
- DP63DP01S44DUP – methylene chloride, chloroform, trichloroethene
- DP63DP03S12 – methylene chloride, chloroform, trichloroethene
- DP63DP03S21 – methylene chloride, chloroform
- DP63DP03S45 – methylene chloride, chloroform

The representativeness of the data was greater than 99 percent based on the method blank results.

1.1.3 Laboratory Control Samples

Laboratory control samples were analyzed with each batch of field samples for each analytical method. LCS sample recoveries reported at concentrations above or below the method-specific control limits may result in qualification of analytes in the associated field samples based on the sample concentration.

Method 8081A LCS sample recoveries in SDGs 0004222, 0004226, 0005029, and 0005032 were above the method-specific control limit for the pesticide delta-BHC; however, there were no analyte detections in the associated samples therefore, no data qualification was required.

Method 418.1 LCS sample recoveries in SDGs 0004222, 0004226, 0005029, and 0005032 were outside the method-specific control limit resulting in J- and UJ-qualifiers for detect and nondetect data, respectively.

LCS recoveries for Method 6010B were outside control limits for aluminum, antimony, iron, and potassium in SDGs 0004226 and 0005032; and for aluminum, antimony, iron, potassium, and mercury in SDG 0005029. Associated field sample results (detect and nondetect) were J- or UJ-qualified, signifying estimated data.

The LCS data are used in conjunction with the matrix spike recovery data and the system monitoring compound recoveries (organic analyses) to determine the accuracy of the analytical data. The LCS recoveries for all other analytical parameters were within the method control limits or did not result in qualification of data based on the validation guidelines. LCS recoveries indicate the accuracy of the data was 97 percent.

1.1.4 Matrix Spike Samples

Laboratory MS/MSD samples were analyzed at a frequency of 5 percent for each analytical method. The MS/MSD sample recoveries were evaluated in conjunction with the other batch QC sample recoveries to determine the need for qualification of analytical data.

1.1.4.1 Volatile Organic Compounds

One MS/MSD sample was analyzed for VOCs using EPA Method 8260B however, this was not a PA/SI project-specific sample. The recoveries were within the method-specific control limits. The relative percent difference (RPD) for the MS/MSD samples was within the method control limits with the exception of toluene and chlorobenzene. In accordance with the validation guidelines, no data were qualified as a result of the MS/MSD recoveries. MS/MSD recoveries cannot be used as an indicator for sample matrix effects associated with the PA/SI samples.

1.1.4.2 Semivolatile Organic Compounds

One MS/MSD sample was analyzed for SVOCs using EPA Method 8270C. The recoveries were within the method-specific control limits with the exception of phenol, 4-chloro-3-methylphenol, and 4-nitrophenol, which were above the method control limit. The RPD for the MS/MSD samples was within the method control limits. In accordance with the validation guidelines, no data were qualified as a result of the MS/MSD recoveries. MS/MSD recoveries indicate minimal matrix interference associated with the sample analysis.

1.1.4.3 Pesticides

One MS/MSD sample was analyzed for pesticides using EPA Method 8081A. The recoveries were within the method-specific control limits, with the exception of the pesticide, delta-BHC. The RPD for the MS/MSD samples was within the method control limits. In accordance with the validation guidelines, no data were qualified as a result of the MS/MSD recoveries. MS/MSD recoveries indicate minimal matrix interference associated with the sample analysis.

1.1.4.4 Polychlorinated Biphenyls

One MS/MSD sample was analyzed for PCBs using EPA Method 8082. The recoveries were within the method-specific control limits. The RPD for the MS/MSD samples was within the method control limits. In accordance with the validation guidelines, no data were qualified as a result of the MS/MSD recoveries. MS/MSD recoveries indicate no matrix interference associated with the sample analysis.

1.1.4.5 Metals

Two MS/MSD samples were analyzed for metals using EPA Methods 6010B and 7471A. One of the MS/MSD samples was performed on a PA/SI project-specific sample. The recoveries were within the method-specific control limits, with the exception of antimony and selenium recoveries in SDGs 0004226, 0005029, and 0005032; and antimony, selenium, and lead recoveries in SDG 0004222. The RPDs for the MS/MSD samples were within the method control limits. In accordance with the validation guidelines, the following data results were J-qualified, signifying estimated values.

- DP63DP04S05 – antimony, lead, selenium
- DP63DP01S07 – antimony, lead, selenium
- DP63DP02S07 – antimony, selenium
- DP63DP02S07 – antimony, selenium
- DP63DP02S46 – antimony, selenium
- DP63DP04S20 – antimony, selenium
- DP63DP04S44 – antimony, selenium
- DP63DP01S21 – antimony, selenium
- DP63DP01S44 – antimony, selenium
- DP63DP01S44DUP – antimony, selenium
- DP63DP03S12 – antimony, selenium
- DP63DP03S21 – antimony, selenium
- DP63DP03S45 – antimony, selenium

1.1.4.6 Cyanide

Two MS samples were analyzed for cyanide using EPA Method 9014. The recoveries were within the method-specific control limits. MS recoveries indicate no matrix interference associated with the sample analysis.

1.1.4.7 TRPH

One MS sample was analyzed for TRPH using EPA Method 418.1. The recoveries were within the method-specific control limits. MS recoveries indicate no matrix interference associated with the sample analysis.

1.1.4.8 Explosives

One MS/MSD sample was analyzed for explosives using EPA Method 8330 however, the sample used was not a PA/SI project-specific sample. The recoveries were within the method-specific control limits. The RPD for the MS/MSD samples was within the method control limits. In accordance with the validation guidelines, no data were qualified as a result of the MS/MSD recoveries. MS/MSD recoveries cannot be used as an indicator for sample matrix effects associated with PA/SI samples.

1.1.5 System Monitoring Compounds

System monitoring compounds, also known as surrogate spike compounds, are used for the gas chromatography/mass spectrometry analytical methods (8260B and 8270C), the gas chromatography methods (8081A and 8082), and the high performance liquid chromatography method (8330) to monitor the performance of an individual sample during extraction and analysis.

The four Method 8260B (VOC) surrogate spike compounds in sample DP63DP01S07RE were above the method control limit however, there no data required qualification since there were no VOCs reported in this sample.

One of the three base/neutral surrogate recoveries in sample DP63DP01S44 was below the 10 percent control limit. As a result, the base/neutral analytes for the sample were R-qualified, signifying rejected data.

1.1.6 Field Duplicate Samples

One soil duplicate sample (DP63DP01S44), and one water duplicate sample (DP63DP02W46) were collected and analyzed for the PA/SI. The soil sample was analyzed for VOCs, SVOCs, pesticides, PCBs, metals, cyanide, and TRPH; and the water sample was analyzed for explosives only. There were no explosive analytes detected in the water sample or the water field duplicate sample. Elevated concentrations of carbon disulfide, 2-butanone, barium, iron, and manganese in the soil sample and field duplicate sample resulted in RPDs above a 50 percent criteria for these analytes. As a result, these analytes were J-qualified in the field sample, signifying estimated values. Field duplicate sample RPDs indicate a high level of precision associated with the field sampling and laboratory analysis.

2.0 DATA ASSESSMENT

As a result of the data validation procedure, it was determined that four percent of the analytical data for the PA/SI at DP63 were estimated (J- and UJ-qualified), one percent of the analytical data were blank contaminated (B-qualified), and one percent of the data were rejected (R-qualified). Analytical data were J- and UJ-qualified based on the following validation criteria:

- Method 418.1 LCS recoveries outside the method control limits – samples DP63DP04S05, DP63DP01S07, DP63DP02S07, DP63DP02S17, DP63DP02S46, DP63DP04S20, DP63DP04S44, DP63DP01S21, DP63DP01S44, DP63DP01S44DUP, DP63DP03S12, DP63DP03S21, DP63DP03S45 – all detect and nondetect data for TRPH
- Method 6010B LCS recoveries outside the method control limits – samples DP63DP02S07, DP63DP02S17, DP63DP02S46, DP63DP01S44, DP63DP01S44DUP, DP63DP03S12, DP63DP03S21, DP63DP03S45 – all detect and nondetect data for aluminum, antimony, iron, and potassium
- Methods 6010B and 7471A LCS recoveries outside the method control limits – samples DP63DP04S20, DP63DP04S44, DP63DP01S21 – all detect and nondetect data for aluminum, antimony, iron, potassium, and mercury

- Method 6010B MS/MSD recoveries outside the method control limits – samples DP63DP04S05, DP63DP01S07, DP63DP02S07, DP63DP02S17, DP63DP02S46, DP63DP04S20, DP63DP04S44, DP63DP01S21, DP63DP01S44, DP63DP01S44DUP, DP63DP03S12, DP63DP03S21, DP63DP03S45 – all detect and nondetect data for antimony, selenium, and lead
- Methods 8260B and 6010B field duplicate sample RPD above 50 percent criteria – sample DP63DP01S44 – all detect data for carbon disulfide, 2-butanone, barium, iron, and manganese

Analytical data were B-qualified based on the following validation criteria:

- Method 8260B method blank sample detections – samples DP63DP04S05RE, DP63DP01S07RE, DP63DP02S07, DP63DP02S17, DP63DP02S46, DP63DP04S20, DP63DP04S44, DP63DP01S21, DP63DP01S44RE, DP63DP01S4402, DP63DP03S12, DP63DP03S21, DP63DP03S45 – all detect data for methylene chloride, chloroform, and trichloroethene

Analytical data were R-qualified based on the following validation criteria:

- Method 8270C surrogate spike recovery below the 10 percent method control limit – sample DP63DP01S44 – all nondetect base/neutral analytes

3.0 DATA USABILITY

Review of the QC data associated with the field sample data indicated project measurement data were reliable and fulfilled project data quality objectives. Sampling and analysis precision and accuracy for the PA/SI at DP63 analytical data were acceptable, and valid conclusions may be drawn from the field sample data. Based on the data validation procedure, 93 data results were J- and UJ-qualified (estimated data) however, are still usable to determine whether past releases at DP63 have impacted soil and groundwater at the site. In addition, 30 sample results were B-qualified (blank contaminated data), and 34 sample results were R-qualified (rejected data). B-

and R- qualified data are not usable to achieve the project objectives. A data completeness objective of greater than 97 percent was achieved for the Holloman AFB PA/SI at DP63.

Chemical Analytical Data

**Holloman Air Force Base
DP-63 PA/SI
Chemical Analytical Data**

Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual		
DP63-DP01	8	4/24/00	N	E418.1	PETROLEUM HYDROCARBONS	ND	0	MG/KG	29.5			
					SW6010	SILVER	ND	0	MG/KG	2.28		
					ALUMINUM	=	2070	MG/KG	45.5			
					ARSENIC	ND	0	MG/KG	2.28			
					BARIUM	TR	17.6	MG/KG	45.5			
					BERYLLIUM	ND	0	MG/KG	1.14			
					CALCIUM	=	213000	MG/KG	2840			
					CADMIUM	ND	0	MG/KG	1.14			
					COBALT	ND	0	MG/KG	11.4			
					CHROMIUM, TOTAL	=	2.3	MG/KG	2.28			
					COPPER	ND	0	MG/KG	5.69			
					IRON	=	1940	MG/KG	22.8			
					POTASSIUM	TR	617	MG/KG	1140			
					MAGNESIUM	=	1260	MG/KG	1140			
					MANGANESE	=	25.7	MG/KG	3.41			
					SODIUM	TR	687	MG/KG	1140			
					NICKEL	TR	1.14	MG/KG	9.1			
					LEAD	=	0.69	MG/KG	0.683			
					ANTIMONY	ND	0	MG/KG	13.7			
					SELENIUM	ND	0	MG/KG	1.14			
					THALLIUM	ND	0	MG/KG	2.28			
					VANADIUM	TR	4.8	MG/KG	11.4			
					ZINC	=	5.1	MG/KG	4.55			
					SW7471	MERCURY	ND	0	MG/KG	0.0382		
					SW8081	ALDRIN	ND	0	UG/KG	2		
						ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2		
						BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2		
						DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2		
						GAMMA BHC (LINDANE)	ND	0	UG/KG	2		
						ALPHA-CHLORDANE	ND	0	UG/KG	2		
						GAMMA-CHLORDANE	ND	0	UG/KG	2		
						p,p'-DDD	ND	0	UG/KG	3.9		
						p,p'-DDE	ND	0	UG/KG	3.9		
						p,p'-DDT	ND	0	UG/KG	3.9		
						DIELDRIN	ND	0	UG/KG	3.9		
						ALPHA ENDOSULFAN	ND	0	UG/KG	2		
						BETA ENDOSULFAN	ND	0	UG/KG	3.9		
						ENDOSULFAN SULFATE	ND	0	UG/KG	3.9		
						ENDRIN	ND	0	UG/KG	3.9		
						ENDRIN ALDEHYDE	ND	0	UG/KG	3.9		
						ENDRIN KETONE	ND	0	UG/KG	3.9		
						HEPTACHLOR EPOXIDE	ND	0	UG/KG	2		
						HEPTACHLOR	ND	0	UG/KG	2		
						METHOXYCHLOR	ND	0	UG/KG	20		
						TOXAPHENE	ND	0	UG/KG	200		
						SW8082	PCB-1016 (AROCHLOR 1016)	ND	0	UG/KG	20	
							PCB-1221 (AROCHLOR 1221)	ND	0	UG/KG	20	
			PCB-1232 (AROCHLOR 1232)	ND	0	UG/KG	20					
			PCB-1242 (AROCHLOR 1242)	ND	0	UG/KG	20					
			PCB-1248 (AROCHLOR 1248)	ND	0	UG/KG	20					
			PCB-1254 (AROCHLOR 1254)	ND	0	UG/KG	20					
			PCB-1260 (AROCHLOR 1260)	ND	0	UG/KG	40					

**Holloman Air Force Base
DP-63 PA/SI
Chemical Analytical Data**

Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual				
DP63-DP01	8	4/24/00	N	SW8260	ACETONE	ND	0	UG/KG	600					
					BROMODICHLOROMETHANE	ND	0	UG/KG	300					
					BROMOMETHANE	ND	0	UG/KG	600					
					BENZENE	ND	0	UG/KG	300					
					TOLUENE	ND	0	UG/KG	300					
					CARBON DISULFIDE	ND	0	UG/KG	300					
					CHLOROENZENE	ND	0	UG/KG	300					
					CHLOROETHANE	ND	0	UG/KG	600					
					CHLOROMETHANE	ND	0	UG/KG	600					
					CARBON TETRACHLORIDE	ND	0	UG/KG	300					
					DIBROMOCHLOROMETHANE	ND	0	UG/KG	300					
					1,1-DICHLOROETHANE	ND	0	UG/KG	300					
					1,2-DICHLOROETHANE	ND	0	UG/KG	300					
					1,1-DICHLOROETHENE	ND	0	UG/KG	300					
					TOTAL 1,2-DICHLOROETHENE	ND	0	UG/KG	300					
					cis-1,3-DICHLOROPROPENE	ND	0	UG/KG	300					
					trans-1,3-DICHLOROPROPENE	ND	0	UG/KG	300					
					1,2-DICHLOROPROPANE	ND	0	UG/KG	300					
					ETHYLBENZENE	ND	0	UG/KG	300					
					2-HEXANONE	ND	0	UG/KG	600					
					METHYL ETHYL KETONE (2-BUTANONE)	ND	0	UG/KG	600					
					METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	ND	0	UG/KG	600					
					METHYLENE CHLORIDE	=	470	UG/KG	300					
					1,1,2,2-TETRACHLOROETHANE	ND	0	UG/KG	300					
					TETRACHLOROETHYLENE(PCE)	ND	0	UG/KG	300					
					STYRENE	ND	0	UG/KG	300					
					BROMOFORM	ND	0	UG/KG	300					
					1,1,1-TRICHLOROETHANE	ND	0	UG/KG	300					
					1,1,2-TRICHLOROETHANE	ND	0	UG/KG	300					
					TRICHLOROETHYLENE (TCE)	ND	0	UG/KG	300					
					CHLOROFORM	TR	100	UG/KG	300					
					VINYL CHLORIDE	ND	0	UG/KG	600					
					XYLENES, TOTAL	ND	0	UG/KG	300					
					SW8270					ACENAPHTHENE	ND	0	UG/KG	400
										ACENAPHTHYLENE	ND	0	UG/KG	400
										ANTHRACENE	ND	0	UG/KG	400
										BENZYL BUTYL PHTHALATE	ND	0	UG/KG	400
										bis(2-CHLOROETHOXY) METHANE	ND	0	UG/KG	400
										bis(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	ND	0	UG/KG	400
										bis(2-ETHYLHEXYL) PHTHALATE	TR	21	UG/KG	400
										4-BROMOPHENYL PHENYL ETHER	ND	0	UG/KG	400
										BENZO(a)ANTHRACENE	ND	0	UG/KG	400
BENZO(a)PYRENE	ND	0	UG/KG	400										
BENZO(b)FLUORANTHENE	ND	0	UG/KG	400										
BENZO(g,h,i)PERYLENE	ND	0	UG/KG	400										
BENZO(k)FLUORANTHENE	ND	0	UG/KG	400										
4-CHLORO-3-METHYLPHENOL	ND	0	UG/KG	400										
CARBAZOLE	ND	0	UG/KG	400										
CHRYSENE	ND	0	UG/KG	400										
4-CHLOROANILINE	ND	0	UG/KG	400										
2-CHLOROPHENOL	ND	0	UG/KG	400										
2-CHLORONAPHTHALENE	ND	0	UG/KG	400										

**Holloman Air Force Base
DP-63 PA/SI
Chemical Analytical Data**

Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual
DP63-DP01	8	4/24/00	N	SW8270	4-CHLOROPHENYL PHENYL ETHER	ND	0	UG/KG	400	
					DIBENZ(a,h)ANTHRACENE	ND	0	UG/KG	400	
					DIBENZOFURAN	ND	0	UG/KG	400	
					3,3'-DICHLOROBENZIDINE	ND	0	UG/KG	790	
					1,2-DICHLOROBENZENE	ND	0	UG/KG	400	
					1,3-DICHLOROBENZENE	ND	0	UG/KG	400	
					1,4-DICHLOROBENZENE	ND	0	UG/KG	400	
					2,4-DICHLOROPHENOL	ND	0	UG/KG	400	
					DIETHYL PHTHALATE	ND	0	UG/KG	400	
					2,4-DIMETHYLPHENOL	ND	0	UG/KG	400	
					DIMETHYL PHTHALATE	ND	0	UG/KG	400	
					4,6-DINITRO-2-METHYLPHENOL	ND	0	UG/KG	2000	
					DI-n-BUTYL PHTHALATE	TR	110	UG/KG	400	
					DI-n-OCTYLPHTHALATE	ND	0	UG/KG	400	
					2,4-DINITROPHENOL	ND	0	UG/KG	2000	
					2,4-DINITROTOLUENE	ND	0	UG/KG	400	
					2,6-DINITROTOLUENE	ND	0	UG/KG	400	
					FLUORENE	ND	0	UG/KG	400	
					FLUORANTHENE	ND	0	UG/KG	400	
					HEXACHLOROBUTADIENE	ND	0	UG/KG	400	
					HEXACHLOROCYCLOPENTADIENE	ND	0	UG/KG	400	
					HEXACHLOROBENZENE	ND	0	UG/KG	400	
					HEXACHLOROETHANE	ND	0	UG/KG	400	
					INDENO(1,2,3-c,d)PYRENE	ND	0	UG/KG	400	
					ISOPHORONE	ND	0	UG/KG	400	
					2-METHYLPHENOL (o-CRESOL)	ND	0	UG/KG	400	
					4-METHYLPHENOL (p-CRESOL)	ND	0	UG/KG	400	
					2-METHYLNAPHTHALENE	ND	0	UG/KG	400	
					NAPHTHALENE	ND	0	UG/KG	400	
					N-NITROSODIPHENYLAMINE	ND	0	UG/KG	400	
					N-NITROSODI-n-PROPYLAMINE	ND	0	UG/KG	400	
					2-NITROANILINE	ND	0	UG/KG	2000	
					3-NITROANILINE	ND	0	UG/KG	2000	
					4-NITROANILINE	ND	0	UG/KG	2000	
					NITROBENZENE	ND	0	UG/KG	400	
					2-NITROPHENOL	ND	0	UG/KG	400	
					4-NITROPHENOL	ND	0	UG/KG	2000	
					2,2'-OXYBIS(1-CHLORO)PROPANE	ND	0	UG/KG	400	
					PENTACHLOROPHENOL	ND	0	UG/KG	2000	
					PHENANTHRENE	ND	0	UG/KG	400	
PHENOL	ND	0	UG/KG	400						
PYRENE	ND	0	UG/KG	400						
1,2,4-TRICHLOROBENZENE	ND	0	UG/KG	400						
2,4,5-TRICHLOROPHENOL	ND	0	UG/KG	2000						
2,4,6-TRICHLOROPHENOL	ND	0	UG/KG	400						
				SW9014	CYANIDE	ND	0	MG/KG	0.175	
	22	4/27/00		E418.1	PETROLEUM HYDROCARBONS	=	62.5	MG/KG	26.6	
				SW6010	SILVER	ND	0	MG/KG	2.14	
					ALUMINUM	=	4240	MG/KG	42.7	
					ARSENIC	ND	0	MG/KG	2.14	
					BARJUM	=	65.8	MG/KG	42.7	
					BERYLLIUM	TR	0.27	MG/KG	1.07	

**Holloman Air Force Base
DP-63 PA/SI
Chemical Analytical Data**

Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual				
DP63-DP01	22	4/27/00	N	SW6010	CALCIUM	=	88300	MG/KG	1070					
					CADMIUM	ND	0	MG/KG	1.07					
					COBALT	TR	1.7	MG/KG	10.7					
					CHROMIUM, TOTAL	=	6.4	MG/KG	1.07					
					COPPER	TR	3.3	MG/KG	5.34					
					IRON	=	6140	MG/KG	21.4					
					POTASSIUM	TR	828	MG/KG	1070					
					MAGNESIUM	=	4410	MG/KG	1070					
					MANGANESE	=	91.7	MG/KG	3.21					
					SODIUM	=	1500	MG/KG	1070					
					NICKEL	TR	4.1	MG/KG	8.55					
					LEAD	=	3.6	MG/KG	0.641					
					ANTIMONY	ND	0	MG/KG	12.8					
					SELENIUM	ND	0	MG/KG	1.07					
					THALLIUM	ND	0	MG/KG	2.14					
					VANADIUM	=	14	MG/KG	10.7					
					ZINC	=	14.7	MG/KG	4.27					
								SW7471	MERCURY	ND	0	MG/KG	0.0329	
								SW8081	ALDRIN	ND	0	UG/KG	1.8	
									ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	1.8	
									BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	1.8	
									DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	1.8	
									GAMMA BHC (LINDANE)	ND	0	UG/KG	1.8	
									ALPHA-CHLORDANE	ND	0	UG/KG	1.8	
									GAMMA-CHLORDANE	ND	0	UG/KG	1.8	
									p,p'-DDD	ND	0	UG/KG	3.6	
									p,p'-DDE	ND	0	UG/KG	3.6	
									p,p'-DDT	ND	0	UG/KG	3.6	
									DIELDRIN	ND	0	UG/KG	3.6	
									ALPHA ENDOSULFAN	ND	0	UG/KG	1.8	
									BETA ENDOSULFAN	ND	0	UG/KG	3.6	
									ENDOSULFAN SULFATE	ND	0	UG/KG	3.6	
									ENDRIN	ND	0	UG/KG	3.6	
									ENDRIN ALDEHYDE	ND	0	UG/KG	3.6	
									ENDRIN KETONE	ND	0	UG/KG	3.6	
									HEPTACHLOR EPOXIDE	ND	0	UG/KG	1.8	
									HEPTACHLOR	ND	0	UG/KG	1.8	
									METHOXYCHLOR	ND	0	UG/KG	18	
									TOXAPHENE	ND	0	UG/KG	180	
			SW8082	PCB-1016 (AROCHLOR 1016)	ND	0	UG/KG	19						
				PCB-1221 (AROCHLOR 1221)	ND	0	UG/KG	19						
				PCB-1232 (AROCHLOR 1232)	ND	0	UG/KG	19						
				PCB-1242 (AROCHLOR 1242)	ND	0	UG/KG	19						
				PCB-1248 (AROCHLOR 1248)	ND	0	UG/KG	19						
				PCB-1254 (AROCHLOR 1254)	ND	0	UG/KG	19						
				PCB-1260 (AROCHLOR 1260)	ND	0	UG/KG	36						
			SW8260	ACETONE	ND	0	UG/KG	532						
				BROMODICHLOROMETHANE	ND	0	UG/KG	266						
				BROMOMETHANE	ND	0	UG/KG	532						
				BENZENE	ND	0	UG/KG	266						
				TOLUENE	ND	0	UG/KG	266						
				CARBON DISULFIDE	ND	0	UG/KG	266						

**Holloman Air Force Base
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Chemical Analytical Data**

Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual	
DP63-DP01	22	4/27/00	N	SW8260	CHLORO BENZENE	ND	0	UG/KG	266		
					CHLOROETHANE	ND	0	UG/KG	532		
					CHLOROMETHANE	ND	0	UG/KG	532		
					CARBON TETRACHLORIDE	ND	0	UG/KG	266		
					DIBROMOCHLOROMETHANE	ND	0	UG/KG	266		
					1,1-DICHLOROETHANE	ND	0	UG/KG	266		
					1,2-DICHLOROETHANE	ND	0	UG/KG	266		
					1,1-DICHLOROETHENE	ND	0	UG/KG	266		
					TOTAL 1,2-DICHLOROETHENE	ND	0	UG/KG	266		
					cis-1,3-DICHLOROPROPENE	ND	0	UG/KG	266		
					trans-1,3-DICHLOROPROPENE	ND	0	UG/KG	266		
					1,2-DICHLOROPROPANE	ND	0	UG/KG	266		
					ETHYLBENZENE	ND	0	UG/KG	266		
					2-HEXANONE	ND	0	UG/KG	532		
					METHYL ETHYL KETONE (2-BUTANONE)	ND	0	UG/KG	532		
					METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	ND	0	UG/KG	532		
					METHYLENE CHLORIDE	=	496	UG/KG	266		
					1,1,2,2-TETRACHLOROETHANE	ND	0	UG/KG	266		
					TETRACHLOROETHYLENE(PCE)	ND	0	UG/KG	266		
					STYRENE	ND	0	UG/KG	266		
					BROMOFORM	ND	0	UG/KG	266		
					1,1,1-TRICHLOROETHANE	ND	0	UG/KG	266		
					1,1,2-TRICHLOROETHANE	ND	0	UG/KG	266		
					TRICHLOROETHYLENE (TCE)	TR	81	UG/KG	266		
					CHLOROFORM	TR	65	UG/KG	266		
					VINYL CHLORIDE	ND	0	UG/KG	532		
					XYLENES, TOTAL	ND	0	UG/KG	266		
					SW8270	ACENAPHTHENE	ND	0	UG/KG	350	
					ACENAPHTHYLENE	ND	0	UG/KG	350		
					ANTHRACENE	ND	0	UG/KG	350		
					BENZYL BUTYL PHTHALATE	ND	0	UG/KG	350		
					bis(2-CHLOROETHOXY) METHANE	ND	0	UG/KG	350		
					bis(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	ND	0	UG/KG	350		
					bis(2-ETHYLHEXYL) PHTHALATE	ND	0	UG/KG	350		
					4-BROMOPHENYL PHENYL ETHER	ND	0	UG/KG	350		
					BENZO(a)ANTHRACENE	ND	0	UG/KG	350		
					BENZO(a)PYRENE	ND	0	UG/KG	350		
					BENZO(b)FLUORANTHENE	ND	0	UG/KG	350		
					BENZO(g,h,i)PERYLENE	ND	0	UG/KG	350		
					BENZO(k)FLUORANTHENE	ND	0	UG/KG	350		
					4-CHLORO-3-METHYLPHENOL	ND	0	UG/KG	350		
					CARBAZOLE	ND	0	UG/KG	350		
					CHRYSENE	ND	0	UG/KG	350		
					4-CHLOROANILINE	ND	0	UG/KG	350		
					2-CHLOROPHENOL	ND	0	UG/KG	350		
					2-CHLORONAPHTHALENE	ND	0	UG/KG	350		
					4-CHLOROPHENYL PHENYL ETHER	ND	0	UG/KG	350		
DIBENZ(a,h)ANTHRACENE	ND	0	UG/KG	350							
DIBENZOFURAN	ND	0	UG/KG	350							
3,3'-DICHLOROBENZIDINE	ND	0	UG/KG	710							
1,2-DICHLOROBENZENE	ND	0	UG/KG	350							
1,3-DICHLOROBENZENE	ND	0	UG/KG	350							

**Holloman Air Force Base
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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual
DP63-DP01	22	4/27/00	N	SW8270	1,4-DICHLOROENZENE	ND	0	UG/KG	350	
					2,4-DICHLOROPHENOL	ND	0	UG/KG	350	
					DIETHYL PHTHALATE	ND	0	UG/KG	350	
					2,4-DIMETHYLPHENOL	ND	0	UG/KG	350	
					DIMETHYL PHTHALATE	ND	0	UG/KG	350	
					4,6-DINITRO-2-METHYLPHENOL	ND	0	UG/KG	1800	
					DI-n-BUTYL PHTHALATE	ND	0	UG/KG	350	
					DI-n-OCTYLPHTHALATE	ND	0	UG/KG	350	
					2,4-DINITROPHENOL	ND	0	UG/KG	1800	
					2,4-DINITROTOLUENE	ND	0	UG/KG	350	
					2,6-DINITROTOLUENE	ND	0	UG/KG	350	
					FLUORENE	ND	0	UG/KG	350	
					FLUORANTHENE	ND	0	UG/KG	350	
					HEXACHLOROBUTADIENE	ND	0	UG/KG	350	
					HEXACHLOROCYCLOPENTADIENE	ND	0	UG/KG	350	
					HEXACHLOROENZENE	ND	0	UG/KG	350	
					HEXACHLOROETHANE	ND	0	UG/KG	350	
					INDENO(1,2,3-c,d)PYRENE	ND	0	UG/KG	350	
					ISOPHORONE	ND	0	UG/KG	350	
					2-METHYLPHENOL (o-CRESOL)	ND	0	UG/KG	350	
					4-METHYLPHENOL (p-CRESOL)	ND	0	UG/KG	350	
					2-METHYLNAPHTHALENE	ND	0	UG/KG	350	
					NAPHTHALENE	ND	0	UG/KG	350	
					N-NITROSODIPHENYLAMINE	ND	0	UG/KG	350	
					N-NITROSODI-n-PROPYLAMINE	ND	0	UG/KG	350	
					2-NITROANILINE	ND	0	UG/KG	1800	
					3-NITROANILINE	ND	0	UG/KG	1800	
					4-NITROANILINE	ND	0	UG/KG	1800	
					NITROENZENE	ND	0	UG/KG	350	
					2-NITROPHENOL	ND	0	UG/KG	350	
					4-NITROPHENOL	ND	0	UG/KG	1800	
					2,2'-OXYBIS(1-CHLORO)PROPANE	ND	0	UG/KG	350	
					PENTACHLOROPHENOL	ND	0	UG/KG	1800	
PHENANTHRENE	ND	0	UG/KG	350						
PHENOL	ND	0	UG/KG	350						
PYRENE	ND	0	UG/KG	350						
1,2,4-TRICHLOROENZENE	ND	0	UG/KG	350						
2,4,5-TRICHLOROPHENOL	ND	0	UG/KG	1800						
2,4,6-TRICHLOROPHENOL	ND	0	UG/KG	350						
			SW9014	CYANIDE	ND	0	MG/KG	0.224		
	45	4/28/00		E418.1	PETROLEUM HYDROCARBONS	=	41.4	MG/KG	34.1	
			SW6010	SILVER	ND	0	MG/KG	2.68		
			ALUMINUM	=	5650	MG/KG	53.6			
			ARSENIC	ND	0	MG/KG	2.68			
			BARIUM	=	94.4	MG/KG	53.6			
			BERYLLIUM	TR	0.31	MG/KG	1.34			
			CALCIUM	=	170000	MG/KG	3350			
			CADMIUM	ND	0	MG/KG	1.34			
			COBALT	TR	2.1	MG/KG	13.4			
			CHROMIUM, TOTAL	=	7.4	MG/KG	1.34			
			COPPER	TR	4.2	MG/KG	6.7			
			IRON	=	5510	MG/KG	26.8			

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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual	
DP63-DP01	45	4/28/00	N	SW6010	POTASSIUM	TR	1030	MG/KG	1340		
					MAGNESIUM	=	3270	MG/KG	1340		
					MANGANESE	=	77.8	MG/KG	4.02		
					SODIUM	=	2600	MG/KG	1340		
					NICKEL	TR	4.4	MG/KG	10.7		
					LEAD	=	3	MG/KG	0.804		
					ANTIMONY	ND	0	MG/KG	16.1		
					SELENIUM	ND	0	MG/KG	1.34		
					THALLIUM	ND	0	MG/KG	2.68		
					VANADIUM	TR	11.1	MG/KG	13.4		
				ZINC	=	18.8	MG/KG	5.36			
				SW7471	MERCURY	ND	0	MG/KG	0.0448		
				SW8081	ALDRIN	ND	0	UG/KG	2.3		
					ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.3		
					BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.3		
					DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.3		
					GAMMA BHC (LINDANE)	ND	0	UG/KG	2.3		
					ALPHA-CHLORDANE	ND	0	UG/KG	2.3		
					GAMMA-CHLORDANE	ND	0	UG/KG	2.3		
					p,p'-DDD	ND	0	UG/KG	4.6		
					p,p'-DDE	ND	0	UG/KG	4.6		
					p,p'-DDT	ND	0	UG/KG	4.6		
					DIELDRIN	ND	0	UG/KG	4.6		
					ALPHA ENDOSULFAN	ND	0	UG/KG	2.3		
					BETA ENDOSULFAN	ND	0	UG/KG	4.6		
					ENDOSULFAN SULFATE	ND	0	UG/KG	4.6		
					ENDRIN	ND	0	UG/KG	4.6		
					ENDRIN ALDEHYDE	ND	0	UG/KG	4.6		
					ENDRIN KETONE	ND	0	UG/KG	4.6		
					HEPTACHLOR EPOXIDE	ND	0	UG/KG	2.3		
					HEPTACHLOR	ND	0	UG/KG	2.3		
					METHOXYCHLOR	ND	0	UG/KG	23		
					TOXAPHENE	ND	0	UG/KG	230		
					SW8082	PCB-1016 (AROCHLOR 1016)	ND	0	UG/KG	24	
						PCB-1221 (AROCHLOR 1221)	ND	0	UG/KG	24	
						PCB-1232 (AROCHLOR 1232)	ND	0	UG/KG	24	
						PCB-1242 (AROCHLOR 1242)	ND	0	UG/KG	24	
						PCB-1248 (AROCHLOR 1248)	ND	0	UG/KG	24	
						PCB-1254 (AROCHLOR 1254)	ND	0	UG/KG	24	
					SW8260	PCB-1260 (AROCHLOR 1260)	ND	0	UG/KG	46	
				ACETONE		ND	0	UG/KG	685		
				BROMODICHLOROMETHANE		ND	0	UG/KG	343		
BROMOMETHANE	ND	0	UG/KG	685							
BENZENE	ND	0	UG/KG	343							
TOLUENE	TR	162	UG/KG	343							
CARBON DISULFIDE	=	4500	UG/KG	343							
CHLOROBENZENE	ND	0	UG/KG	343							
CHLOROETHANE	ND	0	UG/KG	685							
CHLOROMETHANE	ND	0	UG/KG	685							
CARBON TETRACHLORIDE	ND	0	UG/KG	343							
DIBROMOCHLOROMETHANE	ND	0	UG/KG	343							
1,1-DICHLOROETHANE	ND	0	UG/KG	343							

**Holloman Air Force Base
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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual					
DP63-DP01	45	4/28/00	N	SW8260	1,2-DICHLOROETHANE	ND	0	UG/KG	343						
					1,1-DICHLOROETHENE	ND	0	UG/KG	343						
					TOTAL 1,2-DICHLOROETHENE	ND	0	UG/KG	343						
					cis-1,3-DICHLOROPROPENE	ND	0	UG/KG	343						
					trans-1,3-DICHLOROPROPENE	ND	0	UG/KG	343						
					1,2-DICHLOROPROPANE	ND	0	UG/KG	343						
					ETHYLBENZENE	ND	0	UG/KG	343						
					2-HEXANONE	ND	0	UG/KG	685						
					METHYL ETHYL KETONE (2-BUTANONE)	=	1530	UG/KG	685						
					METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	ND	0	UG/KG	685						
					METHYLENE CHLORIDE	=	534	UG/KG	343						
					1,1,2,2-TETRACHLOROETHANE	ND	0	UG/KG	343						
					TETRACHLOROETHYLENE(PCE)	ND	0	UG/KG	343						
					STYRENE	ND	0	UG/KG	343						
					BROMOFORM	ND	0	UG/KG	343						
					1,1,1-TRICHLOROETHANE	ND	0	UG/KG	343						
					1,1,2-TRICHLOROETHANE	ND	0	UG/KG	343						
					TRICHLOROETHYLENE (TCE)	ND	0	UG/KG	343						
					CHLOROFORM	TR	97	UG/KG	343						
					VINYL CHLORIDE	ND	0	UG/KG	685						
					XYLENES, TOTAL	ND	0	UG/KG	343						
					SW8270					ACENAPHTHENE	ND	0	UG/KG	460	
										ACENAPHTHYLENE	ND	0	UG/KG	460	
										ANTHRACENE	ND	0	UG/KG	460	
										BENZYL BUTYL PHTHALATE	ND	0	UG/KG	460	
										bis(2-CHLOROETHOXY) METHANE	ND	0	UG/KG	460	
										bis(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	ND	0	UG/KG	460	
										bis(2-ETHYLHEXYL) PHTHALATE	TR	29	UG/KG	460	
										4-BROMOPHENYL PHENYL ETHER	ND	0	UG/KG	460	
										BENZO(a)ANTHRACENE	ND	0	UG/KG	460	
										BENZO(a)PYRENE	ND	0	UG/KG	460	
										BENZO(b)FLUORANTHENE	ND	0	UG/KG	460	
										BENZO(g,h,i)PERYLENE	ND	0	UG/KG	460	
										BENZO(k)FLUORANTHENE	ND	0	UG/KG	460	
										4-CHLORO-3-METHYLPHENOL	ND	0	UG/KG	460	
										CARBAZOLE	ND	0	UG/KG	460	
										CHRYSENE	ND	0	UG/KG	460	
										4-CHLOROANILINE	ND	0	UG/KG	460	
										2-CHLOROPHENOL	ND	0	UG/KG	460	
										2-CHLORONAPHTHALENE	ND	0	UG/KG	460	
										4-CHLOROPHENYL PHENYL ETHER	ND	0	UG/KG	460	
										DIBENZ(a,h)ANTHRACENE	ND	0	UG/KG	460	
DIBENZOFURAN	ND	0	UG/KG	460											
3,3'-DICHLOROBENZIDINE	ND	0	UG/KG	910											
1,2-DICHLOROBENZENE	ND	0	UG/KG	460											
1,3-DICHLOROBENZENE	ND	0	UG/KG	460											
1,4-DICHLOROBENZENE	ND	0	UG/KG	460											
2,4-DICHLOROPHENOL	ND	0	UG/KG	460											
DIETHYL PHTHALATE	TR	190	UG/KG	460											
2,4-DIMETHYLPHENOL	ND	0	UG/KG	460											
DIMETHYL PHTHALATE	ND	0	UG/KG	460											
4,6-DINITRO-2-METHYLPHENOL	ND	0	UG/KG	2300											

**Holloman Air Force Base
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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual					
DP63-DP01	45	4/28/00	N	SW8270	DI-n-BUTYL PHTHALATE	TR	69	UG/KG	460						
					DI-n-OCTYLPHTHALATE	ND	0	UG/KG	460						
					2,4-DINITROPHENOL	ND	0	UG/KG	2300						
					2,4-DINITROTOLUENE	ND	0	UG/KG	460						
					2,6-DINITROTOLUENE	ND	0	UG/KG	460						
					FLUORENE	ND	0	UG/KG	460						
					FLUORANTHENE	ND	0	UG/KG	460						
					HEXACHLOROBUTADIENE	ND	0	UG/KG	460						
					HEXACHLOROCYCLOPENTADIENE	ND	0	UG/KG	460						
					HEXACHLOROBENZENE	ND	0	UG/KG	460						
					HEXACHLOROETHANE	ND	0	UG/KG	460						
					INDENO(1,2,3-c,d)PYRENE	ND	0	UG/KG	460						
					ISOPHORONE	ND	0	UG/KG	460						
					2-METHYLPHENOL (o-CRESOL)	ND	0	UG/KG	460						
					4-METHYLPHENOL (p-CRESOL)	ND	0	UG/KG	460						
					2-METHYLNAPHTHALENE	ND	0	UG/KG	460						
					NAPHTHALENE	ND	0	UG/KG	460						
					N-NITROSODIPHENYLAMINE	ND	0	UG/KG	460						
					N-NITROSODI-n-PROPYLAMINE	ND	0	UG/KG	460						
					2-NITROANILINE	ND	0	UG/KG	2300						
					3-NITROANILINE	ND	0	UG/KG	2300						
					4-NITROANILINE	ND	0	UG/KG	2300						
					NITROBENZENE	ND	0	UG/KG	460						
					2-NITROPHENOL	ND	0	UG/KG	460						
					4-NITROPHENOL	ND	0	UG/KG	2300						
					2,2'-OXYBIS(1-CHLORO)PROPANE	ND	0	UG/KG	460						
					PENTACHLOROPHENOL	ND	0	UG/KG	2300						
					PHENANTHRENE	ND	0	UG/KG	460						
					PHENOL	ND	0	UG/KG	460						
					PYRENE	ND	0	UG/KG	460						
					1,2,4-TRICHLOROBENZENE	ND	0	UG/KG	460						
					2,4,5-TRICHLOROPHENOL	ND	0	UG/KG	2300						
					2,4,6-TRICHLOROPHENOL	ND	0	UG/KG	460						
									SW9014	CYANIDE	ND	0	MG/KG	0.205	
								FD	E418.1	PETROLEUM HYDROCARBONS	=	38.5	MG/KG	34.7	
									SW6010	SILVER	ND	0	MG/KG	2.68	
										ALUMINUM	=	3650	MG/KG	53.6	
										ARSENIC	ND	0	MG/KG	2.68	
										BARIUM	TR	52.8	MG/KG	53.6	
										BERYLLIUM	ND	0	MG/KG	1.34	
										CALCIUM	=	203000	MG/KG	3350	
										CADMIUM	ND	0	MG/KG	1.34	
					COBALT	ND	0	MG/KG	13.4						
					CHROMIUM, TOTAL	=	4.9	MG/KG	1.34						
					COPPER	TR	3	MG/KG	6.7						
					IRON	=	3200	MG/KG	26.8						
					POTASSIUM	TR	648	MG/KG	1340						
					MAGNESIUM	=	2290	MG/KG	1340						
					MANGANESE	=	36.9	MG/KG	4.02						
					SODIUM	=	2240	MG/KG	1340						
					NICKEL	TR	2.9	MG/KG	10.7						
					LEAD	=	2.1	MG/KG	0.804						

**Holloman Air Force Base
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Chemical Analytical Data**

Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual		
DP63-DP01	45	4/28/00	FD	SW6010	ANTIMONY	ND	0	MG/KG	16.1			
					SELENIUM	ND	0	MG/KG	1.34			
					THALLIUM	ND	0	MG/KG	2.68			
					VANADIUM	TR	6.3	MG/KG	13.4			
					ZINC	=	10.3	MG/KG	5.36			
					SW7471	MERCURY	ND	0	MG/KG	0.0442		
					SW8081	ALDRIN	ND	0	UG/KG	2.3		
						ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.3		
						BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.3		
						DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.3		
						GAMMA BHC (LINDANE)	ND	0	UG/KG	2.3		
						ALPHA-CHLORDANE	ND	0	UG/KG	2.3		
						GAMMA-CHLORDANE	ND	0	UG/KG	2.3		
						p,p'-DDD	ND	0	UG/KG	4.6		
						p,p'-DDE	ND	0	UG/KG	4.6		
						p,p'-DDT	ND	0	UG/KG	4.6		
						DIELDRIN	ND	0	UG/KG	4.6		
						ALPHA ENDOSULFAN	ND	0	UG/KG	2.3		
						BETA ENDOSULFAN	ND	0	UG/KG	4.6		
						ENDOSULFAN SULFATE	ND	0	UG/KG	4.6		
						ENDRIN	ND	0	UG/KG	4.6		
						ENDRIN ALDEHYDE	ND	0	UG/KG	4.6		
						ENDRIN KETONE	ND	0	UG/KG	4.6		
						HEPTACHLOR EPOXIDE	ND	0	UG/KG	2.3		
						HEPTACHLOR	ND	0	UG/KG	2.3		
						METHOXYCHLOR	ND	0	UG/KG	23		
						TOXAPHENE	ND	0	UG/KG	230		
						SW8082	PCB-1016 (AROCHLOR 1016)	ND	0	UG/KG	24	
							PCB-1221 (AROCHLOR 1221)	ND	0	UG/KG	24	
							PCB-1232 (AROCHLOR 1232)	ND	0	UG/KG	24	
							PCB-1242 (AROCHLOR 1242)	ND	0	UG/KG	24	
							PCB-1248 (AROCHLOR 1248)	ND	0	UG/KG	24	
							PCB-1254 (AROCHLOR 1254)	ND	0	UG/KG	24	
							PCB-1260 (AROCHLOR 1260)	ND	0	UG/KG	47	
						SW8260	ACETONE	ND	0	UG/KG	694	
							BROMODICHLOROMETHANE	ND	0	UG/KG	347	
							BROMOMETHANE	ND	0	UG/KG	694	
							BENZENE	ND	0	UG/KG	347	
							TOLUENE	=	440	UG/KG	347	
					CARBON DISULFIDE		=	8880	UG/KG	347		
					CHLOROBENZENE		ND	0	UG/KG	347		
					CHLOROETHANE		ND	0	UG/KG	694		
CHLOROMETHANE	ND	0	UG/KG	694								
CARBON TETRACHLORIDE	ND	0	UG/KG	347								
DIBROMOCHLOROMETHANE	ND	0	UG/KG	347								
1,1-DICHLOROETHANE	ND	0	UG/KG	347								
1,2-DICHLOROETHANE	ND	0	UG/KG	347								
1,1-DICHLOROETHENE	ND	0	UG/KG	347								
TOTAL 1,2-DICHLOROETHENE	ND	0	UG/KG	347								
cis-1,3-DICHLOROPROPENE	ND	0	UG/KG	347								
trans-1,3-DICHLOROPROPENE	ND	0	UG/KG	347								
1,2-DICHLOROPROPANE	ND	0	UG/KG	347								

**Holloman Air Force Base
DP-63 PA/SI
Chemical Analytical Data**

Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual	
DP63-DP01	45	4/28/00	FD	SW8260	ETHYLBENZENE	ND	0	UG/KG	347		
					2-HEXANONE	ND	0	UG/KG	694		
					METHYL ETHYL KETONE (2-BUTANONE)	=	4360	UG/KG	694		
					METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	ND	0	UG/KG	694		
					METHYLENE CHLORIDE	=	859	UG/KG	347		
					1,1,2,2-TETRACHLOROETHANE	ND	0	UG/KG	347		
					TETRACHLOROETHYLENE(PCE)	ND	0	UG/KG	347		
					STYRENE	ND	0	UG/KG	347		
					BROMOFORM	ND	0	UG/KG	347		
					1,1,1-TRICHLOROETHANE	ND	0	UG/KG	347		
					1,1,2-TRICHLOROETHANE	ND	0	UG/KG	347		
					TRICHLOROETHYLENE (TCE)	TR	101	UG/KG	347		
					CHLOROFORM	TR	102	UG/KG	347		
					VINYL CHLORIDE	ND	0	UG/KG	694		
					XYLENES, TOTAL	ND	0	UG/KG	347		
					SW8270	ACENAPHTHENE	ND	0	UG/KG	460	
					ACENAPHTHYLENE	ND	0	UG/KG	460		
					ANTHRACENE	ND	0	UG/KG	460		
					BENZYL BUTYL PHTHALATE	ND	0	UG/KG	460		
					bis(2-CHLOROETHOXY) METHANE	ND	0	UG/KG	460		
					bis(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	ND	0	UG/KG	460		
					bis(2-ETHYLHEXYL) PHTHALATE	TR	30	UG/KG	460		
					4-BROMOPHENYL PHENYL ETHER	ND	0	UG/KG	460		
					BENZO(a)ANTHRACENE	ND	0	UG/KG	460		
					BENZO(a)PYRENE	ND	0	UG/KG	460		
					BENZO(b)FLUORANTHENE	ND	0	UG/KG	460		
					BENZO(g,h,i)PERYLENE	ND	0	UG/KG	460		
					BENZO(k)FLUORANTHENE	ND	0	UG/KG	460		
					4-CHLORO-3-METHYLPHENOL	ND	0	UG/KG	460		
					CARBAZOLE	ND	0	UG/KG	460		
					CHRYSENE	ND	0	UG/KG	460		
					4-CHLOROANILINE	ND	0	UG/KG	460		
					2-CHLOROPHENOL	ND	0	UG/KG	460		
					2-CHLORONAPHTHALENE	ND	0	UG/KG	460		
					4-CHLOROPHENYL PHENYL ETHER	ND	0	UG/KG	460		
					DIBENZ(a,h)ANTHRACENE	ND	0	UG/KG	460		
DIBENZOFURAN	ND	0	UG/KG	460							
3,3'-DICHLOROBENZIDINE	ND	0	UG/KG	930							
1,2-DICHLOROBENZENE	ND	0	UG/KG	460							
1,3-DICHLOROBENZENE	ND	0	UG/KG	460							
1,4-DICHLOROBENZENE	ND	0	UG/KG	460							
2,4-DICHLOROPHENOL	ND	0	UG/KG	460							
DIETHYL PHTHALATE	ND	0	UG/KG	460							
2,4-DIMETHYLPHENOL	ND	0	UG/KG	460							
DIMETHYL PHTHALATE	ND	0	UG/KG	460							
4,6-DINITRO-2-METHYLPHENOL	ND	0	UG/KG	2300							
DI-n-BUTYL PHTHALATE	ND	0	UG/KG	460							
DI-n-OCTYLPHTHALATE	ND	0	UG/KG	460							
2,4-DINITROPHENOL	ND	0	UG/KG	2300							
2,4-DINITROTOLUENE	ND	0	UG/KG	460							
2,6-DINITROTOLUENE	ND	0	UG/KG	460							
FLUORENE	ND	0	UG/KG	460							

**Holloman Air Force Base
DP-63 PA/SI
Chemical Analytical Data**

Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual			
DP63-DP01	45	4/28/00	FD	SW8270	FLUORANTHENE	ND	0	UG/KG	460				
					HEXACHLOROBUTADIENE	ND	0	UG/KG	460				
					HEXACHLOROCYCLOPENTADIENE	ND	0	UG/KG	460				
					HEXACHLOROBENZENE	ND	0	UG/KG	460				
					HEXACHLOROETHANE	ND	0	UG/KG	460				
					INDENO(1,2,3-c,d)PYRENE	ND	0	UG/KG	460				
					ISOPHORONE	ND	0	UG/KG	460				
					2-METHYLPHENOL (o-CRESOL)	ND	0	UG/KG	460				
					4-METHYLPHENOL (p-CRESOL)	ND	0	UG/KG	460				
					2-METHYLNAPHTHALENE	ND	0	UG/KG	460				
					NAPHTHALENE	ND	0	UG/KG	460				
					N-NITROSODIPHENYLAMINE	ND	0	UG/KG	460				
					N-NITROSODI-n-PROPYLAMINE	ND	0	UG/KG	460				
					2-NITROANILINE	ND	0	UG/KG	2300				
					3-NITROANILINE	ND	0	UG/KG	2300				
					4-NITROANILINE	ND	0	UG/KG	2300				
					NITROBENZENE	ND	0	UG/KG	460				
					2-NITROPHENOL	ND	0	UG/KG	460				
					4-NITROPHENOL	ND	0	UG/KG	2300				
					2,2'-OXYBIS(1-CHLORO)PROPANE	ND	0	UG/KG	460				
					PENTACHLOROPHENOL	ND	0	UG/KG	2300				
					PHENANTHRENE	ND	0	UG/KG	460				
					PHENOL	ND	0	UG/KG	460				
					PYRENE	ND	0	UG/KG	460				
					1,2,4-TRICHLOROBENZENE	ND	0	UG/KG	460				
					2,4,5-TRICHLOROPHENOL	ND	0	UG/KG	2300				
					2,4,6-TRICHLOROPHENOL	ND	0	UG/KG	460				
					5/1/00	N	SW9014	CYANIDE	ND	0	MG/KG	0.208	
					SW8330		2-AMINO-4,6-DINITROTOLUENE	ND	0	UG/L	1.2		
					4-AMINO-2,6-DINITROTOLUENE		ND	0	UG/L	1.2			
					1,3-DINITROBENZENE		ND	0	UG/L	1.2			
					2,4-DINITROTOLUENE		ND	0	UG/L	1.2			
					2,6-DINITROTOLUENE		ND	0	UG/L	1.2			
					OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE		ND	0	UG/L	2.6			
		2-NITROTOLUENE	ND	0	UG/L		2.6						
		3-NITROTOLUENE	ND	0	UG/L		2.6						
		4-NITROTOLUENE	ND	0	UG/L		2.6						
		NITROBENZENE	ND	0	UG/L		1.2						
		HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	ND	0	UG/L		2.6						
		TETRYL	ND	0	UG/L		2.6						
		1,3,5-TRINITROBENZENE	ND	0	UG/L		1.2						
		2,4,6-TRINITROTOLUENE	ND	0	UG/L		1.2						
		DP63-DP02	8	4/25/00			E418.1	PETROLEUM HYDROCARBONS	ND	0	MG/KG	31	
SW6010	SILVER	ND				0	MG/KG	2.42					
ALUMINUM	=	1360				MG/KG	48.3						
ARSENIC	ND	0				MG/KG	2.42						
BARIUM	TR	17				MG/KG	48.3						
BERYLLIUM	ND	0				MG/KG	1.21						
CALCIUM	=	196000				MG/KG	3020						
CADMIUM	ND	0				MG/KG	1.21						
COBALT	ND	0				MG/KG	12.1						
CHROMIUM, TOTAL	=	1.5				MG/KG	1.21						

**Holloman Air Force Base
DP-63 PA/SI
Chemical Analytical Data**

Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual	
DP63-DP02	8	4/25/00	N	SW6010	COPPER	TR	1.23	MG/KG	6.04		
					IRON	=	1280	MG/KG	24.2		
					POTASSIUM	TR	432	MG/KG	1210		
					MAGNESIUM	=	1270	MG/KG	1210		
					MANGANESE	=	21	MG/KG	3.62		
					SODIUM	TR	1170	MG/KG	1210		
					NICKEL	ND	0	MG/KG	9.66		
					LEAD	=	2.8	MG/KG	0.725		
					ANTIMONY	ND	0	MG/KG	14.5		
					SELENIUM	ND	0	MG/KG	1.21		
					THALLIUM	ND	0	MG/KG	2.42		
					VANADIUM	TR	3	MG/KG	12.1		
					ZINC	TR	4.8	MG/KG	4.83		
				SW7471	MERCURY	ND	0	MG/KG	0.0401		
				SW8081	ALDRIN	ND	0	UG/KG	2.1		
					ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.1		
					BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.1		
					DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.1		
					GAMMA BHC (LINDANE)	ND	0	UG/KG	2.1		
					ALPHA-CHLORDANE	ND	0	UG/KG	2.1		
					GAMMA-CHLORDANE	ND	0	UG/KG	2.1		
					p,p'-DDD	ND	0	UG/KG	4.1		
					p,p'-DDE	ND	0	UG/KG	4.1		
					p,p'-DDT	ND	0	UG/KG	4.1		
					DIELDRIN	ND	0	UG/KG	4.1		
					ALPHA ENDOSULFAN	ND	0	UG/KG	2.1		
					BETA ENDOSULFAN	ND	0	UG/KG	4.1		
					ENDOSULFAN SULFATE	ND	0	UG/KG	4.1		
					ENDRIN	ND	0	UG/KG	4.1		
					ENDRIN ALDEHYDE	ND	0	UG/KG	4.1		
					ENDRIN KETONE	ND	0	UG/KG	4.1		
					HEPTACHLOR EPOXIDE	ND	0	UG/KG	2.1		
					HEPTACHLOR	ND	0	UG/KG	2.1		
					METHOXYCHLOR	ND	0	UG/KG	21		
					TOXAPHENE	ND	0	UG/KG	210		
					SW8082	PCB-1016 (AROCHLOR 1016)	ND	0	UG/KG	21	
						PCB-1221 (AROCHLOR 1221)	ND	0	UG/KG	21	
				PCB-1232 (AROCHLOR 1232)		ND	0	UG/KG	21		
				PCB-1242 (AROCHLOR 1242)		ND	0	UG/KG	21		
				PCB-1248 (AROCHLOR 1248)		ND	0	UG/KG	21		
				PCB-1254 (AROCHLOR 1254)		ND	0	UG/KG	21		
				SW8260	PCB-1260 (AROCHLOR 1260)	ND	0	UG/KG	42		
ACETONE	ND	0	UG/KG		620						
BROMODICHLOROMETHANE	ND	0	UG/KG		310						
BROMOMETHANE	ND	0	UG/KG		620						
BENZENE	ND	0	UG/KG		310						
TOLUENE	ND	0	UG/KG		310						
CARBON DISULFIDE	ND	0	UG/KG		310						
CHLOROBENZENE	ND	0	UG/KG		310						
CHLOROETHANE	ND	0	UG/KG		620						
CHLOROMETHANE	ND	0	UG/KG	620							
CARBON TETRACHLORIDE	ND	0	UG/KG	310							

**Holloman Air Force Base
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Chemical Analytical Data**

Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual	
DP63-DP02	8	4/25/00	N	SW8260	DIBROMOCHLOROMETHANE	ND	0	UG/KG	310		
					1,1-DICHLOROETHANE	ND	0	UG/KG	310		
					1,2-DICHLOROETHANE	ND	0	UG/KG	310		
					1,1-DICHLOROETHENE	ND	0	UG/KG	310		
					TOTAL 1,2-DICHLOROETHENE	ND	0	UG/KG	310		
					cis-1,3-DICHLOROPROPENE	ND	0	UG/KG	310		
					trans-1,3-DICHLOROPROPENE	ND	0	UG/KG	310		
					1,2-DICHLOROPROPANE	ND	0	UG/KG	310		
					ETHYLBENZENE	ND	0	UG/KG	310		
					2-HEXANONE	ND	0	UG/KG	620		
					METHYL ETHYL KETONE (2-BUTANONE)	ND	0	UG/KG	620		
					METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	ND	0	UG/KG	620		
					METHYLENE CHLORIDE	=	440	UG/KG	310		
					1,1,2,2-TETRACHLOROETHANE	ND	0	UG/KG	310		
					TETRACHLOROETHYLENE(PCE)	ND	0	UG/KG	310		
					STYRENE	ND	0	UG/KG	310		
					BROMOFORM	ND	0	UG/KG	310		
					1,1,1-TRICHLOROETHANE	ND	0	UG/KG	310		
					1,1,2-TRICHLOROETHANE	ND	0	UG/KG	310		
					TRICHLOROETHYLENE (TCE)	ND	0	UG/KG	310		
					CHLOROFORM	TR	110	UG/KG	310		
					VINYL CHLORIDE	ND	0	UG/KG	620		
					XYLENES, TOTAL	ND	0	UG/KG	310		
					SW8270	ACENAPHTHENE	ND	0	UG/KG	420	
					ACENAPHTHYLENE	ND	0	UG/KG	420		
					ANTHRACENE	ND	0	UG/KG	420		
					BENZYL BUTYL PHTHALATE	ND	0	UG/KG	420		
					bis(2-CHLOROETHOXY) METHANE	ND	0	UG/KG	420		
					bis(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	ND	0	UG/KG	420		
					bis(2-ETHYLHEXYL) PHTHALATE	ND	0	UG/KG	420		
					4-BROMOPHENYL PHENYL ETHER	ND	0	UG/KG	420		
					BENZO(a)ANTHRACENE	ND	0	UG/KG	420		
					BENZO(a)PYRENE	ND	0	UG/KG	420		
					BENZO(b)FLUORANTHENE	ND	0	UG/KG	420		
					BENZO(g,h,i)PERYLENE	ND	0	UG/KG	420		
					BENZO(k)FLUORANTHENE	ND	0	UG/KG	420		
					4-CHLORO-3-METHYLPHENOL	ND	0	UG/KG	420		
					CARBAZOLE	ND	0	UG/KG	420		
					CHRYSENE	ND	0	UG/KG	420		
					4-CHLOROANILINE	ND	0	UG/KG	420		
					2-CHLOROPHENOL	ND	0	UG/KG	420		
					2-CHLORONAPHTHALENE	ND	0	UG/KG	420		
					4-CHLOROPHENYL PHENYL ETHER	ND	0	UG/KG	420		
DIBENZ(a,h)ANTHRACENE	ND	0	UG/KG	420							
DIBENZOFURAN	ND	0	UG/KG	420							
3,3'-DICHLOROBENZIDINE	ND	0	UG/KG	830							
1,2-DICHLOROBENZENE	ND	0	UG/KG	420							
1,3-DICHLOROBENZENE	ND	0	UG/KG	420							
1,4-DICHLOROBENZENE	ND	0	UG/KG	420							
2,4-DICHLOROPHENOL	ND	0	UG/KG	420							
DIETHYL PHTHALATE	ND	0	UG/KG	420							
2,4-DIMETHYLPHENOL	ND	0	UG/KG	420							

**Holloman Air Force Base
DP-63 PA/SI
Chemical Analytical Data**

Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual				
DP63-DP02	8	4/25/00	N	SW8270	DIMETHYL PHTHALATE	ND	0	UG/KG	420					
					4,6-DINITRO-2-METHYLPHENOL	ND	0	UG/KG	2100					
					DI-n-BUTYL PHTHALATE	ND	0	UG/KG	420					
					DI-n-OCTYLPHTHALATE	ND	0	UG/KG	420					
					2,4-DINITROPHENOL	ND	0	UG/KG	2100					
					2,4-DINITROTOLUENE	ND	0	UG/KG	420					
					2,6-DINITROTOLUENE	ND	0	UG/KG	420					
					FLUORENE	ND	0	UG/KG	420					
					FLUORANTHENE	ND	0	UG/KG	420					
					HEXACHLOROBUTADIENE	ND	0	UG/KG	420					
					HEXACHLOROCYCLOPENTADIENE	ND	0	UG/KG	420					
					HEXACHLOROBENZENE	ND	0	UG/KG	420					
					HEXACHLOROETHANE	ND	0	UG/KG	420					
					INDENO(1,2,3-c,d)PYRENE	ND	0	UG/KG	420					
					ISOPHORONE	ND	0	UG/KG	420					
					2-METHYLPHENOL (o-CRESOL)	ND	0	UG/KG	420					
					4-METHYLPHENOL (p-CRESOL)	ND	0	UG/KG	420					
					2-METHYLNAPHTHALENE	ND	0	UG/KG	420					
					NAPHTHALENE	ND	0	UG/KG	420					
					N-NITROSODIPHENYLAMINE	ND	0	UG/KG	420					
					N-NITROSODI-n-PROPYLAMINE	ND	0	UG/KG	420					
					2-NITROANILINE	ND	0	UG/KG	2100					
					3-NITROANILINE	ND	0	UG/KG	2100					
					4-NITROANILINE	ND	0	UG/KG	2100					
					NITROBENZENE	ND	0	UG/KG	420					
					2-NITROPHENOL	ND	0	UG/KG	420					
					4-NITROPHENOL	ND	0	UG/KG	2100					
					2,2'-OXYBIS(1-CHLORO)PROPANE	ND	0	UG/KG	420					
					PENTACHLOROPHENOL	ND	0	UG/KG	2100					
					PHENANTHRENE	ND	0	UG/KG	420					
					PHENOL	ND	0	UG/KG	420					
					PYRENE	ND	0	UG/KG	420					
					1,2,4-TRICHLOROBENZENE	ND	0	UG/KG	420					
					2,4,5-TRICHLOROPHENOL	ND	0	UG/KG	2100					
					2,4,6-TRICHLOROPHENOL	ND	0	UG/KG	420					
								SW9014	CYANIDE	ND	0	MG/KG	0.21	
						18.5		E418.1	PETROLEUM HYDROCARBONS	=	37.7	MG/KG	31.1	
								SW6010	SILVER	ND	0	MG/KG	2.4	
									ALUMINUM	=	4960	MG/KG	48	
									ARSENIC	TR	1.6	MG/KG	2.4	
									BARIIUM	TR	44.8	MG/KG	48	
									BERYLLIUM	TR	0.26	MG/KG	1.2	
				CALCIUM	=	190000	MG/KG	3000						
				CADMIUM	ND	0	MG/KG	1.2						
				COBALT	TR	1.6	MG/KG	12						
				CHROMIUM, TOTAL	=	7.3	MG/KG	1.2						
				COPPER	TR	4	MG/KG	5.99						
				IRON	=	4920	MG/KG	24						
				POTASSIUM	=	1260	MG/KG	1200						
				MAGNESIUM	=	2970	MG/KG	1200						
				MANGANESE	=	74.5	MG/KG	3.6						
				SODIUM	=	1540	MG/KG	1200						

**Holloman Air Force Base
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Chemical Analytical Data**

Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual	
DP63-DP02	18.5	4/25/00	N	SW6010	NICKEL	TR	4.1	MG/KG	9.59		
					LEAD	=	3.5	MG/KG	0.719		
					ANTIMONY	ND	0	MG/KG	14.4		
					SELENIUM	ND	0	MG/KG	1.2		
					THALLIUM	ND	0	MG/KG	2.4		
					VANADIUM	TR	10.5	MG/KG	12		
					ZINC	=	15.1	MG/KG	4.8		
				SW7471	MERCURY	ND	0	MG/KG	0.0356		
				SW8081	ALDRIN	ND	0	UG/KG	2.1		
					ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.1		
					BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.1		
					DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.1		
					GAMMA BHC (LINDANE)	ND	0	UG/KG	2.1		
					ALPHA-CHLORDANE	ND	0	UG/KG	2.1		
					GAMMA-CHLORDANE	ND	0	UG/KG	2.1		
					p,p'-DDD	ND	0	UG/KG	4.2		
					p,p'-DDE	ND	0	UG/KG	4.2		
					p,p'-DDT	ND	0	UG/KG	4.2		
					DIELDRIN	ND	0	UG/KG	4.2		
					ALPHA ENDOSULFAN	ND	0	UG/KG	2.1		
					BETA ENDOSULFAN	ND	0	UG/KG	4.2		
					ENDOSULFAN SULFATE	ND	0	UG/KG	4.2		
					ENDRIN	ND	0	UG/KG	4.2		
					ENDRIN ALDEHYDE	ND	0	UG/KG	4.2		
					ENDRIN KETONE	ND	0	UG/KG	4.2		
					HEPTACHLOR EPOXIDE	ND	0	UG/KG	2.1		
					HEPTACHLOR	ND	0	UG/KG	2.1		
					METHOXYCHLOR	ND	0	UG/KG	21		
					TOXAPHENE	ND	0	UG/KG	210		
					SW8082	PCB-1016 (AROCHLOR 1016)	ND	0	UG/KG	22	
						PCB-1221 (AROCHLOR 1221)	ND	0	UG/KG	22	
						PCB-1232 (AROCHLOR 1232)	ND	0	UG/KG	22	
						PCB-1242 (AROCHLOR 1242)	ND	0	UG/KG	22	
						PCB-1248 (AROCHLOR 1248)	ND	0	UG/KG	22	
						PCB-1254 (AROCHLOR 1254)	ND	0	UG/KG	22	
						PCB-1260 (AROCHLOR 1260)	ND	0	UG/KG	42	
					SW8260	ACETONE	ND	0	UG/KG	620	
						BROMODICHLOROMETHANE	ND	0	UG/KG	310	
						BROMOMETHANE	ND	0	UG/KG	620	
						BENZENE	ND	0	UG/KG	310	
						TOLUENE	ND	0	UG/KG	310	
				CARBON DISULFIDE		ND	0	UG/KG	310		
CHLOROBENZENE	ND	0	UG/KG	310							
CHLOROETHANE	ND	0	UG/KG	620							
CHLOROMETHANE	ND	0	UG/KG	620							
CARBON TETRACHLORIDE	ND	0	UG/KG	310							
DIBROMOCHLOROMETHANE	ND	0	UG/KG	310							
1,1-DICHLOROETHANE	ND	0	UG/KG	310							
1,2-DICHLOROETHANE	ND	0	UG/KG	310							
1,1-DICHLOROETHENE	ND	0	UG/KG	310							
TOTAL 1,2-DICHLOROETHENE	ND	0	UG/KG	310							
cis-1,3-DICHLOROPROPENE	ND	0	UG/KG	310							

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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual
DP63-DP02	18.5	4/25/00	N	SW8260	trans-1,3-DICHLOROPROPENE	ND	0	UG/KG	310	
					1,2-DICHLOROPROPANE	ND	0	UG/KG	310	
					ETHYLBENZENE	ND	0	UG/KG	310	
					2-HEXANONE	ND	0	UG/KG	620	
					METHYL ETHYL KETONE (2-BUTANONE)	ND	0	UG/KG	620	
					METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	ND	0	UG/KG	620	
					METHYLENE CHLORIDE	=	410	UG/KG	310	
					1,1,2,2-TETRACHLOROETHANE	ND	0	UG/KG	310	
					TETRACHLOROETHYLENE(PCE)	ND	0	UG/KG	310	
					STYRENE	ND	0	UG/KG	310	
					BROMOFORM	ND	0	UG/KG	310	
					1,1,1-TRICHLOROETHANE	ND	0	UG/KG	310	
					1,1,2-TRICHLOROETHANE	ND	0	UG/KG	310	
					TRICHLOROETHYLENE (TCE)	ND	0	UG/KG	310	
					CHLOROFORM	TR	110	UG/KG	310	
					VINYL CHLORIDE	ND	0	UG/KG	620	
					XYLENES, TOTAL	ND	0	UG/KG	310	
					SW8270	ACENAPHTHENE	ND	0	UG/KG	420
				ACENAPHTHYLENE	ND	0	UG/KG	420		
				ANTHRACENE	ND	0	UG/KG	420		
				BENZYL BUTYL PHTHALATE	ND	0	UG/KG	420		
				bis(2-CHLOROETHOXY) METHANE	ND	0	UG/KG	420		
				bis(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	ND	0	UG/KG	420		
				bis(2-ETHYLHEXYL) PHTHALATE	ND	0	UG/KG	420		
				4-BROMOPHENYL PHENYL ETHER	ND	0	UG/KG	420		
				BENZO(a)ANTHRACENE	ND	0	UG/KG	420		
				BENZO(a)PYRENE	ND	0	UG/KG	420		
				BENZO(b)FLUORANTHENE	ND	0	UG/KG	420		
				BENZO(g,h,i)PERYLENE	ND	0	UG/KG	420		
				BENZO(k)FLUORANTHENE	ND	0	UG/KG	420		
				4-CHLORO-3-METHYLPHENOL	ND	0	UG/KG	420		
				CARBAZOLE	ND	0	UG/KG	420		
				CHRYSENE	ND	0	UG/KG	420		
				4-CHLOROANILINE	ND	0	UG/KG	420		
				2-CHLOROPHENOL	ND	0	UG/KG	420		
				2-CHLORONAPHTHALENE	ND	0	UG/KG	420		
				4-CHLOROPHENYL PHENYL ETHER	ND	0	UG/KG	420		
				DIBENZ(a,h)ANTHRACENE	ND	0	UG/KG	420		
				DIBENZOFURAN	ND	0	UG/KG	420		
				3,3'-DICHLOROBENZIDINE	ND	0	UG/KG	830		
				1,2-DICHLOROBENZENE	ND	0	UG/KG	420		
				1,3-DICHLOROBENZENE	ND	0	UG/KG	420		
1,4-DICHLOROBENZENE	ND	0	UG/KG	420						
2,4-DICHLOROPHENOL	ND	0	UG/KG	420						
DIETHYL PHTHALATE	ND	0	UG/KG	420						
2,4-DIMETHYLPHENOL	ND	0	UG/KG	420						
DIMETHYL PHTHALATE	ND	0	UG/KG	420						
4,6-DINITRO-2-METHYLPHENOL	ND	0	UG/KG	2100						
DI-n-BUTYL PHTHALATE	ND	0	UG/KG	420						
DI-n-OCTYLPHTHALATE	ND	0	UG/KG	420						
2,4-DINITROPHENOL	ND	0	UG/KG	2100						
2,4-DINITROTOLUENE	ND	0	UG/KG	420						

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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual				
DP63-DP02	18.5	4/25/00	N	SW8270	2,6-DINITROTOLUENE	ND	0	UG/KG	420					
					FLUORENE	ND	0	UG/KG	420					
					FLUORANTHENE	ND	0	UG/KG	420					
					HEXACHLOROBUTADIENE	ND	0	UG/KG	420					
					HEXACHLOROCYCLOPENTADIENE	ND	0	UG/KG	420					
					HEXACHLOROBENZENE	ND	0	UG/KG	420					
					HEXACHLOROETHANE	ND	0	UG/KG	420					
					INDENO(1,2,3-c,d)PYRENE	ND	0	UG/KG	420					
					ISOPHORONE	ND	0	UG/KG	420					
					2-METHYLPHENOL (o-CRESOL)	ND	0	UG/KG	420					
					4-METHYLPHENOL (p-CRESOL)	ND	0	UG/KG	420					
					2-METHYLNAPHTHALENE	ND	0	UG/KG	420					
					NAPHTHALENE	ND	0	UG/KG	420					
					N-NITROSODIPHENYLAMINE	ND	0	UG/KG	420					
					N-NITROSODI-n-PROPYLAMINE	ND	0	UG/KG	420					
					2-NITROANILINE	ND	0	UG/KG	2100					
					3-NITROANILINE	ND	0	UG/KG	2100					
					4-NITROANILINE	ND	0	UG/KG	2100					
					NITROBENZENE	ND	0	UG/KG	420					
					2-NITROPHENOL	ND	0	UG/KG	420					
					4-NITROPHENOL	ND	0	UG/KG	2100					
					2,2'-OXYBIS(1-CHLORO)PROPANE	ND	0	UG/KG	420					
					PENTACHLOROPHENOL	ND	0	UG/KG	2100					
					PHENANTHRENE	ND	0	UG/KG	420					
					PHENOL	ND	0	UG/KG	420					
					PYRENE	ND	0	UG/KG	420					
					1,2,4-TRICHLOROBENZENE	ND	0	UG/KG	420					
					2,4,5-TRICHLOROPHENOL	ND	0	UG/KG	2100					
					2,4,6-TRICHLOROPHENOL	ND	0	UG/KG	420					
					SW9014	47			CYANIDE	ND	0	MG/KG	0.178	
					E418.1		PETROLEUM HYDROCARBONS	=	71.4	MG/KG	31.8			
					SW6010		SILVER	ND	0	MG/KG	2.45			
							ALUMINUM	=	6930	MG/KG	49			
				ARSENIC	=		5.2	MG/KG	2.45					
				BARIUM	=		334	MG/KG	49					
				BERYLLIUM	TR		0.45	MG/KG	1.22					
				CALCIUM	=		108000	MG/KG	1220					
				CADMIUM	ND		0	MG/KG	1.22					
				COBALT	=		75.7	MG/KG	12.2					
				CHROMIUM, TOTAL	=		8.3	MG/KG	1.22					
				COPPER	=		21.2	MG/KG	6.12					
				IRON	=		8890	MG/KG	24.5					
				POTASSIUM	=		1270	MG/KG	1220					
				MAGNESIUM	=	4340	MG/KG	1220						
				MANGANESE	=	4930	MG/KG	3.67						
				SODIUM	=	2480	MG/KG	1220						
				NICKEL	=	33.2	MG/KG	9.8						
	LEAD	=	10.5	MG/KG	0.735									
	ANTIMONY	ND	0	MG/KG	14.7									
	SELENIUM	ND	0	MG/KG	1.22									
	THALLIUM	ND	0	MG/KG	2.45									
	VANADIUM	=	45.9	MG/KG	12.2									

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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual	
DP63-DP02	47	4/25/00	N	SW6010	ZINC	=	22.1	MG/KG	4.9		
				SW7471	MERCURY	ND	0	MG/KG	0.0386		
				SW8081	ALDRIN	ND	0	UG/KG	2.1		
					ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.1		
					BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.1		
					DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.1		
					GAMMA BHC (LINDANE)	ND	0	UG/KG	2.1		
					ALPHA-CHLORDANE	ND	0	UG/KG	2.1		
					GAMMA-CHLORDANE	ND	0	UG/KG	2.1		
					p,p'-DDD	ND	0	UG/KG	4.3		
					p,p'-DDE	ND	0	UG/KG	4.3		
					p,p'-DDT	ND	0	UG/KG	4.3		
					DIELDRIN	ND	0	UG/KG	4.3		
					ALPHA ENDOSULFAN	ND	0	UG/KG	2.1		
					BETA ENDOSULFAN	ND	0	UG/KG	4.3		
					ENDOSULFAN SULFATE	ND	0	UG/KG	4.3		
					ENDRIN	ND	0	UG/KG	4.3		
					ENDRIN ALDEHYDE	ND	0	UG/KG	4.3		
					ENDRIN KETONE	ND	0	UG/KG	4.3		
					HEPTACHLOR EPOXIDE	ND	0	UG/KG	2.1		
					HEPTACHLOR	ND	0	UG/KG	2.1		
					METHOXYCHLOR	ND	0	UG/KG	21		
					TOXAPHENE	ND	0	UG/KG	210		
					SW8082	PCB-1016 (AROCHLOR 1016)	ND	0	UG/KG	22	
						PCB-1221 (AROCHLOR 1221)	ND	0	UG/KG	22	
						PCB-1232 (AROCHLOR 1232)	ND	0	UG/KG	22	
						PCB-1242 (AROCHLOR 1242)	ND	0	UG/KG	22	
						PCB-1248 (AROCHLOR 1248)	ND	0	UG/KG	22	
						PCB-1254 (AROCHLOR 1254)	ND	0	UG/KG	22	
						PCB-1260 (AROCHLOR 1260)	ND	0	UG/KG	43	
					SW8260	ACETONE	ND	0	UG/KG	500	
						BROMODICHLOROMETHANE	ND	0	UG/KG	250	
						BROMOMETHANE	ND	0	UG/KG	500	
						BENZENE	ND	0	UG/KG	250	
						TOLUENE	ND	0	UG/KG	250	
						CARBON DISULFIDE	ND	0	UG/KG	250	
						CHLOROBENZENE	ND	0	UG/KG	250	
						CHLOROETHANE	ND	0	UG/KG	500	
						CHLOROMETHANE	ND	0	UG/KG	500	
						CARBON TETRACHLORIDE	ND	0	UG/KG	250	
						DIBROMOCHLOROMETHANE	ND	0	UG/KG	250	
						1,1-DICHLOROETHANE	ND	0	UG/KG	250	
						1,2-DICHLOROETHANE	ND	0	UG/KG	250	
						1,1-DICHLOROETHENE	ND	0	UG/KG	250	
						TOTAL 1,2-DICHLOROETHENE	ND	0	UG/KG	250	
						cis-1,3-DICHLOROPROPENE	ND	0	UG/KG	250	
						trans-1,3-DICHLOROPROPENE	ND	0	UG/KG	250	
		1,2-DICHLOROPROPANE	ND	0	UG/KG	250					
		ETHYLBENZENE	ND	0	UG/KG	250					
		2-HEXANONE	ND	0	UG/KG	500					
		METHYL ETHYL KETONE (2-BUTANONE)	ND	0	UG/KG	500					
		METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	ND	0	UG/KG	500					

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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual
DP63-DP02	47	4/25/00	N	SW8260	METHYLENE CHLORIDE	=	400	UG/KG	250	
					1,1,2,2-TETRACHLOROETHANE	ND	0	UG/KG	250	
					TETRACHLOROETHYLENE(PCE)	ND	0	UG/KG	250	
					STYRENE	ND	0	UG/KG	250	
					BROMOFORM	ND	0	UG/KG	250	
					1,1,1-TRICHLOROETHANE	ND	0	UG/KG	250	
					1,1,2-TRICHLOROETHANE	ND	0	UG/KG	250	
					TRICHLOROETHYLENE (TCE)	ND	0	UG/KG	250	
					CHLOROFORM	TR	90	UG/KG	250	
					VINYL CHLORIDE	ND	0	UG/KG	500	
					XYLENES, TOTAL	ND	0	UG/KG	250	
				SW8270	ACENAPHTHENE	ND	0	UG/KG	430	
					ACENAPHTHYLENE	ND	0	UG/KG	430	
					ANTHRACENE	ND	0	UG/KG	430	
					BENZYL BUTYL PHTHALATE	ND	0	UG/KG	430	
					bis(2-CHLOROETHOXY) METHANE	ND	0	UG/KG	430	
					bis(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	ND	0	UG/KG	430	
					bis(2-ETHYLHEXYL) PHTHALATE	TR	43	UG/KG	430	
					4-BROMOPHENYL PHENYL ETHER	ND	0	UG/KG	430	
					BENZO(a)ANTHRACENE	ND	0	UG/KG	430	
					BENZO(a)PYRENE	ND	0	UG/KG	430	
					BENZO(b)FLUORANTHENE	ND	0	UG/KG	430	
					BENZO(g,h,i)PERYLENE	ND	0	UG/KG	430	
					BENZO(k)FLUORANTHENE	ND	0	UG/KG	430	
					4-CHLORO-3-METHYLPHENOL	ND	0	UG/KG	430	
					CARBAZOLE	ND	0	UG/KG	430	
					CHRYSENE	ND	0	UG/KG	430	
					4-CHLOROANILINE	ND	0	UG/KG	430	
					2-CHLOROPHENOL	ND	0	UG/KG	430	
					2-CHLORONAPHTHALENE	ND	0	UG/KG	430	
					4-CHLOROPHENYL PHENYL ETHER	ND	0	UG/KG	430	
					DIBENZ(a,h)ANTHRACENE	ND	0	UG/KG	430	
					DIBENZOFURAN	ND	0	UG/KG	430	
					3,3'-DICHLOROBENZIDINE	ND	0	UG/KG	850	
					1,2-DICHLOROBENZENE	ND	0	UG/KG	430	
					1,3-DICHLOROBENZENE	ND	0	UG/KG	430	
					1,4-DICHLOROBENZENE	ND	0	UG/KG	430	
					2,4-DICHLOROPHENOL	ND	0	UG/KG	430	
					DIETHYL PHTHALATE	ND	0	UG/KG	430	
					2,4-DIMETHYLPHENOL	ND	0	UG/KG	430	
					DIMETHYL PHTHALATE	ND	0	UG/KG	430	
					4,6-DINITRO-2-METHYLPHENOL	ND	0	UG/KG	2100	
					DI-n-BUTYL PHTHALATE	TR	92	UG/KG	430	
					DI-n-OCTYLPHTHALATE	ND	0	UG/KG	430	
					2,4-DINITROPHENOL	ND	0	UG/KG	2100	
					2,4-DINITROTOLUENE	ND	0	UG/KG	430	
					2,6-DINITROTOLUENE	ND	0	UG/KG	430	
					FLUORENE	ND	0	UG/KG	430	
					FLUORANTHENE	ND	0	UG/KG	430	
					HEXACHLOROBUTADIENE	ND	0	UG/KG	430	
					HEXACHLOROCYCLOPENTADIENE	ND	0	UG/KG	430	
					HEXACHLOROBENZENE	ND	0	UG/KG	430	

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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual			
DP63-DP02	47	4/25/00	N	SW8270	HEXACHLOROETHANE	ND	0	UG/KG	430				
					INDENO(1,2,3-c,d)PYRENE	ND	0	UG/KG	430				
					ISOPHORONE	ND	0	UG/KG	430				
					2-METHYLPHENOL (o-CRESOL)	ND	0	UG/KG	430				
					4-METHYLPHENOL (p-CRESOL)	ND	0	UG/KG	430				
					2-METHYLNAPHTHALENE	ND	0	UG/KG	430				
					NAPHTHALENE	ND	0	UG/KG	430				
					N-NITROSODIPHENYLAMINE	ND	0	UG/KG	430				
					N-NITROSODI-n-PROPYLAMINE	ND	0	UG/KG	430				
					2-NITROANILINE	ND	0	UG/KG	2100				
					3-NITROANILINE	ND	0	UG/KG	2100				
					4-NITROANILINE	ND	0	UG/KG	2100				
					NITROBENZENE	ND	0	UG/KG	430				
					2-NITROPHENOL	ND	0	UG/KG	430				
					4-NITROPHENOL	ND	0	UG/KG	2100				
					2,2'-OXYBIS(1-CHLORO)PROPANE	ND	0	UG/KG	430				
					PENTACHLOROPHENOL	ND	0	UG/KG	2100				
					PHENANTHRENE	ND	0	UG/KG	430				
	PHENOL	ND	0	UG/KG	430								
	PYRENE	ND	0	UG/KG	430								
	1,2,4-TRICHLOROBENZENE	ND	0	UG/KG	430								
	2,4,5-TRICHLOROPHENOL	ND	0	UG/KG	2100								
	2,4,6-TRICHLOROPHENOL	ND	0	UG/KG	430								
	SW9014				CYANIDE	ND	0	MG/KG	0.195				
	46	4/28/00			SW8330	2-AMINO-4,6-DINITROTOLUENE	ND	0	UG/L	1.2			
						4-AMINO-2,6-DINITROTOLUENE	ND	0	UG/L	1.2			
						1,3-DINITROBENZENE	ND	0	UG/L	1.2			
						2,4-DINITROTOLUENE	ND	0	UG/L	1.2			
						2,6-DINITROTOLUENE	ND	0	UG/L	1.2			
						OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE	ND	0	UG/L	2.6			
						2-NITROTOLUENE	ND	0	UG/L	2.6			
						3-NITROTOLUENE	ND	0	UG/L	2.6			
						4-NITROTOLUENE	ND	0	UG/L	2.6			
NITROBENZENE						ND	0	UG/L	1.2				
HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE						ND	0	UG/L	2.6				
TETRYL						ND	0	UG/L	2.6				
1,3,5-TRINITROBENZENE					ND	0	UG/L	1.2					
2,4,6-TRINITROTOLUENE					ND	0	UG/L	1.2					
FD								2-AMINO-4,6-DINITROTOLUENE	ND	0	UG/L	1.2	
4-AMINO-2,6-DINITROTOLUENE					ND	0	UG/L	1.2					
1,3-DINITROBENZENE					ND	0	UG/L	1.2					
2,4-DINITROTOLUENE					ND	0	UG/L	1.2					
2,6-DINITROTOLUENE					ND	0	UG/L	1.2					
OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE					ND	0	UG/L	2.6					
2-NITROTOLUENE					ND	0	UG/L	2.6					
3-NITROTOLUENE					ND	0	UG/L	2.6					
4-NITROTOLUENE					ND	0	UG/L	2.6					
NITROBENZENE					ND	0	UG/L	1.2					
HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	ND	0	UG/L	2.6									
TETRYL	ND	0	UG/L	2.6									
1,3,5-TRINITROBENZENE	ND	0	UG/L	1.2									
2,4,6-TRINITROTOLUENE	ND	0	UG/L	1.2									

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Chemical Analytical Data**

Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual			
DP63-DP03	13	4/28/00	N	E418.1	PETROLEUM HYDROCARBONS	=	49.4	MG/KG	28.6				
					SW6010	SILVER	ND	0	MG/KG	2.18			
					ALUMINUM	=	4560	MG/KG	43.6				
					ARSENIC	TR	1.5	MG/KG	2.18				
					BARIUM	=	53.5	MG/KG	43.6				
					BERYLLIUM	TR	0.25	MG/KG	1.09				
					CALCIUM	=	142000	MG/KG	2730				
					CADMIUM	ND	0	MG/KG	1.09				
					COBALT	TR	1.6	MG/KG	10.9				
					CHROMIUM, TOTAL	=	6.2	MG/KG	1.09				
					COPPER	TR	3.4	MG/KG	5.45				
					IRON	=	5130	MG/KG	21.8				
					POTASSIUM	TR	851	MG/KG	1090				
					MAGNESIUM	=	3950	MG/KG	1090				
					MANGANESE	=	102	MG/KG	3.27				
					SODIUM	=	1390	MG/KG	1090				
					NICKEL	TR	4.4	MG/KG	8.73				
					LEAD	=	3.5	MG/KG	0.655				
					ANTIMONY	ND	0	MG/KG	13.1				
					SELENIUM	ND	0	MG/KG	1.09				
					THALLIUM	ND	0	MG/KG	2.18				
					VANADIUM	=	11.4	MG/KG	10.9				
					ZINC	=	15.1	MG/KG	4.36				
							SW7471	MERCURY	ND	0	MG/KG	0.037	
							SW8081	ALDRIN	ND	0	UG/KG	1.9	
								ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	1.9	
								BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	1.9	
								DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	1.9	
								GAMMA BHC (LINDANE)	ND	0	UG/KG	1.9	
								ALPHA-CHLORDANE	ND	0	UG/KG	1.9	
								GAMMA-CHLORDANE	ND	0	UG/KG	1.9	
								p,p'-DDD	ND	0	UG/KG	3.8	
								p,p'-DDE	ND	0	UG/KG	3.8	
								p,p'-DDT	ND	0	UG/KG	3.8	
								DIELDRIN	ND	0	UG/KG	3.8	
								ALPHA ENDOSULFAN	ND	0	UG/KG	1.9	
								BETA ENDOSULFAN	ND	0	UG/KG	3.8	
								ENDOSULFAN SULFATE	ND	0	UG/KG	3.8	
								ENDRIN	ND	0	UG/KG	3.8	
								ENDRIN ALDEHYDE	ND	0	UG/KG	3.8	
								ENDRIN KETONE	ND	0	UG/KG	3.8	
								HEPTACHLOR EPOXIDE	ND	0	UG/KG	1.9	
				HEPTACHLOR	ND	0	UG/KG	1.9					
				METHOXYCHLOR	ND	0	UG/KG	19					
				TOXAPHENE	ND	0	UG/KG	190					
			SW8082	PCB-1016 (AROCHLOR 1016)	ND	0	UG/KG	20					
				PCB-1221 (AROCHLOR 1221)	ND	0	UG/KG	20					
				PCB-1232 (AROCHLOR 1232)	ND	0	UG/KG	20					
				PCB-1242 (AROCHLOR 1242)	ND	0	UG/KG	20					
				PCB-1248 (AROCHLOR 1248)	ND	0	UG/KG	20					
				PCB-1254 (AROCHLOR 1254)	ND	0	UG/KG	20					
				PCB-1260 (AROCHLOR 1260)	ND	0	UG/KG	39					

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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual				
DP63-DP03	13	4/28/00	N	SW8260	ACETONE	ND	0	UG/KG	575					
					BROMODICHLOROMETHANE	ND	0	UG/KG	287					
					BROMOMETHANE	ND	0	UG/KG	575					
					BENZENE	ND	0	UG/KG	287					
					TOLUENE	=	308	UG/KG	287					
					CARBON DISULFIDE	=	7900	UG/KG	287					
					CHLOROBENZENE	ND	0	UG/KG	287					
					CHLOROETHANE	ND	0	UG/KG	575					
					CHLOROMETHANE	ND	0	UG/KG	575					
					CARBON TETRACHLORIDE	ND	0	UG/KG	287					
					DIBROMOCHLOROMETHANE	ND	0	UG/KG	287					
					1,1-DICHLOROETHANE	ND	0	UG/KG	287					
					1,2-DICHLOROETHANE	ND	0	UG/KG	287					
					1,1-DICHLOROETHENE	ND	0	UG/KG	287					
					TOTAL 1,2-DICHLOROETHENE	ND	0	UG/KG	287					
					cis-1,3-DICHLOROPROPENE	ND	0	UG/KG	287					
					trans-1,3-DICHLOROPROPENE	ND	0	UG/KG	287					
					1,2-DICHLOROPROPANE	ND	0	UG/KG	287					
					ETHYLBENZENE	ND	0	UG/KG	287					
					2-HEXANONE	ND	0	UG/KG	575					
					METHYL ETHYL KETONE (2-BUTANONE)	=	2700	UG/KG	575					
					METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	ND	0	UG/KG	575					
					METHYLENE CHLORIDE	=	705	UG/KG	287					
					1,1,2,2-TETRACHLOROETHANE	ND	0	UG/KG	287					
					TETRACHLOROETHYLENE(PCE)	ND	0	UG/KG	287					
					STYRENE	ND	0	UG/KG	287					
					BROMOFORM	ND	0	UG/KG	287					
					1,1,1-TRICHLOROETHANE	ND	0	UG/KG	287					
					1,1,2-TRICHLOROETHANE	ND	0	UG/KG	287					
					TRICHLOROETHYLENE (TCE)	TR	76	UG/KG	287					
					CHLOROFORM	TR	98	UG/KG	287					
					VINYL CHLORIDE	ND	0	UG/KG	575					
					XYLENES, TOTAL	ND	0	UG/KG	287					
					SW8270				ACENAPHTHENE	ND	0	UG/KG	380	
									ACENAPHTHYLENE	ND	0	UG/KG	380	
									ANTHRACENE	ND	0	UG/KG	380	
									BENZYL BUTYL PHTHALATE	ND	0	UG/KG	380	
									bis(2-CHLOROETHOXY) METHANE	ND	0	UG/KG	380	
									bis(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	ND	0	UG/KG	380	
									bis(2-ETHYLHEXYL) PHTHALATE	=	1500	UG/KG	380	
									4-BROMOPHENYL PHENYL ETHER	ND	0	UG/KG	380	
									BENZO(a)ANTHRACENE	ND	0	UG/KG	380	
BENZO(a)PYRENE	ND	0	UG/KG	380										
BENZO(b)FLUORANTHENE	ND	0	UG/KG	380										
BENZO(g,h,i)PERYLENE	ND	0	UG/KG	380										
BENZO(k)FLUORANTHENE	ND	0	UG/KG	380										
4-CHLORO-3-METHYLPHENOL	ND	0	UG/KG	380										
CARBAZOLE	ND	0	UG/KG	380										
CHRYSENE	ND	0	UG/KG	380										
4-CHLOROANILINE	ND	0	UG/KG	380										
2-CHLOROPHENOL	ND	0	UG/KG	380										
2-CHLORONAPHTHALENE	ND	0	UG/KG	380										

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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual
DP63-DP03	13	4/28/00	N	SW8270	4-CHLOROPHENYL PHENYL ETHER	ND	0	UG/KG	380	
					DIBENZ(a,h)ANTHRACENE	ND	0	UG/KG	380	
					DIBENZOFURAN	ND	0	UG/KG	380	
					3,3'-DICHLOROBENZIDINE	ND	0	UG/KG	770	
					1,2-DICHLOROBENZENE	ND	0	UG/KG	380	
					1,3-DICHLOROBENZENE	ND	0	UG/KG	380	
					1,4-DICHLOROBENZENE	ND	0	UG/KG	380	
					2,4-DICHLOROPHENOL	ND	0	UG/KG	380	
					DIETHYL PHTHALATE	=	750	UG/KG	380	
					2,4-DIMETHYLPHENOL	ND	0	UG/KG	380	
					DIMETHYL PHTHALATE	ND	0	UG/KG	380	
					4,6-DINITRO-2-METHYLPHENOL	ND	0	UG/KG	1900	
					DI-n-BUTYL PHTHALATE	ND	0	UG/KG	380	
					DI-n-OCTYLPHTHALATE	ND	0	UG/KG	380	
					2,4-DINITROPHENOL	ND	0	UG/KG	1900	
					2,4-DINITROTOLUENE	ND	0	UG/KG	380	
					2,6-DINITROTOLUENE	ND	0	UG/KG	380	
					FLUORENE	ND	0	UG/KG	380	
					FLUORANTHENE	ND	0	UG/KG	380	
					HEXACHLOROBUTADIENE	ND	0	UG/KG	380	
					HEXACHLOROCYCLOPENTADIENE	ND	0	UG/KG	380	
					HEXACHLOROBENZENE	ND	0	UG/KG	380	
					HEXACHLOROETHANE	ND	0	UG/KG	380	
					INDENO(1,2,3-c,d)PYRENE	ND	0	UG/KG	380	
					ISOPHORONE	ND	0	UG/KG	380	
					2-METHYLPHENOL (o-CRESOL)	ND	0	UG/KG	380	
					4-METHYLPHENOL (p-CRESOL)	ND	0	UG/KG	380	
					2-METHYLNAPHTHALENE	ND	0	UG/KG	380	
					NAPHTHALENE	ND	0	UG/KG	380	
					N-NITROSODIPHENYLAMINE	ND	0	UG/KG	380	
					N-NITROSODI-n-PROPYLAMINE	ND	0	UG/KG	380	
					2-NITROANILINE	ND	0	UG/KG	1900	
					3-NITROANILINE	ND	0	UG/KG	1900	
					4-NITROANILINE	ND	0	UG/KG	1900	
					NITROBENZENE	ND	0	UG/KG	380	
					2-NITROPHENOL	ND	0	UG/KG	380	
					4-NITROPHENOL	ND	0	UG/KG	1900	
					2,2'-OXYBIS(1-CHLORO)PROPANE	ND	0	UG/KG	380	
					PENTACHLOROPHENOL	ND	0	UG/KG	1900	
					PHENANTHRENE	ND	0	UG/KG	380	
PHENOL	ND	0	UG/KG	380						
PYRENE	ND	0	UG/KG	380						
1,2,4-TRICHLOROBENZENE	ND	0	UG/KG	380						
2,4,5-TRICHLOROPHENOL	ND	0	UG/KG	1900						
2,4,6-TRICHLOROPHENOL	ND	0	UG/KG	380						
			SW9014	CYANIDE	ND	0	MG/KG	0.177		
	22		E418.1	PETROLEUM HYDROCARBONS	=	79	MG/KG	30.9		
			SW6010	SILVER	ND	0	MG/KG	2.41		
				ALUMINUM	=	5970	MG/KG	48.2		
				ARSENIC	TR	1.6	MG/KG	2.41		
				BARIUM	=	50.4	MG/KG	48.2		
				BERYLLIUM	TR	0.29	MG/KG	1.21		

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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual				
DP63-DP03	22	4/28/00	N	SW6010	CALCIUM	=	190000	MG/KG	3020					
					CADMIUM	ND	0	MG/KG	1.21					
					COBALT	TR	2	MG/KG	12.1					
					CHROMIUM, TOTAL	=	6.3	MG/KG	1.21					
					COPPER	=	6.2	MG/KG	6.03					
					IRON	=	5890	MG/KG	24.1					
					POTASSIUM	=	1520	MG/KG	1210					
					MAGNESIUM	=	3770	MG/KG	1210					
					MANGANESE	=	67.1	MG/KG	3.62					
					SODIUM	=	2290	MG/KG	1210					
					NICKEL	TR	5.2	MG/KG	9.65					
					LEAD	=	3.5	MG/KG	0.724					
					ANTIMONY	ND	0	MG/KG	14.5					
					SELENIUM	ND	0	MG/KG	1.21					
					THALLIUM	ND	0	MG/KG	2.41					
					VANADIUM	TR	10.7	MG/KG	12.1					
					ZINC	=	29	MG/KG	4.82					
								SW7471	MERCURY	ND	0	MG/KG	0.0394	
								SW8081	ALDRIN	ND	0	UG/KG	2.1	
									ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.1	
									BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.1	
									DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.1	
									GAMMA BHC (LINDANE)	ND	0	UG/KG	2.1	
									ALPHA-CHLORDANE	ND	0	UG/KG	2.1	
									GAMMA-CHLORDANE	ND	0	UG/KG	2.1	
									p,p'-DDD	ND	0	UG/KG	4.1	
									p,p'-DDE	ND	0	UG/KG	4.1	
									p,p'-DDT	ND	0	UG/KG	4.1	
									DIELDRIN	ND	0	UG/KG	4.1	
									ALPHA ENDOSULFAN	ND	0	UG/KG	2.1	
									BETA ENDOSULFAN	ND	0	UG/KG	4.1	
									ENDOSULFAN SULFATE	ND	0	UG/KG	4.1	
									ENDRIN	ND	0	UG/KG	4.1	
									ENDRIN ALDEHYDE	ND	0	UG/KG	4.1	
									ENDRIN KETONE	ND	0	UG/KG	4.1	
									HEPTACHLOR EPOXIDE	ND	0	UG/KG	2.1	
									HEPTACHLOR	ND	0	UG/KG	2.1	
									METHOXYCHLOR	ND	0	UG/KG	21	
									TOXAPHENE	ND	0	UG/KG	210	
								SW8082	PCB-1016 (AROCHLOR 1016)	ND	0	UG/KG	21	
									PCB-1221 (AROCHLOR 1221)	ND	0	UG/KG	21	
									PCB-1232 (AROCHLOR 1232)	ND	0	UG/KG	21	
				PCB-1242 (AROCHLOR 1242)	ND	0	UG/KG	21						
				PCB-1248 (AROCHLOR 1248)	ND	0	UG/KG	21						
				PCB-1254 (AROCHLOR 1254)	ND	0	UG/KG	21						
				PCB-1260 (AROCHLOR 1260)	ND	0	UG/KG	42						
			SW8260	ACETONE	ND	0	UG/KG	625						
				BROMODICHLOROMETHANE	ND	0	UG/KG	313						
				BROMOMETHANE	ND	0	UG/KG	625						
				BENZENE	ND	0	UG/KG	313						
				TOLUENE	=	328	UG/KG	313						
				CARBON DISULFIDE	=	7410	UG/KG	313						

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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual	
DP63-DP03	22	4/28/00	N	SW8260	CHLOROBENZENE	ND	0	UG/KG	313		
					CHLOROETHANE	ND	0	UG/KG	625		
					CHLOROMETHANE	ND	0	UG/KG	625		
					CARBON TETRACHLORIDE	ND	0	UG/KG	313		
					DIBROMOCHLOROMETHANE	ND	0	UG/KG	313		
					1,1-DICHLOROETHANE	ND	0	UG/KG	313		
					1,2-DICHLOROETHANE	ND	0	UG/KG	313		
					1,1-DICHLOROETHENE	ND	0	UG/KG	313		
					TOTAL 1,2-DICHLOROETHENE	ND	0	UG/KG	313		
					cis-1,3-DICHLOROPROPENE	ND	0	UG/KG	313		
					trans-1,3-DICHLOROPROPENE	ND	0	UG/KG	313		
					1,2-DICHLOROPROPANE	ND	0	UG/KG	313		
					ETHYLBENZENE	ND	0	UG/KG	313		
					2-HEXANONE	ND	0	UG/KG	625		
					METHYL ETHYL KETONE (2-BUTANONE)	=	2750	UG/KG	625		
					METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	ND	0	UG/KG	625		
					METHYLENE CHLORIDE	=	756	UG/KG	313		
					1,1,2,2-TETRACHLOROETHANE	ND	0	UG/KG	313		
					TETRACHLOROETHYLENE(PCE)	ND	0	UG/KG	313		
					STYRENE	ND	0	UG/KG	313		
					BROMOFORM	ND	0	UG/KG	313		
					1,1,1-TRICHLOROETHANE	ND	0	UG/KG	313		
					1,1,2-TRICHLOROETHANE	ND	0	UG/KG	313		
					TRICHLOROETHYLENE (TCE)	ND	0	UG/KG	313		
					CHLOROFORM	TR	150	UG/KG	313		
					VINYL CHLORIDE	ND	0	UG/KG	625		
					XYLENES, TOTAL	ND	0	UG/KG	313		
					SW8270	ACENAPHTHENE	ND	0	UG/KG	420	
						ACENAPHTHYLENE	ND	0	UG/KG	420	
						ANTHRACENE	ND	0	UG/KG	420	
						BENZYL BUTYL PHTHALATE	ND	0	UG/KG	420	
						bis(2-CHLOROETHOXY) METHANE	ND	0	UG/KG	420	
						bis(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	ND	0	UG/KG	420	
				bis(2-ETHYLHEXYL) PHTHALATE		ND	0	UG/KG	420		
				4-BROMOPHENYL PHENYL ETHER		ND	0	UG/KG	420		
				BENZO(a)ANTHRACENE		ND	0	UG/KG	420		
				BENZO(a)PYRENE		ND	0	UG/KG	420		
				BENZO(b)FLUORANTHENE		ND	0	UG/KG	420		
				BENZO(g,h,i)PERYLENE		ND	0	UG/KG	420		
				BENZO(k)FLUORANTHENE		ND	0	UG/KG	420		
				4-CHLORO-3-METHYLPHENOL		ND	0	UG/KG	420		
				CARBAZOLE		ND	0	UG/KG	420		
				CHRYSENE		ND	0	UG/KG	420		
				4-CHLOROANILINE		ND	0	UG/KG	420		
				2-CHLOROPHENOL		ND	0	UG/KG	420		
				2-CHLORONAPHTHALENE		ND	0	UG/KG	420		
				4-CHLOROPHENYL PHENYL ETHER		ND	0	UG/KG	420		
				DIBENZ(a,h)ANTHRACENE		ND	0	UG/KG	420		
				DIBENZOFURAN		ND	0	UG/KG	420		
				3,3'-DICHLOROBENZIDINE		ND	0	UG/KG	830		
				1,2-DICHLOROBENZENE		ND	0	UG/KG	420		
				1,3-DICHLOROBENZENE		ND	0	UG/KG	420		

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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual					
DP63-DP03	22	4/28/00	N	SW8270	1,4-DICHLOROBENZENE	ND	0	UG/KG	420						
					2,4-DICHLOROPHENOL	ND	0	UG/KG	420						
					DIETHYL PHTHALATE	ND	0	UG/KG	420						
					2,4-DIMETHYLPHENOL	ND	0	UG/KG	420						
					DIMETHYL PHTHALATE	ND	0	UG/KG	420						
					4,6-DINITRO-2-METHYLPHENOL	ND	0	UG/KG	2100						
					DI-n-BUTYL PHTHALATE	TR	56	UG/KG	420						
					DI-n-OCTYLPHTHALATE	ND	0	UG/KG	420						
					2,4-DINITROPHENOL	ND	0	UG/KG	2100						
					2,4-DINITROTOLUENE	ND	0	UG/KG	420						
					2,6-DINITROTOLUENE	ND	0	UG/KG	420						
					FLUORENE	ND	0	UG/KG	420						
					FLUORANTHENE	ND	0	UG/KG	420						
					HEXACHLOROBUTADIENE	ND	0	UG/KG	420						
					HEXACHLOROCYCLOPENTADIENE	ND	0	UG/KG	420						
					HEXACHLOROBENZENE	ND	0	UG/KG	420						
					HEXACHLOROETHANE	ND	0	UG/KG	420						
					INDENO(1,2,3-c,d)PYRENE	ND	0	UG/KG	420						
					ISOPHORONE	ND	0	UG/KG	420						
					2-METHYLPHENOL (o-CRESOL)	ND	0	UG/KG	420						
					4-METHYLPHENOL (p-CRESOL)	ND	0	UG/KG	420						
					2-METHYLNAPHTHALENE	ND	0	UG/KG	420						
					NAPHTHALENE	ND	0	UG/KG	420						
					N-NITROSODIPHENYLAMINE	ND	0	UG/KG	420						
					N-NITROSODI-n-PROPYLAMINE	ND	0	UG/KG	420						
					2-NITROANILINE	ND	0	UG/KG	2100						
					3-NITROANILINE	ND	0	UG/KG	2100						
					4-NITROANILINE	ND	0	UG/KG	2100						
					NITROBENZENE	ND	0	UG/KG	420						
					2-NITROPHENOL	ND	0	UG/KG	420						
					4-NITROPHENOL	ND	0	UG/KG	2100						
					2,2'-OXYBIS(1-CHLORO)PROPANE	ND	0	UG/KG	420						
					PENTACHLOROPHENOL	ND	0	UG/KG	2100						
					PHENANTHRENE	ND	0	UG/KG	420						
					PHENOL	ND	0	UG/KG	420						
					PYRENE	ND	0	UG/KG	420						
					1,2,4-TRICHLOROBENZENE	ND	0	UG/KG	420						
					2,4,5-TRICHLOROPHENOL	ND	0	UG/KG	2100						
					2,4,6-TRICHLOROPHENOL	ND	0	UG/KG	420						
					46				SW9014	CYANIDE	=	0.26	MG/KG	0.195	
									E418.1	PETROLEUM HYDROCARBONS	=	263	MG/KG	32.4	
									SW6010	SILVER	ND	0	MG/KG	2.5	
	ALUMINUM	=	1940	MG/KG					50						
	ARSENIC	ND	0	MG/KG					2.5						
	BARIUM	TR	26.7	MG/KG					50						
	BERYLLIUM	ND	0	MG/KG					1.25						
	CALCIUM	=	76700	MG/KG					1250						
	CADMIUM	ND	0	MG/KG					1.25						
	COBALT	ND	0	MG/KG					12.5						
	CHROMIUM, TOTAL	=	3.9	MG/KG					1.25						
	COPPER	TR	1.4	MG/KG					6.24						
	IRON	=	2690	MG/KG	25										

**Holloman Air Force Base
DP-63 PA/SI
Chemical Analytical Data**

Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual	
DP63-DP03	46	4/28/00	N	SW6010	POTASSIUM	TR	392	MG/KG	1250		
					MAGNESIUM	=	1610	MG/KG	1250		
					MANGANESE	=	59.6	MG/KG	3.75		
					SODIUM	=	1560	MG/KG	1250		
					NICKEL	TR	1.6	MG/KG	9.99		
					LEAD	=	2.8	MG/KG	0.749		
					ANTIMONY	ND	0	MG/KG	15		
					SELENIUM	ND	0	MG/KG	1.25		
					THALLIUM	ND	0	MG/KG	2.5		
					VANADIUM	TR	7	MG/KG	12.5		
				ZINC	=	9.5	MG/KG	5			
				SW7471	MERCURY	ND	0	MG/KG	0.0361		
				SW8081	ALDRIN	ND	0	UG/KG	2.2		
					ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.2		
					BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.2		
					DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.2		
					GAMMA BHC (LINDANE)	ND	0	UG/KG	2.2		
					ALPHA-CHLORDANE	ND	0	UG/KG	2.2		
					GAMMA-CHLORDANE	ND	0	UG/KG	2.2		
					p,p'-DDD	ND	0	UG/KG	4.3		
					p,p'-DDE	ND	0	UG/KG	4.3		
					p,p'-DDT	ND	0	UG/KG	4.3		
					DIELDRIN	ND	0	UG/KG	4.3		
					ALPHA ENDOSULFAN	ND	0	UG/KG	2.2		
					BETA ENDOSULFAN	ND	0	UG/KG	4.3		
					ENDOSULFAN SULFATE	ND	0	UG/KG	4.3		
					ENDRIN	ND	0	UG/KG	4.3		
					ENDRIN ALDEHYDE	ND	0	UG/KG	4.3		
					ENDRIN KETONE	ND	0	UG/KG	4.3		
					HEPTACHLOR EPOXIDE	ND	0	UG/KG	2.2		
					HEPTACHLOR	ND	0	UG/KG	2.2		
					METHOXYCHLOR	ND	0	UG/KG	22		
					TOXAPHENE	ND	0	UG/KG	220		
					SW8082	PCB-1016 (AROCHLOR 1016)	ND	0	UG/KG	22	
						PCB-1221 (AROCHLOR 1221)	ND	0	UG/KG	22	
						PCB-1232 (AROCHLOR 1232)	ND	0	UG/KG	22	
						PCB-1242 (AROCHLOR 1242)	ND	0	UG/KG	22	
						PCB-1248 (AROCHLOR 1248)	ND	0	UG/KG	22	
						PCB-1254 (AROCHLOR 1254)	ND	0	UG/KG	22	
					SW8260	PCB-1260 (AROCHLOR 1260)	ND	0	UG/KG	44	
						ACETONE	ND	0	UG/KG	649	
						BROMODICHLOROMETHANE	ND	0	UG/KG	325	
BROMOMETHANE	ND	0	UG/KG	649							
BENZENE	ND	0	UG/KG	325							
TOLUENE	TR	311	UG/KG	325							
CARBON DISULFIDE	=	7240	UG/KG	325							
CHLOROBENZENE	ND	0	UG/KG	325							
CHLOROETHANE	ND	0	UG/KG	649							
CHLOROMETHANE	ND	0	UG/KG	649							
CARBON TETRACHLORIDE	ND	0	UG/KG	325							
DIBROMOCHLOROMETHANE	ND	0	UG/KG	325							
1,1-DICHLOROETHANE	ND	0	UG/KG	325							

**Holloman Air Force Base
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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual	
DP63-DP03	46	4/28/00	N	SW8260	1,2-DICHLOROETHANE	ND	0	UG/KG	325		
					1,1-DICHLOROETHENE	ND	0	UG/KG	325		
					TOTAL 1,2-DICHLOROETHENE	ND	0	UG/KG	325		
					cis-1,3-DICHLOROPROPENE	ND	0	UG/KG	325		
					trans-1,3-DICHLOROPROPENE	ND	0	UG/KG	325		
					1,2-DICHLOROPROPANE	ND	0	UG/KG	325		
					ETHYLBENZENE	ND	0	UG/KG	325		
					2-HEXANONE	ND	0	UG/KG	649		
					METHYL ETHYL KETONE (2-BUTANONE)	=	2950	UG/KG	649		
					METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	ND	0	UG/KG	649		
					METHYLENE CHLORIDE	=	762	UG/KG	325		
					1,1,2,2-TETRACHLOROETHANE	ND	0	UG/KG	325		
					TETRACHLOROETHYLENE(PCE)	ND	0	UG/KG	325		
					STYRENE	ND	0	UG/KG	325		
					BROMOFORM	ND	0	UG/KG	325		
					1,1,1-TRICHLOROETHANE	ND	0	UG/KG	325		
					1,1,2-TRICHLOROETHANE	ND	0	UG/KG	325		
					TRICHLOROETHYLENE (TCE)	ND	0	UG/KG	325		
					CHLOROFORM	TR	91	UG/KG	325		
					VINYL CHLORIDE	ND	0	UG/KG	649		
					XYLENES, TOTAL	ND	0	UG/KG	325		
					SW8270	ACENAPHTHENE	ND	0	UG/KG	430	
					ACENAPHTHYLENE	ND	0	UG/KG	430		
					ANTHRACENE	ND	0	UG/KG	430		
					BENZYL BUTYL PHTHALATE	ND	0	UG/KG	430		
					bis(2-CHLOROETHOXY) METHANE	ND	0	UG/KG	430		
					bis(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	ND	0	UG/KG	430		
					bis(2-ETHYLHEXYL) PHTHALATE	TR	100	UG/KG	430		
					4-BROMOPHENYL PHENYL ETHER	ND	0	UG/KG	430		
					BENZO(a)ANTHRACENE	ND	0	UG/KG	430		
					BENZO(a)PYRENE	ND	0	UG/KG	430		
					BENZO(b)FLUORANTHENE	ND	0	UG/KG	430		
					BENZO(g,h,i)PERYLENE	ND	0	UG/KG	430		
					BENZO(k)FLUORANTHENE	ND	0	UG/KG	430		
					4-CHLORO-3-METHYLPHENOL	ND	0	UG/KG	430		
					CARBAZOLE	ND	0	UG/KG	430		
					CHRYSENE	ND	0	UG/KG	430		
					4-CHLOROANILINE	ND	0	UG/KG	430		
					2-CHLOROPHENOL	ND	0	UG/KG	430		
					2-CHLORONAPHTHALENE	ND	0	UG/KG	430		
					4-CHLOROPHENYL PHENYL ETHER	ND	0	UG/KG	430		
					DIBENZ(a,h)ANTHRACENE	ND	0	UG/KG	430		
					DIBENZOFURAN	ND	0	UG/KG	430		
3,3'-DICHLOROBENZIDINE	ND	0	UG/KG	870							
1,2-DICHLOROBENZENE	ND	0	UG/KG	430							
1,3-DICHLOROBENZENE	ND	0	UG/KG	430							
1,4-DICHLOROBENZENE	ND	0	UG/KG	430							
2,4-DICHLOROPHENOL	ND	0	UG/KG	430							
DIETHYL PHTHALATE	TR	100	UG/KG	430							
2,4-DIMETHYLPHENOL	ND	0	UG/KG	430							
DIMETHYL PHTHALATE	ND	0	UG/KG	430							
4,6-DINITRO-2-METHYLPHENOL	ND	0	UG/KG	2200							

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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual				
DP63-DP03	46	4/28/00	N	SW8270	DI-n-BUTYL PHTHALATE	TR	110	UG/KG	430					
					DI-n-OCTYLPHTHALATE	ND	0	UG/KG	430					
					2,4-DINITROPHENOL	ND	0	UG/KG	2200					
					2,4-DINITROTOLUENE	ND	0	UG/KG	430					
					2,6-DINITROTOLUENE	ND	0	UG/KG	430					
					FLUORENE	ND	0	UG/KG	430					
					FLUORANTHENE	ND	0	UG/KG	430					
					HEXACHLOROBUTADIENE	ND	0	UG/KG	430					
					HEXACHLOROCYCLOPENTADIENE	ND	0	UG/KG	430					
					HEXACHLOROBENZENE	ND	0	UG/KG	430					
					HEXACHLOROETHANE	ND	0	UG/KG	430					
					INDENO(1,2,3-c,d)PYRENE	ND	0	UG/KG	430					
					ISOPHORONE	ND	0	UG/KG	430					
					2-METHYLPHENOL (o-CRESOL)	ND	0	UG/KG	430					
					4-METHYLPHENOL (p-CRESOL)	ND	0	UG/KG	430					
					2-METHYLNAPHTHALENE	ND	0	UG/KG	430					
					NAPHTHALENE	ND	0	UG/KG	430					
					N-NITROSODIPHENYLAMINE	ND	0	UG/KG	430					
					N-NITROSODI-n-PROPYLAMINE	ND	0	UG/KG	430					
					2-NITROANILINE	ND	0	UG/KG	2200					
					3-NITROANILINE	ND	0	UG/KG	2200					
					4-NITROANILINE	ND	0	UG/KG	2200					
					NITROBENZENE	ND	0	UG/KG	430					
					2-NITROPHENOL	ND	0	UG/KG	430					
					4-NITROPHENOL	ND	0	UG/KG	2200					
					2,2'-OXYBIS(1-CHLORO)PROPANE	ND	0	UG/KG	430					
					PENTACHLOROPHENOL	ND	0	UG/KG	2200					
					PHENANTHRENE	ND	0	UG/KG	430					
					PHENOL	ND	0	UG/KG	430					
					PYRENE	ND	0	UG/KG	430					
					1,2,4-TRICHLOROBENZENE	ND	0	UG/KG	430					
					2,4,5-TRICHLOROPHENOL	ND	0	UG/KG	2200					
					2,4,6-TRICHLOROPHENOL	ND	0	UG/KG	430					
					SW9014				CYANIDE	ND	0	MG/KG	0.214	
					SW8330				2-AMINO-4,6-DINITROTOLUENE	ND	0	UG/L	1.2	
									4-AMINO-2,6-DINITROTOLUENE	ND	0	UG/L	1.2	
									1,3-DINITROBENZENE	ND	0	UG/L	1.2	
									2,4-DINITROTOLUENE	ND	0	UG/L	1.2	
									2,6-DINITROTOLUENE	ND	0	UG/L	1.2	
									OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE	ND	0	UG/L	2.6	
									2-NITROTOLUENE	ND	0	UG/L	2.6	
									3-NITROTOLUENE	ND	0	UG/L	2.6	
									4-NITROTOLUENE	ND	0	UG/L	2.6	
				NITROBENZENE	ND	0	UG/L	1.2						
				HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	ND	0	UG/L	2.6						
				TETRYL	ND	0	UG/L	2.6						
				1,3,5-TRINITROBENZENE	ND	0	UG/L	1.2						
				2,4,6-TRINITROTOLUENE	ND	0	UG/L	1.2						
DP63-DP04	6	4/24/00		E418.1	PETROLEUM HYDROCARBONS	ND	0	MG/KG	28.8					
				SW6010	SILVER	ND	0	MG/KG	2.26					
					ALUMINUM	=	4090	MG/KG	45.3					
					ARSENIC	ND	0	MG/KG	2.26					

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Chemical Analytical Data**

Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual				
DP63-DP04	6	4/24/00	N	SW6010	BARIUM	TR	34	MG/KG	45.3					
					BERYLLIUM	TR	0.32	MG/KG	1.13					
					CALCIUM	=	177000	MG/KG	2830					
					CADMIUM	ND	0	MG/KG	1.13					
					COBALT	TR	1.18	MG/KG	11.3					
					CHROMIUM, TOTAL	=	4.4	MG/KG	2.26					
					COPPER	TR	1.6	MG/KG	5.66					
					IRON	=	3640	MG/KG	22.6					
					POTASSIUM	=	1180	MG/KG	1130					
					MAGNESIUM	=	2300	MG/KG	1130					
					MANGANESE	=	62	MG/KG	3.4					
					SODIUM	TR	938	MG/KG	1130					
					NICKEL	TR	3	MG/KG	9.06					
					LEAD	=	1.8	MG/KG	0.679					
					ANTIMONY	ND	0	MG/KG	13.6					
					SELENIUM	ND	0	MG/KG	1.13					
					THALLIUM	ND	0	MG/KG	2.26					
					VANADIUM	TR	9.5	MG/KG	11.3					
					ZINC	=	10.7	MG/KG	4.53					
								SW7471	MERCURY	ND	0	MG/KG	0.035	
								SW8081	ALDRIN	ND	0	UG/KG	1.9	
				ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	1.9						
				BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	1.9						
				DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	1.9						
				GAMMA BHC (LINDANE)	ND	0	UG/KG	1.9						
				ALPHA-CHLORDANE	ND	0	UG/KG	1.9						
				GAMMA-CHLORDANE	ND	0	UG/KG	1.9						
				p,p'-DDD	ND	0	UG/KG	3.8						
				p,p'-DDE	ND	0	UG/KG	3.8						
				p,p'-DDT	ND	0	UG/KG	3.8						
				DIELDRIN	ND	0	UG/KG	3.8						
				ALPHA ENDOSULFAN	ND	0	UG/KG	1.9						
				BETA ENDOSULFAN	ND	0	UG/KG	3.8						
				ENDOSULFAN SULFATE	ND	0	UG/KG	3.8						
				ENDRIN	ND	0	UG/KG	3.8						
				ENDRIN ALDEHYDE	ND	0	UG/KG	3.8						
				ENDRIN KETONE	ND	0	UG/KG	3.8						
				HEPTACHLOR EPOXIDE	ND	0	UG/KG	1.9						
				HEPTACHLOR	ND	0	UG/KG	1.9						
				METHOXYCHLOR	ND	0	UG/KG	19						
				TOXAPHENE	ND	0	UG/KG	190						
			SW8082	PCB-1016 (AROCHLOR 1016)	ND	0	UG/KG	20						
				PCB-1221 (AROCHLOR 1221)	ND	0	UG/KG	20						
				PCB-1232 (AROCHLOR 1232)	ND	0	UG/KG	20						
				PCB-1242 (AROCHLOR 1242)	ND	0	UG/KG	20						
				PCB-1248 (AROCHLOR 1248)	ND	0	UG/KG	20						
				PCB-1254 (AROCHLOR 1254)	ND	0	UG/KG	20						
				PCB-1260 (AROCHLOR 1260)	ND	0	UG/KG	39						
			SW8260	ACETONE	ND	0	UG/KG	580						
				BROMODICHLOROMETHANE	ND	0	UG/KG	290						
				BROMOMETHANE	ND	0	UG/KG	580						
				BENZENE	ND	0	UG/KG	290						

**Holloman Air Force Base
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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual	
DP63-DP04	6	4/24/00	N	SW8260	TOLUENE	ND	0	UG/KG	290		
					CARBON DISULFIDE	ND	0	UG/KG	290		
					CHLOROBENZENE	ND	0	UG/KG	290		
					CHLOROETHANE	ND	0	UG/KG	580		
					CHLOROMETHANE	ND	0	UG/KG	580		
					CARBON TETRACHLORIDE	ND	0	UG/KG	290		
					DIBROMOCHLOROMETHANE	ND	0	UG/KG	290		
					1,1-DICHLOROETHANE	ND	0	UG/KG	290		
					1,2-DICHLOROETHANE	ND	0	UG/KG	290		
					1,1-DICHLOROETHENE	ND	0	UG/KG	290		
					TOTAL 1,2-DICHLOROETHENE	ND	0	UG/KG	290		
					cis-1,3-DICHLOROPROPENE	ND	0	UG/KG	290		
					trans-1,3-DICHLOROPROPENE	ND	0	UG/KG	290		
					1,2-DICHLOROPROPANE	ND	0	UG/KG	290		
					ETHYLBENZENE	ND	0	UG/KG	290		
					2-HEXANONE	ND	0	UG/KG	580		
					METHYL ETHYL KETONE (2-BUTANONE)	ND	0	UG/KG	580		
					METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	ND	0	UG/KG	580		
					METHYLENE CHLORIDE	=	370	UG/KG	290		
					1,1,2,2-TETRACHLOROETHANE	ND	0	UG/KG	290		
					TETRACHLOROETHYLENE(PCE)	ND	0	UG/KG	290		
					STYRENE	ND	0	UG/KG	290		
					BROMOFORM	ND	0	UG/KG	290		
					1,1,1-TRICHLOROETHANE	ND	0	UG/KG	290		
					1,1,2-TRICHLOROETHANE	ND	0	UG/KG	290		
					TRICHLOROETHYLENE (TCE)	ND	0	UG/KG	290		
					CHLOROFORM	TR	100	UG/KG	290		
					VINYL CHLORIDE	ND	0	UG/KG	580		
					XYLENES, TOTAL	ND	0	UG/KG	290		
					SW8270	ACENAPHTHENE	ND	0	UG/KG	380	
					ACENAPHTHYLENE	ND	0	UG/KG	380		
					ANTHRACENE	ND	0	UG/KG	380		
					BENZYL BUTYL PHTHALATE	ND	0	UG/KG	380		
					bis(2-CHLOROETHOXY) METHANE	ND	0	UG/KG	380		
					bis(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	ND	0	UG/KG	380		
					bis(2-ETHYLHEXYL) PHTHALATE	ND	0	UG/KG	380		
					4-BROMOPHENYL PHENYL ETHER	ND	0	UG/KG	380		
					BENZO(a)ANTHRACENE	ND	0	UG/KG	380		
					BENZO(a)PYRENE	ND	0	UG/KG	380		
					BENZO(b)FLUORANTHENE	ND	0	UG/KG	380		
					BENZO(g,h,i)PERYLENE	ND	0	UG/KG	380		
					BENZO(k)FLUORANTHENE	ND	0	UG/KG	380		
					4-CHLORO-3-METHYLPHENOL	ND	0	UG/KG	380		
					CARBAZOLE	ND	0	UG/KG	380		
					CHRYSENE	ND	0	UG/KG	380		
					4-CHLOROANILINE	ND	0	UG/KG	380		
					2-CHLOROPHENOL	ND	0	UG/KG	380		
					2-CHLORONAPHTHALENE	ND	0	UG/KG	380		
					4-CHLOROPHENYL PHENYL ETHER	ND	0	UG/KG	380		
					DIBENZ(a,h)ANTHRACENE	ND	0	UG/KG	380		
					DIBENZOFURAN	ND	0	UG/KG	380		
					3,3'-DICHLOROBENZIDINE	ND	0	UG/KG	770		

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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual					
DP63-DP04	6	4/24/00	N	SW8270	1,2-DICHLOROBENZENE	ND	0	UG/KG	380						
					1,3-DICHLOROBENZENE	ND	0	UG/KG	380						
					1,4-DICHLOROBENZENE	ND	0	UG/KG	380						
					2,4-DICHLOROPHENOL	ND	0	UG/KG	380						
					DIETHYL PHTHALATE	ND	0	UG/KG	380						
					2,4-DIMETHYLPHENOL	ND	0	UG/KG	380						
					DIMETHYL PHTHALATE	ND	0	UG/KG	380						
					4,6-DINITRO-2-METHYLPHENOL	ND	0	UG/KG	1900						
					DI-n-BUTYL PHTHALATE	ND	0	UG/KG	380						
					DI-n-OCTYLPHTHALATE	ND	0	UG/KG	380						
					2,4-DINITROPHENOL	ND	0	UG/KG	1900						
					2,4-DINITROTOLUENE	ND	0	UG/KG	380						
					2,6-DINITROTOLUENE	ND	0	UG/KG	380						
					FLUORENE	ND	0	UG/KG	380						
					FLUORANTHENE	ND	0	UG/KG	380						
					HEXACHLOROBUTADIENE	ND	0	UG/KG	380						
					HEXACHLOROCYCLOPENTADIENE	ND	0	UG/KG	380						
					HEXACHLOROBENZENE	ND	0	UG/KG	380						
					HEXACHLOROETHANE	ND	0	UG/KG	380						
					INDENO(1,2,3-c,d)PYRENE	ND	0	UG/KG	380						
					ISOPHORONE	ND	0	UG/KG	380						
					2-METHYLPHENOL (o-CRESOL)	ND	0	UG/KG	380						
					4-METHYLPHENOL (p-CRESOL)	ND	0	UG/KG	380						
					2-METHYLNAPHTHALENE	ND	0	UG/KG	380						
					NAPHTHALENE	ND	0	UG/KG	380						
					N-NITROSODIPHENYLAMINE	ND	0	UG/KG	380						
					N-NITROSODI-n-PROPYLAMINE	ND	0	UG/KG	380						
					2-NITROANILINE	ND	0	UG/KG	1900						
					3-NITROANILINE	ND	0	UG/KG	1900						
					4-NITROANILINE	ND	0	UG/KG	1900						
					NITROBENZENE	ND	0	UG/KG	380						
					2-NITROPHENOL	ND	0	UG/KG	380						
					4-NITROPHENOL	ND	0	UG/KG	1900						
					2,2'-OXYBIS(1-CHLORO)PROPANE	ND	0	UG/KG	380						
					PENTACHLOROPHENOL	ND	0	UG/KG	1900						
					PHENANTHRENE	ND	0	UG/KG	380						
					PHENOL	ND	0	UG/KG	380						
					PYRENE	ND	0	UG/KG	380						
					1,2,4-TRICHLOROBENZENE	ND	0	UG/KG	380						
					2,4,5-TRICHLOROPHENOL	ND	0	UG/KG	1900						
					2,4,6-TRICHLOROPHENOL	ND	0	UG/KG	380						
									SW9014	CYANIDE	ND	0	MG/KG	0.206	
						21	4/27/00		E418.1	PETROLEUM HYDROCARBONS	=	39.7	MG/KG	30.1	
				SW6010	SILVER	ND	0	MG/KG	2.28						
					ALUMINIUM	=	19600	MG/KG	45.5						
					ARSENIC	=	7.3	MG/KG	2.28						
					BARIUM	=	227	MG/KG	45.5						
					BERYLLIUM	=	1.3	MG/KG	1.14						
					CALCIUM	=	135000	MG/KG	2840						
					CADMIUM	ND	0	MG/KG	1.14						
					COBALT	TR	7.1	MG/KG	11.4						
					CHROMIUM, TOTAL	=	22.4	MG/KG	1.14						

**Holloman Air Force Base
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Chemical Analytical Data**

Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual		
DP63-DP04	21	4/27/00	N	SW6010	COPPER	=	13.6	MG/KG	5.69			
					IRON	=	17800	MG/KG	22.8			
					POTASSIUM	=	3700	MG/KG	1140			
					MAGNESIUM	=	9370	MG/KG	1140			
					MANGANESE	=	308	MG/KG	3.41			
					SODIUM	=	3900	MG/KG	1140			
					NICKEL	=	19.5	MG/KG	9.1			
					LEAD	=	12.3	MG/KG	0.683			
					ANTIMONY	ND	0	MG/KG	13.7			
					SELENIUM	ND	0	MG/KG	1.14			
					THALLIUM	ND	0	MG/KG	2.28			
					VANADIUM	=	37.3	MG/KG	11.4			
					ZINC	=	58.4	MG/KG	4.55			
					SW7471	MERCURY	ND	0	MG/KG	0.035		
					SW8081	ALDRIN	ND	0	UG/KG	2		
						ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2		
						BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2		
						DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2		
						GAMMA BHC (LINDANE)	ND	0	UG/KG	2		
						ALPHA-CHLORDANE	ND	0	UG/KG	2		
						GAMMA-CHLORDANE	ND	0	UG/KG	2		
						p,p'-DDD	ND	0	UG/KG	4		
						p,p'-DDE	ND	0	UG/KG	4		
						p,p'-DDT	ND	0	UG/KG	4		
						DIELDRIN	ND	0	UG/KG	4		
						ALPHA ENDOSULFAN	ND	0	UG/KG	2		
						BETA ENDOSULFAN	ND	0	UG/KG	4		
						ENDOSULFAN SULFATE	ND	0	UG/KG	4		
						ENDRIN	ND	0	UG/KG	4		
						ENDRIN ALDEHYDE	ND	0	UG/KG	4		
						ENDRIN KETONE	ND	0	UG/KG	4		
						HEPTACHLOR EPOXIDE	ND	0	UG/KG	2		
						HEPTACHLOR	ND	0	UG/KG	2		
						METHOXYCHLOR	ND	0	UG/KG	20		
						TOXAPHENE	ND	0	UG/KG	200		
						SW8082	PCB-1016 (AROCHLOR 1016)	ND	0	UG/KG	21	
							PCB-1221 (AROCHLOR 1221)	ND	0	UG/KG	21	
							PCB-1232 (AROCHLOR 1232)	ND	0	UG/KG	21	
							PCB-1242 (AROCHLOR 1242)	ND	0	UG/KG	21	
							PCB-1248 (AROCHLOR 1248)	ND	0	UG/KG	21	
							PCB-1254 (AROCHLOR 1254)	ND	0	UG/KG	21	
						SW8260	PCB-1260 (AROCHLOR 1260)	ND	0	UG/KG	41	
ACETONE	ND	0	UG/KG	602								
BROMODICHLOROMETHANE	ND	0	UG/KG	301								
BROMOMETHANE	ND	0	UG/KG	602								
BENZENE	ND	0	UG/KG	301								
TOLUENE	ND	0	UG/KG	301								
CARBON DISULFIDE	ND	0	UG/KG	301								
CHLOROBENZENE	ND	0	UG/KG	301								
CHLOROETHANE	ND	0	UG/KG	602								
CHLOROMETHANE	ND	0	UG/KG	602								
CARBON TETRACHLORIDE	ND	0	UG/KG	301								

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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual				
DP63-DP04	21	4/27/00	N	SW8260	DIBROMOCHLOROMETHANE	ND	0	UG/KG	301					
					1,1-DICHLOROETHANE	ND	0	UG/KG	301					
					1,2-DICHLOROETHANE	ND	0	UG/KG	301					
					1,1-DICHLOROETHENE	ND	0	UG/KG	301					
					TOTAL 1,2-DICHLOROETHENE	ND	0	UG/KG	301					
					cis-1,3-DICHLOROPROPENE	ND	0	UG/KG	301					
					trans-1,3-DICHLOROPROPENE	ND	0	UG/KG	301					
					1,2-DICHLOROPROPANE	ND	0	UG/KG	301					
					ETHYLBENZENE	ND	0	UG/KG	301					
					2-HEXANONE	ND	0	UG/KG	602					
					METHYL ETHYL KETONE (2-BUTANONE)	ND	0	UG/KG	602					
					METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	ND	0	UG/KG	602					
					METHYLENE CHLORIDE	=	558	UG/KG	301					
					1,1,2,2-TETRACHLOROETHANE	ND	0	UG/KG	301					
					TETRACHLOROETHYLENE(PCE)	ND	0	UG/KG	301					
					STYRENE	ND	0	UG/KG	301					
					BROMOFORM	ND	0	UG/KG	301					
					1,1,1-TRICHLOROETHANE	ND	0	UG/KG	301					
					1,1,2-TRICHLOROETHANE	ND	0	UG/KG	301					
					TRICHLOROETHYLENE (TCE)	TR	112	UG/KG	301					
					CHLOROFORM	TR	77	UG/KG	301					
					VINYL CHLORIDE	ND	0	UG/KG	602					
					XYLENES, TOTAL	ND	0	UG/KG	301					
					SW8270				ACENAPHTHENE	ND	0	UG/KG	400	
									ACENAPHTHYLENE	ND	0	UG/KG	400	
									ANTHRACENE	ND	0	UG/KG	400	
									BENZYL BUTYL PHTHALATE	ND	0	UG/KG	400	
									bis(2-CHLOROETHOXY) METHANE	ND	0	UG/KG	400	
									bis(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	ND	0	UG/KG	400	
									bis(2-ETHYLHEXYL) PHTHALATE	TR	25	UG/KG	400	
									4-BROMOPHENYL PHENYL ETHER	ND	0	UG/KG	400	
									BENZO(a)ANTHRACENE	ND	0	UG/KG	400	
									BENZO(a)PYRENE	ND	0	UG/KG	400	
									BENZO(b)FLUORANTHENE	ND	0	UG/KG	400	
									BENZO(g,h,i)PERYLENE	ND	0	UG/KG	400	
									BENZO(k)FLUORANTHENE	ND	0	UG/KG	400	
									4-CHLORO-3-METHYLPHENOL	ND	0	UG/KG	400	
									CARBAZOLE	ND	0	UG/KG	400	
									CHRYSENE	ND	0	UG/KG	400	
									4-CHLOROANILINE	ND	0	UG/KG	400	
									2-CHLOROPHENOL	ND	0	UG/KG	400	
									2-CHLORONAPHTHALENE	ND	0	UG/KG	400	
									4-CHLOROPHENYL PHENYL ETHER	ND	0	UG/KG	400	
									DIBENZ(a,h)ANTHRACENE	ND	0	UG/KG	400	
									DIBENZOFURAN	ND	0	UG/KG	400	
									3,3'-DICHLOROBENZIDINE	ND	0	UG/KG	800	
									1,2-DICHLOROBENZENE	ND	0	UG/KG	400	
1,3-DICHLOROBENZENE	ND	0	UG/KG	400										
1,4-DICHLOROBENZENE	ND	0	UG/KG	400										
2,4-DICHLOROPHENOL	ND	0	UG/KG	400										
DIETHYL PHTHALATE	ND	0	UG/KG	400										
2,4-DIMETHYLPHENOL	ND	0	UG/KG	400										

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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual	
DP63-DP04	21	4/27/00	N	SW8270	DIMETHYL PHTHALATE	ND	0	UG/KG	400		
					4,6-DINITRO-2-METHYLPHENOL	ND	0	UG/KG	2000		
					DI-n-BUTYL PHTHALATE	TR	110	UG/KG	400		
					DI-n-OCTYLPHTHALATE	ND	0	UG/KG	400		
					2,4-DINITROPHENOL	ND	0	UG/KG	2000		
					2,4-DINITROTOLUENE	ND	0	UG/KG	400		
					2,6-DINITROTOLUENE	ND	0	UG/KG	400		
					FLUORENE	ND	0	UG/KG	400		
					FLUORANTHENE	ND	0	UG/KG	400		
					HEXACHLOROBUTADIENE	ND	0	UG/KG	400		
					HEXACHLOROCYCLOPENTADIENE	ND	0	UG/KG	400		
					HEXACHLOROBENZENE	ND	0	UG/KG	400		
					HEXACHLOROETHANE	ND	0	UG/KG	400		
					INDENO(1,2,3-c,d)PYRENE	ND	0	UG/KG	400		
					ISOPHORONE	ND	0	UG/KG	400		
					2-METHYLPHENOL (o-CRESOL)	ND	0	UG/KG	400		
					4-METHYLPHENOL (p-CRESOL)	ND	0	UG/KG	400		
					2-METHYLNAPHTHALENE	ND	0	UG/KG	400		
					NAPHTHALENE	ND	0	UG/KG	400		
					N-NITROSODIPHENYLAMINE	ND	0	UG/KG	400		
					N-NITROSODI-n-PROPYLAMINE	ND	0	UG/KG	400		
					2-NITROANILINE	ND	0	UG/KG	2000		
					3-NITROANILINE	ND	0	UG/KG	2000		
					4-NITROANILINE	ND	0	UG/KG	2000		
					NITROBENZENE	ND	0	UG/KG	400		
					2-NITROPHENOL	ND	0	UG/KG	400		
					4-NITROPHENOL	ND	0	UG/KG	2000		
					2,2'-OXYBIS(1-CHLORO)PROPANE	ND	0	UG/KG	400		
					PENTACHLOROPHENOL	ND	0	UG/KG	2000		
					PHENANTHRENE	ND	0	UG/KG	400		
					PHENOL	ND	0	UG/KG	400		
					PYRENE	ND	0	UG/KG	400		
					1,2,4-TRICHLOROBENZENE	ND	0	UG/KG	400		
					2,4,5-TRICHLOROPHENOL	ND	0	UG/KG	2000		
	2,4,6-TRICHLOROPHENOL	ND	0	UG/KG	400						
		45			SW9014	CYANIDE	ND	0	MG/KG	0.192	
	E418.1				PETROLEUM HYDROCARBONS	=	70.7	MG/KG	31.5		
	SW6010				SILVER	ND	0	MG/KG	2.36		
					ALUMINUM	=	7970	MG/KG	47.3		
					ARSENIC	=	2.6	MG/KG	2.36		
					BARIUM	=	120	MG/KG	47.3		
					BERYLLIUM	TR	0.53	MG/KG	1.18		
					CALCIUM	=	98800	MG/KG	1180		
					CADMIUM	ND	0	MG/KG	1.18		
					COBALT	TR	4.2	MG/KG	11.8		
					CHROMIUM, TOTAL	=	9.6	MG/KG	1.18		
					COPPER	TR	4.9	MG/KG	5.91		
					IRON	=	8050	MG/KG	23.6		
					POTASSIUM	=	1510	MG/KG	1180		
					MAGNESIUM	=	4570	MG/KG	1180		
					MANGANESE	=	122	MG/KG	3.54		
					SODIUM	=	2190	MG/KG	1180		

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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual	
DP63-DP04	45	4/27/00	N	SW6010	NICKEL	TR	7.3	MG/KG	9.45		
					LEAD	=	5.7	MG/KG	0.709		
					ANTIMONY	ND	0	MG/KG	14.2		
					SELENIUM	ND	0	MG/KG	1.18		
					THALLIUM	ND	0	MG/KG	2.36		
					VANADIUM	=	38.4	MG/KG	11.8		
					ZINC	=	22.8	MG/KG	4.73		
					SW7471	MERCURY	ND	0	MG/KG	0.0414	
					SW8081	ALDRIN	ND	0	UG/KG	2.1	
						ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.1	
						BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.1	
						DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	2.1	
				GAMMA BHC (LINDANE)		ND	0	UG/KG	2.1		
				ALPHA-CHLORDANE		ND	0	UG/KG	2.1		
				GAMMA-CHLORDANE		ND	0	UG/KG	2.1		
				p,p'-DDD		ND	0	UG/KG	4.2		
				p,p'-DDE		ND	0	UG/KG	4.2		
				p,p'-DDT		ND	0	UG/KG	4.2		
				DIELDRIN		ND	0	UG/KG	4.2		
				ALPHA ENDOSULFAN		ND	0	UG/KG	2.1		
				BETA ENDOSULFAN		ND	0	UG/KG	4.2		
				ENDOSULFAN SULFATE		ND	0	UG/KG	4.2		
				ENDRIN		ND	0	UG/KG	4.2		
				ENDRIN ALDEHYDE		ND	0	UG/KG	4.2		
				ENDRIN KETONE		ND	0	UG/KG	4.2		
				HEPTACHLOR EPOXIDE		ND	0	UG/KG	2.1		
				HEPTACHLOR		ND	0	UG/KG	2.1		
				METHOXYCHLOR		ND	0	UG/KG	21		
				TOXAPHENE		ND	0	UG/KG	210		
				SW8082		PCB-1016 (AROCHLOR 1016)	ND	0	UG/KG	22	
						PCB-1221 (AROCHLOR 1221)	ND	0	UG/KG	22	
						PCB-1232 (AROCHLOR 1232)	ND	0	UG/KG	22	
						PCB-1242 (AROCHLOR 1242)	ND	0	UG/KG	22	
						PCB-1248 (AROCHLOR 1248)	ND	0	UG/KG	22	
						PCB-1254 (AROCHLOR 1254)	ND	0	UG/KG	22	
				SW8260		PCB-1260 (AROCHLOR 1260)	ND	0	UG/KG	43	
					ACETONE	ND	0	UG/KG	633		
					BROMODICHLOROMETHANE	ND	0	UG/KG	317		
					BROMOMETHANE	ND	0	UG/KG	633		
					BENZENE	ND	0	UG/KG	317		
					TOLUENE	ND	0	UG/KG	317		
					CARBON DISULFIDE	ND	0	UG/KG	317		
CHLOROBENZENE	ND	0	UG/KG		317						
CHLOROETHANE	ND	0	UG/KG		633						
CHLOROMETHANE	ND	0	UG/KG		633						
CARBON TETRACHLORIDE	ND	0	UG/KG		317						
DIBROMOCHLOROMETHANE	ND	0	UG/KG		317						
1,1-DICHLOROETHANE	ND	0	UG/KG	317							
1,2-DICHLOROETHANE	ND	0	UG/KG	317							
1,1-DICHLOROETHENE	ND	0	UG/KG	317							
TOTAL 1,2-DICHLOROETHENE	ND	0	UG/KG	317							
cis-1,3-DICHLOROPROPENE	ND	0	UG/KG	317							

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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual
DP63-DP04	45	4/27/00	N	SW8260	trans-1,3-DICHLOROPROPENE	ND	0	UG/KG	317	
					1,2-DICHLOROPROPANE	ND	0	UG/KG	317	
					ETHYLBENZENE	ND	0	UG/KG	317	
					2-HEXANONE	ND	0	UG/KG	633	
					METHYL ETHYL KETONE (2-BUTANONE)	ND	0	UG/KG	633	
					METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	ND	0	UG/KG	633	
					METHYLENE CHLORIDE	=	599	UG/KG	317	
					1,1,2,2-TETRACHLOROETHANE	ND	0	UG/KG	317	
					TETRACHLOROETHYLENE(PCE)	ND	0	UG/KG	317	
					STYRENE	ND	0	UG/KG	317	
					BROMOFORM	ND	0	UG/KG	317	
					1,1,1-TRICHLOROETHANE	ND	0	UG/KG	317	
					1,1,2-TRICHLOROETHANE	ND	0	UG/KG	317	
					TRICHLOROETHYLENE (TCE)	TR	99	UG/KG	317	
					CHLOROFORM	ND	0	UG/KG	317	
					VINYL CHLORIDE	ND	0	UG/KG	633	
					XYLENES, TOTAL	ND	0	UG/KG	317	
					SW8270	ACENAPHTHENE	ND	0	UG/KG	420
				ACENAPHTHYLENE		ND	0	UG/KG	420	
				ANTHRACENE		ND	0	UG/KG	420	
				BENZYL BUTYL PHTHALATE		ND	0	UG/KG	420	
				bis(2-CHLOROETHOXY) METHANE		ND	0	UG/KG	420	
				bis(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)		ND	0	UG/KG	420	
				bis(2-ETHYLHEXYL) PHTHALATE		TR	22	UG/KG	420	
				4-BROMOPHENYL PHENYL ETHER		ND	0	UG/KG	420	
				BENZO(a)ANTHRACENE		ND	0	UG/KG	420	
				BENZO(a)PYRENE		ND	0	UG/KG	420	
				BENZO(b)FLUORANTHENE		ND	0	UG/KG	420	
				BENZO(g,h,i)PERYLENE		ND	0	UG/KG	420	
				BENZO(k)FLUORANTHENE		ND	0	UG/KG	420	
				4-CHLORO-3-METHYLPHENOL		ND	0	UG/KG	420	
				CARBAZOLE		ND	0	UG/KG	420	
				CHRYSENE		ND	0	UG/KG	420	
				4-CHLOROANILINE		ND	0	UG/KG	420	
				2-CHLOROPHENOL		ND	0	UG/KG	420	
				2-CHLORONAPHTHALENE	ND	0	UG/KG	420		
4-CHLOROPHENYL PHENYL ETHER	ND	0	UG/KG	420						
DIBENZ(a,h)ANTHRACENE	ND	0	UG/KG	420						
DIBENZOFURAN	ND	0	UG/KG	420						
3,3'-DICHLOROBENZIDINE	ND	0	UG/KG	840						
1,2-DICHLOROBENZENE	ND	0	UG/KG	420						
1,3-DICHLOROBENZENE	ND	0	UG/KG	420						
1,4-DICHLOROBENZENE	ND	0	UG/KG	420						
2,4-DICHLOROPHENOL	ND	0	UG/KG	420						
DIETHYL PHTHALATE	ND	0	UG/KG	420						
2,4-DIMETHYLPHENOL	ND	0	UG/KG	420						
DIMETHYL PHTHALATE	ND	0	UG/KG	420						
4,6-DINITRO-2-METHYLPHENOL	ND	0	UG/KG	2100						
DI-n-BUTYL PHTHALATE	ND	0	UG/KG	420						
DI-n-OCTYLPHTHALATE	ND	0	UG/KG	420						
2,4-DINITROPHENOL	ND	0	UG/KG	2100						
2,4-DINITROTOLUENE	ND	0	UG/KG	420						

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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual					
DP63-DP04	45	4/27/00	N	SW8270	2,6-DINITROTOLUENE	ND	0	UG/KG	420						
					FLUORENE	ND	0	UG/KG	420						
					FLUORANTHENE	ND	0	UG/KG	420						
					HEXACHLOROBUTADIENE	ND	0	UG/KG	420						
					HEXACHLOROCYCLOPENTADIENE	ND	0	UG/KG	420						
					HEXACHLOROBENZENE	ND	0	UG/KG	420						
					HEXACHLOROETHANE	ND	0	UG/KG	420						
					INDENO(1,2,3-c,d)PYRENE	ND	0	UG/KG	420						
					ISOPHORONE	ND	0	UG/KG	420						
					2-METHYLPHENOL (o-CRESOL)	ND	0	UG/KG	420						
					4-METHYLPHENOL (p-CRESOL)	ND	0	UG/KG	420						
					2-METHYLNAPHTHALENE	ND	0	UG/KG	420						
					NAPHTHALENE	ND	0	UG/KG	420						
					N-NITROSODIPHENYLAMINE	ND	0	UG/KG	420						
					N-NITROSODI-n-PROPYLAMINE	ND	0	UG/KG	420						
					2-NITROANILINE	ND	0	UG/KG	2100						
					3-NITROANILINE	ND	0	UG/KG	2100						
					4-NITROANILINE	ND	0	UG/KG	2100						
					NITROBENZENE	ND	0	UG/KG	420						
					2-NITROPHENOL	ND	0	UG/KG	420						
					4-NITROPHENOL	ND	0	UG/KG	2100						
					2,2'-OXYBIS(1-CHLORO)PROPANE	ND	0	UG/KG	420						
					PENTACHLOROPHENOL	ND	0	UG/KG	2100						
					PHENANTHRENE	ND	0	UG/KG	420						
					PHENOL	ND	0	UG/KG	420						
					PYRENE	ND	0	UG/KG	420						
					1,2,4-TRICHLOROBENZENE	ND	0	UG/KG	420						
					2,4,5-TRICHLOROPHENOL	ND	0	UG/KG	2100						
					2,4,6-TRICHLOROPHENOL	ND	0	UG/KG	420						
					SW9014				CYANIDE	ND	0	MG/KG	0.249		
					41	5/1/00			SW8330	2-AMINO-4,6-DINITROTOLUENE	ND	0	UG/L	1.2	
										4-AMINO-2,6-DINITROTOLUENE	ND	0	UG/L	1.2	
										1,3-DINITROBENZENE	ND	0	UG/L	1.2	
2,4-DINITROTOLUENE	ND	0	UG/L	1.2											
2,6-DINITROTOLUENE	ND	0	UG/L	1.2											
OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE	ND	0	UG/L	2.6											
2-NITROTOLUENE	ND	0	UG/L	2.6											
3-NITROTOLUENE	ND	0	UG/L	2.6											
4-NITROTOLUENE	ND	0	UG/L	2.6											
NITROBENZENE	ND	0	UG/L	1.2											
HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	ND	0	UG/L	2.6											
TETRYL	ND	0	UG/L	2.6											
1,3,5-TRINITROBENZENE	ND	0	UG/L	1.2											
2,4,6-TRINITROTOLUENE	ND	0	UG/L	1.2											

Method Blank Data

**Holloman Air Force Base
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Method Blank Data**

Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual				
LABQC	0	5/5/00	LB	SW8330	2-AMINO-4,6-DINITROTOLUENE	ND	0	UG/L	1.2					
					4-AMINO-2,6-DINITROTOLUENE	ND	0	UG/L	1.2					
					1,3-DINITROBENZENE	ND	0	UG/L	1.2					
					2,4-DINITROTOLUENE	ND	0	UG/L	1.2					
					2,6-DINITROTOLUENE	ND	0	UG/L	1.2					
					OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE	ND	0	UG/L	2.6					
					2-NITROTOLUENE	ND	0	UG/L	2.6					
					3-NITROTOLUENE	ND	0	UG/L	2.6					
					4-NITROTOLUENE	ND	0	UG/L	2.6					
					NITROBENZENE	ND	0	UG/L	1.2					
					HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	ND	0	UG/L	2.6					
					TETRYL	ND	0	UG/L	2.6					
					1,3,5-TRINITROBENZENE	ND	0	UG/L	1.2					
					2,4,6-TRINITROTOLUENE	ND	0	UG/L	1.2					
					SW9014				CYANIDE	ND	0	MG/KG	0.25	
					SW8081				ALDRIN	ND	0	UG/KG	1.7	
									ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	1.7	
									BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	1.7	
									DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	ND	0	UG/KG	1.7	
									GAMMA BHC (LINDANE)	ND	0	UG/KG	1.7	
									ALPHA-CHLORDANE	ND	0	UG/KG	1.7	
									GAMMA-CHLORDANE	ND	0	UG/KG	1.7	
									p,p'-DDD	ND	0	UG/KG	3.3	
									p,p'-DDE	ND	0	UG/KG	3.3	
									p,p'-DDT	ND	0	UG/KG	3.3	
									DIELDRIN	ND	0	UG/KG	3.3	
									ALPHA ENDOSULFAN	ND	0	UG/KG	1.7	
									BETA ENDOSULFAN	ND	0	UG/KG	3.3	
									ENDOSULFAN SULFATE	ND	0	UG/KG	3.3	
									ENDRIN	ND	0	UG/KG	3.3	
									ENDRIN ALDEHYDE	ND	0	UG/KG	3.3	
									ENDRIN KETONE	ND	0	UG/KG	3.3	
									HEPTACHLOR EPOXIDE	ND	0	UG/KG	1.7	
									HEPTACHLOR	ND	0	UG/KG	1.7	
									METHOXYCHLOR	ND	0	UG/KG	17	
									TOXAPHENE	ND	0	UG/KG	170	
					SW8082				PCB-1016 (AROCHLOR 1016)	ND	0	UG/KG	17	
									PCB-1221 (AROCHLOR 1221)	ND	0	UG/KG	17	
									PCB-1232 (AROCHLOR 1232)	ND	0	UG/KG	17	
									PCB-1242 (AROCHLOR 1242)	ND	0	UG/KG	17	
									PCB-1248 (AROCHLOR 1248)	ND	0	UG/KG	17	
									PCB-1254 (AROCHLOR 1254)	ND	0	UG/KG	17	
				PCB-1260 (AROCHLOR 1260)	ND	0	UG/KG	34						
SW8270				ACENAPHTHENE	ND	0	UG/KG	330						
				ACENAPHTHYLENE	ND	0	UG/KG	330						
				ANTHRACENE	ND	0	UG/KG	330						
				BENZYL BUTYL PHTHALATE	ND	0	UG/KG	330						
				bis(2-CHLOROETHOXY) METHANE	ND	0	UG/KG	330						
				bis(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	ND	0	UG/KG	330						
				bis(2-ETHYLHEXYL) PHTHALATE	ND	0	UG/KG	330						
				4-BROMOPHENYL PHENYL ETHER	ND	0	UG/KG	330						
				BENZO(a)ANTHRACENE	ND	0	UG/KG	330						

**Holloman Air Force Base
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Method Blank Data**

Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual
LABQC	0	5/5/00	LB	SW8270	BENZO(a)PYRENE	ND	0	UG/KG	330	
					BENZO(b)FLUORANTHENE	ND	0	UG/KG	330	
					BENZO(g,h,i)PERYLENE	ND	0	UG/KG	330	
					BENZO(k)FLUORANTHENE	ND	0	UG/KG	330	
					4-CHLORO-3-METHYLPHENOL	ND	0	UG/KG	330	
					CARBAZOLE	ND	0	UG/KG	330	
					CHRYSENE	ND	0	UG/KG	330	
					4-CHLOROANILINE	ND	0	UG/KG	330	
					2-CHLOROPHENOL	ND	0	UG/KG	330	
					2-CHLORONAPHTHALENE	ND	0	UG/KG	330	
					4-CHLOROPHENYL PHENYL ETHER	ND	0	UG/KG	330	
					DIBENZ(a,h)ANTHRACENE	ND	0	UG/KG	330	
					DIBENZOFURAN	ND	0	UG/KG	330	
					3,3'-DICHLOROBENZIDINE	ND	0	UG/KG	670	
					1,2-DICHLOROBENZENE	ND	0	UG/KG	330	
					1,3-DICHLOROBENZENE	ND	0	UG/KG	330	
					1,4-DICHLOROBENZENE	ND	0	UG/KG	330	
					2,4-DICHLOROPHENOL	ND	0	UG/KG	330	
					DIETHYL PHTHALATE	ND	0	UG/KG	330	
					2,4-DIMETHYLPHENOL	ND	0	UG/KG	330	
					DIMETHYL PHTHALATE	ND	0	UG/KG	330	
					4,6-DINITRO-2-METHYLPHENOL	ND	0	UG/KG	1700	
					DI-n-BUTYL PHTHALATE	ND	0	UG/KG	330	
					DI-n-OCTYLPHTHALATE	ND	0	UG/KG	330	
					2,4-DINITROPHENOL	ND	0	UG/KG	1700	
					2,4-DINITROTOLUENE	ND	0	UG/KG	330	
					2,6-DINITROTOLUENE	ND	0	UG/KG	330	
					FLUORENE	ND	0	UG/KG	330	
					FLUORANTHENE	ND	0	UG/KG	330	
					HEXACHLOROBUTADIENE	ND	0	UG/KG	330	
					HEXACHLOROCYCLOPENTADIENE	ND	0	UG/KG	330	
					HEXACHLOROBENZENE	ND	0	UG/KG	330	
					HEXACHLOROETHANE	ND	0	UG/KG	330	
					INDENO(1,2,3-c,d)PYRENE	ND	0	UG/KG	330	
					ISOPHORONE	ND	0	UG/KG	330	
					2-METHYLPHENOL (o-CRESOL)	ND	0	UG/KG	330	
					4-METHYLPHENOL (p-CRESOL)	ND	0	UG/KG	330	
					2-METHYLNAPHTHALENE	ND	0	UG/KG	330	
					NAPHTHALENE	ND	0	UG/KG	330	
					N-NITROSODIPHENYLAMINE	ND	0	UG/KG	330	
					N-NITROSODI-n-PROPYLAMINE	ND	0	UG/KG	330	
					2-NITROANILINE	ND	0	UG/KG	1700	
					3-NITROANILINE	ND	0	UG/KG	1700	
					4-NITROANILINE	ND	0	UG/KG	1700	
					NITROBENZENE	ND	0	UG/KG	330	
					2-NITROPHENOL	ND	0	UG/KG	330	
					4-NITROPHENOL	ND	0	UG/KG	1700	
					2,2'-OXYBIS(1-CHLORO)PROPANE	ND	0	UG/KG	330	
					PENTACHLOROPHENOL	ND	0	UG/KG	1700	
					PHENANTHRENE	ND	0	UG/KG	330	
					PHENOL	ND	0	UG/KG	330	
					PYRENE	ND	0	UG/KG	330	

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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual		
LABQC	0	5/5/00	LB	SW8270	1,2,4-TRICHLOROBENZENE	ND	0	UG/KG	330			
					2,4,5-TRICHLOROPHENOL	ND	0	UG/KG	1700			
					2,4,6-TRICHLOROPHENOL	ND	0	UG/KG	330			
					5/9/00	SW8260	ACETONE	ND	0	UG/KG	500	
							BROMODICHLOROMETHANE	ND	0	UG/KG	250	
							BROMOMETHANE	ND	0	UG/KG	500	
		BENZENE	ND	0			UG/KG	250				
		TOLUENE	ND	0			UG/KG	250				
		CARBON DISULFIDE	ND	0			UG/KG	250				
		CHLOROBENZENE	ND	0			UG/KG	250				
		CHLOROETHANE	ND	0			UG/KG	500				
		CHLOROMETHANE	ND	0			UG/KG	500				
		CARBON TETRACHLORIDE	ND	0			UG/KG	250				
		DIBROMOCHLOROMETHANE	ND	0			UG/KG	250				
		1,1-DICHLOROETHANE	ND	0			UG/KG	250				
		1,2-DICHLOROETHANE	ND	0			UG/KG	250				
		1,1-DICHLOROETHENE	ND	0			UG/KG	250				
		TOTAL 1,2-DICHLOROETHENE	ND	0			UG/KG	250				
		cis-1,3-DICHLOROPROPENE	ND	0			UG/KG	250				
		trans-1,3-DICHLOROPROPENE	ND	0			UG/KG	250				
		1,2-DICHLOROPROPANE	ND	0			UG/KG	250				
		ETHYLBENZENE	ND	0	UG/KG	250						
		2-HEXANONE	ND	0	UG/KG	500						
		METHYL ETHYL KETONE (2-BUTANONE)	ND	0	UG/KG	500						
		METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	ND	0	UG/KG	500						
		METHYLENE CHLORIDE	=	470	UG/KG	250						
		1,1,2,2-TETRACHLOROETHANE	ND	0	UG/KG	250						
		TETRACHLOROETHYLENE(PCE)	ND	0	UG/KG	250						
		STYRENE	ND	0	UG/KG	250						
		BROMOFORM	ND	0	UG/KG	250						
		1,1,1-TRICHLOROETHANE	ND	0	UG/KG	250						
		1,1,2-TRICHLOROETHANE	ND	0	UG/KG	250						
		TRICHLOROETHYLENE (TCE)	ND	0	UG/KG	250						
		CHLOROFORM	TR	90	UG/KG	250						
		VINYL CHLORIDE	ND	0	UG/KG	500						
		XYLENES, TOTAL	ND	0	UG/KG	250						
		5/11/00					ACETONE	ND	0	UG/KG	500	
							BROMODICHLOROMETHANE	ND	0	UG/KG	250	
							BROMOMETHANE	ND	0	UG/KG	500	
							BENZENE	ND	0	UG/KG	250	
							TOLUENE	ND	0	UG/KG	250	
							CARBON DISULFIDE	ND	0	UG/KG	250	
CHLOROBENZENE	ND						0	UG/KG	250			
CHLOROETHANE	ND						0	UG/KG	500			
CHLOROMETHANE	ND						0	UG/KG	500			
CARBON TETRACHLORIDE	ND						0	UG/KG	250			
DIBROMOCHLOROMETHANE	ND						0	UG/KG	250			
1,1-DICHLOROETHANE	ND						0	UG/KG	250			
1,2-DICHLOROETHANE	ND						0	UG/KG	250			
1,1-DICHLOROETHENE	ND						0	UG/KG	250			
TOTAL 1,2-DICHLOROETHENE	ND						0	UG/KG	250			
cis-1,3-DICHLOROPROPENE	ND						0	UG/KG	250			

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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual
LABQC	0	5/11/00	LB	SW8260	trans-1,3-DICHLOROPROPENE	ND	0	UG/KG	250	
					1,2-DICHLOROPROPANE	ND	0	UG/KG	250	
					ETHYLBENZENE	ND	0	UG/KG	250	
					2-HEXANONE	ND	0	UG/KG	500	
					METHYL ETHYL KETONE (2-BUTANONE)	ND	0	UG/KG	500	
					METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	ND	0	UG/KG	500	
					METHYLENE CHLORIDE	=	644	UG/KG	250	
					1,1,2,2-TETRACHLOROETHANE	ND	0	UG/KG	250	
					TETRACHLOROETHYLENE(PCE)	ND	0	UG/KG	250	
					STYRENE	ND	0	UG/KG	250	
					BROMOFORM	ND	0	UG/KG	250	
					1,1,1-TRICHLOROETHANE	ND	0	UG/KG	250	
					1,1,2-TRICHLOROETHANE	ND	0	UG/KG	250	
					TRICHLOROETHYLENE (TCE)	TR	110	UG/KG	250	
					CHLOROFORM	TR	63	UG/KG	250	
					VINYL CHLORIDE	ND	0	UG/KG	500	
					XYLENES, TOTAL	ND	0	UG/KG	250	
					5/12/00			SW6010	SILVER	ND
	ALUMINUM	ND	0	MG/KG					20	
	ARSENIC	ND	0	MG/KG					1	
	BARIUM	ND	0	MG/KG					20	
	BERYLLIUM	ND	0	MG/KG					0.5	
	CALCIUM	ND	0	MG/KG					500	
	CADMIUM	ND	0	MG/KG					0.5	
	COBALT	ND	0	MG/KG					5	
	CHROMIUM, TOTAL	ND	0	MG/KG					1	
	COPPER	ND	0	MG/KG					2.5	
	IRON	ND	0	MG/KG					10	
	POTASSIUM	ND	0	MG/KG					500	
	MAGNESIUM	ND	0	MG/KG					500	
	MANGANESE	ND	0	MG/KG					1.5	
	SODIUM	ND	0	MG/KG					500	
	NICKEL	ND	0	MG/KG					4	
	LEAD	ND	0	MG/KG					0.3	
	ANTIMONY	ND	0	MG/KG					6	
	SELENIUM	ND	0	MG/KG	0.5					
THALLIUM	ND	0	MG/KG	1						
VANADIUM	ND	0	MG/KG	5						
SW8260				ZINC	ND	0	MG/KG	2		
				ACETONE	ND	0	UG/KG	500		
				BROMODICHLOROMETHANE	ND	0	UG/KG	250		
				BROMOMETHANE	ND	0	UG/KG	500		
				BENZENE	ND	0	UG/KG	250		
				TOLUENE	ND	0	UG/KG	250		
				CARBON DISULFIDE	ND	0	UG/KG	250		
				CHLOROBENZENE	ND	0	UG/KG	250		
				CHLOROETHANE	ND	0	UG/KG	500		
				CHLOROMETHANE	ND	0	UG/KG	500		
				CARBON TETRACHLORIDE	ND	0	UG/KG	250		
				DIBROMOCHLOROMETHANE	ND	0	UG/KG	250		
1,1-DICHLOROETHANE	ND	0	UG/KG	250						
1,2-DICHLOROETHANE	ND	0	UG/KG	250						

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Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual				
LABQC	0	5/12/00	LB	SW8260	1,1-DICHLOROETHENE	ND	0	UG/KG	250					
					TOTAL 1,2-DICHLOROETHENE	ND	0	UG/KG	250					
					cis-1,3-DICHLOROPROPENE	ND	0	UG/KG	250					
					trans-1,3-DICHLOROPROPENE	ND	0	UG/KG	250					
					1,2-DICHLOROPROPANE	ND	0	UG/KG	250					
					ETHYLBENZENE	ND	0	UG/KG	250					
					2-HEXANONE	ND	0	UG/KG	500					
					METHYL ETHYL KETONE (2-BUTANONE)	ND	0	UG/KG	500					
					METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	ND	0	UG/KG	500					
					METHYLENE CHLORIDE	=	404	UG/KG	250					
					1,1,2,2-TETRACHLOROETHANE	ND	0	UG/KG	250					
					TETRACHLOROETHYLENE(PCE)	ND	0	UG/KG	250					
					STYRENE	ND	0	UG/KG	250					
					BROMOFORM	ND	0	UG/KG	250					
					1,1,1-TRICHLOROETHANE	ND	0	UG/KG	250					
					1,1,2-TRICHLOROETHANE	ND	0	UG/KG	250					
					TRICHLOROETHYLENE (TCE)	ND	0	UG/KG	250					
					CHLOROFORM	TR	60	UG/KG	250					
					VINYL CHLORIDE	ND	0	UG/KG	500					
					XYLENES, TOTAL	ND	0	UG/KG	250					
						5/18/00		E418.1	PETROLEUM HYDROCARBONS	ND	0	MG/KG	24.9	
						5/22/00		SW7471	MERCURY	ND	0	MG/KG	0.0333	
						5/25/00			MERCURY	ND	0	MG/KG	0.0333	
						5/26/00			MERCURY	ND	0	MG/KG	0.0333	
						5/30/00		SW6010	SILVER	ND	0	MG/KG	1	
									ALUMINUM	ND	0	MG/KG	20	
									ARSENIC	ND	0	MG/KG	1	
									BARIIUM	ND	0	MG/KG	20	
									BERYLLIUM	ND	0	MG/KG	0.5	
									CALCIUM	ND	0	MG/KG	500	
									CADMIUM	ND	0	MG/KG	0.5	
									COBALT	ND	0	MG/KG	5	
									CHROMIUM, TOTAL	ND	0	MG/KG	0.5	
									COPPER	ND	0	MG/KG	2.5	
									IRON	ND	0	MG/KG	10	
									POTASSIUM	ND	0	MG/KG	500	
									MAGNESIUM	ND	0	MG/KG	500	
									MANGANESE	ND	0	MG/KG	1.5	
				SODIUM	ND	0	MG/KG	500						
				NICKEL	ND	0	MG/KG	4						
				LEAD	ND	0	MG/KG	0.3						
				ANTIMONY	ND	0	MG/KG	6						
				SELENIUM	ND	0	MG/KG	0.5						
				THALLIUM	ND	0	MG/KG	1						
				VANADIUM	ND	0	MG/KG	5						
				ZINC	ND	0	MG/KG	2						

Matrix Spike Sample Data

**Holloman Air Force Base
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Matrix Spike Sample Data**

Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual					
DP63-DP01	8	4/24/00	SD	SW8082	DECACHLOROBIPHENYL	=	43	PERCENT							
					PCB-1016 (AROCHLOR 1016)	=	97	PERCENT							
					PCB-1221 (AROCHLOR 1221)	ND	0	PERCENT							
					PCB-1232 (AROCHLOR 1232)	ND	0	PERCENT							
					PCB-1242 (AROCHLOR 1242)	ND	0	PERCENT							
					PCB-1248 (AROCHLOR 1248)	ND	0	PERCENT							
					PCB-1254 (AROCHLOR 1254)	ND	0	PERCENT							
					PCB-1260 (AROCHLOR 1260)	=	99	PERCENT							
					2,4,5,6-TETRACHLORO-META-XYLENE	=	99	PERCENT							
					MS	DECACHLOROBIPHENYL	=	44	PERCENT						
					PCB-1016 (AROCHLOR 1016)	=	97	PERCENT							
					PCB-1221 (AROCHLOR 1221)	ND	0	PERCENT							
					PCB-1232 (AROCHLOR 1232)	ND	0	PERCENT							
					PCB-1242 (AROCHLOR 1242)	ND	0	PERCENT							
					PCB-1248 (AROCHLOR 1248)	ND	0	PERCENT							
					PCB-1254 (AROCHLOR 1254)	ND	0	PERCENT							
					PCB-1260 (AROCHLOR 1260)	=	100	PERCENT							
					2,4,5,6-TETRACHLORO-META-XYLENE	=	99	PERCENT							
					DP63-DP03	13	4/28/00		E418.1 SW6010	PETROLEUM HYDROCARBONS	=	87.7	PERCENT		
										SILVER	=	106	PERCENT		
ALUMINUM	ND	0	PERCENT												
ARSENIC	=	103	PERCENT												
BARIUM	=	99.8	PERCENT												
BERYLLIUM	=	104	PERCENT												
CALCIUM	ND	0	PERCENT												
CADMIUM	=	101	PERCENT												
COBALT	=	102	PERCENT												
CHROMIUM, TOTAL	=	105	PERCENT												
COPPER	=	109	PERCENT												
IRON	ND	0	PERCENT												
POTASSIUM	ND	0	PERCENT												
MAGNESIUM	ND	0	PERCENT												
MANGANESE	=	102	PERCENT												
SODIUM	ND	0	PERCENT												
NICKEL	=	101	PERCENT												
LEAD	=	95.9	PERCENT												
ANTIMONY	=	31.6	PERCENT												
SELENIUM	=	68.3	PERCENT												
THALLIUM	=	88.1	PERCENT												
VANADIUM	=	105	PERCENT												
ZINC	=	102	PERCENT												
DP63-DP04	6	4/24/00	SD	SW8081	ALDRIN	=	97	PERCENT							
					ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	=	92	PERCENT							
					BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	=	97	PERCENT							
					DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	=	98	PERCENT							
					GAMMA BHC (LINDANE)	=	98	PERCENT							
					ALPHA-CHLORDANE	=	95	PERCENT							
					GAMMA-CHLORDANE	=	94	PERCENT							
					DECACHLOROBIPHENYL	=	80	PERCENT							
					p,p'-DDD	=	108	PERCENT							
					p,p'-DDE	=	112	PERCENT							
					p,p'-DDT	=	112	PERCENT							

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Matrix Spike Sample Data**

Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual	
DP63-DP04	6	4/24/00	SD	SW8081	DIELDRIN	=	92	PERCENT			
					ALPHA ENDOSULFAN	=	94	PERCENT			
					BETA ENDOSULFAN	=	105	PERCENT			
					ENDOSULFAN SULFATE	=	107	PERCENT			
					ENDRIN	=	113	PERCENT			
					ENDRIN ALDEHYDE	=	104	PERCENT			
					ENDRIN KETONE	=	123	PERCENT			
					HEPTACHLOR EPOXIDE	=	99	PERCENT			
					HEPTACHLOR	=	99	PERCENT			
					METHOXYCHLOR	=	106	PERCENT			
					TOXAPHENE	ND	0	PERCENT			
					2,4,5,6-TETRACHLORO-META-XYLENE	=	82	PERCENT			
					SW8270	ACENAPHTHENE	=	100	PERCENT		
						ACENAPHTHYLENE	ND	0	PERCENT		
						ANTHRACENE	ND	0	PERCENT		
						BENZYL BUTYL PHTHALATE	ND	0	PERCENT		
						bis(2-CHLOROETHOXY) METHANE	ND	0	PERCENT		
						bis(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	ND	0	PERCENT		
						bis(2-ETHYLHEXYL) PHTHALATE	ND	0	PERCENT		
						4-BROMOPHENYL PHENYL ETHER	ND	0	PERCENT		
				BENZO(a)ANTHRACENE		ND	0	PERCENT			
				BENZO(a)PYRENE		ND	0	PERCENT			
				BENZO(b)FLUORANTHENE		ND	0	PERCENT			
				BENZO(g,h,i)PERYLENE		ND	0	PERCENT			
				BENZO(k)FLUORANTHENE		ND	0	PERCENT			
				4-CHLORO-3-METHYLPHENOL		=	124	PERCENT			
				CARBAZOLE		ND	0	PERCENT			
				CHRYSENE		ND	0	PERCENT			
				4-CHLOROANILINE		ND	0	PERCENT			
				2-CHLOROPHENOL		=	89	PERCENT			
				2-CHLORONAPHTHALENE		ND	0	PERCENT			
				4-CHLOROPHENYL PHENYL ETHER		ND	0	PERCENT			
				DIBENZ(a,h)ANTHRACENE		ND	0	PERCENT			
				DIBENZOFURAN		ND	0	PERCENT			
				3,3'-DICHLOROBENZIDINE		ND	0	PERCENT			
				1,2-DICHLOROBENZENE		ND	0	PERCENT			
				1,3-DICHLOROBENZENE		ND	0	PERCENT			
				1,4-DICHLOROBENZENE		=	84	PERCENT			
				2,4-DICHLOROPHENOL		ND	0	PERCENT			
				DIETHYL PHTHALATE		ND	0	PERCENT			
				2,4-DIMETHYLPHENOL		ND	0	PERCENT			
				DIMETHYL PHTHALATE		ND	0	PERCENT			
				4,6-DINITRO-2-METHYLPHENOL		ND	0	PERCENT			
				DI-n-BUTYL PHTHALATE		ND	0	PERCENT			
				DI-n-OCTYL PHTHALATE	ND	0	PERCENT				
				2,4-DINITROPHENOL	ND	0	PERCENT				
				2,4-DINITROTOLUENE	=	129	PERCENT				
				2,6-DINITROTOLUENE	ND	0	PERCENT				
				FLUORENE	ND	0	PERCENT				
				FLUORANTHENE	ND	0	PERCENT				
				HEXACHLOROBUTADIENE	ND	0	PERCENT				
				HEXACHLOROCYCLOPENTADIENE	ND	0	PERCENT				

**Holloman Air Force Base
DP-63 PA/SI
Matrix Spike Sample Data**

Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual		
DP63-DP04	6	4/24/00	SD	SW8270	HEXACHLOROBENZENE	ND	0	PERCENT				
					HEXACHLOROETHANE	ND	0	PERCENT				
					INDENO(1,2,3-c,d)PYRENE	ND	0	PERCENT				
					ISOPHORONE	ND	0	PERCENT				
					2-METHYLPHENOL (o-CRESOL)	ND	0	PERCENT				
					4-METHYLPHENOL (p-CRESOL)	ND	0	PERCENT				
					2-METHYLNAPHTHALENE	ND	0	PERCENT				
					NAPHTHALENE	ND	0	PERCENT				
					N-NITROSODIPHENYLAMINE	ND	0	PERCENT				
					N-NITROSODI-n-PROPYLAMINE	=	111	PERCENT				
					2-NITROANILINE	ND	0	PERCENT				
					3-NITROANILINE	ND	0	PERCENT				
					4-NITROANILINE	ND	0	PERCENT				
					NITROBENZENE	ND	0	PERCENT				
					NITROBENZENE-D5	=	113	PERCENT				
					2-NITROPHENOL	ND	0	PERCENT				
					4-NITROPHENOL	=	139	PERCENT				
					2,2'-OXYBIS(1-CHLORO)PROPANE	ND	0	PERCENT				
					PENTACHLOROPHENOL	=	105	PERCENT				
					2,4,6-TRIBROMOPHENOL	=	79	PERCENT				
					2-FLUOROPHENOL	=	72	PERCENT				
					PHENANTHRENE	ND	0	PERCENT				
					PHENOL-D5	=	83	PERCENT				
					2-FLUOROBIPHENYL	=	77	PERCENT				
					TERPHENYL-D14	=	96	PERCENT				
					PHENOL	=	121	PERCENT				
					PYRENE	=	92	PERCENT				
					1,2,4-TRICHLOROBENZENE	=	87	PERCENT				
					2,4,5-TRICHLOROPHENOL	ND	0	PERCENT				
					2,4,6-TRICHLOROPHENOL	ND	0	PERCENT				
					MS	SW7471	MERCURY	=	82.4	PERCENT		
						SW8081	ALDRIN	=	87	PERCENT		
							ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	=	82	PERCENT		
							BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	=	88	PERCENT		
							DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	=	87	PERCENT		
							GAMMA BHC (LINDANE)	=	87	PERCENT		
							ALPHA-CHLORDANE	=	84	PERCENT		
							GAMMA-CHLORDANE	=	84	PERCENT		
							DECACHLOROBIPHENYL	=	73	PERCENT		
							p,p'-DDD	=	96	PERCENT		
							p,p'-DDE	=	99	PERCENT		
							p,p'-DDT	=	102	PERCENT		
							DIELDRIN	=	83	PERCENT		
							ALPHA ENDOSULFAN	=	86	PERCENT		
							BETA ENDOSULFAN	=	92	PERCENT		
							ENDOSULFAN SULFATE	=	96	PERCENT		
							ENDRIN	=	101	PERCENT		
							ENDRIN ALDEHYDE	=	94	PERCENT		
							ENDRIN KETONE	=	112	PERCENT		
							HEPTACHLOR EPOXIDE	=	89	PERCENT		
							HEPTACHLOR	=	90	PERCENT		
							METHOXYCHLOR	=	94	PERCENT		

**Holloman Air Force Base
DP-63 PA/SI
Matrix Spike Sample Data**

Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual
DP63-DP04	6	4/24/00	MS	SW8081	TOXAPHENE	ND	0	PERCENT		
					2,4,5,6-TETRACHLORO-META-XYLENE	=	78	PERCENT		
				SW8270	ACENAPHTHENE	=	103	PERCENT		
					ACENAPHTHYLENE	ND	0	PERCENT		
					ANTHRACENE	ND	0	PERCENT		
					BENZYL BUTYL PHTHALATE	ND	0	PERCENT		
					bis(2-CHLOROETHOXY) METHANE	ND	0	PERCENT		
					bis(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	ND	0	PERCENT		
					bis(2-ETHYLHEXYL) PHTHALATE	ND	0	PERCENT		
					4-BROMOPHENYL PHENYL ETHER	ND	0	PERCENT		
					BENZO(a)ANTHRACENE	ND	0	PERCENT		
					BENZO(a)PYRENE	ND	0	PERCENT		
					BENZO(b)FLUORANTHENE	ND	0	PERCENT		
					BENZO(g,h,i)PERYLENE	ND	0	PERCENT		
					BENZO(k)FLUORANTHENE	ND	0	PERCENT		
					4-CHLORO-3-METHYLPHENOL	=	121	PERCENT		
					CARBAZOLE	ND	0	PERCENT		
					CHRYSENE	ND	0	PERCENT		
					4-CHLOROANILINE	ND	0	PERCENT		
					2-CHLOROPHENOL	=	89	PERCENT		
					2-CHLORONAPHTHALENE	ND	0	PERCENT		
					4-CHLOROPHENYL PHENYL ETHER	ND	0	PERCENT		
					DIBENZ(a,h)ANTHRACENE	ND	0	PERCENT		
					DIBENZOFURAN	ND	0	PERCENT		
					3,3'-DICHLOROBENZIDINE	ND	0	PERCENT		
					1,2-DICHLOROBENZENE	ND	0	PERCENT		
					1,3-DICHLOROBENZENE	ND	0	PERCENT		
					1,4-DICHLOROBENZENE	=	71	PERCENT		
					2,4-DICHLOROPHENOL	ND	0	PERCENT		
					DIETHYL PHTHALATE	ND	0	PERCENT		
					2,4-DIMETHYLPHENOL	ND	0	PERCENT		
					DIMETHYL PHTHALATE	ND	0	PERCENT		
					4,6-DINITRO-2-METHYLPHENOL	ND	0	PERCENT		
					DI-n-BUTYL PHTHALATE	ND	0	PERCENT		
					DI-n-OCTYLPHTHALATE	ND	0	PERCENT		
					2,4-DINITROPHENOL	ND	0	PERCENT		
					2,4-DINITROTOLUENE	=	124	PERCENT		
					2,6-DINITROTOLUENE	ND	0	PERCENT		
					FLUORENE	ND	0	PERCENT		
					FLUORANTHENE	ND	0	PERCENT		
					HEXACHLOROBUTADIENE	ND	0	PERCENT		
					HEXACHLOROCYCLOPENTADIENE	ND	0	PERCENT		
HEXACHLOROBENZENE	ND	0	PERCENT							
HEXACHLOROETHANE	ND	0	PERCENT							
INDENO(1,2,3-c,d)PYRENE	ND	0	PERCENT							
ISOPHORONE	ND	0	PERCENT							
2-METHYLPHENOL (o-CRESOL)	ND	0	PERCENT							
4-METHYLPHENOL (p-CRESOL)	ND	0	PERCENT							
2-METHYLNAPHTHALENE	ND	0	PERCENT							
NAPHTHALENE	ND	0	PERCENT							
N-NITROSODIPHENYLAMINE	ND	0	PERCENT							
N-NITROSODI-n-PROPYLAMINE	=	116	PERCENT							

**Holloman Air Force Base
DP-63 PA/SI
Matrix Spike Sample Data**

Location	Depth	LogDate	Code	Method	Parameter	Boolean	Value	Units	Lab DL	EPA Qual
DP63-DP04	6	4/24/00	MS	SW8270	2-NITROANILINE	ND	0	PERCENT		
					3-NITROANILINE	ND	0	PERCENT		
					4-NITROANILINE	ND	0	PERCENT		
					NITROBENZENE	ND	0	PERCENT		
					NITROBENZENE-D5	=	106	PERCENT		
					2-NITROPHENOL	ND	0	PERCENT		
					4-NITROPHENOL	=	145	PERCENT		
					2,2'-OXYBIS(1-CHLORO)PROPANE	ND	0	PERCENT		
					PENTACHLOROPHENOL	=	97	PERCENT		
					2,4,6-TRIBROMOPHENOL	=	74	PERCENT		
					2-FLUOROPHENOL	=	75	PERCENT		
					PHENANTHRENE	ND	0	PERCENT		
					PHENOL-D5	=	86	PERCENT		
					2-FLUOROBIPHENYL	=	80	PERCENT		
					TERPHENYL-D14	=	92	PERCENT		
					PHENOL	=	126	PERCENT		
					PYRENE	=	89	PERCENT		
					1,2,4-TRICHLOROBENZENE	=	74	PERCENT		
	2,4,5-TRICHLOROPHENOL	ND	0	PERCENT						
	2,4,6-TRICHLOROPHENOL	ND	0	PERCENT						
21	4/27/00		SW9014	CYANIDE	=	108	PERCENT			

Appendix B

Hazardous, Toxic, and Radioactive Waste (HTRW) Drilling Logs

HTRW DRILLING LOG		DISTRICT OMAHA		HOLE NUMBER DP63-DP01	
1. COMPANY NAME Foster Wheeler Environmental Corp.		2. DRILL SUBCONTRACTOR Indian Fire and Safety		SHEET 1 OF 4 SHEETS	
3. SITE Holloman AFB, NM		4. LOCATION DP-63			
5. NAME OF DRILLER Rafe Jones		6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT Geoprobe 66DT Track Rig		8. HOLE LOCATION Site 1- East Area			
		9. SURFACE ELEVATION N/A			
		10. DATE STARTED 4-24-2000		11. DATE COMPLETED 4-28-2000	
12. OVERBURDEN THICKNESS 51.5 ft.		15. DEPTH GROUNDWATER ENCOUNTERED approx. 45 ft.			
13. DEPTH DRILLED INTO ROCK N/A		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED 46.5 ft. / 1 hour			
14. TOTAL DEPTH OF HOLE 51.5 ft.		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) 45.60 prior to abandonment on 5-2-00			
18. GEOTECHNICAL SAMPLES None		DISTURBED N/A	UNDISTURBED N/A	19. TOTAL NUMBER OF CORE BOXES N/A	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC <input checked="" type="checkbox"/>	METALS <input checked="" type="checkbox"/>	SVOC <input checked="" type="checkbox"/>	Pest/PCB <input checked="" type="checkbox"/>
		BACKFILLED <input checked="" type="checkbox"/>	MONITORING WELL <input type="checkbox"/>	OTHER (SPECIFY) <input type="checkbox"/>	Cyanide/TRPH <input checked="" type="checkbox"/>
					21. TOTAL CORE RECOVERY % <input type="checkbox"/>
					23. SIGNATURE OF INSPECTOR
22. DISPOSITION OF HOLE Well casing removed and hole plugged with hydrated bentonite				SCALE 1 in. = 250 ft.	
LOCATION SKETCH/COMMENTS					
PROJECT Holloman AFB DP-63 PA/SI				HOLE NO. DP63-DP01	

HTRW DRILLING LOG

SITE **Holloman AFB, NM** LOCATION **DP-63** HOLE NUMBER **DP63-DP01**

PROJECT # **5155.0022.0001.H2000** DISTRICT **OMAHA** INSPECTOR **Carol Bieniulis/Luke Darragh** SHEET **2** OF **4**

ELEV. (a)	DEPTH (ft.) (b)	DESCRIPTION OF MATERIALS (c)	USCS CLASS. (d)	FIELD SCREEN RESULTS (e)	REMARKS (f)
	1	White silt w/some clay, dry, poor cementation, no plasticity, well graded	ML	Bkgd	
	2				
	3	Light tan silt and sand, dry, poor cementation, well graded	ML-SM	Bkgd	no staining
	4				
	5				
	6				
	7	Light tan silt and sand, trace moisture, poor cementation, well graded	ML	1.29 ppm	no staining hole offset 2 ft. to the east did not pass UXO clearance sample from 7.0 ft. - 8.0 ft. for lab analysis
	8				
	9			0.78 ppm	UXO clearance to 10 ft.
	10	Sandy silt, reddish brown, dry, medium stiffness, fine sand	ML	2.5 ppm	sample depth 10 ft. - 13 ft. sample recovery 3 ft.
	11				
	12				
	13	same as above	ML	1.85 ppm	sample depth 13.0 ft. - 16.0 ft. sample recovery 3 ft.
	14				
	15				
	16	Sandy silt, tan, dry, medium stiffness fine sand, trace coarse sand	ML		sample depth 16.0 ft. - 19.5 ft. sample recovery 3.5 ft.
	17	Silty sand, brown, dry, medium density fine sand with trace coarse sand	SM	2.6 ppm	
	18				
	19				sample depth 19.5 ft. - 22.5 ft. sample recovery 3 ft.

PROJECT **Holloman AFB DP-63 PA/SI** HOLE NO. **DP63-DP01**

HTRW DRILLING LOG			SITE Holloman AFB, NM		LOCATION DP-63	HOLE NUMBER DP63-DP01	
PROJECT # 5155.0022.0001.H2000		DISTRICT OMAHA	INSPECTOR Carol Bieniulis/Luke Darragh			SHEET 3	SHEETS 4
ELEV. (a)	DEPTH (ft.) (b)	DESCRIPTION OF MATERIALS (c)	USCS CLASS. (d)	FIELD SCREEN RESULTS (e)	REMARKS (f)		
	21	Silty sand, dark brown, dry, loose fine sand, trace coarse sand	SM	1.55	sample depth 19.5 ft. - 22.5 ft. sample recovery 3.0 ft.		
	22				sample from 21.0 ft. - 22.0 ft. for lab analysis		
	23	Silty clay with sand, light brown, dry, stiff, fine sand with a trace of medium sand, low plasticity	CL	0.22	sample depth 22.5 ft. - 25.0 ft. sample recovery 2.5 ft.		
	24						
	25	Sandy silt, reddish brown clay, stiff, fine sand, trace medium sand	ML	0.65	sample depth 25.0 ft. - 27.0 ft. sample recovery 2.0 ft.		
	26	Silty clay with sand, reddish brown, dry, very stiff, low plasticity, fine sand	CL	0.75			
	27	same as above	CL	0.25	sample depth 27.0 ft. - 29.5 ft. sample recovery 2.5 ft.		
	28						
	29						
	30	Silty clay, grey, dry, hard, medium plasticity, white sand lenses		1.75	sample depth 29.5 ft. - 31.5 ft. sample recovery 2.0 ft.		
	31						
	32	Sandy silt, tan, soft, fine sand	ML	1.00			
	33	Clayey silt, grey, dry, hard, some fine sand	ML	1.22	sample depth 31.5 ft. - 34.0 ft. sample recovery 2.5 ft.		
	34						
	35	Sandy silt, grey, dry, fine sand	ML	0.50			
	36	Silty clay, reddish brown, dry, hard tiny crystals and white sand lenses throughout	CL	2.50	sample depth 34.0 ft. - 36.5 ft. sample recovery 2.5 ft.		
	37	Silty clay - same as above	CL	0.82	sample depth 36.5 ft. - 38.5 ft. sample recovery 2.0 ft.		
	38						
	39	Clayey silt with sand, grey, dry, stiff, low plasticity, fine sand, trace medium sand	ML	2.00	sample depth 38.5 ft. - 40.5 ft. sample recovery 2.0 ft.		

PROJECT Holloman AFB DP-63 PA/SI

HOLE NO. DP63-DP01

HTRW DRILLING LOG

SITE
Holloman AFB, NM

LOCATION
DP-63

HOLE NUMBER
DP63-DP01

PROJECT #
5155.0022.0001.H2000

DISTRICT
OMAHA

INSPECTOR
Carol Bieniulis/Luke Darragh

SHEET
4 OF **4** SHEETS

ELEV. (a)	DEPTH (ft.) (b)	DESCRIPTION OF MATERIALS (c)	USCS CLASS. (d)	FIELD SCREEN RESULTS (e)	REMARKS (f)
	41	Silty clay with fine sand, light very damp, soft, high plasticity	CL	1.52	Continued drilling 4/28/00 from 40.5 bgs
	42	42.0 ft. - 42.5 ft. color change to reddish brown, silty clay with sand			sample depth 40.5 ft. - 42.5 ft. sample recovery 2.0 ft.
	43	Silty clay, reddish brown - same as above moist	CL		sample depth 42.5 ft. - 45.5 ft. sample recovery 3.0 ft.
	44	Clayey silt, grey/tan, wet, medium stiffness, trace fine sand	ML	1.25	Groundwater at 44.0 ft. bgs sample for lab analysis collected from 44.0 - 45.0 ft.
	45				
	46	Clayey silt - same as above	ML		sample depth 45.5 ft. - 48.5 ft. sample recovery 3.0 ft.
	47	Silty sand with gravel, tan, wet, fine sand, some medium sand, gravel 0-20 mm, subrounded	SM	1.10	Water level measured at 46.5 ft. bsg after drilling
	48	same as above - color change to light brown, no gravel			
	49	Silty sand with gravel, brown, wet, medium density, trace of rounded gravel 10 mm in size		1.75	sample depth 48.5 ft. - 51.5 ft. sample recovery 3.0 ft.
	50				
	51				
	52	Total Depth 51.5 ft. Depth to Water 45 ft.			
	53				
	54				
	55				

PROJECT **Holloman AFB DP-63 PA/SI**

HOLE NO. **DP63-DP01**

HTRW DRILLING LOG		DISTRICT OMAHA		HOLE NUMBER DP63-DP02	
1. COMPANY NAME Foster Wheeler Environmental Corp.		2. DRILL SUBCONTRACTOR Indian Fire and Safety		SHEET SHEETS 1 OF 4	
3. SITE Holloman AFB, NM		4. LOCATION DP-63			
5. NAME OF DRILLER Rafe Jones		6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT Geoprobe 66DT Track Rig		8. HOLE LOCATION Site 1 - East Area			
		9. SURFACE ELEVATION N/A			
		10. DATE STARTED 4-25-2000		11. DATE COMPLETED 4-25-2000	
12. OVERBURDEN THICKNESS 50.5 ft.		15. DEPTH GROUNDWATER ENCOUNTERED approx. 46 ft.			
13. DEPTH DRILLED INTO ROCK N/A		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED 46.35 ft. bgs / 3 days			
14. TOTAL DEPTH OF HOLE 50.5 ft.		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) 46.40 prior to abandonment on 5-2-00			
18. GEOTECHNICAL SAMPLES None		DISTURBED N/A	UNDISTURBED N/A	19. TOTAL NUMBER OF CORE BOXES N/A	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC X	METALS X	SVOC X	Pest/PCB X
		BACKFILLED X	MONITORING WELL	OTHER (SPECIFY)	Cyanide/TRPH X
					21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE Well casing removed and hole plugged with hydrated bentonite				SCALE 1 in. = 250 ft.	
LOCATION SKETCH/COMMENTS					
PROJECT Holloman AFB DP-63 PA/SI				HOLE NO. DP63-DP02	

HTRW DRILLING LOG			SITE Holloman AFB, NM	LOCATION DP-63	HOLE NUMBER DP02
PROJECT # 5155.0022.0001.H2000		DISTRICT OMAHA	INSPECTOR Carol Bieniulis/Luke Darragh		SHEET 2 OF 4 SHEETS
ELEV. (a)	DEPTH (ft.) (b)	DESCRIPTION OF MATERIALS (c)	USCS CLASS. (d)	FIELD SCREEN RESULTS (e)	REMARKS (f)
	1	0.0 ft. - 2.0 ft. Silt with gravel, reddish brown, dry, subangular gravel 0-20 mm in size, fine to medium sand	ML	1.7 ppm	no staining in borehole
	2				
	3	2.0 ft. - 4.0 ft. Silt, reddish brown, dry, some fine sand, clay			no staining
	4	same as above	ML	1.90 ppm	no staining in borehole
	5				
	6	Silt, reddish brown, dry, some fine sand	ML	1.09 ppm	in borehole
	7				sample depth 7.0 ft. - 8.0 ft. core sample collected
	8	same as above some sand and trace clay	ML	0.75 ppm	down borehole
	9				
	10	Silt, reddish brown, dry, very hard, some very fine sand	ML		no staining
	11				
	12				
	13				
	14	same as above with some clay	ML	5.50 ppm	no staining headspace
	15				
	16				
	17				
	18	Clayey silt, reddish brown, dry, stiff, some fine sand	ML		Possible stain at 17.5 ft. sample from 17.5 ft. - 18.5 ft. for lab analysis
	19			3.50 ppm	headspace

PROJECT Holloman AFB DP-63 PA/SI

HOLE NO. DP63-DP02

HTRW DRILLING LOG			SITE Holloman AFB, NM	LOCATION DP-63	HOLE NUMBER DP63-DP02
PROJECT # 5155.0022.0001.H2000		DISTRICT OMAHA		INSPECTOR Luke Darragh/Carol Bieniulis	
ELEV. (a)	DEPTH (ft.) (b)	DESCRIPTION OF MATERIALS (c)	USCS CLASS. (d)	FIELD SCREEN RESULTS (e)	REMARKS (f)
	21	21.0 ft. - 22.0 ft. Silt, reddish brown, dry, stiff, some fine sand	ML		no odor, no staining
	22	Silty clay, reddish brown, dry, very stiff, trace fine sand, slight plasticity	CL		sample depth 21.0 ft. - 24.0 ft. no odor, no staining
	23				
	24	same as above - caliche	CL		no staining
	25				sample depth 24.0 ft. - 27.0 ft.
	26				
	27	Silty clay, reddish brown, dry, very stiff, slight plasticity, trace fine sand	CL		sample depth 27.0 ft. - 29.5 ft.
	28				
	29				
	30	same as above - hard	CL	0.90 ppm	in the borehole
	31				sample depth 29.5 ft. - 33.5 ft.
	32				
	33				
	34	Silty clay, reddish brown, dry, hard, some fine sand sand lenses (caliche) slight plasticity	CL		sample depth 33.5 ft. - 36.5 ft.
	35				
	36				
	37	same as above	CL		
	38	Clayey silt, reddish brown, stiff, dry, some fine to medium sand	ML		sample depth 37.0 ft. - 38.5 ft.
	39	Sandy silt, reddish brown, dry, stiff, fine sand, some medium sand	ML		no odor, no staining sample depth 38.5 ft. - 40.5 ft.

PROJECT Holloman AFB DP-63 PA/SI

HOLE NO. DP63-DP02

HTRW DRILLING LOG SITE **Holloman AFB, NM** LOCATION **DP-63** HOLE NUMBER **DP63-DP02**

PROJECT # **5155.0022.0001.H2000** DISTRICT **OMAHA** INSPECTOR **Luke Darragh** SHEET **4** OF **4** SHEETS

ELEV. (a)	DEPTH (ft.) (b)	DESCRIPTION OF MATERIALS (c)	USCS CLASS. (d)	FIELD SCREEN RESULTS (e)	REMARKS (f)
	41	Silt, grey/brown, dry, stiff, trace medium sand some fine sand	ML		no odor, no staining
	42				
	43				soil slightly damp at tip of sampler, approx. 43.0 ft. bgs
	44	Silty sand, grey/tan, wet, dense, very fine sand	SM		
	45				
	46				sample depth 43.5 ft. - 47.5 ft. black discolored soil at approx. 46.0 ft. - 47.0 ft. sample collected very little odor soil wet at 46.0 ft.
	47				
	48	same as above except saturated	SM		
	49				sample depth 48.0 ft. - 50.5 ft.
	50				
	51	Total Depth 50.5 ft. Depth to water 46 ft.			
	52				
	53				
	54				
	55				

PROJECT **Holloman AFB DP-63 PA/SI** HOLE NO. **DP63-DP02**

HTRW DRILLING LOG		DISTRICT OMAHA		HOLE NUMBER DP63-DP03	
1. COMPANY NAME Foster Wheeler Environmental Corp.		2. DRILL SUBCONTRACTOR Indian Fire and Safety		SHEET SHEETS 1 OF 4	
3. SITE Holloman AFB, NM		4. LOCATION DP63			
5. NAME OF DRILLER Rafe Jones		6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT Geoprobe 66DT Track Rig		8. HOLE LOCATION Site 1 - East Area			
		9. SURFACE ELEVATION N/A			
		10. DATE STARTED 4-25-2000		11. DATE COMPLETED 4-28-2000	
12. OVERBURDEN THICKNESS 51.0 ft.		15. DEPTH GROUNDWATER ENCOUNTERED approx. 45 ft.			
13. DEPTH DRILLED INTO ROCK N/A		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED 46.53 prior to abandonment on 5-2-00			
14. TOTAL DEPTH OF HOLE 51.0 ft.		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) 46.53 prior to abandonment on 5-2-00			
18. GEOTECHNICAL SAMPLES None		DISTURBED N/A	UNDISTURBED N/A	19. TOTAL NUMBER OF CORE BOXES N/A	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC X	METALS X	SVOC X	Pest/PCB X
		BACKFILLED X	MONITORING WELL	OTHER (SPECIFY)	Cyanide/TRPH X
					21. TOTAL CORE RECOVERY %
22. DISPOSITION OF HOLE Well casing removed and hole plugged with hydrated bentonite					23. SIGNATURE OF INSPECTOR
				SCALE 1 in. = 250 ft.	
LOCATION SKETCH/COMMENTS					
PROJECT Holloman AFB DP-63 PA/SI				HOLE NO. DP63-DP03	

HTRW DRILLING LOG			SITE Holloman AFB, NM	LOCATION DP-63	HOLE NUMBER DP63-DP03
PROJECT # 5155.0022.0001.H2000		DISTRICT OMAHA	INSPECTOR Carol Bieniulis/Luke Darragh		SHEET 2 OF 4
ELEV. (a)	DEPTH (ft.) (b)	DESCRIPTION OF MATERIALS (c)	USCS CLASS. (d)	FIELD SCREEN RESULTS (e)	REMARKS (f)
	1	Silty sand, grey, dry, medium dense some subrounded gravel 0-15 mm in size fine sand, some medium sand and some coarse sand	SM	ND	no odor, no staining sample depth 0.0 ft. - 4.0 ft.
	2				
	3				
	4				
	5	Silt, tan/reddish brown, soft, dry, traces of very fine sand	ML	0.95 ppm ND	in borehole headspace no odor, no staining sample depth 4.0 ft. - 6.0 ft.
	6	Silty sand, tan/brown, dry, dense, very fine sand, some medium sand	SM	0.56 ppm ND	in borehole headspace sample depth 6.0 ft. - 8.0 ft.
	7				
	8	same as above - with some fine rounded gravel	SM	ND	headspace no odor, no staining sample depth 8.0 ft. - 10.0 ft.
	9	Sandy silt, tan/brown, dry, soft, fine sand	ML	0.50 ppm	headspace continued drilling after UXO clearance 4-28-00 sample depth 10.0 ft. -13.0 ft. sample recovery 3.0 ft. sample for lab analysis 12.0 ft. - 13.0 ft.
	10				
	11				
	12				
	13	same as above	ML	1.00 ppm	sample depth 13.0 ft. -16.5 ft. sample recovery 3.5 ft.
	14	Sandy silt, tan, dry, soft, fine sand, trace of medium sand	ML	0.75 ppm	sample depth 16.5 ft. - 19.5 ft.
	15				
	16				
	17	same as above	ML		sample depth 19.5 ft. - 20.0 ft.
	18				
	19				

PROJECT Holloman AFB DP-63 PA/SI

HOLE NO. DP63-DP03

HTRW DRILLING LOG

SITE
Holloman AFB, NM

LOCATION
DP-63

HOLE NUMBER
DP63-DP03

PROJECT #
5155.0022.0001.H2000

DISTRICT
OMAHA

INSPECTOR
Luke Darragh

SHEET
3 OF **4** SHEETS

ELEV. (a)	DEPTH (ft.) (b)	DESCRIPTION OF MATERIALS (c)	USCS CLASS. (d)	FIELD SCREEN RESULTS (e)	REMARKS (f)
	21	Clayey silt, reddish brown, dry, stiff, fine sand with traces of medium sand	ML	0.75 ppm	sample depth 19.5 ft. - 22.5 ft. sample recovery 3.0 ft.
	22				sample from 21.0 ft. - 22.0 ft. for lab analysis
	23	Silty clay, reddish brown, dry, stiff, white sand lenses throughout (caliche?) low plasticity	CL	0.64 ppm	sample depth 22.5 ft. - 25.0 ft. sample recovery 2.5 ft.
	24				
	25	same as above	CL	0.35 ppm	sample depth 25.0 ft. - 27.5 ft. sample recovery 2.5 ft.
	26				
	27				
	28	Sandy silt, reddish brown, dry, soft, fine sand, traces of medium sand	ML		sample depth 27.5 ft. - 30.5 ft. sample recovery 3.0 ft.
	29	Silty clay, reddish brown, dry, stiff, slight plasticity, some fine to medium sand	CL	0.89 ppm	
	30				
	31	Silty clay, reddish brown, dry, hard, white sand lenses (some oxide staining), (caliche), small white crystals	CL	0.85 ppm	sample depth 30.5 ft. - 33.5 ft. sample recovery 3.0 ft.
	32				
	33				
	34	same as above			
	35	Sandy silt, reddish brown, dry, stiff, some clay, fine sand, traces of medium sand		4.55 ppm	sample depth 33.5 ft. - 36.5 ft. sample recovery 3.0 ft.
	36				
	37	Silty clay, reddish brown, dry, stiff, some fine sand		ND	sample depth 36.5 ft. - 39.5 ft. sample recovery 3.0 ft.
	38	Silty sand, brown/grey, dry, loose, fine to medium sand			
	39				
		same as above			sample depth 39.5 ft. - 40.0 ft.

PROJECT **Holloman AFB DP-63 PA/SI**

HOLE NO. **DP63-DP03**

HTRW DRILLING LOG SITE **Holloman AFB, NM** LOCATION **DP-63** HOLE NUMBER **DP63-DP03**

PROJECT # **5155.0022.0001.H2000** DISTRICT **OMAHA** INSPECTOR **Luke Darragh** SHEET **4** OF **4** SHEETS

ELEV. (a)	DEPTH (ft.) (b)	DESCRIPTION OF MATERIALS (c)	USCS CLASS. (d)	FIELD SCREEN RESULTS (e)	REMARKS (f)
	41	Silty clay, reddish brown, dry, hard, low plasticity, sand lenses (caliche)	CL		sample depth 39.5 ft. - 42.0 ft. sample recovery 2.5 ft.
	42	Clayey silt, tan, dry, soft, traces of fine sand	ML	3.65 ppm	
	43	Silty clay, reddish brown, dry, soft, some fine sand, white crystals, sand lenses (caliche) low plasticity	CL	2.25 ppm	sample depth 42.0 ft. - 44.5 ft. sample recovery 2.5 ft.
	44				
	45	same as above	CL		
	46	Silty sand, grey, wet, fine to medium sand, loose, trace coarse sand	SM	3.75 ppm	sample depth 44.5 ft. - 46.0 ft. sample recovery 1.5 ft.
	47	same as above - saturated	SM		
	48			3.30 ppm	sample depth 46.0 ft. - 49.0 ft. sample recovery 3.0 ft.
	49	Clayey silt with sand, tan, wet, stiff, fine sand	ML		
	50	same as above			
	51	Total Depth 51.0 ft. Depth to water 45 ft.			
	52				
	53				
	54				
	55				

PROJECT **Holloman AFB DP-63 PA/SI** HOLE NO. **DP63-DP03**

HTRW DRILLING LOG			DISTRICT OMAHA			HOLE NUMBER DP63-DP04			
1. COMPANY NAME Foster Wheeler Environmental Corp.			2. DRILL SUBCONTRACTOR Indian Fire and Safety			SHEET SHEETS 1 OF 4			
3. SITE Holloman AFB, NM			4. LOCATION DP-63						
5. NAME OF DRILLER Rafe Jones			6. MANUFACTURER'S DESIGNATION OF DRILL Geoprobe						
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT Geoprobe 66DT Track Rig			8. HOLE LOCATION Site 2 - West Area						
			9. SURFACE ELEVATION N/A						
			10. DATE STARTED 4-24-2000			11. DATE COMPLETED 4-28-2000			
12. OVERBURDEN THICKNESS 48.0 ft.			15. DEPTH GROUNDWATER ENCOUNTERED approx. 43.5 ft. bgs						
13. DEPTH DRILLED INTO ROCK N/A			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED N/A						
14. TOTAL DEPTH OF HOLE 48.0 ft.			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) 42.78 prior to abandonment on 5-2-00						
18. GEOTECHNICAL SAMPLES None			DISTURBED		UNDISTURBED		19. TOTAL NUMBER OF CORE BOXES N/A		
20. SAMPLES FOR CHEMICAL ANALYSIS			VOC	METALS	SVOC	Pest/PCB	Cyanide/TRPH	21. TOTAL CORE RECOVERY %	
			X	X	X	X	X		
			BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR			
			X						
22. DISPOSITION OF HOLE Temp well removed and hole plugged with hydrated bentonite						SCALE 1 in. = 250 ft.			
LOCATION SKETCH/COMMENTS									
PROJECT Holloman AFB DP-63 PA/SI						HOLE NO. DP63-DP04			

HTRW DRILLING LOG SITE **Holloman AFB, NM** LOCATION **DP-63** HOLE NUMBER **DP63-DP04**

PROJECT # **5155.0022.0001.H2000** DISTRICT **OMAHA** INSPECTOR **Carol Bieniulis/Luke Darragh** SHEET **2** OF **4** SHEETS

ELEV. (a)	DEPTH (ft.) (b)	DESCRIPTION OF MATERIALS (c)	USCS CLASS. (d)	FIELD SCREEN RESULTS (e)	REMARKS (f)
	1	White to tan silt, dry, no cementation, well graded, medium density	ML	0.24 ppm	sample depth 0.0 ft. - 4.0 ft. sample recovery 4.0 ft.
	2	Light tan silt with some sand and clay, dry, poor cementation, low plasticity, medium density	ML	0.23 ppm	
	3				
	4	same as above	ML	0.19 ppm	sample depth 4.0 ft. - 8.0 ft. sample recovery 4.0 ft. sample collected for lab analysis 5.0 ft. - 6.0 ft.
	5				
	6			0.27 ppm	
	7				
	8	White silt, dry, no cementation, well graded, low density	ML	1.61 ppm	
	9				
	10	Tan sand with some silt, trace moisture, well graded, low density, poor cementation	SM	1.41 ppm	sample depth 10.0 ft. - 12.0 ft. sample recovery 2.0 ft. UXO clearance to 12.0 ft.
	11				
	12	Silt, reddish brown, dry, soft, some fine sand	ML	1.00 ppm	headspace
	13				
	14			1.12 ppm	sample depth 12.0 ft. - 15.0 ft. sample recovery 3.0 ft.
	15	same as above	ML	0.50 ppm	headspace
	16				sample depth 15.0 ft. - 18.0 ft. sample recovery 3.0 ft.
	17				
	18	Clayey silt, reddish brown, dry, medium stiffness, traces of fine sand	ML		sample depth 18.0 ft. - 21.5 ft. sample recovery 3.5 ft.
	19				

PROJECT **Holloman AFB DP-63 PA/SI** HOLE NO. **DP63-DP04**

HTRW DRILLING LOG

SITE
Holloman AFB, NM

LOCATION
DP-63

HOLE NUMBER
DP63-DP04

PROJECT #
5155.0022.0001.H2000

DISTRICT
OMAHA

INSPECTOR
Luke Darragh

SHEET
3 OF **4** SHEETS

ELEV. (a)	DEPTH (ft.) (b)	DESCRIPTION OF MATERIALS (c)	USCS CLASS. (d)	FIELD SCREEN RESULTS (e)	REMARKS (f)
	21	Silty clay, reddish brown, dry, hard, no plasticity, caliche, trace fine sand	CL	1.53 ppm	sample depth 18.0 ft. - 21.5 ft. sample recovery 3.5 ft. sample from 20.0 ft. - 21.0 ft. for lab analysis
	22	same as above	CL		
	23	Silty sand, brown, slight moisture, loose, fine sand, some medium sand	SM	ND	sample depth 21.5 ft. - 25.0 ft. sample recovery 3.5 ft.
	24	Silty clay, brown, dry, hard, no plasticity, caliche	CL		
	25	Silty clay, olive grey, dry, stiff, white sand lenses throughout, caliche, low plasticity	CL	ND	sample depth 25.0 ft. - 28.5 ft. sample recovery 3.5 ft.
	26				
	27				
	28				
	29	same as above	CL	ND	sample depth 28.5ft. - 31.5 ft. sample recovery 3.0 ft.
	30				
	31				
	32	Silty clay, reddish brown, dry hard, sand lenses, caliche	CL	ND	sample depth 31.5 ft. - 34.0 ft. sample recovery 2.5 ft.
	33	Silt, grey, dry, soft, trace coarse, rounded sand	ML	1.00 ppm	headspace slight odor
	34	same as above	ML		no odor
	35	Silty clay, grey, dry, hard, sand lenses (fine), caliche			sample depth 34.0 ft. - 36.5 ft. sample recovery 2.5 ft.
	36				
	37	Silty clay, reddish brown, moist, medium stiffness, high plasticity, large clear crystals throughout, white sand lenses throughout			sample depth 36.5 ft. - 38.5 ft. sample recovery 2.0 ft.
	38				
	39	same as above			sample depth 38.5 ft. - 40.5 ft. sample recovery 2.0 ft.

PROJECT **Holloman AFB DP-63 PA/SI**

HOLE NO. **DP63-DP04**

HTRW DRILLING LOG		SITE Holloman AFB, NM		LOCATION DP-63	HOLE NUMBER DP63-DP04
PROJECT # 5155.0022.0001.H2000		DISTRICT OMAHA		INSPECTOR Luke Darragh	
ELEV. (a)	DEPTH (ft.) (b)	DESCRIPTION OF MATERIALS (c)	USCS CLASS. (d)	FIELD SCREEN RESULTS (e)	REMARKS (f)
		same as above - color change to grey, large crystals	CL	ND	headspace
	41	Silty clay, greenish grey, moist, soft, high plasticity, trace fine sand	CL		sample depth 40.5 ft. - 43.5 ft. sample recovery 3.0 ft.
	42	Clayey gravel with sand, greenish grey, subrounded gravel 20 mm in size, coarse rounded sand	GC		
	43	same as above silty clay	CL		
	44	Silty clay, reddish brown, wet, high plasticity, some subrounded gravel 10 mm in size, some coarse sand	CL		sample depth 43.5 ft. - 45.5 ft. sample recovery 2.0 ft.
	45	Sandy silt, tan, wet, soft, fine sand, traces of clay			sample from 44.0 ft. - 45.0 ft. for lab analysis
	46	same as above			sample depth 45.5 ft. - 48.0 ft. sample recovery 2.5 ft.
	47	Silty sand, dark grey, wet, dense, some rounded gravel 0-10 mm in size, fine sand			
	48	Total Depth 48.0 ft.			
	49				
	50				
	51				
	52				
	53				
	54				
	55				

PROJECT Holloman AFB DP-63 PA/SI

HOLE NO. DP63-DP04

Appendix C

Aerial and Site Photographs



Photograph 1. East Area looking north from south side of geophysical survey grid.



Photograph 2. East Area looking west at the West Area from East Area.



Photograph 3. East Area looking southwest from northeast corner of geophysical survey grid.



Photograph 4. East Area looking south from northeast corner of geophysical survey grid.



Photograph 5. East Area looking west from East Area geophysical survey grid.



Photograph 6. East Area looking south from northeast corner of geophysical survey grid.



Photograph 7. View across West Area geophysical survey grid looking south.



Photograph 8. Close-up view of ground surface at the West Area geophysical anomaly.



Photograph 9. View of a North Area Trench feature looking Northeast.



Photograph 10. View of the North Area geophysical survey grid facing South.



Photograph 11. Surface metal debris in the North Area of DP-63 (1).



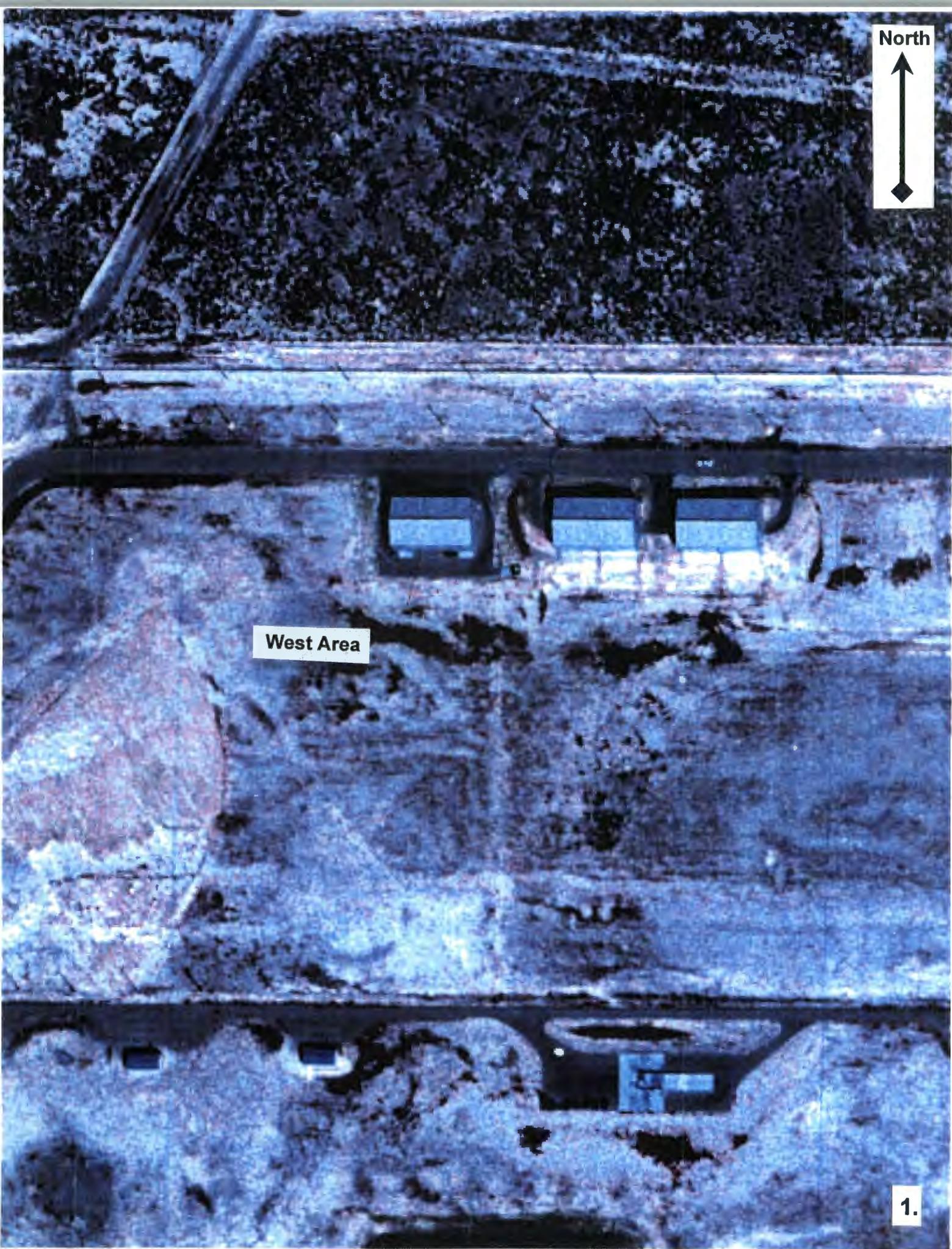
Photograph 12. Surface metal debris in the North Area of DP-63 (2).

North



West Area

1.





North Area



East Area