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THIS FINAL REPORT DOCUMENTS THE PHASE I CONTAMINATION SURVEY OF 21 ARMY SPILL
SITES IN THE SOUTH PLANTS AREA.

184 SAMPLES FROM 53 BORINGS WERE ANALYZED FOR VOLATILE AND SEMIVOLATILE
ORGANICS AND METALS. 32 OF 52 TARGET ANALYTES WERE DETECTED WITHIN OR ABOVE
THEIR RESPECTIVE INDICATOR RANGES. BChPD, CHCL3, DCPD, ALDRN, CLDN, DLDRN,
ENDRN, CL6CP, CD, CR, PB, ZN, AS, AND HG WERE DETECTED AT HIGH CONCENTRATIONS.

NO PHASE II PROGRAM IS PROPOSED FOR THE ARMY SPILLS TASK BECAUSE ADDITIONAL
SAMPLING HAS BEEN CONDUCTED UNDER TASK 2, THE SHELL SPILLS PROGRAM, AND THE
SOUTH PLANTS REGIONAL STUDY.

APPENDICES: CHEMICAL NAMES, PHASE I CHEMICAL DATA, COMMENTS AND RESPONSES.

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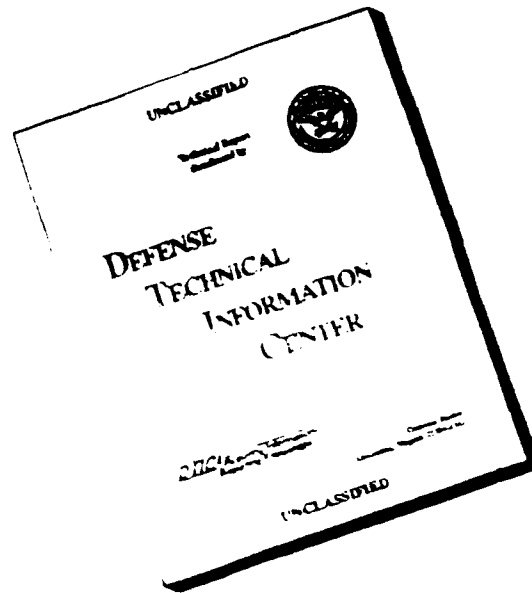
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FINAL
PHASE I
DATA PRESENTATION REPORT
ARMY SPILL SITES
SOUTH PLANTS MANUFACTURING COMPLEX
VERSION 3.2

SEPTEMBER 1988
Contract No. DAAK11-84-D-0017

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ROCKY MOUNTAIN ARSENAL



FINAL
PHASE I
DATA PRESENTATION REPORT
ARMY SPILL SITES
SOUTH PLANTS MANUFACTURING COMPLEX
VERSION 3.2

SEPTEMBER 1988
Contract No. DAAK11-84-D-0017
TASK NO. 24

Prepared by:

EBASCO SERVICES INCORPORATED
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DATACHEM, INC. GERAGHTY & MILLER, INC.

Prepared for:

U.S. ARMY PROGRAM MANAGER'S OFFICE FOR
ROCKY MOUNTAIN ARSENAL CONTAMINATION CLEANUP

THE INFORMATION AND CONCLUSIONS PRESENTED IN THIS REPORT REPRESENT THE OFFICIAL POSITION OF THE DEPARTMENT OF THE ARMY UNLESS EXPRESSLY MODIFIED BY A SUBSEQUENT DOCUMENT. THIS REPORT CONSTITUTES THE RELEVANT PORTION OF THE ADMINISTRATIVE RECORD FOR THIS CERCLA OPERABLE UNIT.

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Unannounced	☐
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EXECUTIVE SUMMARY
ARMY SPILL SITES
SOUTH PLANTS MANUFACTURING COMPLEX

Forty-one sites in Sections 1 and 2 of the South Plants area and of the North Plants area in Section 25 were reported to be the locations of chemical or fuel spills by the Army. After examination of the historical record and elimination of sites that were to be investigated by other tasks (including the Task 42 investigation of North Plants), twenty sites in Section 1 and one site in Section 2 of the South Plants area were investigated under Task 24 in the spring and fall of 1987. Substances that were reported to have been spilled, leaked, or discharged during Army manufacturing operations included lewisite, mercuric chloride, arsenic oxide, arsenic trioxide, arsenic sludge, acetylene, mustard, pesticides, herbicides, lime sludge, laundry and laboratory wastes, diesel fuel, solvents and other petroleum products, organochlorine products, "phossy water," sulfuric and nitric acids, and unspecified spent acids. Soil gas investigations were carried out on two sites (9 and 18) with reported spills of petroleum products. Fifty-three borings including surface grab and trench composites, yielding 184 samples, were completed to depths ranging from the surface to 25 feet.

Thirty-two of the 52 target analytes were detected within or above their indicator levels including pesticides, process intermediates, Army agent breakdown products, solvents, and metals. Fifteen analytes were detected at high concentrations (all in micrograms per gram): bicycloheptadiene 5,000; chloroform 90,000; dicyclopentadiene 4,000; aldrin 8,000, chlordane 1,000; dieldrin 7,000; endrin 5,000; hexachlorocyclopentadiene 7,000; cadmium 3,900, chromium 3,500, lead 2,600, zinc 3,300, arsenic 110,000, and mercury 17,000. High concentrations of nontarget compounds tentatively identified as chlorinated hydrocarbons, concentrations of polychlorinated biphenyls, and possible remnants of fuel and solvent spills were also detected.

No Phase II follow-on work is proposed for the Army Spills program because additional sampling and analysis has been conducted under Task 2 site programs, the Shell Spills program, and the South Plants Regional Study. The results of all investigations in the South Plants area will be integrated and presented in the South Plants Study Area Report.

PHASE I DATA PRESENTATION REPORT
ARMY SPILL SITES
SOUTH PLANTS MANUFACTURING COMPLEX

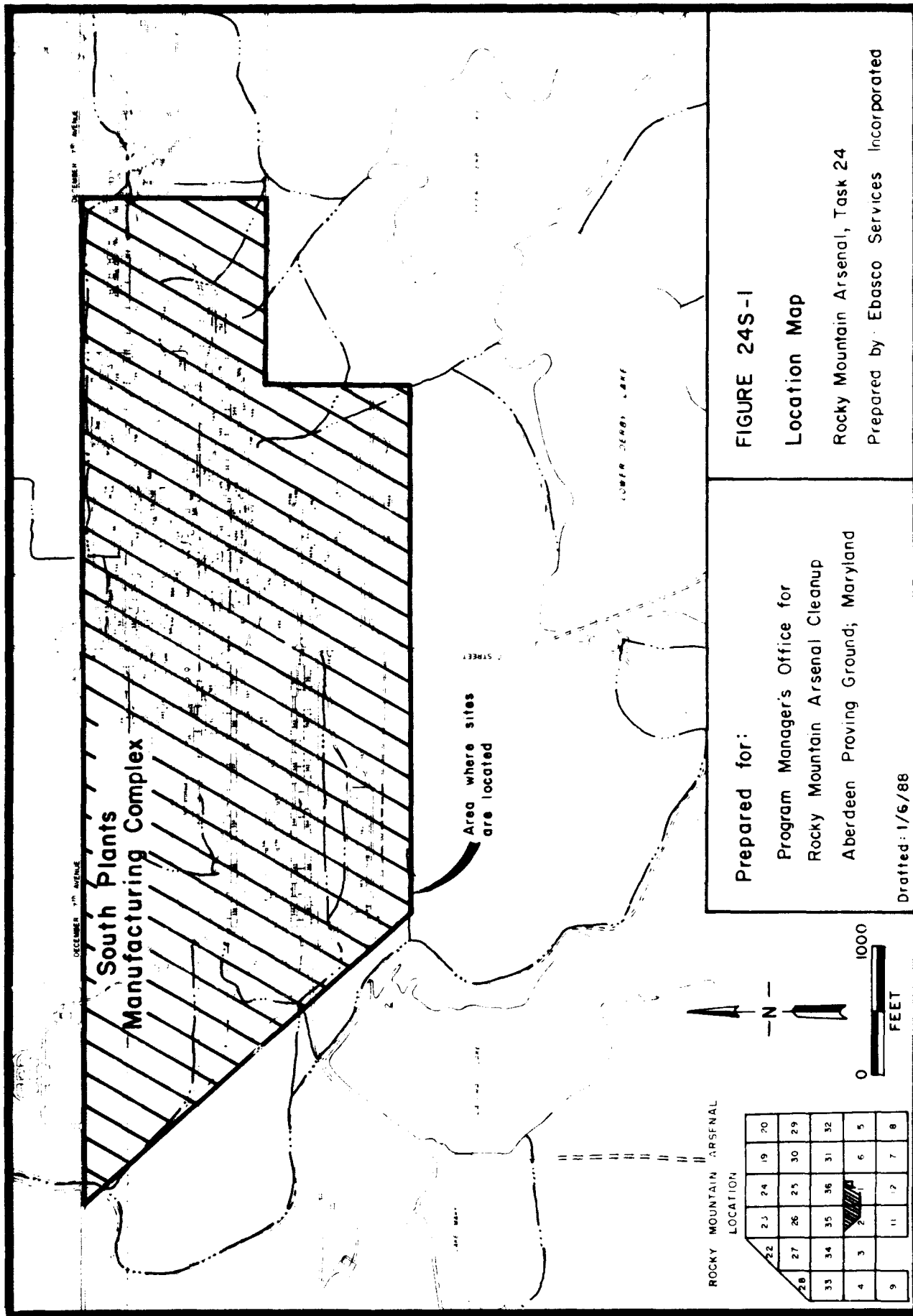
1.0 PHYSICAL SETTING

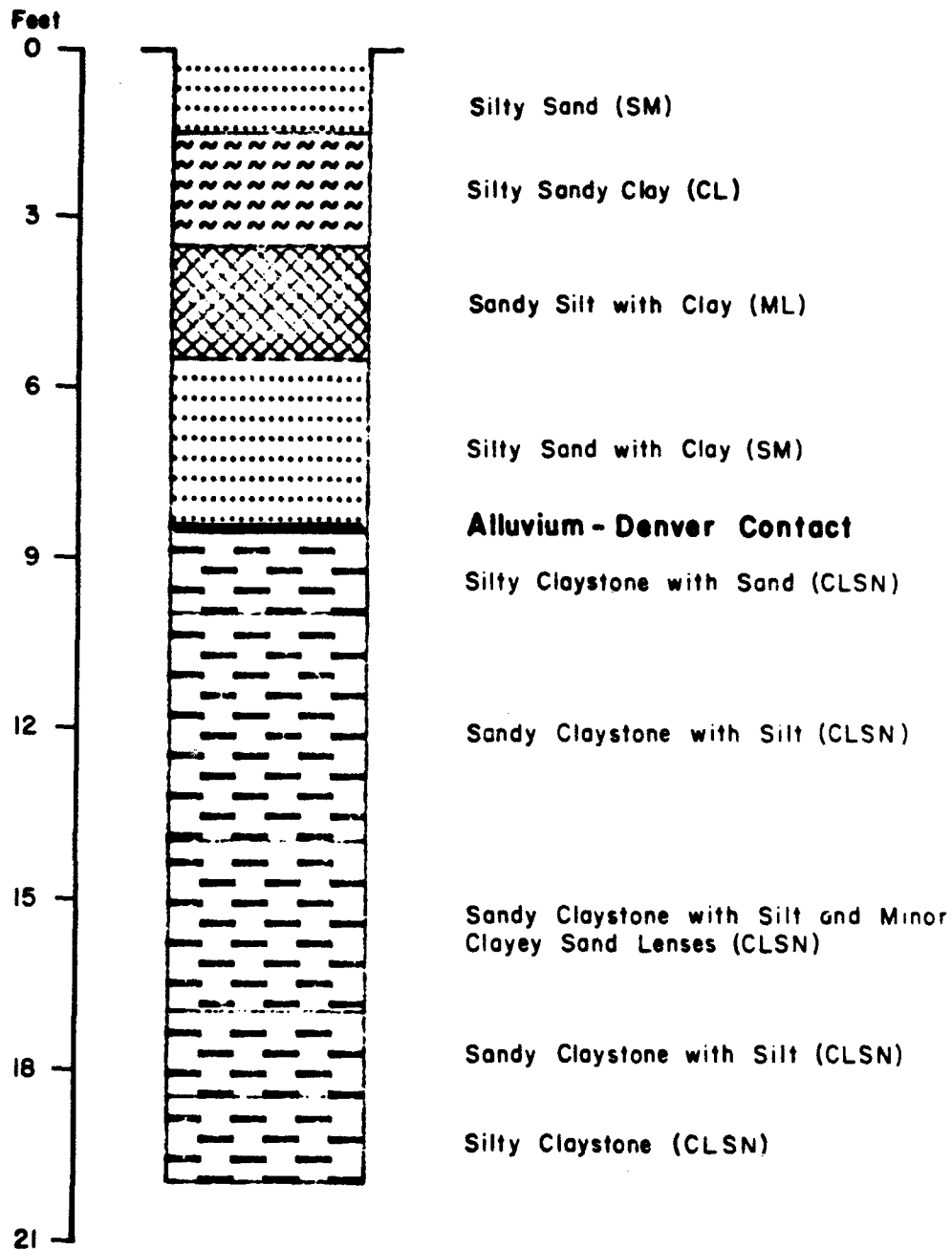
1.1 LOCATION

The area of the Army Spill Sites Investigation lies in the northern third of Sections 1 and 2 on the Rocky Mountain Arsenal (RMA), as shown in Figure 24S-1. The areas investigated are located within the South Plants manufacturing complex and include structures, many of which were used for chemical production and handling by the Army, Shell Chemical Company, and other lessees. The sites cover portions of an area of 15,177,050 square feet (ft²). The location of the sites investigated is shown in Plate 24S-1 (in pocket).

1.2 GEOLOGY

The two uppermost stratigraphic units beneath the South Plants manufacturing complex are Quaternary alluvium and the Denver Formation bedrock (May, 1982/RIC 82295R01). Seven borings completed as part of this study (Borings 6, 11, 20, 23, 31, 43, and 44), as well as previous borings and wells installed in this area, indicate that a 10 foot (ft) thick veneer of alluvium overlies a bedrock high centered approximately in the middle of the South Plants area. Both construction fill and undisturbed natural deposits compose the material drilled and logged as part of the alluvial section for the Army Spill Sites borings. Gravelly sand, silty sand, and gravel were commonly found within the first few feet of material drilled, and the underlying alluvium consisted primarily of silty and clayey sand with subordinate sandy to silty clay and sand. Two of the deepest borings completed (Borings 29 and 40), which characterize the lithologies encountered, are shown in Figures 24S-2 and 24S-3.





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Rocky Mountain Arsenal Cleanup
Aberdeen Proving Ground, Maryland

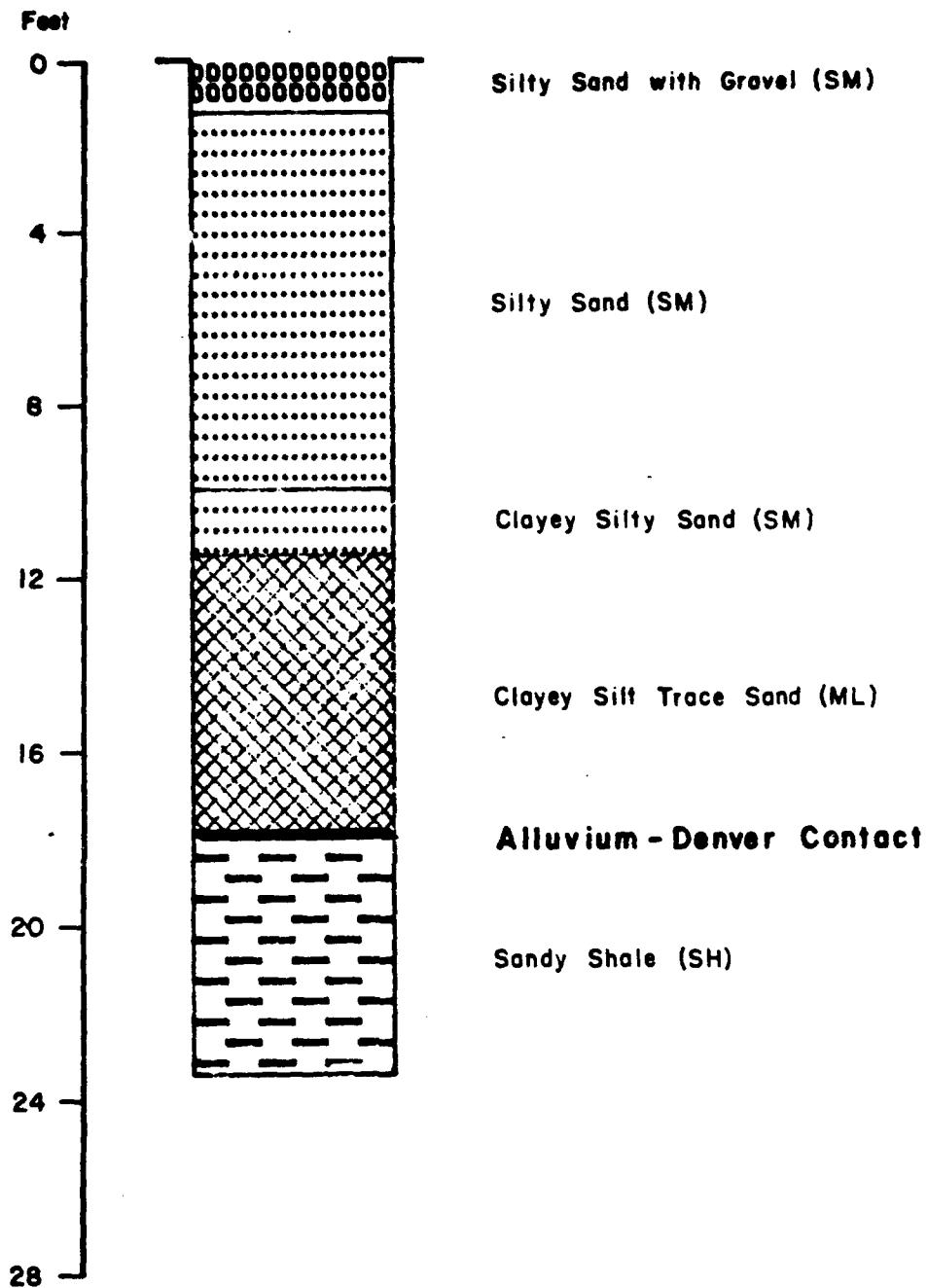
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FIGURE 24S-2

Field Boring Profile for Boring 29

Rocky Mountain Arsenal, Task 24

Prepared by: Ebasco Services Incorporated



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Rocky Mountain Arsenal Cleanup
Aberdeen Proving Ground, Maryland

Drafted: 1/7/88

FIGURE 24S-3

Field Boring Profile for Boring 40

Rocky Mountain Arsenal, Task 24

Prepared by: Ebasco Services Incorporated

The Denver Formation is composed mainly of interbedded claystone, sandstone, sandy claystone, and lignite. Twenty-five of the 53 borings completed as part of the Army Spill Sites investigation penetrated the upper portion of the Denver. In these borings, 1 to 21 ft of bedrock consisting principally of weathered, fractured limonite-stained claystone and sandy claystone with lesser amounts of siltstone and sandstone were penetrated.

Borehole 2601000001 (Well 01072) drilled in the central South Plants area by Task 26 penetrated 210 ft of the Denver. In this boring the lithology of the Denver was primarily claystone and sandstone, with subordinate clayey sandstone, sandy claystone, and lignite. Subsurface geologic studies conducted under Task 26 and by May et al. (1983/RIC 83299R01) indicate the presence of several Denver sand paleochannels occurring beneath South Plants. As borings and wells drilled in the vicinity of South Plants do not penetrate through the Denver Formation, the total thickness of the formation beneath this area is unknown. Detailed descriptions of the characteristics of the Denver Formation underlying RMA are found in two studies by May (1982/RIC 82295R01) and May et al. (1983/RIC 83299R01).

1.3 HYDROLOGY

The area investigated during the course of this study lies on a topographic high where surface elevation ranges from about 5,250 to 5,275 ft above mean sea level (msl). Surface water flows away from the South Plants area in several directions (Plate 24S-2). Most of the runoff from the South Plants in Section 2 and the southwestern portion of the South Plants area in Section 1 flows west to southwest toward the Sand Creek Lateral. Surface water runoff from the northern part of the South Plants area in Section 1 flows both east and north. Runoff from the southeastern portion of the South Plants flows south to southeast toward Upper and Lower Derby Lakes.

Surface water quality data are available for several locations in the South Plants area (Plate 24S-2). Water draining north into Section 36 sampled in 1985 contained detectable levels of dicyclopentadiene, methylisobutyl ketone, dibromochloropropane, diisopropylmethyl phosphonate, p-chlorophenylmethyl sulfone, p-chlorophenylmethyl sulfoxide, p-chlorophenylmethyl sulfide,

benzene, toluene, ethylbenzene, xylene, chloroform, 1,1-dichloroethane, trans-1,2-dichloroethylene, 1,1,1-trichloroethane, tetrachloroethylene, and chlorobenzene (ESE, 1986b/RIC 86317R01). Runoff sampled in 1983 along the western portion of the South Plants area contained aldrin, isodrin, dieldrin, endrin, chloroform, benzene, and methylisobutyl ketone (Spaine & Gregg, 1983/RIC 83228R01). Surface water draining toward Lower Derby Lake, sampled at the southeastern corner of the South Plants area in 1983, contained isodrin, dieldrin, endrin, chloroform, benzene, and methylisobutyl ketone. Analysis of runoff samples collected from a ditch draining east from the South Plants area for the same period indicated the presence of diisopropylmethyl phosphonate, aldrin, isodrin, dieldrin, endrin, and chloroform (Spaine & Gregg, 1983/RIC 83228R01).

The primary direction of groundwater flow across RMA is to the northwest; however, a localized groundwater mound diverts flow radially away from the South Plants area (Plate 24S-3). A previous investigation has attributed the presence of the South Plants groundwater mound to the leaking of water from underground pipes into low permeability material (Stollar et al., 1979/RIC 84192R09). Groundwater elevations in the area, measured in the summer of 1986 (ESE, 1988a), ranged from approximately 5,260.0 ft msl in Well 01514, which is located near the center of the mound, to 5,248.0 ft msl in Well 02007 at the western edge of the South Plants area, to 5,255.0 ft msl in Well 01018 located along the southeastern margin of the South Plants area. Depth to groundwater in these wells was 9.3, 15.5, and 11.3 ft, respectively.

Groundwater quality data have been compiled in the vicinity of the borings completed for this study in the South Plants manufacturing complex. Based on samples collected from alluvial wells, groundwater contaminant plumes containing the following chemicals have been identified: dieldrin, p-chlorophenylmethyl sulfoxide, p-chlorophenylmethyl sulfone, dithiane, 1,4-oxathiane, dichloroethane (1,1-dichloroethane and 1,2-dichloroethane), dichloroethylene (trans-1,2-dichloroethylene and 1,1-dichloroethylene), mercury, benzene, trichloroethylene, chloroform, chlorobenzene, and tetrachloroethylene (ESE, 1986b/RIC 86317R01). (These alluvial wells included wells screened in the Denver Formation with the top of the screened interval

within 10 ft of the bedrock surface.) Because these compounds are representative of the class of chemicals typically found in the groundwater beneath the South Plants manufacturing complex, their presence in the groundwater does not imply that contaminants found at the Army Spill Sites boring locations are contributing to groundwater contamination in this area.

2.0 HISTORY

The following narrative represents an updated partial revision of the Army Spill Sites history and supersedes as indicated all previously transmitted historical narratives concerning this site. It has been prepared following full review of information identified during the course of discovery in United States v. Shell Oil Co., Civil Action No. 83-C-2379 (consolidated with No. 83-C-2386) (D. Colo.).

The spill areas investigated under this task were originally identified in a letter dated May 1985 by Shell Chemical Company to the Army; 29 existing or potential spill areas for which Shell had information were listed in an attachment to the letter. Since the Shell letter was written, additional research has been conducted by Ebasco on the nature and location of spills in the South Plants area. Twelve additional sites have been identified. Detailed historical information about each site has been revised from that included in the Task 24 Technical Plan (Ebasco 1987d).

Spill Site No. 1:

Between 1957 and 1959, toluene was spilled on the ground north of Building 511 (Shell, 1985). The spill involved approximately 5 gallons of toluene, and the spill covered an area of approximately 10 ft². The RMA Fire Department responded to the incident and covered the affected area with water (Gerton, 1985). The spill was caused by an accident involving a tank car of Shell toluene and a switch engine (Kuznear & Trautmann, 1980/RIC 84269R01; RMA, 1945a).

Because a Task 2 boring was drilled at this location, no additional borings are planned under Task 24 (Spills). No volatile or semivolatile target analytes were detected in samples taken from the Task 2 Phase I boring.

Spill Site No. 2:

The lewisite disposal facility reportedly was operational between April and November 1943. The facility was located south of December 7th Avenue, north of the east-west railroad line, in the yard north of present-day Building 561. The lewisite complex consisted of a mirror set of buildings that included the following:

- B-511, 514, lewisite reactors
- B-511a, 514a, crude lewisite storage
- B-512, filling building
- B-515, 516, lewisite distillation

Only part of the plant was ever used to produce lewisite, i.e. Buildings 511 and 515 never went on-line (RMA, 1943; U.S., 1953; Donnelly, 1985k).

The facility also included four disposal reactors (Building 513) (10 ft long by 10 ft wide by 10 ft high) and three 300,000 gallon unlined settling basins. These settling basins were known as the "M-1 basins." The dimensions of the M-1 basins were 75 ft wide by 100 ft long by approximately 5 ft deep (Whitman, Requardt, & Smith, 1942b). These subsurface disposal pits are now covered with fill material and new structures, and no surface evidence of their location has been found.

Numerous spills alleged to have occurred within the buildings in the lewisite complex, the acetylene plant, the thionyl chloride plant, and the arsenic trichloride plant were routed to the M-1 basins through floor drains and connecting piping. Wastes from the lewisite complex (Buildings 512 and 514), the acetylene plant (Buildings 518, 519, 521, 522, 522A, and 525), the thionyl chloride plant (Buildings 471, 472, 473, and 475), and the arsenic trichloride plant (Buildings 523, 523A, 523B, 523C, and 524) were allegedly held in these basins prior to disposal elsewhere (Shell, 1985).

As wastes entered the disposal facility, they reportedly were agitated in the four reactors and neutralized with lime. After neutralization, the wastes were sent through troughs to the M-1 basins to settle. The liquid from the settling basins was decanted through an 18 inch (in.) overflow pipe to three

pits in Section 36 (Site 36-4) where the effluent was treated with lime before being discharged to Basin A (Site 36-1)(Plan No. 7164-2030, 1943; Basic Information Map No. 18-02-01, 1957; Donnelly, 1943; Donnelly, 1959; Ackerman, 1960; RMA, 1945b).

Spill Site No. 3:

This spill area includes the lewisite reactor room of Building 514 where arsenic trichloride, mercury, and mercuric chloride spills reportedly occurred and were washed into floor drains that led to the Building 513 decontamination reactors (Shell, 1985; Kuznear & Trautmann, 1980/RIC 84269R01; Donnelly, 1985a). No borings were constructed under Task 24 at this site because there was no evidence that any of these spills escaped the confines of the buildings.

Spill Site No. 4:

Mercury was reportedly spilled behind Building 512 (Shell, 1985j; PMCDIR, 1977/RIC 81266R68). Mercuric chloride was used in nearby Building 514 (RMA, 1945d). The mercuric chloride utilized for the production of mercury catalyst was a solid (either powder or chunks), apparently shipped to RMA in 50 to 100 pound drums and stored in a warehouse (Donnelly, 1985b). The catalyst solution was used to produce lewisite and contained 60 percent mercuric chloride, 8 percent hydrogen chloride, and 32 percent water. Elemental mercury would form from the mercuric chloride reacting with iron piping; this effluent was directed to the decontamination reactors (Spill Site No. 2) and then to the M-1 settling basins (Spill Site No. 2), where the heavy metal would theoretically settle out (Rosenblatt & Small, 1975). Further literature research has shown that the probability that mercury was spilled behind Building 512 is low due to the following:

1. V. Paiz, Sr., the former RMA employee referenced in the 1977 PMCDIR report was contacted in a follow-up telephone interview in November 1986 (Paiz, 1986). In this follow-up interview, Paiz claimed that he had heard about "a large mercury spill" that occurred prior to his arrival in 1945, but knew no other particulars. (It is believed that Paiz was referring to the mercury catalyst spill described in this report under Spill Site No. 39.)

2. Prior to 1945 (the year that Paiz began work at RMA), Building 512 was utilized as a lewisite-filling plant. The building housed storage tanks for finished lewisite only (COE, 1943; RMA, 1945k).
3. Elemental mercury used on RMA was limited to:
 - a) That received in small jars and used exclusively in instrumentation (Donnelly, 1985c);
 - b) That used by Shell in orsat sampling (see Spill Site No. 24);
 - c) That used by the Army, CF&I, Hyman, and Shell (1943-1957) in the rectifier room of the cell building (242) in the chlorine plant (U.S. Army, undated; U.S. Army, 1967; Hahn, undated; H.K. Ferguson Co., 1942); and
 - d) That used in manometers in steam metering stations in the South Plants area (no metering stations are located in the vicinity of Building 512) (Bisted, 1975).

In fact, it has been estimated that the Army's use of elemental mercury was "nothing more than a half pint bottle...over a three month period" (Way, undated-b).

Although the literature indicates that mercury was not used in or near Building 512, mercury has been detected in five Task 2 borings in this vicinity (Ebasco, 1987a). An additional boring was drilled south of Building 512 under the Task 2 South Plants Regional Study (Ebasco, 1986b). Due to the coverage provided by these six borings, no additional borings were constructed around Building 512 under Task 24.

Whereas the probability of mercury being spilled around Building 512 is low, according to the literature, there may be a possibility of lewisite contamination inside Building 512. Here, lewisite was stored in six 2,350 gallon tanks in a room with no flooring (COE, 1943). The ground absorbed

spills and leaks and was a continuous source of obnoxious fumes (RMA, 1945g). Additional field reconnaissance has shown that the floor is presently concrete and no openings on the building are large enough to allow drill rig access. For this reason, no borings were constructed inside the building.

Spill Site No. 5:

Between April and November 1943, large amounts of lewisite were reportedly lost through leakage from pipes and tanks in the lewisite production area (Shell, 1985; Kuznear & Trautmann, 1980/RIC 84269R01). Crude lewisite was processed in glass-lined equipment in Building 514 and transferred to glass-lined storage tanks in Building 514A through porcelain pipes. From Building 514A the lewisite was then sent to the distillation Building 516. The pipes and transfer equipment between Buildings 514A and 516 were composed of iron, which were entirely inadequate to withstand corrosive action (RMA, 1945h; Donnelly, 1985d). This iron transfer equipment is believed to be inside the buildings (which are connected) because no pipes on the outside are continuous between the buildings. Mercuric chloride was also reportedly utilized in this area.

Field reconnaissance in this area yielded no additional evidence of spills or leaks of lewisite or mercuric chloride around tanks or piping. Piping between Buildings 514 and 512 will be investigated under Spill Site 40 of this report. Additionally, two borings were placed in the area of this spill site as part of the Shell Spills investigation program.

Recent discussions with George Donnelly (Donnelly, 1986) indicate that Buildings 512, 514, and 516 were not used for lewisite production but were used for mustard production. However, additional historical research indicates that this information is incorrect. A review of information from the Discovery Record indicates that Buildings 514 and 516 (the eastern half of the plant) were constructed by March 15, 1943, while Buildings 511 and 515 (the western half of the plant) were not finished until August 1943, or five months after it is known that lewisite manufacturing began. Building 512 was the structure used to fill the agent into ton containers (RMA, 1943; U.S., 1953c).

Spill Site No. 6:

An area of potential lewisite contamination was identified immediately west of Buildings 536 and 537 (Shell, 1985). The exact nature and area of contamination has not been identified through research, but these areas are within the former mustard complex.

Further research has indicated the possibility of two additional areas possibly involving both mustard and lewisite:

1. The ton container storage yard north of Buildings 537 and 538 (RMA, 1945e) (Shell's Denver Effluent Treatment (DET) facility was constructed over a portion of this site); and
2. The ton container storage yard east of Building 538 (RMA, 1945e). This area was also used during Project Eagle, Phase I, between August 1972 and November 1973. Ton containers containing mustard were drained in Building 537 and then stored in this yard prior to decontamination in furnaces in Building 538. After decontamination in the furnaces, the ton containers were again temporarily stored in this yard (Office of the DA Project Manager, 1975; Woodward, 1970). Twenty-three ton containers, all apparently empty and decontaminated, continued to be stored in this area in April 1982 (Jacobs, 1982). During recent field reconnaissance in 1986, 22 ton containers were noted in this area; they appeared empty. Two borings were placed in this area, one boring as part of the investigation of Site 1-3, Task 2, and the second as part of the South Plants Regional Study.

Field reconnaissance of the ton container storage area north of Buildings 537 and 538 (area 1 above) has indicated that this area has been disturbed by excavation and construction. The majority of the area is covered by tank platforms, buildings, and pavement of asphalt, concrete, or gravel. Lack of detailed storage locations and spill history, combined with the construction disturbance noted above, has led to the decision that borings in this area would likely not be useful.

Spill Site No. 7:

In 1955, mustard was observed leaking from one-ton containers stored on an unpaved area northeast of Building 536 and south of Building 537 (Shell, 1985; PMCDIR, 1977/RIC 81266R68).

Spill Site No. 8:

In 1980, Shell employees reportedly encountered what they thought to be mustard as they were installing a sump tank as part of an overhead chemical sewer between Building 514 and Building 529 (Jones, 1984).

Spill Site No. 9:

This spill area is located approximately 100 ft south of Building 732, at a fuel loading area near Building 744. The spills involved diesel fuel lost from hoses while tank cars were being loaded. In 1975, a trailer tanker was overfilled resulting in a spill of diesel fuel, which was washed down with about 50 gallons of water. The literature mentions that a truck was also present in the spill area at this time, and that it was also washed down with water. The diesel fuel and water reportedly entered the sanitary sewer system (Pimple, 1975; Shell, 1985).

Spill Site No. 10:

In a letter from E.J. McGrath to T. Bick (Shell, 1985), Building 753 was reported to have been used for pesticide storage. The reference cited for the letter refers to "South Plants Contamination Survey and Remedial Action Assessment," Vol. I and II (Ebasco, 1985c). That reference cites the "107 Report" (PMCDIR, 1977/RIC 81266R68) and "Contamination Survey, Rocky Mountain Arsenal" (AMC, 1973) as authorities for this building identification. However, neither reference identifies Building 753 as a pesticide storage building. Rather, Building 753 is identified in these reports as a steam fitter shop. Contamination within Building 753 will be assessed as a part of the Task 24 Structures Survey. Although the literature does not indicate that the Army stored pesticides in Building 753, evidence does exist to indicate that the Army stored pesticides in Buildings 544 and

742 in the South Plants area. Information on these pesticides can be found in this report under Spill Sites 18 and 37, respectively. Additionally, pesticides were stored by the Army in Buildings 616 and 618 in the rail classification yard in Section 3. Also, pesticides were stored by the Army in Building 785 in the northwestern corner of Section 6. Finally, the Army stored pesticides in Shed 1, Plot 3 in the toxic yard of Section 6.

Spill Site No. 11:

A spill of chlorobenzene reportedly occurred near the thionyl chloride plant (Building 471) (Shell, 1985). Monochlorobenzene was used between April and November 1943 as a cooling medium during the heat-developing reaction stage of thionyl chloride production in the thionyl chloride reaction Building 471. The monochlorobenzene itself was stored in a 4,400 gallon capacity tank in Building 472, a single-story structure with cement flooring, containing an ammonia refrigeration system for the cooling of the warm monochlorobenzene returning from the reactors, pumps, and piping. The refrigeration piping between Buildings 471 and 472 was above ground (RMA, 1945w; H.K. Ferguson Co., 1942a; H.K. Ferguson Co., 1942b; RMA, 1949; H.K. Ferguson Co., 1942c; COE, 1943 b; Donnelly, 1985d).

The only reference for this purported spill of chlorobenzene is Shell personnel interviews conducted in February 1985 (Shell, 1985). However, Shell was not yet conducting operations on RMA during 1943, the time of the reported spill (Kuznear & Trautmann, 1980/RIC 84269R01). There are no documented chlorobenzene spills near Building 471 during the Army's production of thionyl chloride in 1943. All deponents queried about this alleged spill had no knowledge of such an incident. It is suspected that the interviewed Shell personnel confused this alleged spill with reported spills of chlorobenzene by Colorado Fuel and Iron Corporation between 1947 and 1948 (Shell, 1985). Because historical research has failed to more precisely locate this spill and because six borings were placed in the vicinity of this site as part of the Shell Spills program, no borings were constructed on this site under Task 24.

Spill Site No. 12:

The acetylene manufacturing plant operated for a period of eight months from April to November 1943. Lime sludge from two acetylene generators in Building 522 was discharged to pits outside of the generator rooms from where it was sent to one of three places:

- 1) The M-1 settling basins (Spill Site No. 2);
- 2) The Section 36 lime ponds via overhead lines (Site 36-4); or
- 3) The sulfur dioxide SO₂ disposal plant (Building 524) (RMA 1945r; RMA 1945s).

Spill Site No. 13:

This spill occurred in the vicinity of arsenic storage silos 523C, 523D, 523E, 523F, 523G and associated conveyance and loading areas. The arsenic trioxides utilized by the Army were fine, powdery substances. The spill or spills involved arsenic trioxide dust leaks from silos, conveyors, and hoses (RMA, 1945t; Kuznear & Trautmann, 1980/RIC 84269R01).

Building 523, directly to the east of the silos, housed reactors that had safety-seal tops. One of these seals apparently failed on April 14, 1943, resulting in the release of a cloud containing 2,176 pounds of arsenic trichloride, 1,400 pounds of arsenic trioxide, and 2,800 pounds of sulfur monochloride (Donnelly, 1986; Chrencik, 1943).

Spill Site No. 14:

During mustard production, "wild" (off specification) batches of mustard that did not meet desired purity standards were sometimes produced. To eliminate a "wild" batch, it was sent through overhead piping to disposal reactors (Building 416 and Building 426) where it was neutralized with caustic. From the disposal reactor, the batch was piped to decontamination pits (Building 417 and Building 427), where it was further treated with caustic before being sent to the chemical sewer leading to Basin A (Site 36-1)(RMA, 1945i; Kuznear & Trautmann, 1980/RIC 84269R01).

This disposal process was conducted in two distinct areas: the yard west of Building 412 and the area between Buildings 422 and 471. Within the yard west of Building 412, one mustard decontamination pit has been definitely located. It is 7 ft 4 in. wide, 10 ft 10 in. long, and 6 ft 3 in. deep and has a steel grid cover (PMCDIR, 1977/RIC 81266R68). Foundations for the disposal reactor Building 416, caustic makeup Building 415, and the circulating and scrubbing Building 419 are also present in this westernmost yard. In the area between Buildings 422 and 471, subsequent construction has destroyed or covered everything except the disposal reactor Building 426.

Spill Site No. 15:

From July 1945 to 1946, the mustard distillation plant was operational. Crude mustard was washed with water and allowed to separate. The contaminated water, containing soluble iron and sulfur compounds, mustard, and "other toxic and undesirable impurities" (Kuznear & Trautmann, 1980/RIC 84269R01) was discharged to a decontamination pit that reportedly was located near the southeastern corner of Building 514 (War Department, 1948b). The pit was lead-lined concrete, and the wastes were reportedly neutralized with caustic (Shell, 1985; Ebasco, 1986a; RMA, 1945j).

Spill Site No. 16:

Waste water, decon water, and clothing treatment impregnation solutions containing sodium hypochlorite (Kuznear & Trautmann/RIC 84269R01), acetylene tetrachloride (RMA, 1945x), tetrachloroethylene (Esquibel, undated; Kemper, 1966; Hulbert, 1967; Industrial Hygiene Special Study, 1972), 3-octachlorocarbonaldid (Kuznear & Trautmann, 1980/RIC 84269R01), ammonium chloride (Martin, 1971), polyvinyl alcohol (Esquibel, undated-b), chlorinated paraffin (Ibid.), disonal (Ibid.), daxad (Ibid.), and dye (Ibid.) were released from the laundry facility. Until 1957, aqueous waste from the laundry was discharged to an open ditch that led to the chemical sewer, which emptied into Basin A (Site 36-1) (Donnelly, 1985e; Kuznear & Trautmann, 1980/RIC 84269R01). Between 1957 and 1979 the wastes were discharged through the chemical sewer to Basin F. Beginning in March 1979 the waste was sent to the South Plants waste collection system, which included a 170,000 gallon

storage tank that was periodically emptied and the contents hauled off-post. In November 1981, when hazardous substances were no longer present in the waste streams, laundry discharge was connected to the sanitary sewer system (Value Engineering Project Summary Book, 1981; Barbieri, 1981a & b).

Spill Site No. 17:

The Central Analytical Laboratory, also known as the Quality Assurance Laboratory, was established at RMA in December 1942 in Building 313. Initially, it was the only general testing laboratory at RMA (RMA, 1945u). The mission of the laboratory in Building 313 was to test all materials procured and used in the manufacture of end items at RMA; to test produced items to ascertain if they conformed to applicable specifications; to provide laboratory testing required by all RMA activities; and to conduct surveillance testing of chemical items stored by various Department of Defense Installations. The laboratory functioned independently of process control laboratories at RMA.

Toxic agents received at the Building 313 laboratory were returned to their respective plants for detoxification. Liquid laboratory waste generated from the analysis of toxic agents that was considered toxic was detoxified, collected in large bottles, and thereafter emptied into Basin A. Solid toxic waste was decontaminated, collected in metal containers, and disposed in a toxic waste pit located east of Basin A. Similarly, flammable waste, including flammable material samples, was collected in metal containers and emptied into these burning pits. The remnants of all nontoxic laboratory samples were retained and stored for 30 days, after which they were also disposed in the burning pits. Laboratory waste water from sinks was drained into an open ditch located at the southeastern corner of Building 313, approximately 30 feet from the building. The Army estimated that 464,000 pounds of chemical waste were generated based on the testing of 184,400 samples (Kuznear, undated circa 1979).

From 1943 until 1956, the Central Analytical Laboratory discharged liquid wastes into an open ditch located east of Building 313. This ditch led to a

series of surface drainage pipes and ditches that merged with the chemical sewer that drained into Basin A. (RMA Map No. 7164-2323, 1942a; Kuznear & Trautmann, 1980/RIC 84269R01; Donnelly, 1985). From 1956 to 1978, laboratory wastes were discharged through the chemical sewer to Basin F (RMA Map No. D-675C, 1957; RMA, 1972; Kuznear & Trautmann, 1980/RIC 84269R01).

As previously noted, chemical wastes from the Central Analytical Laboratory were discharged first to Basin A and then, after 1956, to Basin F. After 1978, laboratory wastes were drummed and then transported to Building 1611 for incineration (Jones, 1985; Heim, 1985).

Additionally, drums containing laboratory wastes were stored outside individual laboratory buildings until April 1982 (McNeill, 1980; Ursillo, 1982a). After April 1982, these waste drums containing spent laboratory solvents and reagents were transported to Warehouse 793 for storage prior to incineration (Ursillo, 1982a & b; USEPA, 1982a). There is no information to suggest that laboratory wastes were disposed at RMA after 1978.

Sometime after August 1982, stored laboratory wastewater was pumped to a treatment facility in Building 540 and then discharged to the sanitary sewer. The treatment system consisted of an upflow carbon column and an activated alumina column and was designed to remove suspended solids, organic compounds, and arsenic. The U.S. Environmental Protection Agency approved the discharge based on the treatment process (USEPA, 1982b; McNeill, 1982; USEPA, 1983; USAEHA, 1984).

Spill Site No. 18:

Small spills of petroleum products, paints, thinners, and solvents were reported in and around the maintenance shops (Buildings 543, 543B, 544, and 545). The exact nature, location, and dates of these spills were not reported (Kuznear & Trautmann, 1980/RIC 84269R01; Shell, 1985).

Field reconnaissance of this site indicated that there are ground stains and mounded material along the southern edge of the loading dock and foundation of Building 543. No other evidence of spills was noted.

Additional research has also shown that Building 544 contained the RMA pest control shops from the mid-1950s until 1979. It served the combined functions of a pesticide mixing room and office. Only a few drums containing pesticides were actually stored in this structure. The main storage area was part of an outdoor storage shed housing tractors, pesticides, disposal equipment, and mowing machinery. It is believed that this shed is Building 545, constructed in 1953. The pesticide storage section of this shed was enclosed on all sides with perforated steel planking (PSP) to include the dirt floor. During an installation pest management program survey conducted between October 6 and October 9, 1975, it was noted that the dirt floor appeared thoroughly saturated with pesticides. Prior to mechanized spraying operations, pesticides were pumped from drums to a storage tank on the sprayer outside of Building 544. Water or kerosene was mixed with the pesticide in the sprayer's storage tank. What pesticide mixing occurred inside Building 544 is unknown, but it is assumed that it involved smaller scale operations (USAEHA, 1975; PMCDIR, 1977/RIC 81266R68; Lynes, undated). Pesticides stored in Building 544 included organochlorine pesticides, organophosphorous pesticides, and organic sulphur compounds. A complete listing of pesticides stored in Building 544 is available for October 6, 1975, and February 7, 1979, (Ebasco, 1987d).

Spill Site No. 19:

Small spills of organochlorine compounds, degreasing solvents, paint strippers, rust removers, paints, thinners, and other solvents have been reported in and around the heavy industrial equipment renovation facilities in Building 751. Building 751 is currently in use. The exact nature, location, and dates of these spills are not known (Kuznear & Trautmann, 1980/RIC 84269R01; Shell, 1985).

Field reconnaissance of this spill area revealed indoor trenches in Building 751, draining toward the east end of the building where a drain exits the wall of the building. The drainpipe through the wall was previously connected to a vitreous clay pipe, which ran south from the building and emptied into a low spot between the railroad tracks running along the south side of Building 751. The vitreous clay pipe is broken, and any drainage from

the building now dumps onto the ground at the east end of the building. Stressed vegetation was noted in the area where this drainage now collects. No other evidence of spills was noted.

Spill Site No. 20:

On November 16, 1981, an unknown quantity of an unknown liquid was observed leaking from a caustic tank located east of Building 536. The liquid flowed south under the fence, following the existing surface grade and into a drainage ditch heading west (Shell, 1985; Pimple, 1981). The drainage ditch was dammed to contain the flow, which was characterized by RMA Fire Department personnel as "slight enough to warrant leaving 'as is' pending notification of plant operations personnel when they report(ed) to duty (two hours after the incident's discovery)." The caustic tank was checked and no apparent leaks were discovered in the tank or piping (RMA, 1981). Building 536 is within the former mustard production complex.

Spill Site No. 21:

No spill site corresponding to this number was listed in the Shell documents (Shell, 1985). Therefore, this spill was not investigated under Task 24.

Spill Site No. 22:

A 1,200 pound mustard spill (previously reported by Shell as a mercury spill; Shell, 1985) reportedly occurred in the mustard thaw and unload area of Building 537 on July 23, 1973 (Scherbath, 1976; Scherbath, 1986), at 0015 hours, during start-up of the mustard facility. Two personnel performing first-entry monitoring of the thaw room in Building 537 observed that mustard had leaked around one of the valves of a ton container. All the agent was observed to be contained in the thaw room. The estimated 1,100 pounds of agent spilled on the floor and sprayed on the walls was decontaminated by crews working in relays. Super tropical bleach (STB) slurry was used to decontaminate surface accumulations. The bulk of the agent was covered with STB and subsequently hosed into the thaw room ventilating trench. After the addition of more bleach and after steam sparging, the agent-containing solution was pumped to the Building 536 brine storage tank. Caustic was added

to the storage tank and to the trench. The brine storage tank was recirculated until quality assurance laboratory analytical results showed no agent contact in the brine. The material was then spray dried. The affected container was taken to the unloading booth, drained, and removed to Building 538 for incineration. There were no exposures, and the plant was back in operation at 1600 hours on the same day (PMCDIR, 1975).

Since this spill was reportedly contained within the building and cleaned up, no soil borings were constructed at this site under Task 24.

Spill Site No. 23:

No spill site corresponding to this number was listed in the original Shell documents (Shell, 1985). Therefore, this spill was not investigated under Task 24.

Spill Site No. 24:

Mercury was reported to have been spilled around Building 534 during orsat sampling of acetylene between 1948 and 1975 (PMCDIR, 1977/RIC 81266R68). However, D.L. Way, referenced in the PMCDIR report, stated in his interview during the preparation of this report that the mercury was spilled around Building 534A between 1948 and 1975 (Leibel, 1976). Mercury was employed in the orsat instrument to withdraw a sample of acetylene into a sack where it was apparently tested, in order to ensure that the acetylene was free of oxygen prior to the compression of acetylene gas (Donnelly, 1985f; Way, undated-a). Julius Hyman Company and Shell produced acetylene at RMA between 1950 and 1974, utilizing the gas as a raw material (together with cyclopentadiene) in the production of bicycloheptadiene, an intermediate in the production of aldrin (Shell, 1952a). Hyman and Shell produced acetylene from calcium carbide and water in Building 459 and stored the acetylene gas in acetylene gas holders, Buildings 434 and 435. The acetylene gas was then conveyed through overhead piping to Building 561A, where it was stored in Tank T-300. In Building 561A, the acetylene was compressed and pumped to Building 561, the bicycloheptadiene unit, where it was mixed with cyclopentadiene in order to form bicycloheptadiene (M-101) (Shell, 1952b). Building 561A was

located adjacent to Buildings 534 and 534A. Buildings 534 and 534A were not used by Shell until 1966, the former as tankage, pumphouse, and storage areas in support of the planavin nitration unit in Building 534B, and the latter as a planavin unit shift shack (maintenance equipment storage, field shop, and foreman's office) (Shell, 1952b). It is therefore likely that, while the location of Shell's orsat sampling described by Dr. Way is generally accurate, the reported mercury spills were actually associated with Building 561A.

Five Task 2 borings have been drilled around Buildings 534 and 534A. Analytes detected within or above their indicator levels include aldrin, dieldrin, isodrin, methylisobutyl ketone, o- and p-xylene, m-xylene, ethylbenzene, chlorobenzene, arsenic, mercury, copper, p-chlorophenylmethyl sulfone, and zinc. One Task 2 boring was drilled approximately 75 ft east of Building 561. Analytes detected within or above their indicator levels in this boring include aldrin, chlordane, dieldrin, endrin, isodrin, methylene chloride, chloroform, arsenic, mercury, and lead. Additionally, Boring 5 (Spill Site No. 2 of this report) will be drilled approximately 25 ft northwest of Building 561.

Due to the small amounts of mercury suspected in orsat sampling and the lack of detailed data on exact spill locations, it is unlikely that additional soil borings in this area would detect the possibly spilled mercury. Therefore, no additional borings were constructed under Task 24.

Spill Site No. 25:

The white phosphorus cup filling plant was operational in 1945 and between 1951 and 1957. During this same period, white phosphorus was also utilized for the filling of AN-M19 igniters, M-78 and M-79 incendiary bombs, M-15 grenades, and other ordnance. The white phosphorus cup filling plant consisted of eight buildings: cup filling and assembly Building 522, cup testing and storage Buildings 521 and 541, white phosphorus storage and pump Buildings 523A and 413, warehouse Building 542, phosphy water storage tank and condensate pump warehouse Building 522A, and administration, locker, and supply Building 517. Buildings 522 and 541 were connected by an enclosed

passageway. Reinforced concrete trenches ran between Buildings 522 and 523A and between Buildings 523A and 413 (RMA, 1945j). White phosphorus munitions filling took place in Building 523 (Donnelly, 1985g).

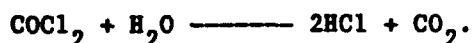
In 1960, 1966, 1968, 1969, and 1970, there were no cup-filling activities, but white phosphorus was utilized for the filling of M-24 and M-34 grenades and 105mm shells (RMA 1945m; RMA, 1951; RMA, 1970). Process water from the cup-filling and munitions-filling facilities, Buildings 522 and 523, which came in contact with white phosphorus and called "phossy water," was discharged from those two buildings. Phossy water was produced when water was used to: (1) keep white phosphorus covered in its storage tanks; (2) unload white phosphorus tanks by the displacement method; or (3) preheat white phosphorus liners in the pipe trench before pumping white phosphorus to the filling tank (Thompson, 1950; Donnelly, 1985g; Leonard, 1952; Estes, 1949; Grosser, 1954; Murphy, 1960; Hendershot, 1968). Because of the use of Catalin cups in 1945, denatured alcohol was present in the white phosphorus cup filling plant effluent in that year only (Donnelly, 1985h). Additionally, the contents of copper sulfate coating tanks in Building 522 were disposed approximately once each month (Digregario, 1986). In 1945 only, this copper sulfate solution contained sodium acetate (RMA, 1945m; RMA, 1951).

In 1945, waste water from the white phosphorus plant was disposed by discharge through the chemical sewer line to Basin A. Between 1951 and 1970, based on the Army's conclusion that phossy water could not be discharged through the sewer due to its potential to react violently with hydrocarbons discarded by lessees, the waste was discharged to a drainage ditch south of the plant that extended through the South Plants area to the Sand Creek Lateral (Donnelly, 1985i; RMA, 1951; RMA, 1945l). Another ditch where phossy water may have been discharged is north of Building 522B (Shell, 1985; USAEHA, 1960).

Spill Site No. 26:

Phosgene gas leaks were reported during the bomb-filling operations in Buildings 331 and 332 (Figure 24-2) in 1944. Filled bombs were leak tested in booths within the buildings, and fumes were vented through caustic scrubbing

towers. Calcium chloride brine was used as a refrigerant in coolers that chilled liquid phosgene before it was filled into bombs (RMA, 1945n). Hence, calcium chloride was present in the phosgene plant effluent. Also, during cold weather, 50 percent caustic, rather than 17 percent, was pumped to the phosgene-filling plant for use in the scrubbers. On several occasions, water had to be used in the scrubbers instead of caustic because the 50 percent solution clogged the transfer line. Phosgene is slightly soluble in water, but is also hydrolyzed by it, as follows:



Army personnel found it necessary to continuously flush the scrubber system with water and add fresh water to prevent corrosion by the hydrochloric acid (RMA, 1945o). Therefore, some hydrochloric acid was probably discharged to the chemical sewer from the operation of the phosgene-filling plant. Effluent generated from the refrigeration system, the scrubbers, and from the painting of bomb casings (water containing naptha, paint thinner, and oils) was discharged from the plant through the chemical sewer to Sand Creek Lateral (RMA, undated; Donnelly, 1943; Kuznear & Trautmann, 1980/RIC 84269R01).

Liquid wastes were discharged to the chemical sewer, and there are no reports indicating that these wastes escaped the confines of the buildings or were discharged to the soils outside the buildings. Phosgene is a gas, and it is unlikely that leaks that may have occurred within the buildings would be detected by a soil boring program. For this reason, no soil borings were constructed under Task 24 at this site.

Spill Site No. 27:

Lead azide is reported in one source to have been spilled within Buildings 362 and 365 in unknown amounts at unknown dates. All spills were reportedly contained within the buildings; the lead azide likely was washed to the floor drains (Shell, 1985; PMCDIR, 1977). However, additional research has shown that the manufacture of mines utilizing lead azide, in fact, occurred in Buildings 1601 and 1606 in North Plants (RMA, 1967b & c). Evidence of contamination around these buildings is being investigated under Task 42.

Buildings 362 and 365 were used for the production of sandwich button bombs between 1966 and 1967. Red phosphorus, magnesium oxide, and potassium chlorate were combined in the appropriate amounts in Building 365. The bombs were then assembled in Building 362. (Sandwich button bombs were used as audible warning devices that would explode when disturbed by moving troops or equipment.) (Walker, 1967; RMA Drawing No. 16-01-10; RMA, 1942-1947; RMA, 1967a, b, & c.)

No evidence of spills was indicated outside Buildings 362 and 365; therefore, no Task 24 borings were constructed at this spill area.

Spill Site No. 28:

In 1967-68, the Army manufactured approximately seven million sandwich button bombs in Buildings 362 and 365 (RMA, 1968). Sandwich button bombs contained an approximate one-gram charge, of which 0.5 gram consisted of a pyrotechnic mixture of potassium chlorate and red phosphorus. The other components of the charge were silica gel, magnesium oxide, and silica (glass) (Sjaardema, 1969). Calibrated amounts of each component were mixed with freon and inserted into depressions in cup-strips (RMA, 1942-1967). When coated with freon, the mixture was relatively safe against decomposition. In practice, when the freon evaporated in the field the mixture was "armed." Red phosphorus from this process was reportedly discharged to drains with unknown outlets in these buildings in unknown quantities and on an unknown date (Shell 1985; PMCDIR, 1977/RIC 81266R68).

No evidence of spills outside Buildings 362 and 365 was located, so no borings were constructed in this area under Task 24. One boring was placed next to Building 365 as part of the South Plants Regional Study.

Spill Site No. 29:

Between April and November of 1943, during the production of arsenic trichloride, arsenic sludge was discharged to the M-1 settling basins. There was a settling basin outside Building 523, which is now covered by an expansion of the building (Whitman, Requardt, & Smith, 1942a). However, there

is no information in the literature indicating that this settling basin was ever used by the Army (Ebasco, 1986b).

Spill Site No. 30:

On March 31, 1952, an RMA switch engine, in the process of attempting to hook together two Hyman-leased chlorine tank cars adjacent to Building 252, accidentally pushed these cars against another Hyman-leased chlorine car being loaded by Hyman with chlorine at the chlorine plant track scale south of Building 252 and north of Building 321. This resulted in the breaking of the loading lines and the release of approximately 3,700 pounds of liquid chlorine and chlorine gas (Silber, 1952; Matheny, 1952; Smith, 1952a, b, c, & d; Bejarano, 1952).

Several borings were placed in the vicinity of this spill site as a part of the Task 2 Phase I study at Site 2-8. The results of the analyses from these borings are presented in the Site 2-8 Contamination Assessment Report (Ebasco, 1988). As the chlorine that was released was reportedly in the form of a gas, it is unlikely that the spill would be detected by a soil boring program. No soil borings were constructed under Task 24 at this site.

Spill Site No. 31:

Tank car leaks or spills may have occurred at rail sidings where loading and unloading was done. The leaks or spills may have been due to leaky valves or fittings on the cars or due to overfilling or accidental spills during the transfer of liquids (Kuznear & Trautmann, 1980/RIC/84269R01). There is no information on the nature of these spills, or when or where they may have occurred. Where possible, South Plants Regional Study borings were located to include track areas. No soil borings were constructed in this spill area under Task 24.

Spill Site No. 32:

In an area within the hydrazine facility, hydrazine drums were flushed with water at the rate of about 50 drums per month during the late 1960s to mid-1970s. This washing was done on a concrete pad, and the water was

channeled to one end of the pad. The wastewater was then drained into a waste pit, which was an in-ground concrete tank or sump (Employee Interviews, 1985).

In addition to potential contamination caused by drum washing, another incident in this area has been reported. On the morning of November 22, 1975, an RMA security patrol discovered that hydrazine storage tank US-4 (capacity 200,000 gallons), located at the east end of the hydrazine facility, was floating in liquid that had filled the concrete diked area surrounding the tank. The liquid was attributed to the fire protection system that had been tripped, causing filling and overflowing of the diked areas around tanks US-3 and US-4. Nitrogen feed lines, vent lines, and other associated equipment were damaged. No damage to or leakage from tank US-4 was thought to have occurred, so the fire protection system was turned off and the diked areas were pumped out. The contents of both tanks were pumped into tank cars for temporary storage. A subsequent inventory discovered 2,000 pounds of unsymmetrical dimethyl hydrazine (UDMH) apparently lost during the incident (Loven, 1975; Esquibel, undated-a).

Potential soil contamination in and near the hydrazine facility is being investigated under Task 11. No Task 11 borings were drilled in the waste pit, as there was standing liquid present. The standing liquid appears to be present on a constant basis and will not be pumped out until the pit is prepared for removal. The standing liquid was sampled in February 1987 under Task 34. Information can be found in the Task 34 Draft Final Contamination Assessment Report (Ebasco, 1988a).

Several borings and wells have been placed in the hydrazine facility, in the vicinity of the above-mentioned incidents under Task 11 (Ebasco, 1986a). No additional borings were constructed under Task 24.

Spill Site No. 33:

A mercury spill occurred in an instrument laboratory in Building 543 on or prior to March 1, 1983. The instrument laboratory had been shut down and was

inspected on March 1, 1983, by the Army's preventive medicine branch during a routine preventive inspection of the Rocky Mountain Arsenal. Visible droplets of mercury were seen on a workbench, wall shelves, and an area of the floor with a 2 to 3 ft radius. The spill resulted from a broken manometer and involved an estimated 2.65 cubic inches of mercury. The spilled mercury was cleaned up and the area scrubbed and mopped several times. In addition, a mercury vacuum cleaner was brought to the site and used. By March 10, 1988, the area was rechecked, and no indication of the presence of mercury was found (Giddens, 1983a; Giddens, 1983b; Hartberger, 1988; Mack, 1985). Due to the small amount reported spilled, no borings were constructed on this site under Task 24.

Spill Site No. 34:

An explosion occurred at the mouth of a charging hopper of acetylene generating unit no. 4, in the southeastern portion of Building 543, on March 30, 1943 (DePue, 1943; Roehrich, 1943; Hartley & Johnson, undated; RMA, undated-a). No information indicates that substances were spilled.

Since the spill occurred within the building, and information does not indicate possible escape of contamination to the ground, no soil borings were constructed under Task 24.

Spill Site No. 35:

An uncontrolled release of a "relatively large quantity" of GB (nerve gas) occurred April 19, 1953 in Building 1501 (reported as "Building 501" in some references). The GB spill was neutralized with caustic and the resulting mixture was stored in 55 gallon drums (Baird, 1953). Building 1501 is located in the North Plants, and several borings have been placed around it under Task 42. No borings were constructed at this site under Task 24.

Spill Site No. 36:

A spill of hydrofluoric acid allegedly occurred in Building 1501 in the North Plants area. The exact volume and location of the acid spill is unknown. Other spills may have occurred in and near the building (Cochran, 1985). No information is available on the locations, dates, or exact nature of spills in

and near Building 1501. Several borings have been drilled around this building under Task 42. No borings were constructed at this site under Task 24.

Spill Site No. 37:

Building 742 reportedly was used as an incendiary bomb plant. The use of paint thinners and lacquers may be associated with this site. This building was not connected to the chemical sewer system at the time that the building was in use as an incendiary bomb plant; wastes were carried from the building by a pipe that emptied into a ditch at the southeastern corner of Building 742 (Ebasco, 1986a). The ditch flows southeast, angles north past the eastern side of the hydrazine facility, and then heads east into Section 6. Approximately 600 ft into Section 6, the ditch again heads north, and terminates in a depression in Section 31, approximately 400 ft north of December 7th Avenue and 700 ft east of "E" Street (Stout & Abbott, 1982/RIC 83368R01; Whitman, Requardt, & Smith, 1943a).

Building 742 was used intermittently from March 1953 to November 1955 for filling munitions with distilled mustard (RMA, 1953a, b, & c; RMA, 1954a & b; RMA, 1955b, c, & d).

A spill to the ditch involving an unknown quantity of concentrated mixed acid (sulfuric and nitric) occurring during or before 1955 is recorded in the literature. The literature indicates that the acid spill was neutralized near the head of the ditch using sodium hydroxide (RMA, 1955a). Additionally, the soils in the area are naturally slightly alkaline; this may have provided additional buffering or neutralization. Field reconnaissance by Ebasco yielded no trace of the spill; vegetation growing in and around the head of the ditch did not appear to be stressed. Given the nature and age of the spill, the reported neutralization of the acid, and the lack of any visible evidence of the spill, it is unlikely that traces of the acid spill are still present. No samples will be analyzed for residues of the acids.

In March 1980, a pest control shop, which met both Federal and Army standards, was constructed in Building 742. Any spillage during mixing was contained in the sinks within the building and discharged into an above-ground wastewater storage tank. The tank's contents were pretreated with a granular activated carbon and ion exchange system and then discharged to the sewage treatment plant (USAEHA, 1979; USAEHA, 1980; I.T. Construction, 1984). In addition, herbicides, rodenticides, and pesticides were stored in Building 742 (Marlow, 1986). A list of these materials and their quantities is available (Ebasco, 1987c).

Spill Site No. 38:

The salt storage pad was built in 1942-1943 as a component of the chlorine plant. The pad was used to store salt, which was used to create brine. From this brine, chlorine and caustic were manufactured (War Department, 1943).

The salt pad is a curbed pad composed of concrete slabs joined together by expansion joints (Donnelly, 1985j). It measures approximately 330 by 150 ft and is sloped so that the north side is lower than the south side (RMA, 1942b). The Army used the salt pad in its chlorine plant production operations during World War II from April 10, 1943, to August 15, 1945 (RMA, 1945p).

On January 24, 1947, Colorado Fuel and Iron (CF&I) entered into a lease for the chlorine plant facilities (Lease No. W-25-075-ENG-7920, 1947). CF&I ceased chlorine plant operations in early 1949. Julius Hyman Company expressed interest in leasing the chlorine plant from the government and entered into a lease for the chlorine plant facilities in December 1949 (Silber, 1949) (Sup. Agreement, Lease No. W-25-075-ENG-7920, 1949). Shell subsequently acquired Hyman's interest in this lease. Shell/Hyman chlorine plant operations began on February 1, 1950, and ended on June 19, 1953 (Streich, undated-a, b, & c).

On March 6, 1956, at the Army's request, Shell made the salt pad (Building 247) available to the Army (Johnson, 1956; Bejarano, 1956). In preparation

for the GB brine project, the salt pad was lined with sheets of prefabricated asphalt in May 1956 (Donnelly, 1956; Gay, 1956; Staff Conference No. 14, 1956; RMA, undated-c).

The Army incorporated the salt pad into the chlorine plant decant system in June 1956 (Cochran & Alker, 1958). At some time prior to the activation of the chlorine plant in September, 1956, several tank cars of GB scrubber brine were emptied onto the salt pad. Although no records were made of this incident, engineers assumed that the volume was several hundred-thousand gallons. The approximate composition of the brine by percentage weight:

	Step IV Effluent	Step V Effluent
NaCl	19.75%	22.14%
NaOH	0%	.33%
NaF	.94%	.64%
Total Phosphorus	.91%	.24%
$\text{Na}_2\text{O}_2\text{POCH}_3$	4.12%	1.08%
Na_3PO_4	0%	0%
Na_2SO_4	Tr.	0%
Na_2CO_3	Tr.	Tr.
Isopropyl Alcohol	1.03%	Tr.
Water	73.25%	75.57%

(Cochran & Alker, 1958).

In order to increase the efficiency of the settling operations, the Army began using the salt pad as a settling basin. Beginning in January 1957, calcium treated brine from the decant tanks was allowed to flow to the pad and settle. Liquid was either drawn-off into intermediate storage or filtered to remove precipitates. This settling operation continued through April (Cochran & Alker, 1958).

In February 1957, the Army began pumping the sludge from the clariflocculator onto the salt pad (Shell, 1955; U.S. Army, 1956; RMA, 1957). The approximate

composition of the calcium-treated brine by percentage weight:

NaCl	24.1%
NaOH	0.1%
NaF	0.1%
Na ₂ CH ₃ PO ₄	0.1%
CaCl ₂	0.4%
CaF ₂	0.6%
CaCH ₃ PO ₃	1.4%
Other	0.1%
Water	73.1%

The approximate composition of the clariflocculator sludge by percentage weight:

NaCl	18.4%
NaOH	0.1%
NaF	TR.
Na ₂ CH ₃ PO ₄	0.1%
CaCl ₂	0.2%
CaF ₂	5.6%
CaCH ₃ PO ₃	13.8%
CaCO ₃	3.1%
Filter Aid	1.4%
Other	1.2%
Water	56.1%

(RMA, 1957).

The Army ceased chlorine plant operations in May 1957 (Cochran & Alker, 1958).

In July 1965, the Army informed Shell that solids (i.e., filter cake) generated during aldrin production could no longer be dumped into Basin F. The Army suggested that this waste be drummed and offered Shell the use of the salt pad as a drying facility. In a letter dated July 30, 1965, the Army

informed Shell that effective October 30th, solid wastes must be placed on the salt pad (U.S. Army, 1965; Burke, 1965; Williams, 1965). The salt pad was cleaned and made available for Shell's use; it is not known whether the asphalt lining was removed at this time.

Aldrin filter cake, which consisted primarily of diadduct (an insoluble hydrocarbon) and aldrin (a Shell end-product), was formed in the aldrin reaction (Knaus, 1972; Shell, 1960; Kauffman, undated). Although the exact composition of the aldrin filter cake was unknown, infrared analysis performed in 1959 and 1961 also revealed the presence of toluene and isodrin, an endrin process intermediate (Jones, 1959; Shell, 1961).

Between 1966 and 1969, Shell discharged filter cake from the aldrin and dieldrin processes onto the salt pad. During this period, approximately 1.1 million pounds of aldrin process filter cake and 36,000 pounds of dieldrin process filter cake were discharged onto the salt pad. Shell may have also stored drummed waste on the pad as early as May 1970 (Knaus, 1972; Hartman, 1970).

In 1970, the Army considered using the salt pad for the storage of solid wastes from mustard incineration, but this practice was not adopted (Hartman, 1970; Moss, 1970).

Shell began using the salt pad as a staging area for off-site drum shipments in the fall of 1971 (Knaus, 1971; Staaterman, 1972; Knaus, undated; Shell, undated-b). In 1973, Shell excavated two trenches in Section 36 and placed the contents on the salt pad. The material in the trenches included drums containing solids and liquids, pipe, filter cartridges, and process material. Whether the drums leaked is unknown. In 1974, the filter cake and the material from Section 36 was drummed and shipped off-site (Boyd, undated; Eck, 1982; Augenstein, undated).

Shell continued to use the salt pad as a staging area for off-site drum shipments. Whether the drums leaked is unknown. After 1973, all drummed hazardous material that was to be sent off-site was stored on the salt pad.

The salt pad was also used to store contaminated pipe and wooden pallets. Standing water in the salt pad was an ongoing concern. Pumps were installed in 1978 to divert this potentially contaminated water to the Denver Effluent Treatment Unit. Use of the salt pad for drum storage was suspended in February 1979 (Knaus, undated; Plummer, 1979; Boyd, undated; Plummer, 1978; Swift, 1980; Augenstein, 1973; Memorandum of Discussion, 1976).

In the early 1980s, Shell used the salt pad as a storage facility for a variety of potentially contaminated material. In the spring of 1981, contaminated soil from the chemical sewer project was stored on the salt pad. Solid waste created by Shell during the dismantling of production units in 1982 was drummed, labeled, and hauled to the salt pad for off-site disposal (Swift, undated-a; Eck, undated-b; Schneider, undated; Hahn, undated).

As originally constructed, the salt storage pad was part of the salt storage unit, which was designated as Building 247. The salt storage unit consisted of inactive and normal units. The inactive unit was the salt storage pad. The normal storage unit consisted of six wooden storage tanks, each with a capacity of 50,000 gallons, and the salt unloading equipment (RMA, 1945q).

Potential soil contamination related to activities at this site is being investigated as Site 2-6 under Task 2. Five Phase I borings have been drilled in and around the salt storage pad. Analytes detected within or above their indicator levels include aldrin, dieldrin, atrazine, 1,2-dichloroethane, p-chlorophenylmethyl sulfone, p-chlorophenylmethyl sulfoxide, copper, lead, and zinc. Four surface grab samples were collected from the mounded materials now present on the pad. Analytes detected within or above their indicator levels include aldrin, dieldrin, chlordane, isodrin, dibromochloropropane, p-chlorophenylmethyl sulfone, p-chlorophenylmethyl sulfoxide, hexachlorocyclopentadiene, arsenic, cadmium, copper, lead, mercury, and zinc (Ebasco, 1987b). Ten Phase II borings and 46 samples implemented at this site as a part of activities under Task 2. No additional borings were constructed at for this spill area under Task 24.

Spill Site No. 39:

Lewisite was manufactured at RMA from April to November 1943 (RMA, 1945v). During this time the Army spilled approximately 500 gallons of mercury catalyst used in the lewisite production process. The spill was initially reported as being north of Building 537, but apparently actually occurred in the lewisite reactor room in Building 514. A valve was accidentally opened, and approximately 500 pounds (also referred to as 30,000 gallons and \$25,000 worth) of mercury catalyst were released to the Building 513 decontamination reactors and then to the M-1 settling basins (Spill Site No. 2) (RMA, 1943; U.S., 1953; COE, 1943; Donnelly, 1985a, m, & n). No borings were constructed at this site under Task 24.

Spill Site No. 40:

In 1945 and 1946, distilled mustard leaks may have occurred when the Army was transferring materials from the finished supply tanks to the finished storage tanks (initially reported as between Buildings 512 and 514). The transfer lines reportedly developed numerous leaks due to the corrosive action of the acid in the finished mustard product (RMA, 1946). The transfer lines have been removed. The actual location of these lines was between Buildings 512 and 516 (Donnelly, 1987).

Spill Site No. 41:

Between 1943 and 1945, spent acid reportedly leaked from holes that developed in the line from the spent acid tank to the sewer. The leaks caused the ground to swell, making nearby buildings structurally unsafe and requiring the construction (in 1946) of a new acid mist and storage building in the chlorine plant. Evidence of the structural damage from the ground swelling is visible on the northern wall of Building 243 (Donnelly, 1986).

3.0 SITE INVESTIGATION

3.1 PREVIOUS SOIL INVESTIGATIONS

The regional soil type in the vicinity of RMA is of the Ascalon-Vona-Truckton Association. This association consists of loamy and sandy soils formed in wind-laid deposits on uplands that are somewhat excessively drained to well

drained (Kolmer and Anderson, 1977/RIC 81295R07). The soil type within the South Plants area is predominately Ascalon loam; a portion of the southwestern part of the area is Truckton sandy loam. Both soil types have 1 to 3 percent slopes (USDA, 1974).

Resource Consultants (1982/RIC 83234R01) describes these soils as having a moderate to high infiltration rate of 1.5 to 15.2 centimeters per hour (cm/hr). In August 1983, ten infiltration tests were conducted by Resource Consultants in the Basin A/South Plants area. The tests in the area of the South Plants manufacturing complex indicated dry soil infiltration rates of 0.23 to 5.21 cm/hr, averaging 1.96 cm/hr, considerably lower than those previously indicated.

3.2 PHASE I SURVEY

3.2.1 Phase I Program

Based on historical information and elimination of sites that were to be investigated by other tasks, 21 of the 41 Army spill sites were selected for sampling under Task 24. Table 24S-1 presents a list and brief description of each site. Two sites were eliminated because they are being investigated under the Task 42 program in the North Plants (Sites 35 and 36) and two were eliminated because there was no site description in the Shell letter (Sites 21 and 23). Three sites were not sampled in this task because Task 2 borings are located at or near the sites (Sites 1, 30, and 38). Site 32 is in the hydrazine facility, which is being investigated under Task 11. Five sites were within buildings, and the historical record contained no evidence that the reported spills were not contained within the buildings (Sites 3, 22, 33, 34, and 39). Further historical research indicated that there was little likelihood of spills having occurred at six of the sites (Sites 4, 11, 24, 26, 27, and 28). Site 31 was described by Shell as consisting of leaks and spills from tank cars along the rail lines. This information was too general to locate any particular spills; however, Borings 6, 27, 7, 43, 36, 37, and 40 were placed along railroad tracks as part of the investigation of other sites in this task. Additionally, fourteen borings from the South Plants Regional Study have been placed along railroad tracks.

**Table 24S-1. Rocky Mountain Arsenal Army Spill Sites Investigated in
Task 24 (Spills). Page 1 of 6**

Army Spill Site No.	Location	Description of Spill
1	Section 1; north of Building 511.	Toluene spill (late 1950s).
2	Section 1; Building 513 and unlined basins north of Building 512.	M-1 (lewisite) disposal.
3	Section 1; lewisite reactor rooms of Buildings 511 and 514.	Arsenic trichloride, mercury, and mercuric chloride spills.
4	Section 1; behind Building 512.	Mercury spill (not verified).
5	Section 1; lewisite production area (includes Buildings 511, 512, 514, 515, and 516 and surrounding areas).	Mercuric chloride, arsenic oxide, acetylene, and lewisite lost through tank/pipe leaks.
6	Section 1; an area west of Buildings 536 and 537.	Lewisite spills (not verified).
7	Section 1; northeast of Building 536 and south of Building 537.	Mustard leaks from one-ton containers stored in an unpaved area (mid-1950s).
8	Section 1; area between Buildings 514 and 529.	Possible mustard breakdown products encountered by Shell during installation of a sump tank in the 1980s.
9	Section 1; area south of Building 732.	Diesel fuel spill due to tank overfilling on December 18, 1975.
10	Section 1; Building 753.	Pesticides and herbicides stored by Shell (no spills reported).

**Table 24S-1. Rocky Mountain Arsenal Army Spill Sites Investigated in
Task 24 (Spills). Page 2 of 6**

Army Spill Site No.	Location	Description of Spill
11	Section 1; near Building 471.	Chlorobenzene (unknown quantity).
12	Section 1; holding pits outside of Building 522; M-1 settling ponds (Army Spill Site No. 2); Building 514 (SO ₂ disposal plant).	Lime sludge from the acetylene generators.
13	Section 1; arsenic trioxide storage silos 523C, 523D, 523E, 523F, 523G and associated conveyance and loading areas.	Arsenic trioxide dust leaks from silos, conveyors, and hoses.
14	Section 1; mustard decontamination pits, Buildings 417 and 427.	Incompletely neutralized unacceptable or wild batches of mustard in decon pits.
15	Section 1; decontamination pit near the southeastern corner of Building 514.	Contaminated mustard wash water (containing soluble iron, sulfur compounds, and mustard).
16	Section 1; laundry and clothing treatment facility (Building 314), unlined surface ditch east of Building 314.	Wash and decon water and impregnation solutions containing trichloroethylene, solutions of chlorinated paraffin octachlorocarbonilide, and octachlorocarbonilide and zinc oxide.
17	Section 1; Building 313 and open ditch east of Building 313.	Laboratory sink drainage/ wastewater disposal.

Table 24S-1. Rocky Mountain Arsenal Army Spill Sites Investigated in Task 24 (Spills). Page 3 of 6

Army Spill Site No.	Location	Description of Spill
18	Section 1; areas in and around the maintenance shops (Buildings 543 and 544).	Small spills of petroleum products, paints, thinners, and solvents.
19	Section 1; areas in and around the heavy industrial equipment renovation facilities in Building 751.	Small spills of organo-chlorine compounds, degreasing solvents, paint strippers, rust removers, paints, thinners, and other solvents.
20	Section 1; flow from caustic tank east of Building 536 into drainage ditch west of the tank.	Leak of unknown liquid November 16, 1981.
21	Spill number listed in Shell letter (May 1985) but no location given.	No site description in Shell letter (May 1985); unknown spill.
22	Section 1; Building 537 (mustard thaw and unloading area).	1,200 pound (lb) mustard spill (1971); 1,200 lb total spills of mustard washed to drains.
23	Spill number listed in Shell letter (May 1985) but no location given.	No site description in Shell letter (May 1985); unknown spill.
24	Section 1; in and near Building 534.	Mercury spills, 1969-1978, during orsat gas sampling of acetylene.
25	Section 1; drainage ditch north of Building 541.	"Phossey water" wastes from white phosphorus cup filling operations, diverted to a ditch north of Building 541 to minimize the explosion hazard in the building.

Table 24S-1. Rocky Mountain Arsenal Army Spill Sites Investigated in Task 24 (Spills). Page 4 of 6

Army Spill Site No.	Location	Description of Spill
26	Section 2; phosgene bomb-filling facilities, Buildings 331 and 332.	Phosgene leaks from bombs during operation of phosgene bomb filling plant, 1944.
27	Section 2; drains in Buildings 362 and 365.	Several spills of lead azide to drains.
28	Section 2; drains in and beneath Buildings 362 and 365.	Several spills of red phosphorus to drains.
29	Section 1; former settling basin now beneath Building 523.	Arsenic sludge from the arsenic trichloride reactor washdown, discharged to an external settling basin (later covered in an expansion of Building 523).
30	Section 2; adjacent to Building 252.	Release of approximately 3,700 lbs of chlorine (reportedly in gaseous form) on March 31, 1952, when an Army-operated train engine pushed two cars into a chlorine tank car being loaded onto a track scale.
31	Sections 1 and 2; along railroad sidings.	Chemicals possibly spilled from tank cars due to leaky exit valves.
32	Section 1; near the hydrazine facility.	Water used to flush hydrazine drums ran onto the ground (about 50 drums per month were flushed during the late 1960s to mid 1970s).

Table 24S-1. Rocky Mountain Arsenal Army Spill Sites Investigated in Task 24 (Spills). Page 5 of 6

Army Spill Site No.	Location	Description of Spill
33	Section 1; Building 543, instrument laboratory.	Mercury spill in lab on March 1, 1983; was cleaned up.
34	Section 1; southeast por- tion of Building 522.	Explosion at mouth of charging hopper of acetylene generating unit no. 4; March 30, 1943.
35	Section 25; Building 1501.	Uncontrolled release of "relatively large quantity" of GB, which was neutralized with caustic; neutralized GB mixed with caustic was disposed into 55 gallon drums; occurred April 19, 1953.
36	Section 25; North Plants area (near Building 1501).	Spill of hydrofluoric acid in Building 1501; other spills may have occurred in and near the building.
37	Section 1; ditch beginning at southeastern corner of Building 742.	Spill of concentrated mixed acid (sulfuric and nitric) neutralized near the ditch head with sodium hydroxide.
38	Section 2, salt storage pad.	Storage of inactive salts (1943-1945) and GB brine (1956-1965).
39	Section 1; within Building 537.	Spill of about 500 gallons of mercury catalyst during the late 1940s.

**Table 248-1. Rocky Mountain Arsenal Army Spill Sites Investigated in
Task 24 (Spills). Page 6 of 6**

Army Spill Site No.	Location	Description of Spill
40	Section 1; between Buildings 512 and 514.	Leaks of distilled mustard gas during transfer of materials between tanks (1945, 1946).
41	Section 2; chlorine plant (west of Building 242).	Leaks of spent acid.

Forty-four borings were to be drilled to depths ranging from 5 to 20 ft as part of the Phase I program at the 21 sites to be sampled. The boring density for the Army Spill Sites was planned in conjunction with the South Plants Regional Study (Ebasco, 1986b & c; Ebasco, 1987d) according to the criteria presented in the Task 2 Technical Plan (Ebasco, 1985a/RIC 87006R01). Also a general criterion of at least one boring, but no more than three borings, was used to determine the number of borings planned for each individual spill site. However, these general criteria were modified as appropriate to provide coverage, coordinate with other Phase I soil boring programs, and provide adequate information to meet the overall Army Spill Sites program objectives. Additionally, 1 surface grab sample and 3 composite trench samples at 0.5 ft below the ground surface were planned. This sampling program was to yield 163 samples. Ninety-four soil gas samples were also planned. (The soil gas samples were to undergo separate analysis and were not to be included in the total number of samples submitted to project laboratories.) After the results of the analyses of the soil gas sampling were obtained, additional soil borings were to be placed as necessary to characterize the nature and extent of soil contamination at the site.

In implementing the Phase I program, field reconnaissances of the sites were conducted to assess and stake sampling locations. Three borings were moved within their sites from their planned locations as a result of the field reconnaissance. Boring 34 (Site 14) was relocated because the planned location was covered with asphalt. Boring 35 (Site 14) was moved to a sump that was judged in the field to be an area of potentially higher contamination. Boring 41 (Site 37) was moved to the drainage area for a pipe that drains Building 742.

The three composite samples that were to be taken from shallow trenches dug parallel to three of the overhead pipes at Site 40 were modified to enable better sampling coverage. Three 18-point grids were established: one at a pipe bend, the other two at evenly spaced intervals along the length of the pipe runs. The grids were 20 ft long and 12 ft wide, the total width of the pipe runs. For each sample, sampling tubes were hand augered to a depth of 1

ft at each of the grid points. Each composite sample was made up from the 6 inch to 1 ft portion of these 18 cores.

Additionally, five borings were drilled in locations that differed from those originally planned as a result of decisions made during drilling operations. Boring 7 (Site 5) was moved 1 ft from its originally planned location because a buried pipe was hit. Boring 11 (Site 17) was moved upstream in the drainage ditch because the original location proved to be under power lines, which posed drill-rig access problems. Borings 24 and 25 (Site 12) were to investigate two reported disposal pits for lime sludge from acetylene manufacturing. The original boring locations, north of Building 522, were planned based on information available during the writing of the Technical Plan. When Boring 24 was actually drilled, core samples showed material in a nondisturbed condition down to the Denver Formation indicating that this location had never been a disposal pit. Additional research in the RMA building drawing archives located a drawing of the Building 522 acetylene manufacturing complex, which indicated that the two pits had been constructed closer to Building 522 than previously thought. One pit is now covered by an addition to Building 522. Since it was not possible for a drilling rig to be placed in this portion of the building, Boring 24 was not redrilled. Boring 25 was relocated west of Building 522 directly over the second pit. Boring 26 (Site 25) was drilled to 1 ft, abandoned due to equipment problems, and relocated approximately 2 ft east. Boring 42 (Site 37) was moved 4 ft south down the ditch to avoid a concrete layer.

Boring 3, located in the middle of a reported lewisite disposal pit at Site 2, was not completed because M18A2 test kit monitoring indicated the presence of the Army agent lewisite in a composite soil sample from the 5 to 10 ft interval. The indication of lewisite or a compound that degrades to acetylene in the presence of caustic was subsequently identified by the RMA laboratory. All samples from this boring were retained by the Army due to the possibility of the presence of lewisite; this boring was not redrilled. Boring 2, which was to have been drilled in the disposal pit directly west and adjacent to the pit that contained Boring 3, was not drilled because of the possible presence

of lewisite in Boring 3. A positive field indication (M18A2) for lewisite also occurred for a composite soil sample from the 1 to 5 ft interval at Boring 5. The RMA laboratory did not confirm the possible presence of lewisite at this boring; however, the soil samples were destroyed during the screening so this boring had to be redrilled. A new laboratory test has been developed at the RMA laboratory that will distinguish lewisite and lewisite oxide from other compounds. A resampling of the intervals of Boring 3 that showed the highest concentrations of acetylene in the laboratory analysis is planned. Boring 1 at this site was also redrilled. Because samples from a completed drilling of Boring 1 were in the same cooler as samples from the first attempt to drill Boring 5, these samples were mistakenly disturbed during the RMA laboratory analysis of the samples from Boring 5. During the subsequent redrilling of Boring 5, positive field indications of lewisite were again registered on the M18A2 test kit at the 1 to 5 and 8 to 10 ft intervals. These were not confirmed by the RMA laboratory. Drilling was halted after each lewisite field test and resumed after the laboratory's negative findings were received.

Three borings were drilled at Site 15, two more than originally planned. Both Borings 13 and 13A were attempts to drill through the concrete liner of a reported mustard decontamination pit. Boring 49 was added in the field to the investigation of Site 15 to determine the presence and depth of the decontamination pit at the site. However, a grab sample from the cuttings was extracted and analyzed because a reddish-brown oily liquid was noted.

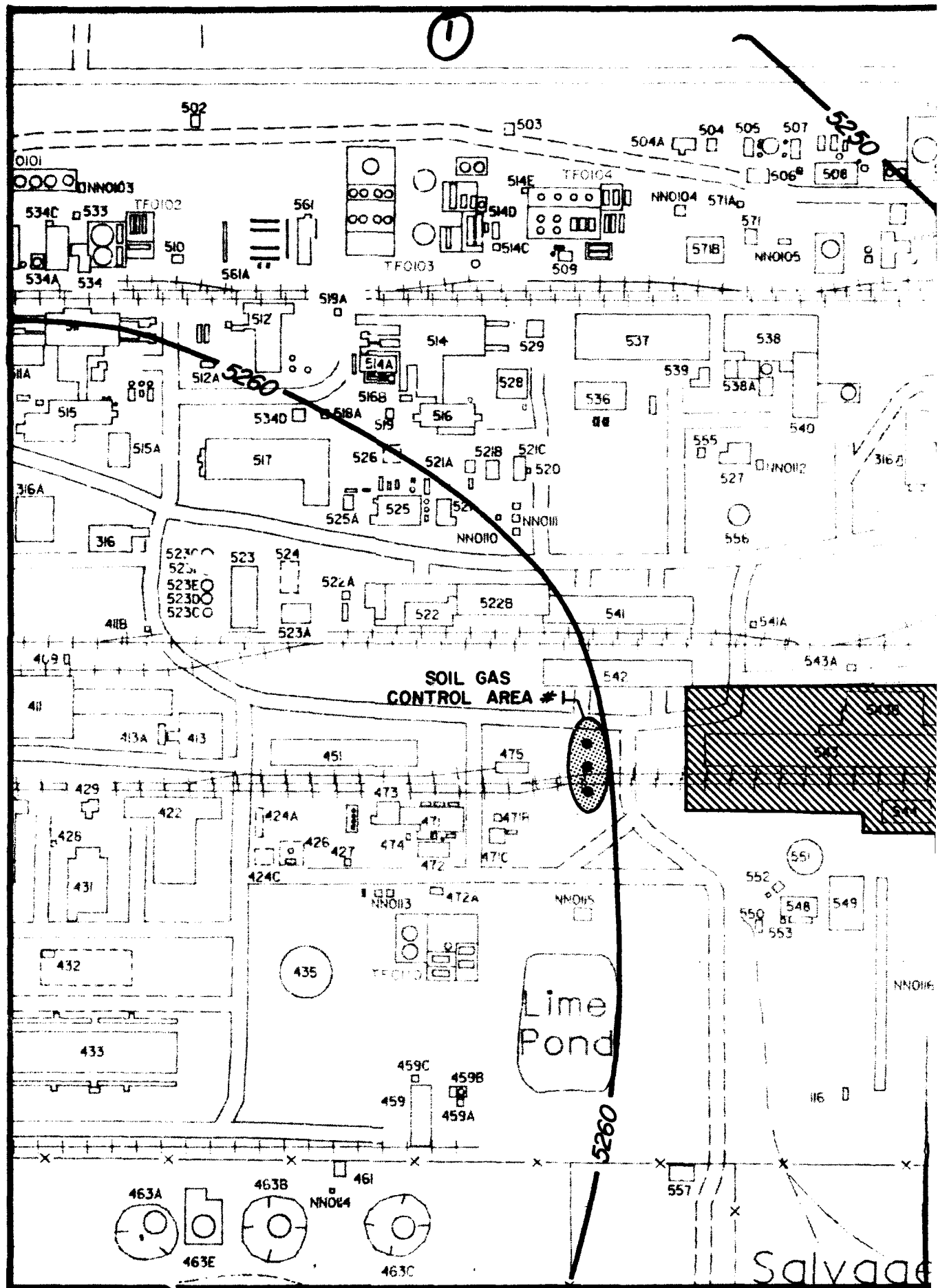
Site 14 included a pit reportedly used for mustard disposal. Several attempts were made to collect samples from within and below the concrete liner of the pit. The first attempt (Boring 33) to drill through the bottom was aborted after standing water was encountered in the pit above the concrete base. Instead, a hand driven sample of the sludge was collected from about 2.1 to 2.6 ft. A second sampling effort (Boring P33) recovered additional, more representative samples of the sludge from 3 to 6 ft. The pit sludge was then excavated by backhoe and the liquid pumped into drums to clear a place for the augers. Boring A33 was completed at the water table and all samples were collected at the designated intervals.

Soil gas surveys were conducted at Spill Sites 9 and 18. Historical literature for these sites did not reveal specific spill locations but did indicate the chemical nature of possible contamination. These contaminants lent themselves to detection by soil gas methods. Field reconnaissance also did not reveal all spill locations. In order to locate areas of potential contamination, a soil gas screening study was conducted at each site, and the results were used to delineate contaminated areas and to direct the placement of soil borings.

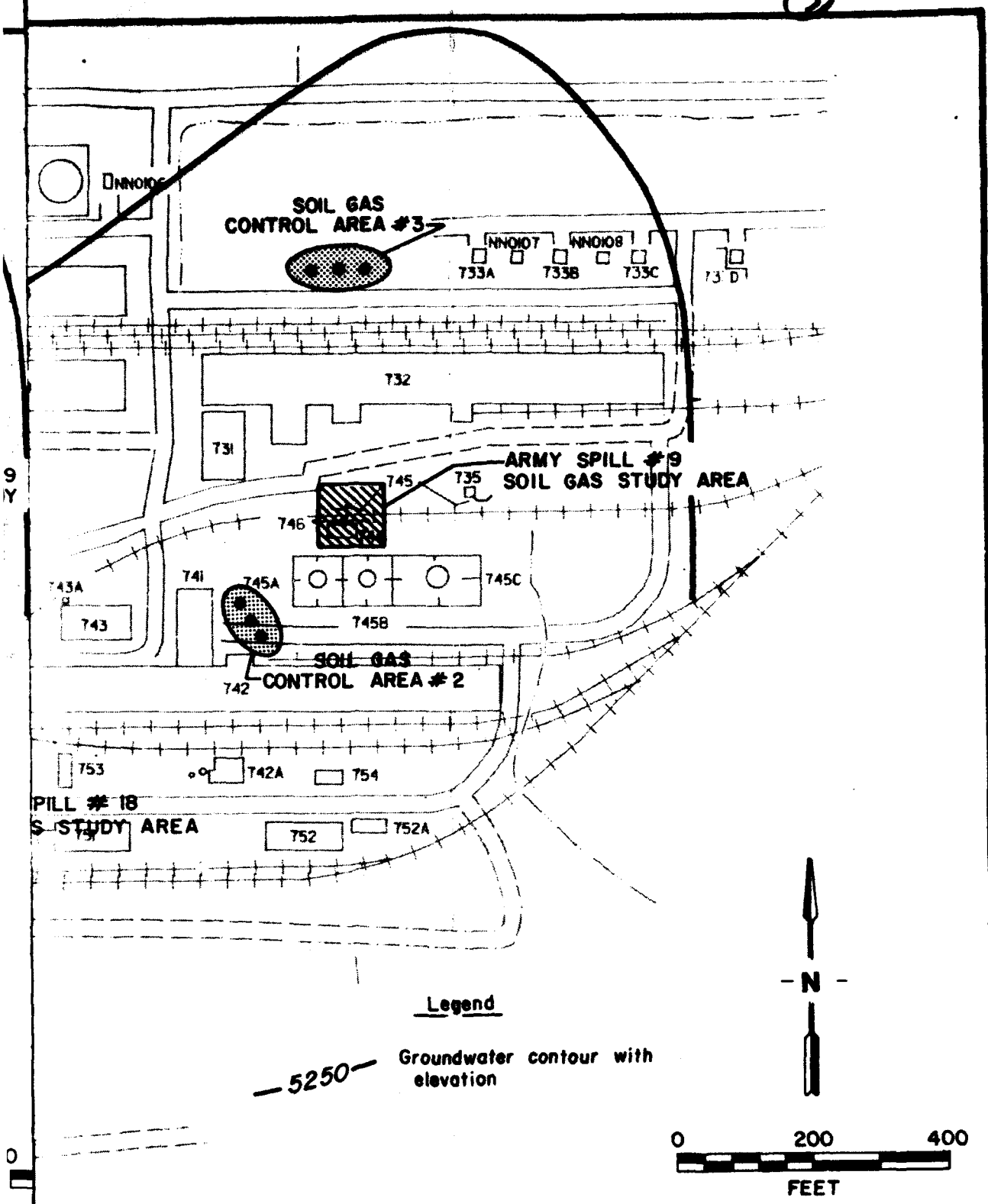
The soil gas sampling technique utilized a grid at both Sites 9 and 18. Sample spacing was chosen at each site based on the site's estimated total area, the estimated number of possible release locations within the area, the surface drainage patterns at these possible release locations, and the volatility of the chemicals being investigated. Sample density was increased in zones with higher contaminant probability. Sample locations were completed as indicated in the Task 24 Technical Plan (Ebasco, 1987a).

Four control areas were also sampled during the soil gas studies. The purpose of the control areas was to establish a background level for soil gas concentrations present at the sites. Three of the control areas were located within the South Plants manufacturing complex (Figure 24S-4). Information from these areas was used to determine if contamination detected at a site were unique to the site, if it were uniformly present in the South Plants area, or if it were due to a nearby unrelated source. The fourth control area was located in an area that previous investigations had indicated was contaminant free and also exhibited hydrogeological characteristics similar to those present at the spill sites (Figure 24S-5). Each control area consisted of three sample points, all analyzed for aromatic and aliphatic hydrocarbons and methylethyl ketone, with one of the points additionally analyzed for chlorinated hydrocarbons. These analytes correspond with the analytes tested for at the spill sites.

The three control areas in the South Plants complex were located to include samples from positions upgradient and downgradient of each site. Control



3



Prepared for:

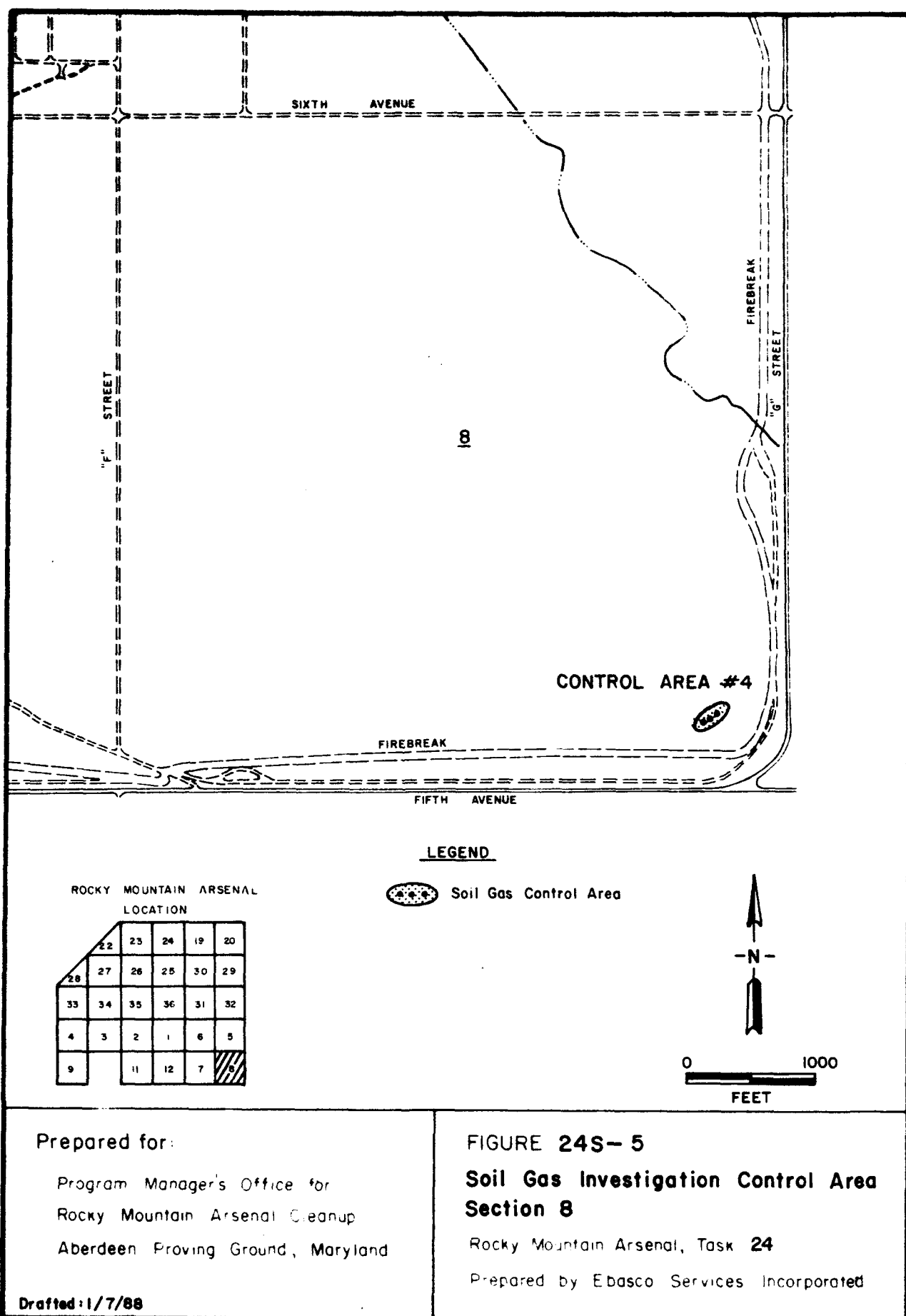
Program Manager's Office for
Rocky Mountain Arsenal Cleanup
Aberdeen Proving Ground, Maryland

FIGURE 24S-4

Soil Gas Screening Map with
South Plants Control Area

Rocky Mountain Arsenal, Task 24

Prepared by: Ebasco Services Incorporated



Prepared for:

Program Manager's Office for
Rocky Mountain Arsenal Cleanup
Aberdeen Proving Ground, Maryland

Drafted: 1/7/88

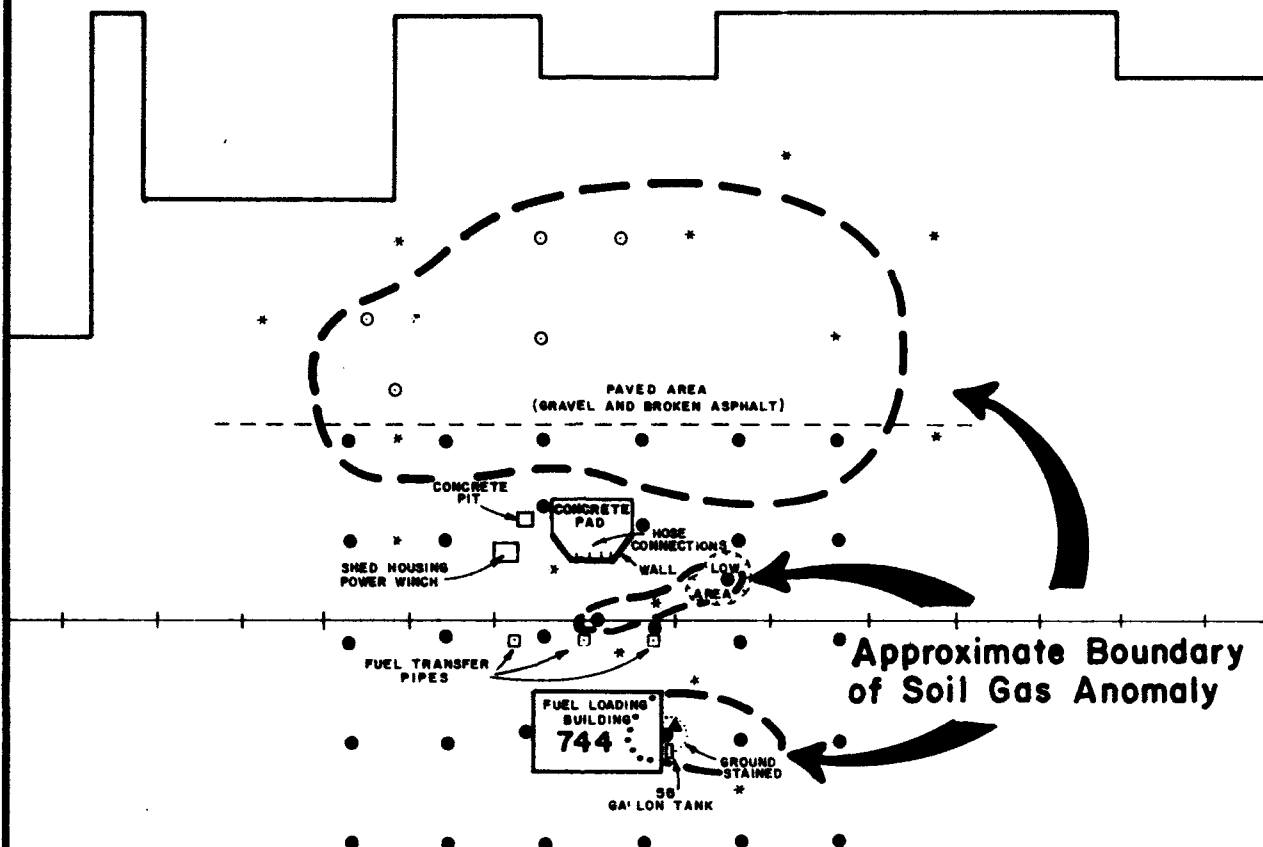
Area 1 is located upgradient and Control Area 2 is located downgradient of Spill Site 18. Control Area 2 also serves as the upgradient location for Spill Site 9 because this site is located downgradient of Spill Site 18 along the same approximate groundwater flow line. Control Area 3 is located downgradient of Site 9. The upgradient locations were designed to detect potential contamination present in groundwater moving into the site. The downgradient locations were designed to detect potential contamination leaving the site, possibly contributed to the groundwater by the site (Figure 24S-4). An attempt was made to position these control areas with respect to the velocity of groundwater/solute flow; however, the probability of fractured aquifer material made velocity calculations inappropriate. Instead, locations were chosen as close to the site as possible where no visible surface contamination had been noted, similar depths to water had been calculated, surface drainage from the site would not be channeled, and the possibility for contamination from the site or other sources appeared low.

The location for Control Area 4 was chosen in the southeastern corner of Section 8 (Figure 24S-5). Wells and soil borings in this area show no contaminants above detection levels and a depth to groundwater similar to that present at the spill sites. This control area was chosen in order to reveal if soil gas detections could occur in areas shown to be clean by other methods.

The results of the control areas were helpful in interpreting the data gathered at the spill sites. No control area sample points revealed detectable levels of target compounds. The general absence of detectable levels of soil gas in the control areas showed that contamination detected at a site was likely to be unique to the site.

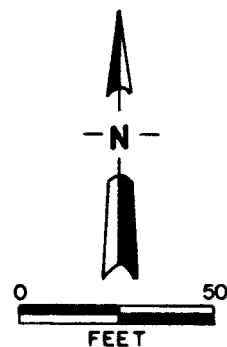
Target Environmental Services provided field and analytical support for the soil gas survey of both Sites 9 and 18 as outlined in the Task 24 Technical Plan (Ebasco, 1987a). Analytical results from the soil gas survey at Site 9 (fuel spill) showed elevated soil gas fuel signature levels in two areas within the original grid and one area along the northernmost row of sample stations (Figure 24S-6). The detections in the northernmost row show only the southern boundary of a contaminated soil gas plume and suggested that

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LEGEND

- Target Soil Gas Sampling Point
- * Ebasco Follow-up Soil Gas Sampling Point (Photovac)
- Ebasco Augered Hole with High HNu Readings



Prepared for:

Program Manager's Office for
Rocky Mountain Arsenal Cleanup
Aberdeen Proving Ground, Maryland

Drafted: 12/28/87

FIGURE 24S-6

**Soil Gas Sample Station Locations
Spill Site 9**

Rocky Mountain Arsenal, Task 24

Prepared by: Ebasco Services Incorporated

potential contamination exists north of the originally sampled area. In order to determine the north, east, and west extent of this potential contamination, follow-up soil gas work was conducted by Ebasco using a less expensive, real-time, portable gas chromatograph. This follow-up work delineated the soil gas plume boundaries and indicated where potentially contaminated soil was likely to exist (Figure 24S-6).

A total of 21 additional sample stations were added during the follow-up work at Site 9. Sixteen stations were located to delineate the potential contamination detected in the northernmost row of the original grid. Of these 16, 10 were analyzed qualitatively and quantitatively on the portable gas chromatograph. During the field work, a direct correlation was noted between high readings on health and safety equipment (photoionization detector, HNu) during augering and the results on the gas chromatograph after sampling the soil gas. This relationship was used to increase efficiency by relying on the HNu to determine if gas chromatography was warranted. Using this correlation, 5 sample points were aborted after augering when high readings were detected on the HNu, and 1 sample point was aborted when the HNu recorded no readings during augering (Figure 24S-6). The gas chromatograph was used when HNu readings were at low-to-medium levels in order to quantify concentrations and note gradients possibly indicating where plume boundaries might be located.

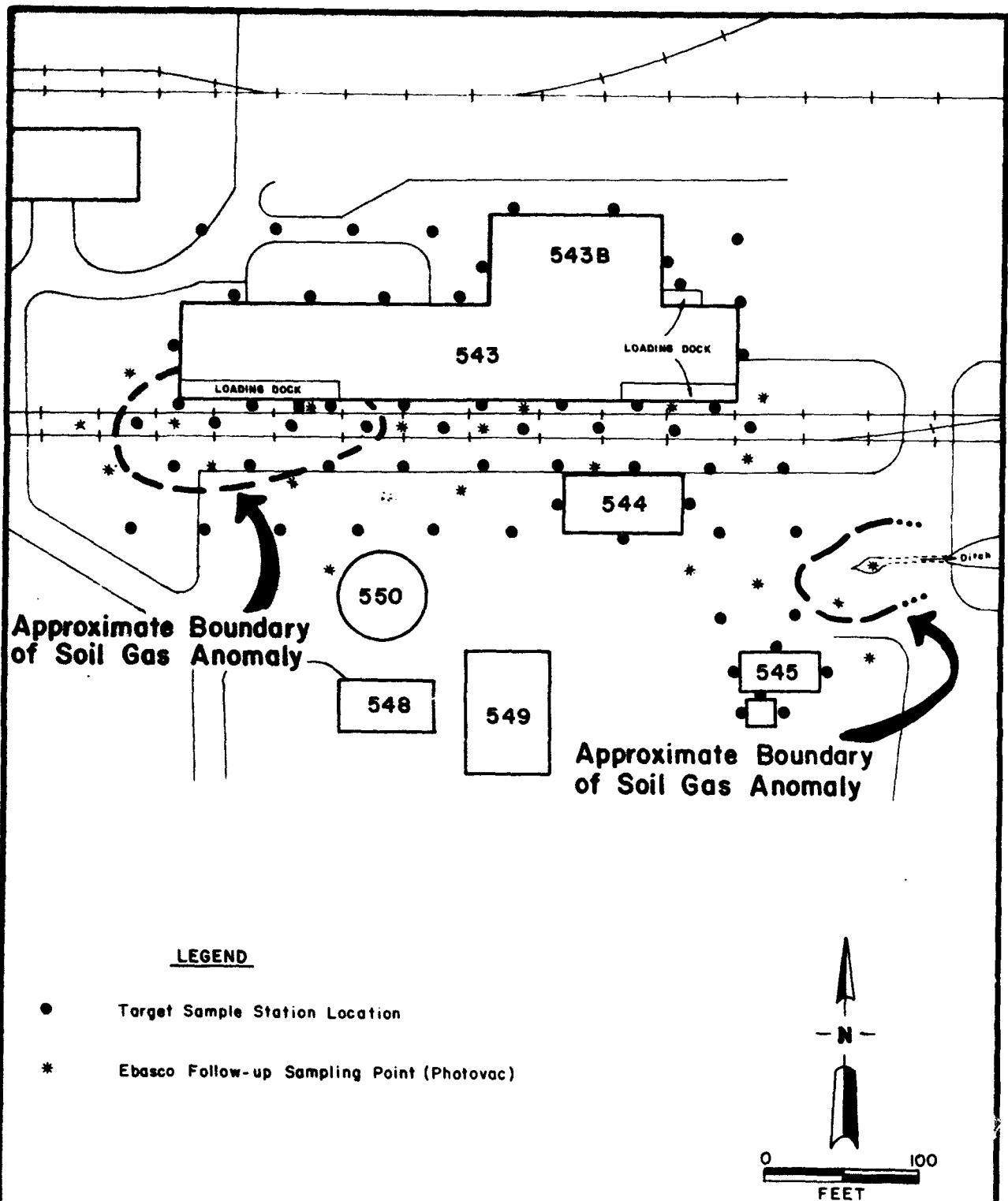
Two soil borings were added to Spill Site 9 based on the results of the soil gas screening study. The first boring (51) was drilled in the northernmost plume at the point where the highest soil gas concentrations were detected. The second boring (52) was drilled in the southernmost plume where soil gas readings were high and ground staining was observed (Plate 24S-1). No borings were drilled in the center plume due to the small size, lower detected soil gas concentrations, and lack of visual surface evidence. Information gained from the borings in the other plumes will be used to estimate the vertical dimension of this center plume.

All sample points from Spill Site 18 (paint, solvent spills) were analyzed for aromatic and aliphatic hydrocarbons and methylethyl ketone. Additionally, one-third of the sample points were analyzed for chlorinated hydrocarbons.

The sample points additionally analyzed for chlorinated hydrocarbons were generally located in areas believed to have a higher probability of potential contamination (Figure 24S-7).

Analytical results from this first soil gas study showed an apparent plume of contamination south of the southwestern corner of Building 543. Also, all sample points analyzed for chlorinated hydrocarbons contained detectable levels of contaminants. It was difficult to determine if these detections were from contamination unique to their locations or instead due to levels present throughout the site. Additionally, benzene and methylethyl ketone were detected north of Building 545 (Figure 24S-7), which suggested that potential contamination might exist outside the original sample grid.

In order to address these two issues, additional soil gas follow-up work was conducted using the portable gas chromatograph. A total of 22 additional sample stations were added at Site 18 at locations where data gaps remained from the original study. Seven of the points were added outside the original grid in order to determine if the chlorinated hydrocarbon detections decreased with distance from the site. Results of this test indicated that concentrations seemed to decrease as distance from the site increased; thus, the chlorinated hydrocarbons detected by the original grid are believed to be unique to their locations. However, detected levels were low enough at these locations (less than 15 ppb) that the detected soil gas may have come from contaminated groundwater, ambient air, or other sources rather than the soil present at these locations. Ten of the additional sample points were placed in areas along the railroad tracks south of Building 543 in order to further characterize potential contamination in this area. It was determined by this test that very small amounts of contamination exist along the tracks south of Building 543. This potential contamination is probably due to small occurrences such as drips from railcars and is not believed sufficient enough to warrant further investigation. This test also further characterized the lateral extent of contamination along the southwestern corner of Building 543. A soil boring (Boring 37) and a grab sample (Boring 36) had already been collected within this plume because ground staining and mounding had been



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FIGURE 24S-7

**Soil Gas Sample Station Locations
Spill Site 18**

Rocky Mountain Arsenal, Task 24

Prepared by: Ebasco Services Incorporated

noted during field reconnaissance. Finally, 5 sample points were added north of Building 545 in order to characterize the benzene and methylethyl ketone detected in this area by the original sample grid. This contamination was traced to a small trench that empties into a culvert running to the east under a gravel road and then discharges into an east flowing drainage ditch (Figure 24S-7). Soil gas concentrations in this trench were over 3,600 parts per million (ppm) for an unknown compound.

One additional boring was drilled at Site 18 as a result of the soil gas screening. This boring (Boring 50) (Plate 24S-1) was located in the trench northeast of Building 545 where soil gas screening indicated a likely source area.

Additional deviations from the sampling program occurred because the depth to the water table was different than expected in some borings and because of obstructions and auger refusal in others. Plate 24S-1 shows the locations of the Phase I borings and surface sampling as implemented.

The Army Spill Sites investigation was conducted between April and September of 1987. Fifty-three borings including surface grab and trench composites, yielding 184 samples, were actually completed as follows:

<u>Site No.</u>	<u>Boring No.</u>	<u>Depth (ft)</u>	<u>No. of Samples</u>
<u>Site 2</u>	1 (R)	13	5
	4	13	4
	5 (R)	10	3
<u>Site 5</u>	6	5	2
	7	5	2
	27	5	2
<u>Site 6</u>	10	20	5
	14	5	2
	15	5	2

<u>Site No.</u>	<u>Boring No.</u>	<u>Depth (ft)</u>	<u>No. of Samples</u>
<u>Site 7</u>	16	15	4
	17	12.5	5
<u>Site 8</u>	9	13.8	4
<u>Site 9</u>	51	24	5
	52	15	5
<u>Site 10</u>	38	5	2
	45	5	2
<u>Site 12</u>	24	25	6
	25	19	5
<u>Site 13</u>	22	5	2
	23	5	2
	28	3.2	2
	29	20	5
<u>Site 14</u>	31	5	2
	32	20	4
	33	5.5	1
	A33	13.4	3
	P33 (composite)	3-6	1
	34	25	7
	35	17.5	5
<u>Site 15</u>	13	12.1	1
	13A	0.5	1
	49 (Grab from cuttings)	12.4	1

<u>Site No.</u>	<u>Boring No.</u>	<u>Depth (ft)</u>	<u>No. of Samples</u>
<u>Site 16</u>	20	13.5	4
<u>Site 17</u>	11	18	5
	12	15	4
<u>Site 18</u>	36 (Grab sample)	Surface	1
	37	19	6
	50	20	5
<u>Site 19</u>	39	15	5
	40	23.5	6
<u>Site 20</u>	18	15	4
	19	12.5	4
<u>Site 25</u>	26	15	4
	43	20	5
	44	12.5	4
<u>Site 29</u>	30	20	7
<u>Site 37</u>	41	17.5	4
	42	5	2
<u>Site 40</u>	8	10	3
	46 (Trench)	0.5-1 composite	1
	47 (Trench)	0.5-1 composite	1
	48 (Trench)	0.5-1 composite	1
<u>Site 41</u>	21	30	6

(R) indicates redrilled boring

Samples were analyzed for target compounds based on the history of chemicals spilled at each site. Those samples analyzed for Phase I analytes were analyzed by gas chromatography/mass spectrometry (GC/MS) for volatile organics (except the 0-1 ft interval) and semivolatile organics; by an inductively coupled argon plasma (ICP) screen for metals; and by separate analysis for dibromochloropropane. The analyses for thiodiglycol and chloroacetic acid used USATHAMA Method MM 9 (Ebasco, 1987e). No certified methods for organoarsenic or organomercury were available for use on samples obtained by this Task. All samples that were proposed to be analyzed for these analytes were instead analyzed for total arsenic and total mercury. All borings from Sites 2, 5, and 17 were proposed for both organoarsenic and organomercury analysis. All borings from Sites 6, 13, 16, and 25 were proposed for organoarsenic analysis only.

Because of an initial field misinterpretation of the sampling plan, 8 borings received analyses additional to those proposed in the Technical Plan and two borings received fewer analyses than planned. From Site 7, Borings 16 and 17 were analyzed for the standard Phase I analytes. Boring 16 was not analyzed for arsenic or mercury. Boring 45 from Site 10, Boring 24 from Site 12, Boring 36 from Site 18, and Boring 40 from Site 19 were analyzed for thiodiglycol at all intervals. Borings 31 and 32 from Site 14 were analyzed for the Phase I analytes. The 12 to 13 ft interval from Boring A33 of Site 14 was not analyzed for volatile compounds.

Appendix 24S-B presents the specific target analytes for which laboratory analyses were conducted. A summary of the results of these analyses is presented in Table 24S-2, Section 3.2.4 of this report.

The Phase I remedial investigation program for these sites was developed and implemented based on historical documentation and other information available at the time of its implementation. Since that time, previously unavailable information has been identified and incorporated into the history section of this report. Furthermore, this additional information has been evaluated in detail to determine how it might impact the investigation approach at these

sites. Based upon this evaluation, it has been determined that the additional information collected since the Phase I program was designed does not substantially alter the view of potential contamination at these sites. As a result, the Phase I program as conducted, in conjunction with the Task 2 site investigations, the Shell Spill Sites investigations and the South Plants Regional Study, is judged to provide a complete and accurate investigation of the possible contamination at this site.

3.2.2 Phase I Field Observations

To ensure safety, in situ air monitoring was conducted during drilling using an HNu and an organic vapor analyzer (OVA). Of the recorded readings, 37 HNu readings and 67 OVA readings were above background levels. The results of the volatile organic readings down the borings at the sampled depths are presented in Table 24S-3, Section 3.2.4 of this report.

An M8 alarm and an M18A2 test kit were used to monitor for the presence of chemical agents in the borehole and samples according to standard operating procedures. The M8 alarm is used specifically to detect sarin (GB) and VX at detection levels of 0.2 and 0.4 milligrams per cubic meter (mg/m^3) after a response time of 2 to 3 minutes (USAMDARC, 1982; USAMDARC, 1979). However, many other substances can cause the M8 alarm to respond, including smoke and engine exhaust. The M18A2 is used as a backup test if an M8 alarm is triggered, as a substitute for an M8, and as a specific check for the presence of mustard. The M18A2 detects G agents, V agents, all forms of mustard, and lewisite. Specifically at RMA, the M18A2 test kit is used to detect GB (sarin), VX, H (mustard), HD (distilled mustard), and L (lewisite), based upon the knowledge that these agents were manufactured, stored, or demilitarized at the installation. The detection limit for all mustard agents is $0.5 \text{ mg}/\text{m}^3$; the detection limit for all G agents, VX, and L is $0.2 \text{ mg}/\text{m}^3$.

Significant deviations from background were detected by the M8 and M18A2 kits in several instances. Samples from areas where possible contamination by Army chemical agents was suspected on this basis or where histories indicated chemical spills were sent to the RMA laboratory for analysis before being sent to the contract laboratory. In one instance a field indication of lewisite

was recorded. The follow-up laboratory analysis indicated the presence of lewisite or a compound that degrades to acetylene in the presence of caustic. The affected samples were held by the RMA laboratory and not forwarded to the contract laboratory.

3.2.3 Geophysical Exploration

No geophysical exploration was conducted. However, utilities were located using the Basic Information Map Utility Map (COE, 1978).

3.2.4 Phase I Analyte Levels and Distribution

Of the 52 target analytes, 32 were detected at one or more Army Spill Sites. These were aldrin, arsenic, benzene, bicycloheptadiene, cadmium, chlordane, chloroacetic acid, chlorobenzene, chloroform, p-chlorophenylmethyl sulfide, p-chlorophenylmethyl sulfone, p-chlorophenylmethyl sulfoxide, chromium, copper, dibromochloropropane, dichlorodiphenylethane, dicyclopentadiene, dieldrin, ethylbenzene, endrin, hexachlorocyclopentadiene, isodrin, lead, m-xylene, mercury, methylene chloride, methylisobutyl ketone, o- and p-xylene, tetrachloroethylene, trichloroethylene, toluene, and zinc. The number of samples containing each analyte, and the concentration range, median, mean, standard deviation, detection limit, and indicator level are listed in Table 24S-2. The chemicals reportedly spilled in each area where samples were taken, the results of geologic field observations, air monitoring during drilling, and the chemical analysis of each soil sample are summarized in Table 24S-3.

Indicator levels and ranges were established to assess the significance of metal and organic analytical values. The indicator level is the method detection limit for organic compounds. The indicator range for metals reflects the concentrations expected to occur naturally in RMA alluvial soils. Selection of these ranges is discussed in the June 1986 Introduction to the Contamination Assessment Reports (ESE, 1986a/RIC 87012R65).

Except for the ICP metals, the analytes most frequently detected in samples from the Army Spill Sites were aldrin, dieldrin, chloroform, dicyclopentadiene, benzene, bicycloheptadiene, isodrin, arsenic, mercury, methylene

Table 248-2. Summary of Analytical Results for Army Sites. Page 1 of 1.

Constituent Detected	Number of Samples*	Range	Median**	Mean**	Standard Deviation**	Concentration (ug/g)		Indicator Level
						DataChem Detection Limit	CAL Detection Limit	
Volatiles (M-117)								
Benzene	8	0.3-10	0.6	2	3	0.3	0.3	DL
bicycloheptadiene	8	1-5000	500	800	2000	0.4	0.3	DL
Chlorobenzene	1	2	-	-	-	1	0.3	DL
Chloroform	11	0.4-90,000	3	8000	30,000	0.3	0.3	DL
Dibromochloropropane	1	3	-	-	-	2	0.4	DL
Dicyclopentadiene	9	0.6-4000	30	700	1000	0.7	0.3	DL
Ethylbenzene	2	0.9-9	-	-	-	0.4	0.3	DL
m-Xylene	1	20	-	-	-	0.8	0.7	DL
Methylene chloride	6	3-50	10	20	20	2	0.7	DL
Methylisobutyl ketone	4	1-90	-	-	-	0.7	0.3	DL
o- and p-Xylene	1	20	-	-	-	5	0.3	DL
Tetrachloroethylene	8	0.3-2	0.9	1	0.7	0.3	0.3	DL
Toluene	7	0.6-60	20	20	20	0.3	0.3	DL
Trichloroethylene	1	0.4	-	-	-	0.5	0.3	DL
Semi-volatiles (M-149)								
Aldrin	20	0.6-8000	9	500	2000	0.3	0.3	DL
Chlordane	1	1000	-	-	-	2	0.6	DL
Dibromochloropropane	2	3-4	-	-	-	0.3	0.3	DL
Dichlorodiphenylethane	2	0.6-0.8	-	-	-	0.6	0.3	DL
Dicyclopentadiene	9	0.6-3000	60	500	1000	1	0.4	DL
Dieldrin	28	0.3-7000	5	300	1000	0.3	0.3	DL
Endrin	5	9-5000	50	1000	2000	0.5	0.3	DL
Hexachlorocyclopentadiene	5	600-7000	3000	3000	2000	0.6	0.3	DL
Isodrin	7	0.6-100	10	23	35	0.3	0.3	DL
p-Chlorophenylmethyl sulfide	2	1-60	-	-	-	0.9	4	DL
p-Chlorophenylmethyl sulfone	3	2-4	-	-	-	0.3	0.6	DL
p-Chlorophenylmethyl sulfoxide	1	0.4	-	-	-	0.3	7	DL
ICP Metals (M-139)								
Cadmium	24	0.97-3900	2.5	170	800	0.74	0.66	1.0-2.0
Chromium	119	6.6-3500	15	53	320	6.5	5.2	25-40
Copper	130	6.4-880	28	45	92	4.7	4.9	20-35
Lead	70	11-2600	24	142	370	8.4	13	25-40
Zinc	139	23-3300	80	112	290	8.7	9.5	60-80
Arsenic (M-158)	73	3.0-110,000	17	2700	16,000	2.5	5.0	DL-10
Mercury (M-145)	50	0.050-17,000	0.56	691	2900	0.050	0.060	DL-0.10
Thiodiglycol (M-132)								
Thiodiglycol	0	-	-	-	-	4.2	***	DL
Chloroacetic acid	1	340	-	-	-	36	***	DL

DL - The indicator level is the detection limit for DataChem and CAL Laboratories, as appropriate

N - Number of samples analyzed

* - Number of samples in which the constituent was detected; only these sample results were used in statistical analyses

** - Median, mean, and standard deviation not calculated when constituent detected in fewer than 5 samples

*** - Laboratory not certified for analytical method

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Table 24B-3. Results of Phase I Field Study. Page 1 of 31.
Site 2. Recorded disposal of lewisite and lewisite manufacturing wastes investigated by borings on this page

Depth (feet)	Boring 1					
	0.5-1.5	2-3	4-5	9-10	10.7-11.7	
Geologic Material	Silty Sand w/Gravel	Silty Sand w/Gravel	Clayey Sand	Clayey Sand	Clayey Sand	
Percent PinesVO	30	30	30	30	30	

AIR MONITORING

Volatile Organic Readings (ppm)

HNuS	BDL	BDL	2.0	210	50
OVA8	BDL	BDL	1.0	80	0.2

SOIL CHEMISTRY

Volatiles (ug/g)

Bicycloheptadiene	NA	BDL	BDL	BDL	BDL
Dicyclopentadiene	NA	BDL	BDL	BDL	BDL

Semivolatiles (ug/g)

Aldrin	BDL	BDL	BDL	BDL	BDL
Dicyclopentadiene	BDL	BDL	BDL	BDL	BDL
Dieldrin	1	BDL	BDL	BDL	BDL
Hexachlorocyclopentadiene	BDL	BDL	BDL	BDL	BDL
Isodrin	BDL	BDL	BDL	BDL	BDL

ICP Metals (ug/g)

Cadmium	BDL	3900	5.3	BDL	BDL
Chromium	19	BDL	17	14	23
Copper	16	9.0	10	8.6	13
Lead	26	64	BDL	15	32
Zinc	56	33	49	39	62

Arsenic (ug/g)

Arsenic (ug/g)	13	77,000	120	13	9.2

Mercury (ug/g)

Mercury (ug/g)	57	7800	1.1	1	1.4

Thiodiglycol (ug/g)

Thiodiglycol	BDL	BDL	BDL	BDL	BDL
Chloroacetic acid	BDL	BDL	BDL	BDL	BDL

BDL - Below detection limit

BDL - Background

NA - Not analyzed

S - As referenced to calibration standard of methane for OVA, and benzene for HNu; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

Table 248-3. Results of Phase I Field Study. Page 2 of 31.
Site 2. Recorded disposal of lewisite and lewisite manufacturing wastes investigated by borings on this page

Depth (feet)	Boring 4					Boring 5		
	0-1	4-5	9-10	11.5-12.5	0-1	4-5	9-10	
Geologic Material	Silty Sand Trace Gravel	Clayey Silt	Sand	Clayey Sand w/Silt	Gravelly Sand Trace Clay	Clayey Sand Trace Silt	Silty Sand w/Clay	
Percent Fines ^{VO}	10	100	0	35	5	5/35	40	

AIR MONITORING

Volatile Organic Readings (ppm)

HNuS	BDL	BDL	BDL	BDL	BDL	BDL	6
OVA8	200*	5.0	20	20	BDL	115	1.5

SOIL CHEMISTRY

Volatiles (ug/g)

Bicycloheptadiene	NA	600**	5000**	2	NA	500	BDL
Bicyclopentadiene	NA	10	300**	BDL	NA	4000**	BDL

Semivolatiles (ug/g)

Aldrin	2	BDL	BDL	BDL	80	BDL	BDL
Dicyclopentadiene	BDL	60**	60**	BDL	BDL	3000	800**
Dieldrin	4	BDL	BDL	BDL	100	BDL	BDL
Hexachlorocyclopentadiene	3000**	BDL	BDL	BDL	BDL	BDL	BDL
Isodrin	BDL	BDL	BDL	BDL	10	BDL	BDL

ICP Metals (ug/g)

Cadmium	1.5	BDL	1.4	1.3	2.9	31	2.5
Chromium	18	BDL	18	21	19	22	21
Copper	7.2	BDL	11	14	21	14	18
Lead	13	BDL	15	BDL	35	22	25
Zinc	53	51	56	61	71	76	69

Arsenic (ug/g)

	45	110000**	31	60	82	1100	71

Mercury (ug/g)

	0.33	9400**	6.9	1.2	21	160	0.65

Thiodiglycol (ug/g)

Thiodiglycol	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroacetic acid	BDL	BDL	BDL	BDL	BDL	BDL	BDL

BDL - Below detection limit

BDL - Background

NA - Not analyzed

S - As referenced to calibration standard of methane for OVA, and benzene for HNu; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

* - Reading taken from the 1 to 3 ft interval

** - Instrument reading. Value is greater than the upper limit of the Certified Reporting Limit

Table 248-3. Results of Phase I Field Study. Page 3 of 31.
 Site 5. Recorded leaks of mercuric chloride, arsenic oxide, acetylene, and lewisite investigated by borings on this page.

Depth (feet)	Geologic Material	Boring 6			Boring 7			Boring 27	
		0-1	4-5	1-2	4-5	0-1	4-5	0-1	4-5
		Gravelly Sand /Silty Sand	Sandy, Silty Clay	Clayey Sand	Silty Sand w/clay	Gravelly Sand	Silty Clayey Sand/Sandy Silty Clay		
Percent PinesVO	0/40	80	35	40	0	40/90			
AIR MONITORING									
Volatile Organic Readings (ppm)									
BUS	NR	NR	NR	NR	NR	NR	NR	NR	NR
OVA	NR	NR	NR	NR	NR	NR	NR	NR	NR
SOIL CHEMISTRY									
Volatiles (ug/g)									
Semivolatiles (ug/g)	NA	NA	NA	NA	NA	NA	NA	NA	NA
ICP Metals (ug/g)									
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (ug/g)	7.3	BDL	14	22	3.1	BDL			
Mercury (ug/g)	0.25	BDL	5.6	0.56	14	BDL			
Thiodiglycol (ug/g)									
Thiodiglycol	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroacetic acid	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

BDL - Below detection limit
 NR - Not recorded
 NA - Not analyzed
 S - As referenced to calibration standard of methane for OVA, and benzene for HHV; reading has been adjusted to account for background level
 VO - As determined by visual observation and rounded to the nearest 5 percent
 * - No readings recorded at sampled interval

Table 248-3. Results of Phase I Field Study. Page 4 of 31.
Site 6. Areas of possible lewisite and mustard contamination investigated by borings on this page.

Depth (feet)	Boring 10					Boring 14		Boring 15	
	1.5-2.5 Sandy Silt	3.8-4.8 Silty Sand	9-10 Sandy Silty Clay w/Gravel	14-15 Silty Claystone	19-20 Silty Claystone	0-1 Silty Clay Sand	4-5 Silty Clay Sand	0-1 Sand w/silt, Trace Gravel	4-5 Silty Clay Sand
Percent PinusVO	70	20	75	100	100	20	40	5	40

AIR MONITORING

Volatile Organic Readings (ppm)

Benz	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
OVA8	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

SOIL CHEMISTRY

Volatiles (ug/g)

Benzene	NA	BDL	BDL	0.6	10	NA	NA	NA	NA
Chlorobenzene	NA	BDL	BDL	BDL	2	NA	NA	NA	NA
Chloroform	NA	BDL	2	40*	400*	NA	NA	NA	NA
Dicyclopentadiene	NA	BDL	BDL	BDL	30*	NA	NA	NA	NA
Ethylbenzene	NA	BDL	BDL	BDL	9	NA	NA	NA	NA
m-Xylene	NA	BDL	BDL	BDL	20*	NA	NA	NA	NA
Methylisobutyl ketone	NA	BDL	BDL	40*	90*	NA	NA	NA	NA
o- & p-Xylene	NA	BDL	BDL	BDL	20	NA	NA	NA	NA
Tetrachloroethylene	NA	BDL	BDL	BDL	2	NA	NA	NA	NA
Toluene	NA	BDL	BDL	BDL	30*	NA	NA	NA	NA

Semivolatiles (ug/g)

Aldrin	100*	BDL	BDL	BDL	2	NA	NA	NA	NA
Dieldrin	2000*	BDL	BDL	BDL	30	NA	NA	NA	NA
Endrin	500*	BDL	BDL	BDL	9	NA	NA	NA	NA
Isodrin	10	BDL	BDL	BDL	BDL	NA	NA	NA	NA
p-chlorophenylmethyl sulfide	BDL	BDL	BDL	BDL	1	NA	NA	NA	NA
p-chlorophenylmethyl sulfone	BDL	BDL	BDL	2	2	NA	NA	NA	NA
p-chlorophenylmethyl sulfoxide	BDL	BDL	BDL	BDL	0.4	NA	NA	NA	NA

ICP Metals (ug/g)

Cadmium	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
Chromium	15	19	12	BDL	BDL	NA	NA	NA	NA
Copper	41	11	72	120	110	NA	NA	NA	NA
Lead	250	13	20	BDL	13	NA	NA	NA	NA
Zinc	100	60	91	93	83	NA	NA	NA	NA
Arsenic (ug/g)	7.6	3.4	4.7	BDL	BDL	BDL	BDL	18	19
Mercury (ug/g)	0.90	BDL	BDL	BDL	BDL	NA	NA	NA	NA

Thiodiglycol (ug/g)

Thiodiglycol	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroacetic acid	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

BDL - Below detection limit

BDL - Background

NA - Not analyzed

S - As referenced to calibration standard of methane for OVA, and benzene for HHu; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

* - Instrument reading. Value is greater than the upper limit of the Certified Reporting Limit

Task 24; 5052A/1134A; Rev. 7/27/88

Table 248-3. Results of Phase 1 Field Study. Page 5 of 31.
Site 7. Recorded mustard leaks investigated by borings on this page.

Depth (feet)	Geologic Material	Boring 16					Boring 17				
		0-1 Gravelly Clayey Sand	4-5 Clayey Sand w/Gravel	9-10 Clayey Sand	13-14 Sandy Clay	0.3-0.8 Gravelly Sand	1.5-2.5 Silty Sand w/Clay	4-5 Clayey Sand	9-10 Sandy Clay	11.5-12.5 Clayey Sand	
Percent Pine:VO		10	20	10	70	0	30	10	60	20	
AIR MONITORING											
Volatile Organic Readings (ppm)											
BND		BD	3.0	BD	BD	BD	BD	BD	BD	BD	
OVA5		BD	6.0	BD	BD	BD	BD	BD	BD	BD	
SOIL CHEMISTRY											
Volatiles (ug/g)											
NA		NA	BDL*	BDL*	BDL*	NA	BDL*	BDL*	BDL*	BDL*	
SemiVolatiles (ug/g)											
NA		NA	NA	NA	NA	BDL*	BDL*	BDL*	BDL*	BDL*	
ICP Metals (ug/g)											
Cadmium		NA	NA	NA	NA	BDL*	BDL*	BDL*	BDL*	BDL*	
Chromium		NA	NA	NA	NA	28*	27*	13*	26*	20*	
Copper		NA	NA	NA	NA	19*	15*	6.4*	13*	13*	
Lead		NA	NA	NA	NA	24*	23*	BDL*	BDL*	BDL*	
Zinc		NA	NA	NA	NA	101*	430*	34*	65*	55*	
Arsenic (ug/g)		NA**	NA**	NA**	NA**	BDL	BDL	BDL	BDL	BDL	
Mercury (ug/g)		NA**	NA**	NA**	NA**	BDL	BDL	BDL	BDL	BDL	
Thiodiglycol (ug/g)											
Thiodiglycol		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
Chloroacetic acid		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	

BDL - Below detection limit
 BND - Background
 NA - Not analyzed
 S - As referenced to calibration standard of methane for OVA, and benzene for HNU; reading has been adjusted to account for background level
 VO - As determined by visual observation and rounded to the nearest 5 percent
 * - Analysis was not proposed in technical plan
 ** - Analysis proposed in technical plan but not requested from laboratory

Table 248-3. Results of Phase I Field Study. Page 6 of 31.
Site 8. Area of possible mustard contamination investigated by boring on this page.

Depth (feet)	Boring 9			
	0.2-1.2	4-5	9-10	13-13.8
Geologic Material	Sandy Gravel (Fill)	Clayey Sand	Clayey Sand	Silty Sandstone w/Gravel
Percent PineVO	0	20	20	30

AIR MONITORING

Volatile Organic Readings (ppm)

HNH ₃	BDL	NR*	BDL	BDL
OVA ₈	1.0	NR*	5.0	9.0

SOIL CHEMISTRY

Volatiles (ug/g)

Benzene	NA	BDL	BDL	0.5
Chloroform	NA	BDL	BDL	5

Semivolatiles (ug/g)

Dieldrin	30	BDL	BDL	BDL
p-Chlorophenylmethyl sulfone	BDL	BDL	BDL	4

ICP Metals (ug/g)

Cadmium	0.97	BDL	BDL	BDL
Chromium	15	23	BDL	11
Copper	20	14	25	69
Lead	49	23	BDL	BDL
Zinc	47	64	41	91

Arsenic (ug/g)

Arsenic	13	BDL	BDL	BDL

Mercury (ug/g)

Mercury	1.4	BDL	0.09	BDL

Thiodiglycol (ug/g)

Thiodiglycol	BDL	BDL	BDL	BDL
Chloroacetic acid	BDL	BDL	BDL	BDL

BDL - Below detection limit

BDL - Background

NA - Not analyzed

NR - Not recorded

8 - As referenced to calibration standard of methane for OVA, and benzene for HNH₃; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

* - No reading taken at sampled interval

Table 248-3. Results of Phase 1 Field Study. Page 7 of 31.
Site 9. Recorded diesel fuel spill investigated by borings on this page.

Depth (feet)	Boring 51					Boring 52	
	0-1 Silty Clayey Sand w/Gravel	4-5 Silty Clayey Sand Trace Gravel	9-10 Silty Clay w/Sand	14-15 Silty Clay	20-21 Silty Clay	0-1 Silty Clayey Sand	4-5 Silty Clayey Sand
Percent Fines VO	20	20	90	100	100	50	50

AIR MONITORING

Volatile Organic Readings (ppm)

HNuS	NR*	NR*	NR*	NR*	NR*	NR***	100****
OVA5	BDL	BDL	250**	500	250	15****	100****

SOIL CHEMISTRY

Volatiles (ug/g)

Dicyclopentadiene	NA	BDL	BDL	BDL	BDL	NA	0.6
Ethylbenzene	NA	BDL	BDL	BDL	BDL	NA	BDL
Toluene	NA	BDL	BDL	BDL	BDL	NA	BDL
Trichloroethylene	NA	BDL	BDL	BDL	BDL	NA	BDL
Semivolatiles (ug/g)	BDL	BDL	BDL	BDL	BDL	BDL	BDL

ICP Metals (ug/g)

Cadmium	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA
Arsenic (ug/g)	NA	NA	NA	NA	NA	NA	NA
Mercury (ug/g)	NA	NA	NA	NA	NA	NA	NA

BDL - Below detection limit

BDL - Background

NA - Not analyzed

NR - Not recorded

S - As referenced to calibration standard of methane for OVA, and benzene for HNu; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

* - HNu not used due to malfunction

** - Reading taken from inside auger at 9 ft

*** - No reading taken at sampled interval

**** - Reading taken from around auger at this interval

Table 248-3. Results of Phase I Field Study. Page 8 of 31.
Site 9. Recorded diesel fuel spill investigated by boring on this page.

Boring 52 (cont.)				
Depth (feet)	9-10	12.5-13.5	14-15	
Geologic Material	Sandy Silt and Clay	Sandy Silt and Clay	Silty Sand w/Clay	
Percent PinesVO	80	80	50	

AIR MONITORING

Volatile Organic Readings (ppm)

HNuS	110****	110****	110****
OVA8	110****	110****	110****

SOIL CHEMISTRY

Volatiles (ug/g)

Dicyclopentadiene	7	BDL	BDL
Ethylbenzene	0.9	BDL	BDL
Toluene	BDL	0.6	BDL
Trichloroethylene	0.4	BDL	BDL
Semivolatiles (ug/g)	BDL	BDL	BDL

ICP Metals (ug/g)

Cadmium	NA	NA	NA
Chromium	NA	NA	NA
Copper	NA	NA	NA
Lead	NA	NA	NA
Zinc	NA	NA	NA
Arsenic (ug/g)	NA	NA	NA
Mercury (ug/g)	NA	NA	NA

BDL - Below detection limit

NA - Not analyzed

S - As referenced to calibration standard of methane for OVA, and benzene for HNu; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

**** - Reading taken from around auger at this interval

Table 248-3. Results of Phase I Field Study. Page 9 of 31.
Site 18. Area with initial report of pesticide/herbicide storage investigated by borings on this page.

Depth (feet)	Boring 38		Boring 45	
	0-1	4-5	0-1	4-5
Geologic Material	Silty Sand Trace Clay	Silty Sand Trace Clay	Silty Sand Trace Gravel	Silty Sand
Percent Pines VO	40	40	25	30

AIR MONITORING

Volatile Organic Readings (ppm)

HNuS	BDL	BDL	NR*	BDL
OVA	BDL	7.0	NR*	10

SOIL CHEMISTRY

Volatiles (ug/g)

Methylene Chloride	NA	3	NA	BDL

Semivolatiles (ug/g)

Dieldrin	3	BDL	0.3	BDL

ICP Metals (ug/g)

Cadmium	BDL	BDL	BDL	BDL
Chromium	19	16	9.4	14
Copper	12	BDL	9.5	6.5
Lead	46	12	24	12
Zinc	82	44	110	41

Arsenic (ug/g)

	3.2	BDL	BDL	BDL

Mercury (ug/g)

	0.14	BDL	BDL	BDL

Thiodiglycol (ug/g)

Thiodiglycol	NA	NA	BDL**	BDL**
Chloroacetic acid	NA	NA	BDL**	BDL**

BDL - Below detection limit

NRD - Background

NA - Not analyzed

NR - Not recorded

S - As referenced to calibration standard of methane for OVA, and benzene for HNu; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

* - No readings taken at sampled intervals

** - Analysis was not proposed in technical plan

Table 248-3. Results of Phase I Field Study. Page 10 of 31.
 Site 12. Reported disposal of lime sludge from acetylene manufacturing investigated by boring on this page.

Boring 24						
Depth (feet)	4-5	9-10	11.5-12.5	14-15	19-20	21.5-22.5
Geologic Material	Sandy Silt w/Clay	Sandy Claystone	Limestone	Sandstone	Claystone w/Sand/Silty w/Clay	Silty Sandstone w/Clay/ Siltstone
Percent PineVO	60	60	100	0	95/35	35/100
AIR MONITORING						
Volatile Organic Readings (ppm)						
HNuS	BDL	BDL	11	BDL	BDL	3.0
OVAS	BDL	BDL	15	BDL	BDL	5.0
SOIL CHEMISTRY						
Volatiles (ug/g)						
Methylisobutyl ketone	BDL	BDL	BDL	BDL	BDL	BDL
SemiVolatiles (ug/g)						
Aldrin	BDL	BDL	BDL	BDL	BDL	BDL
Dieldrin	BDL	BDL	BDL	BDL	BDL	BDL
ICP Metals (ug/g)						
Cadmium	BDL	BDL	BDL	BDL	BDL	BDL
Chromium	12	13	BDL	9.8	BDL	13
Copper	21	71	27	29	39	45
Lead	BDL	BDL	BDL	BDL	BDL	BDL
Zinc	57	92	48	73	60	100
Arsenic (ug/g)	BDL	BDL	BDL	BDL	BDL	BDL
Mercury (ug/g)	BDL	BDL	BDL	BDL	BDL	BDL
Thiodiglycol (ug/g)						
Thiodiglycol	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
Chloroacetic acid	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*

BDL - Below detection limit

BDL - Background

S - As referenced to calibration standard of methane for OVA, and benzene for HNu, reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

* - Analysis was not proposed in technical plan

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Table 24S-3. Results of Phase I Field Study. Page 11 of 31.
 Site 12. Reported disposal of lime sludge from acetylene manufacturing investigated by boring on this page.

Boring 25					
Depth (feet)	5-5.4	7.5-8.5	8.8-9.8	14-15	16.5-17.5
Geologic Material	Organic Sandy Silt	Silty Sand/Claystone	Silty Claystone	Silty Claystone	Sandy Claystone w/Silt
Percent PinesVO	80	20/100	100	100	85

AIR MONITORING

Volatile Organic Readings (ppm)

HNuS	BDL	BDL	BDL	BDL	2.0
OVAS	BDL	BDL	BDL	NR**	NR**

SOIL CHEMISTRY

Volatiles (ug/g)

Methylisobutyl ketone	NA	BDL	1	BDL	BDL

Semivolatiles (ug/g)

Aldrin	40	BDL	BDL	BDL	BDL
Dieldrin	20	BDL	BDL	BDL	BDL

ICP Metals (ug/g)

Cadmium	9.9	BDL	BDL	BDL	BDL
Chromium	81	13	11	9.4	11
Copper	880	38	41	40	40
Lead	2600	15	220	17	BDL
Zinc	3300	110	100	87	100

Arsenic (ug/g)

	50	BDL	6.8	6.9	9.3

Mercury (ug/g)

	5.4	BDL	BDL	BDL	BDL

Thiodiglycol (ug/g)

Thiodiglycol	NA	NA	NA	NA	NA
Chloroacetic acid	NA	NA	NA	NA	NA

BDL - Below detection limit

BDL - Background

NA - Not analyzed

NR - Not recorded

S - As referenced to calibration standard of methane for OVA, and benzene for HNu; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

** - OVA not used after 10 foot interval due to malfunction

Table 24S-3. Results of Phase I Field Study. Page 12 of 31.
Site 13. Reported leaks of arsenic trioxide dust investigated by borings on this page.

Depth (feet)	Boring 22		Boring 23		Boring 28	
	0-1	4-5	0-1	4-5	0-1	2.2-3.2
Geologic Material	Gravelly Sand/Clayey Silt w/Sand	Silty Claystone w/Sand	Silty Sand	Sandy Claystone	Silty Sand	Silty Sand
Percent PineauVO	0/80	90	40	70	10	10

AIR MONITORING

Volatile Organic Readings (ppm)

HNuS	BDL	BDL	BDL*	200	BDL	300
OVAS	BDL	BDL	BDL*	20	BDL	2.0

SOIL CHEMISTRY

<u>Volatiles (ug/g)</u>	NA	BDL	NA	NA	NA	NA

Semivolatiles (ug/g)

<u>Dieldrin</u>	0.7	BDL	NA	NA	NA	NA

ICP Metals (ug/g)

Cadmium	BDL	BDL	NA	NA	NA	NA
Chromium	19	12	NA	NA	NA	NA
Copper	12	43	NA	NA	NA	NA
Lead	BDL	BDL	NA	NA	NA	NA
Zinc	55	110	NA	NA	NA	NA

Arsenic (ug/g)

	5.0	BDL	4.4	160	490	720

Mercury (ug/g)

	0.071	BDL	NA	NA	NA	NA

BDL - Below detection limit

BDL - Background

NA - Not analyzed

S - As referenced to calibration standard of methane for OVA, and benzene for HNu; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

* - Inside hole readings at the 1 to 4 ft interval: OVA 100 ppm, HNu 300 ppm

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Table 24S-3. Results of Phase I Field Study. Page 13 of 31.
Site 13. Reported leaks of arsenic trioxide dust investigated by boring on this page.

Boring 29					
Depth (feet)	0-1	4-5	9-10	14-15	19-20
Geologic Material	Silty Sand	Sandy Silt w/Clay	Silty Claystone w/Sand Lenses	Sandy Claystone	Silty Claystone
Percent PineasVO	40	65	85	80	100

AIR MONITORING

Volatile Organic Readings (ppm)

HNuS	NR	NR	NR	NR	NR
OVA8	BDL	NR	0.2	BDL	0.2

SOIL CHEMISTRY

Volatiles (ug/g)	NA	NA	NA	NA	NA

Semivolatiles (ug/g)

Dieldrin	NA	NA	NA	NA	NA

ICP Metals (ug/g)

Cadmium	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA

Arsenic (ug/g)

	160	160	BDL	64	14

Mercury (ug/g)

	NA	NA	NA	NA	NA

BDL - Below detection limit

BDL - Background

NA - Not analyzed

NR - Not recorded

S - As referenced to calibration standard of methane for OVA, and benzene for HNu; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

Table 248-3. Results of Phase I Field Study. Page 14 of 31.
Site 14. Reported discharge of off-specification mustard to decontamination pits investigated by borings on this page.

Depth (feet)	Boring 31		Boring 32	
	0-1	4-5	0-1	4-5
Geologic Material	Silty Sand w/Gravel and Clay	Silty Sand and Claystone	Silty Sand w/Gravel	Silty Sand w/Clay
Percent Fine/VO	45	100	25	45
				100
				90

AIR MONITORING

Volatile Organic Readings (ppm)

HNAs	BDL	BDL	BDL	BDL
OVAs	BDL	BDL	NR	NR

SOIL CHEMISTRY

Volatiles (ug/g)

Benzene	NA	BDL*	NA	BDL*
Bicycloheptadiene	NA	BDL*	NA	BDL*
Chloroform	NA	BDL*	NA	BDL*
Dibromochloropropane	NA	BDL*	NA	BDL*
Dicyclopentadiene	NA	BDL*	NA	BDL*
Methylene chloride	NA	BDL*	NA	BDL*
Tetrachloroethene	NA	BDL*	NA	BDL*
Toluene	NA	BDL*	NA	BDL*

Semivolatiles (ug/g)

Aldrin	BDL*	BDL*	BDL*	BDL*
Chlordane	BDL*	BDL*	BDL*	BDL*
Dibromochloropropane	BDL*	BDL*	BDL*	BDL*
Dicyclopentadiene	BDL*	BDL*	BDL*	BDL*
Dieldrin	0.5*	BDL*	BDL*	BDL*
Hexachlorocyclopentadiene	BDL*	BDL*	BDL*	BDL*
Isodrin	BDL*	BDL*	BDL*	BDL*
p-chlorophenylmethyl sulfide	BDL*	BDL*	BDL*	BDL*

ICP Metals (ug/g)

Cadmium	BDL*	BDL*	BDL*	BDL*
Chromium	47*	BDL*	BDL*	18*
Copper	21*	30*	28*	52*
Lead	88*	18*	BDL*	BDL*
Zinc	140*	56*	90*	110*

Arsenic (ug/g)

	BDL*	BDL*	BDL*	BDL*

Mercury (ug/g)

	5.3*	BDL*	0.10*	BDL*

Thiodiglycol (ug/g)

Thiodiglycol	BDL	BDL	BDL	BDL
Chloroacetic acid	BDL	BDL	BDL	BDL

BDL - Below detection limit

NR - Background

NA - Not analyzed

NR - Not recorded

S - As referenced to calibration standard of methane for OVA, and benzene for HNu; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

* - Analysis was not proposed in technical plan

Site 14. Reported discharge of off-specification mustard to decontamination pits investigated by borings on this page.

AIR MONITORING
Volatile Organic Readings (ppm)

Volatile Organic Readings (ppm)

ADL - Below detection limit

GT - Greater than

NR - Not reported

VO - As determined

*** - No in hole re

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Table 248-3. Results of Phase I Field Study. Page 16 of 31.
Site 14. Recorded discharge of off-specification mustard to decontamination pits investigated by boring on this page.

Depth (feet)	Boring 34					
	0.2-1.2	2-3	9-10	10-11	14-15	19-20
Geologic Material	Clayey Sand w/Gravel and Silt	Clayey Sand w/Gravel and Silt	Sandy Claystone w/Gravel	Sandy Claystone	Sandy Claystone w/Gravel	Sandy Claystone w/Gravel
Percent FineaVO	40	40	75	90	60	60

AIR MONITORING
Volatile Organic Readings (ppm)

MWES	NR	NR	NR	NR	NR	NR
OVAS	BDL	BDL	10	10	10	100

SOIL CHEMISTRY

Volatiles (ug/g)

Benzene	BDL	BDL	BDL	BDL	0.6	0.5
Bicycloheptadiene	BDL	BDL	BDL	BDL	2	2
Chloroform	BDL	BDL	BDL	BDL	1	3
Dibromochloropropane	BDL	BDL	BDL	BDL	BDL	BDL
Dicyclopentadiene	50+	7	BDL	BDL	BDL	BDL
Methylene chloride	BDL	BDL	4	10	20	50+
Tetrachloroethene	BDL	BDL	2	BDL	BDL	BDL
Toluene	BDL	BDL	60+	2	20	40+

Semivolatiles (ug/g)

Aldrin	BDL	5	8000+	8	300+	400+
Chlordane	1000+	BDL	BDL	BDL	BDL	BDL
Dibromochloropropane	BDL	BDL	BDL	BDL	BDL	BDL
Dicyclopentadiene	300+	3	BDL	BDL	BDL	BDL
Dieldrin	BDL	7	BDL	BDL	3	10
Hexachlorocyclopentadiene	BDL	BDL	7000+	BDL	600+	1000+
Isodrin	BDL	2	BDL	BDL	BDL	BDL
p-chlorophenylmethyl sulfide	BDL	60+	BDL	BDL	BDL	BDL

ICP Metals (ug/g)

Cadmium	BDL	BDL	BDL	BDL	BDL	BDL
Chromium	22	20	12	20	15	12
Copper	22	12	35	30	41	45
Lead	59	12	BDL	15	BDL	BDL
Zinc	260	61	100	84	100	110

Arsenic (ug/g)

	7.3	4.8	BDL	BDL	BDL	BDL

Mercury (ug/g)

	1.5	1.2	BDL	BDL	BDL	BDL

Thiodiglycol (ug/g)

Thiodiglycol	BDL	BDL	BDL	BDL	BDL	BDL
Chloroacetic acid	BDL	BDL	BDL	BDL	BDL	BDL

BDL - Below detection limit

NR - Background

NR - Not recorded

S - As referenced to calibration standard of methane for OVA, and benzene for HHu; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

+ - Instrument reading. Value is greater than the upper limit of the Certified Reporting Limit

Table 248-3. Results of Phase 1 Field Study. Page 17 of 31.
Site 14. Recorded discharge of off-specification mustard to decontamination pits investigated by boring on this page.

Depth (feet)	Boring 35				
	0-1	3-4	9-10	13-14	16.5-17.5
Geologic Material	Clayey Gravelly Sand	Clayey Sand w/Silt	Clayey Sandstone w/Silt and Gravel	Clayey Sandstone w/Gravel and Silt	Clayey Sandstone Silt 45
Percent Fines VO	10	50	30	45	45

AIR MONITORING
Volatile Organic Readings (ppm)

HNuS	BDL	NR****	BDL	NR****	NR+++
OVA8	NR****	NR****	NR****	GT 1000	GT 100

SOIL CHEMISTRY

Volatiles (ug/g)

Benzene	NA
Bicycloheptadiene	NA
Chloroform	NA
Dibromochloropropane	NA
Dicyclopentadiene	NA
Methylene chloride	NA
Tetrachloroethene	NA
Toluene	NA

Semivolatiles (ug/g)

Aldrin	NA
Chlordane	NA
Dibromochloropropane	NA
Dicyclopentadiene	NA
Dieldrin	NA
Hexachlorocyclopentadiene	NA
Isodrin	NA
p-chlorophenylmethyl sulfide	NA

ICP Metals (ug/g)

Cadmium	NA
Chromium	NA
Copper	NA
Lead	NA
Sinc	NA

Arsenic (ug/g)

Mercury (ug/g)	NA
Thiodiglycol (ug/g)	NA

Thiodiglycol

Chloroacetic acid	BDL
	BDL

BDL - Below detection limit

BDL - Background

GT - Greater than

NA - Not analyzed

NR - Not recorded

S - As referenced to calibration standard of methane for OVA, and benzene for HNu; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

**** - OVA not working initially, started use at 10 foot interval

+++ - HNu not used after 10 foot interval due to malfunction

Table 24S-3. Results of Phase I Field Study. Page 18 of 31.
Site 15. Recorded disposal of water contaminated with mustard wash water investigated by borings on this page.

Depth (feet)	Boring 13A		Boring 13		Boring 49	
	0-0.5	Gravelly Sand	1-1.8	Gravelly Sand	9-10	Gravelly Sand w/Clay
Percent PineaVO	0	0	0	0	20	20

AIR MONITORING

Volatile Organic Readings (ppm)

MEUS	210	210	NR	NR
OVA S	NR	NR	NR	NR

SOIL CHEMISTRY

Volatiles (ug/g)

Benzene	NA	0.3	BDL
Chloroform	NA	0.4	90,000*
Tetrachloroethene	NA	0.3	BDL

Semivolatiles (ug/g)

Aldrin	90	5	100
Dieldrin	400	70	7000
Endrin	50	20	5000*
Isodrin	BDL	0.5	100

ICP Metals (ug/g)

Cadmium	BDL	BDL	BDL
Chromium	17	12	26
Copper	99	13	91
Lead	40	360	120
Zinc	57	72	54

Arsenic (ug/g)

Arsenic	BDL	BDL	BDL

Mercury (ug/g)

Mercury	0.94	0.23	0.14

Thiodiglycol (ug/g)

Thiodiglycol	BDL	BDL	BDL
Chloroacetic acid	BDL	BDL	340

BDL - Below detection limit

NA - Not analyzed

NR - Not recorded

S - As referenced to calibration standard of methane for OVA, and benzene for HNU; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

* - Instrument reading. Value is greater than the upper limit of the Certified Reporting Limit

Table 24S-3. Results of Phase I Field Study. Page 19 of 31.

Site 16. Reported discharges of water containing sodium hypochlorite, acetylene tetrachloride, trichloroethylene, solutions of chlorinated paraffin, 3-octachlorocarbonilide, ammonium chloride, polyvinyl alcohol, disopnal, daxed, and dye investigated by boring on this page.

Depth (feet)	Boring 20				
	0-1	4-5	9-10	12.5-13.5	
Geologic Material	Sand w/Clay and Gravel	Sandstone and Claystone	Sandstone and Claystone	Sandy Claystone w/Sil.	
Percent PinesVO	5	50	50	60	
AIR MONITORING					
Volatile Organic Readings (ppm)					
BHUS	BDL	420	200	150	
OVAS	BDL	400	80	250	
SOIL CHEMISTRY					
Volatiles (ug/g)					
Tetrachloroethene	NA	0.7	1	2	
Semivolatiles (ug/g)					
Aldrin	3	BDL	BDL	BDL	
ICP Metals (ug/g)					
Cadmium	BDL	BDL	BDL	BDL	
Chromium	BDL	BDL	15	13	
Copper	12	37	39	43	
Lead	14	BDL	BDL	BDL	
Zinc	62	98	110	110	
Arsenic (ug/g)	BDL	BDL	BDL	BDL	
Mercury (ug/g)	0.17	BDL	BDL	BDL	
Thiodiglycol (ug/g)					
Thiodiglycol	BDL	BDL	BDL	BDL	
Chloroacetic acid	BDL	BDL	BDL	BDL	

BDL - Below detection limit

BKD - Background

NA - Not analyzed

S - As referenced to calibration standard of methane for OVA, and benzene for HHU; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

Task 24; 5053A/1134A; Rev. 7/27/88

Table 24S-3. Results of Phase I Field Study. Page 20 of 31.
Site 17. Reported ditch for laboratory sink and wastewater investigated by borings on this page.

Depth (feet)	Boring 11										Boring 12		
	0-1	3-4	4-5	9-10	14-15	3-3.8	4-5	9-10	14-15				
Geologic Material	Silty Sand w/Gravel	Claystone & Siltstone	Claystone & Siltstone	Sandy Silty Claystone	Fandy Silty Claystone	Silty Sand w/Gravel	Silty Sand w/Gravel	Silty Sand w/Silt	Silty Claystone/Claystone				
Percent PinesVO	25	100	100	70	70	20	20/80	80	100/10				

AIR MONITORING

Volatile Organic Readings (ppm)

HNuS BKD
OxAS BKD

SOIL CHEMISTRY

Volatiles (ug/g)

NA BDL

Semivolatiles (ug/g)

Aldrin 1
Dieldrin 0.9
Dichlorodiphenylethane 0.6

ICP Metals (ug/g)

Cadmium BDL
Chromium 26
Copper 25
Lead 93
Zinc 150

Arsenic (ug/g)

3.1

Mercury (ug/g)

1.5

Thiodiglycol (ug/g)

Thiodiglycol BDL
Chloroacetic acid BDL

BDL - Below detection limit

BKD - Background

NA - Not analyzed

NR - Not recorded

S - As referenced to calibration standard of methane for OVA, and benzene for HNu; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

Test 24; 5053A/1134A; Rev. 7/27/88

Table 248-3. Results of Phase I Field Study. Page 21 of 31.
Site 18. Recorded spills of petroleum products, paints, thinners, and solvents investigated by borings on this page.

Depth (feet) Geologic Material	Boring 36					Boring 37				
	Surface grab Iron Oxide Rich Material	0-1 Silty Sand w/Clay and Trace Gravel	2.6-3.6 Silty Sand w/Clay	4-5 Silty Sand w/Clay/Sandy Silt w/Clay	9-10 Silty Sand	14-15 Clayey Silt w/Sand	16.5-17.5 Shale			
Percent PineVO	45	50	50/70	35	95	100				

AIR MONITORING

Volatile Organic Readings (ppm)

HNH ₃	NR**	NR**	NR**	280	18	12
OVA's	NR**	NR**	NR**	280	60	60

SOIL CHEMISTRY

Volatiles (ug/g)

Benzene	NA	NA	BDL	BDL	BDL	BDL
Bicycloheptadiene	NA	NA	BDL	BDL	BDL	BDL
Chloroform	NA	NA	BDL	BDL	BDL	BDL
Tetrachloroethane	NA	NA	BDL	BDL	BDL	BDL

Semivolatiles (ug/g)

Dieldrin	BDL	BDL	BDL	BDL	BDL	BDL

ICP Metals (ug/g)

Cadmium	4.3	4.1	BDL	BDL	BDL	BDL
Chromium	260	3500	15	13	17	15
Copper	460	240	15	BDL	BDL	28
Lead	1100	580	18	14	12	24
Zinc	160	170	56	38	44	79

Arsenic (ug/g)

	50	11	3.3	BDL	BDL	BDL

Mercury (ug/g)

	BDL	0.31	0.062	BDL	BDL	BDL

Thiodiglycol (ug/g)

Thiodiglycol	BDL**	NA	NA	NA	NA	NA
Chloroacetic acid	BDL**	NA	NA	NA	NA	NA

BDL - Below detection limit

NRD - Background

NA - Not analyzed

NR - Not recorded

S - As referenced to calibration standard of methane for OVA, and benzene for HNHu; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

** - No in hole readings recorded

*** - Analysis not proposed in technical plan

Task 24; 5053A/1134A; Rev. 7/27/88

Table 248-3. Results of Phase I Field Study. Page 22 of 31.
Site 18. Recorded spills of petroleum products, paints, thinners, and solvents investigated by boring on this page.

Boring 50						
Depth (feet)	0-1	4-5	9-10	14-15	18-19	
Geologic Material	Gravelly Clayey Silt/ Silty Clayey Sand	Silty Clayey Sand	Clayey Sand w/Silt	Silty Clay	Silty Clay	
Percent PinesVO	90/20	20	20	100	100	
AIR MONITORING						
Volatile Organic Readings (ppm)						
EHUS	100*	45	1.5	4.5	1.5	
OVAS	6*	11	0.5	2.5	1.5	
SOIL CHEMISTRY						
Volatiles (ug/g)						
Benzene	BDL	BDL	BDL	BDL	0.9	
Bicycloheptadiene	BDL	BDL	BDL	BDL	1	
Chloroform	BDL	BDL	BDL	BDL	2	
Tetrachloroethene	BDL	BDL	BDL	BDL	0.4	
Semivolatiles (ug/g)						
Dieldrin	1	BDL	BDL	BDL	BDL	
ICP Metals (ug/g)						
Cadmium	BDL	BDL	BDL	BDL	BDL	
Chromium	17	12	11	15	9.9	
Copper	8.2	BDL	BDL	97	16	
Lead	BDL	BDL	BDL	BDL	BDL	
Zinc	45	34	35	43	49	
Arsenic (ug/g)	3.4	BDL	BDL	BDL	BDL	
Mercury (ug/g)	BDL	BDL	BDL	BDL	BDL	
Thiodiglycol (ug/g)						
Thiodiglycol	NA	NA	NA	NA	NA	
Chloroacetic acid	NA	NA	NA	NA	NA	

BDL - Below detection limit

NA - Not analyzed

S - As referenced to calibration standard of methane for OVA, and benzene for HHu; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

* - Readings taken from around auger at this interval

Task 24, 5033A/1134A; Rev. 7/27/88

Table 248-3. Results of Phase I Field Study. Page 23 of 31.
 Site 19. Recorded spills of organochlorine compounds, degreasing solvents, paint strippers, rust removers, paints, thinners, and other solvents investigated by boring in this page.

Boring 39					
Depth (feet)	0-1	4-5	9-9.5	9.5-10	14-15
Geologic Material	Silty Sand	Silty Sand	Silty Sand	Silty Sand	Silty Sand w/Clay/Sandy Silt w/Clay
Percent PineasVO	10	10	15	15	50/60

AIR MONITORING

Volatile Organic Readings (ppm)

HEMS BDL BDL BDL BDL BDL
 OVAS BDL BDL 2.0 BDL BDL

SOIL CHEMISTRY

Volatiles (ug/g) NA BDL BDL BDL BDL
Semivolatiles (ug/g) BDL BDL BDL BDL BDL

ICP Metals (ug/g)

Cadmium BDL BDL BDL BDL BDL
 Chromium 18 18 11 16 21
 Copper 11 9.6 7.1 9.1 15
 Lead 25 BDL BDL BDL 66
 Zinc 59 50 36 45

Arsenic (ug/g)

BDL BDL BDL BDL BDL

Mercury (ug/g)

BDL BDL BDL BDL BDL

Thiodiglycol (ug/g)

Thiodiglycol NA NA NA NA NA
 Chloroacetic acid NA NA NA NA NA

BDL - Below detection limit

BKD - Background

NA - Not analyzed

S - As referenced to calibration standard of methane for OVA, and benzene for HNu; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

Table 24B-3. Results of Phase I Field Study. Page 24 of 31.
 Site 19. Recorded spills of organochlorine compounds, degrading solvents, paint strippers, rust removers, paints, thinners, and other solvents investigated by boring on this page.

Boring 40						
Depth (feet)	0-1	4-5	9-10	14-15	19-20	21.5-22.5
Geologic Material	Silty Sand w/Gravel	Silty Sand	Silty Sand	Clayey Silt Trace Sand	Sandy Shale	Sandy Shale
Percent PinesVO	30	30	30	100	75	70

AIR MONITORING

Volatile Organic Readings (ppm)

HNUS	BDL	BDL	BDL	BDL	BDL	BDL
OVAS	BDL	2.0	BDL	BDL	BDL	0.5

SOIL CHEMISTRY

Volatiles (ug/g)

	NA	BDL	BDL	BDL	BDL	BDL

Semivolatiles (ug/g)

	BDL	BDL	BDL	BDL	BDL	BDL

ICP Metals (ug/g)

Cadmium	BDL	BDL	BDL	BDL	BDL	BDL
Chromium	120	18	16	14	13	BDL
Copper	30	11	7.8	10	43	18
Lead	200	12	BDL	BDL	BDL	BDL
Zinc	160	52	44	41	99	58

Arsenic (ug/g)

	BDL	BDL	BDL	3.0	BDL	BDL

Mercury (ug/g)

	0.15	BDL	BDL	BDL	BDL	BDL

Thiodiglycol (ug/g)

Thiodiglycol	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*
Chloroacetic acid	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*

BDL - Below detection limit

BDL - Background

NA - Not analyzed

S - As referenced to calibration standard of methane for OVA, and benzene for HNU; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

* - Analysis not proposed in technical plan

Task 24; 5053A/1134A; Rev. 7/27/88

Table 24S-3. Results of Phase I Field Study. Page 25 of 31.
 Site 20. Recorded leak of an unknown liquid from a caustic tank investigated by borings on this page.

Depth (feet)	Geologic Material	Boring 18					Boring 19		
		0-1 Silty Sand Trace Gravel	4-5 Sand w/silt	9-10 Silty Sand w/Clay	14-15 Silty Clayey Sand	0-1 Gravelly Sand /Sandy Clay	4-5 Sand Trace Clay	9-10 Sandy Clay	10.5-11.5 Sandy Clay
Percent PinesVO	30	5	20	50	0/70	0	60	90	

AIR MONITORING

Volatile Organic Readings (Ppm)

RNUS
OVAS

SOIL CHEMISTRY

Volatiles (ug/g)

SemiVolatiles (ug/g)

ICP Metals (ug/g)

Cadmium
Chromium
Copper
Lead
Zinc

Arsenic (ug/g)

Mercury (ug/g)

Thiodiglycol (ug/g)

Thiodiglycol
Chloroacetic acid

BDL - Below detection limit

BKD - Background

NA - Not analyzed

S - As referenced to calibration standard of methane for OVA, and benzene for MNu; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

Task 24; 5053A/1134A; Rev. 7/27/88

Table 24S-3. Results of Phase I Field Study. Page 26 of 31.
Site 25. Reported "phosy water" waste drainage investigated by borings on this page.

		Boring 26					Boring 43				
Depth (feet)	Geologic Material	0-1 Silty Sand w/Gravel Trace Clay	4-5 Silty Sand w/Clay	9-10 Silty Sand Trace Clay	14-15 Silty Sand w/Clay/Sandy Siltstone w/Clay	2-3 Silty Sand w/Gravel	4-5 Clayey Sand w/Gravel/ Clayey Sandstone w/Silt	9-10 Clayey Sandstone w/Silt	14-15 Clayey Sandstone w/Silt and Gravel	19-20 Clayey Sandstone	
Percent Pine	VO	35	20	35	40/70	20	20/50	50	50	40	
AIR MONITORING											
Volatile Organic Readings (ppm)											
BMUS		BKD	1.0	BKD	BKD	BKD	BKD	BKD	BKD	1.0	
OVAS		BKD	3.0	3.0	BKD	BKD	BKD	BKD	BKD	11	
SOIL CHEMISTRY											
Volatiles (ug/g)											
NA		BDL	BDL	BDL	BDL	NA	BDL	BDL	BDL	BDL	
SemiVolatiles (ug/g)											
Aldrin		BDL	BDL	BDL	BDL	20	BDL	BDL	BDL	BDL	
Dichlorodiphenylethane		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
Dieldrin		BDL	BDL	BDL	BDL	10	BDL	BDL	BDL	BDL	
ICP Metals (ug/g)											
Cadmium		BDL	BDL	BDL	BDL	4.4	BDL	BDL	BDL	BDL	
Chromium		13	16	18	16	24	11	9.9	10	12	
Copper		6.7	12	14	15	51	36	41	38	35	
Lead		BDL	13	BDL	BDL	180	BDL	BDL	BDL	BDL	
Zinc		35	51	50	50	230	100	110	98	100	
Arsenic (ug/g)		BDL	BDL	BDL	3.0	94	17	16	3.9	BDL	
Mercury (ug/g)		BDL	BDL	BDL	BDL	0.64	BDL	BDL	BDL	BDL	
Thiodiglycol (ug/g)											
Thiodiglycol		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
Chloroacetic acid		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	

BDL - Below detection limit

BKD - Background

NA - Not analyzed

S - As referenced to calibration standard of methane for OVA, and benzene for HNU; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

Table 24S-3. Results of Phase I Field Study. Page 27 of 31.
 Site 25. Reported "phoosy water" waste drainage investigated by boring on this page.

Boring 44				
Depth (feet)	0-1	4-5	9-10	10-11
Geologic Material	Silty Sand Trace Gravel and Clay	Gravelly Sandstone w/Silt	Gravelly Sandstone w/Silt	Gravelly Sandstone w/Silt
Percent PinesVO	20	5	5	5

AIR MONITORING

Volatile Organic Readings (ppm)

HNuS	BKD	BKD	BKD	BKD
OVAS	BKD	BKD	2.0*	9.0*

SOIL CHEMISTRY

Volatiles (ug/g)

BDL

Semivolatiles (ug/g)

Aldrin	30	BDL	BDL	BDL
Dichlorodiphenylethane	0.8	BDL	BDL	BDL
Dieldrin	6	BDL	BDL	BDL

ICP Metals (ug/g)

Cadmium	12	1.1	BDL	BDL
Chromium	49	11	10	10
Copper	330	37	39	41
Lead	600	BDL	BDL	BDL
Zinc	910	97	97	100

Arsenic (ug/g)

12

Mercury (ug/g)

BDL

Thiodiglycol (ug/g)

Thiodiglycol	BDL	BDL	BDL	BDL
Chloroacetic acid	BDL	BDL	BDL	BDL

BDL - Below detection limit

BKD - Background

NA - Not analyzed

S - As referenced to calibration standard of methane for OVA, and benzene for HNu; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

* - Readings taken from around auger of this interval

Table 24S-3. Results of Phase I Field Study. Page 28 of 31.
 Site 29. Reported arsenic sludge discharge investigated by boring on this page.

Boring 30							
Depth (feet)	1.1-2.1	2.1-3.1	4-5	6.2-7.2	9-10	14-15	17-18
Geologic Material	Silty Sand w/Gravel	Silty Sand w/Gravel	Sand w/Silt	Gravelly Sand w/Clay	Sandy Clay/Claystone	Sandy Claystone	Sandy Claystone
Percent PinesVO	20	20	5	10	70/85	85	85
AIR MONITORING							
Volatile Organic Readings (ppm)							
HNUS	BKD	BKD	BKD	BKD	700*	500	450
OVAS	BKD	BKD	BKD	NR**	NR**	NR**	NR**
SOIL CHEMISTRY							
Volatiles (ug/g)	NA	NA	BDL	BDL	BDL	BDL	BDL
Semivolatiles (ug/g)	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ICP Metals (ug/g)							
Cadmium	1.7	BDL	BDL	BDL	BDL	BDL	BDL
Chromium	11	11	BDL	98	11	12	12
Copper	7.3	BDL	BDL	32	33	28	40
Lead	12	29	BDL	BDL	17	20	BDL
Zinc	41	110	23	54	85	80	120
Arsenic (ug/g)	48	170	500	250	BDL	BDL	BDL
Mercury (ug/g)	0.22	0.49	0.050	0.32	BDL	BDL	BDL
Thiodiglycol (ug/g)							
Thiodiglycol	NA	NA	NA	NA	NA	NA	NA
Chloroacetic acid	NA	NA	NA	NA	NA	NA	NA

BDL - Below detection limit

BKD - Background

NA - Not analyzed

NR - Not recorded

S - As referenced to calibration standard of methane for OVA, and benzene for HNUS; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

* - HNUS readings around auger from 8.5 to 9 ft

** - OVA not used after 5 ft due to malfunction

Table 24S-3. Results of Phase I Field Study, Page 29 of 31.
 Site 37. Reported spill of concentrated, mixed sulfuric and nitric acid investigated by borings on this page.

Depth (feet) Geologic Material	Boring 41				Boring 42	
	0.5-1.5 Silty Sand	4-5 Silty Sand w/Clay	9-10 Silty Sand w/Clay/Clayey Silt	14-15 Sandy Shale	0-1 Silty Sand w/Clay	4-5 Silty Sand
Percent Pine ^{VO}	30	25	40/100	80	50	35
AIR MONITORING						
Volatile Organic Readings (ppm)						
HNuS	BDL	NR*	BDL	BDL	BDL	BDL
OVAS	BDL	NR*	9.0	10.0	BDL	BDL
SOIL CHEMISTRY						
Volatiles (ug/g)						
Methylisobutyl ketone	NA	BDL	BDL	BDL	NA	1
Semivolatiles (ug/g)						
Dieldrin	1	BDL	BDL	BDL	5	BDL
ICP Metals (ug/g)						
Cadmium	BDL	BDL	BDL	BDL	2.5	BDL
Chromium	BDL	27	10	12	37	22
Copper	8.7	13	13	34	100	10
Lead	13	BDL	BDL	BDL	120	BDL
Zinc	46	65	59	96	260	48
Arsenic (ug/g)	3.9	BDL	BDL	BDL	7.1	3.8
Mercury (ug/g)	0.51	BDL	BDL	BDL	3.2	0.068
Thiodiglycol (ug/g)						
Thiodiglycol	BDL	BDL	BDL	BDL	BDL	BDL
Chloroacetic acid	BDL	BDL	BDL	BDL	BDL	BDL

BDL - Below detection limit

BDL - Background

NA - Not analyzed

NR - Not recorded

S - As referenced to calibration standard of methane for OVA, and benzene for HNu; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 Percent

* - No reading recorded in hole

Table 24S-3. Results of Phase I Field Study. Page 30 of 31.
Site 40. Reported leak of distilled mustard gas investigated by borings on this page.

Depth (feet)	Boring 8				Boring 46		Boring 47	Boring 48
	0-1	4-5	9-10	0.5-1	0.5-1	0.5-1	0.5-1	0.5-1
Geologic Material	Sandy Clayey Gravel/Gravelly Clayey Sand	Clayey Sand	Sandy Claystone	Composite from 18 points Silty Sand	Composite from 18 points Silty Sand	Composite from 18 points Silty Sand	Composite from 18 points Silty Sand	Composite from 18 points Silty Sand
Percent PinesVO	10/30	30	60	30	40	40	40	40

AIR MONITORING

Volatile Organic Readings (ppm)

HNUS	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
OVAS	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

SOIL CHEMISTRY

Volatiles (ug/g)

Semivolatiles (ug/g)

Aldrin	3	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dieldrin	10	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Isodrin	20	BDL	BDL	BDL	BDL	BDL	BDL	BDL

ICP Metals (ug/g)

Cadmium	2.7	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chromium	13	11	10	10	10	10	10	10
Copper	28	35	37	37	37	37	37	37
Lead	32	30	28	28	28	28	28	28
Zinc	85	86	99	99	99	99	99	99

Arsenic (ug/g)

Mercury (ug/g)

Thiodiglycol (ug/g)

Thiodiglycol	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroacetic acid	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

BDL - Below detection limit

BDL - Background

NA - Not analyzed

S - As referenced to calibration standard of methane for OVA, and benzene for HNUS; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

* - Boring 47/48, OVA not used due to malfunction

Table 24S-3. Results of Phase I Field Study, Page 31 of 31.
Site 41. Reported leaks of spent acid investigated by boring on this page.

Boring 21						
Depth (feet)	0-1	4-5	9-10	14-15	19-20	29-30
Geologic Material	Silty Sand Trace Clay and Gravel	Sandy Clayey Silt Trace Pebbles	Silty Sand w/Clay/Clayey Siltstone	Clayey Siltstone w/Sand	Sandy Siltstone w/Clay	Clayey Siltstone
Percent Fines ^{VO}	45	90	35/100	90	70	100

AIR MONITORING

Volatile Organic Readings (ppm)

HNuS	BDL	BDL	BDL	BDL	BDL	BDL
OVAS	BDL	BDL	BDL	BDL	BDL	BDL

SOIL CHEMISTRY

<u>Volatiles (ug/g)</u>	NA	BDL	BDL	BDL	BDL	BDL

Semivolatiles (ug/g)

Dieldrin	0.6	BDL	BDL	BDL	BDL	BDL

ICP Metals (ug/g)

Cadmium	BDL	BDL	BDL	BDL	BDL	BDL
Chromium	25	33	12	11	14	12
Copper	16	23	15	37	47	53
Lead	120	BDL	BDL	BDL	BDL	BDL
Zinc	70	98	44	110	110	120

Arsenic (ug/g)

Arsenic	BDL	BDL	BDL	BDL	BDL	BDL

Mercury (ug/g)

Mercury	BDL	BDL	BDL	BDL	BDL	BDL

BDL - Below detection limit

BRD - Background

NA - Not analyzed

S - As referenced to calibration standard of methane for OVA, and benzene for HNu; reading has been adjusted to account for background level

VO - As determined by visual observation and rounded to the nearest 5 percent

chloride, tetrachloroethylene, and toluene. The distribution of all of the analytes detected within or above their indicator levels in the Phase I program is presented in Figures 24S-8a through 8d (Borings 1, 4-10, 13, 13A, 14-19, 27, and 46-49 in Figure 24S-8a; Borings 22-26, 28-29, 34-37, 43-44, and 50 in Figure 24S-8b; Borings 11-12, 20-21, 31-32, A33, P33, and 33 in Figure 24S-C; and Borings 38-42, 45, and 51-52 in Figure 24S-8d). A tabulation of all analytical data associated with the Phase I program is presented in Appendix 24S-B.

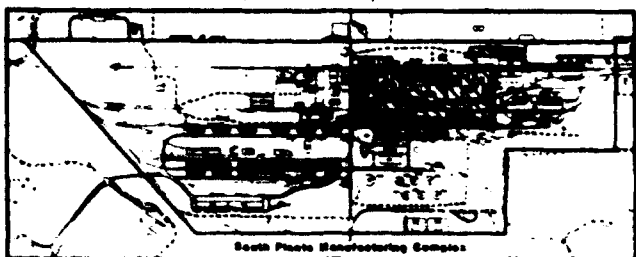
Sixteen borings from six sites were located in pits, sumps, or settling basins (Site 2, Borings 1, 4, and 5; Site 8, Boring 9; Site 12, Boring 25; Site 14, Borings 31, 32, A33, P33, 33, 34, and 35; Site 15, Borings 13A, 13, and 44; and Site 29, Boring 30). Ten borings from seven sites were located in ditches (Site 10, Boring 38; Site 16, Boring 20; Site 17, Borings 11 and 12; Site 19, Boring 40; Site 20, Boring 19; Site 25, Borings 43 and 44; and Site 37, Borings 41 and 42).

Benzene was detected in 8 samples from 5 borings at Sites 6, 8, 14, 15, and 18 in concentrations ranging from 0.3 to 10 micrograms per gram (ug/g). Although benzene was detected in one near-surface sample (Boring 13, Site 15), the trend was low concentrations at or near the water table. The single highest concentration of benzene, 10 ug/g, occurred in the deepest interval (19-20 ft interval) of Boring 10, Site 6.

Bicycloheptadiene was detected in 8 samples from 4 borings at Sites 2, 14, and 18 in concentrations ranging from 1 to 5,000 ug/g. The highest concentration detected, 5,000 ug/g, occurred in the 9 to 10 ft interval of Boring 4, Site 2. The next deeper sample at this site (11.5-12.5 ft interval) had a concentration of 2 ug/g of bicycloheptadiene.

Chloroform, the most frequently detected volatile organic compound in this study, was detected in 11 samples from 6 borings at Sites 6, 8, 14, 15, and 18

Location Map



South Photo Manufacturing Complex

NNO102

0.5-1.5

Dieldrin	1
Pb	26
As	13
Hg	5.7
Cd	3900
Pb	64
As	77000
Hg	7800

2-3

Cd	5.3
As	120
Hg	1.1

9-10

As	13
Hg	11

10.7-11.7

Pb	32
Zn	62
As	9.2
Hg	1.4

0-1

Aldrin	
Dieldrin	
CL ₆ CP	
Cd	
As	
Hg	

4-5

BCHPD	
DCPD	
DCPD	
As	
Hg	

9-10

BCHPD	
DCPD	
DCPD	
Cd	
As	
Hg	

11.5-12.5

BCHPD	
Cd	
Zn	
As	
Hg	

TFO101

NNO103

5348

534C

533

510

534A

534

511

511A

515

316A

Aldrin	80
Dieldrin	100
Isodrin	10
Cd	2.9
Cu	21
Pb	35
Zn	71
As	82
Hg	21

4-5

BCHPD	500 (VO)
DCPD	4000 (VO)
DCPD	3000 (SVC)
Cd	31
Zn	76
As	1100
Hg	160

9-10

BCHPD	600 (VO)
DCPD	2000 (VO)
DCPD	800 (SVC)
Cd	2.5
Pb	25
Zn	69
As	71
Hg	71

** 0-1 As 3.0

Hg 14

** 4-5 BIL

As	7.3
Hg	0.25
BIL	

*** 0.5-1 BIL

0-0.5

Aldrin	
Dieldrin	
Endrin	
Cu	
Pb	
Hg	

Aldrin	3
Dieldrin	10
Isodrin	20
Cd	2.7
Cu	28
Pb	32
Zn	85
As	25
Hg	0.22

Cu	35
Pb	30
Zn	86
As	11

Cd	1.1
Cu	37
Pb	28
Zn	99
As	17

*** 0.5-1 BIL

*** 0.5-1 BIL

Phase I boring
and number

46

Surface Trench Sample
and number

49

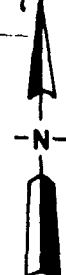
Grab Composite Sample
and number

LEGEND

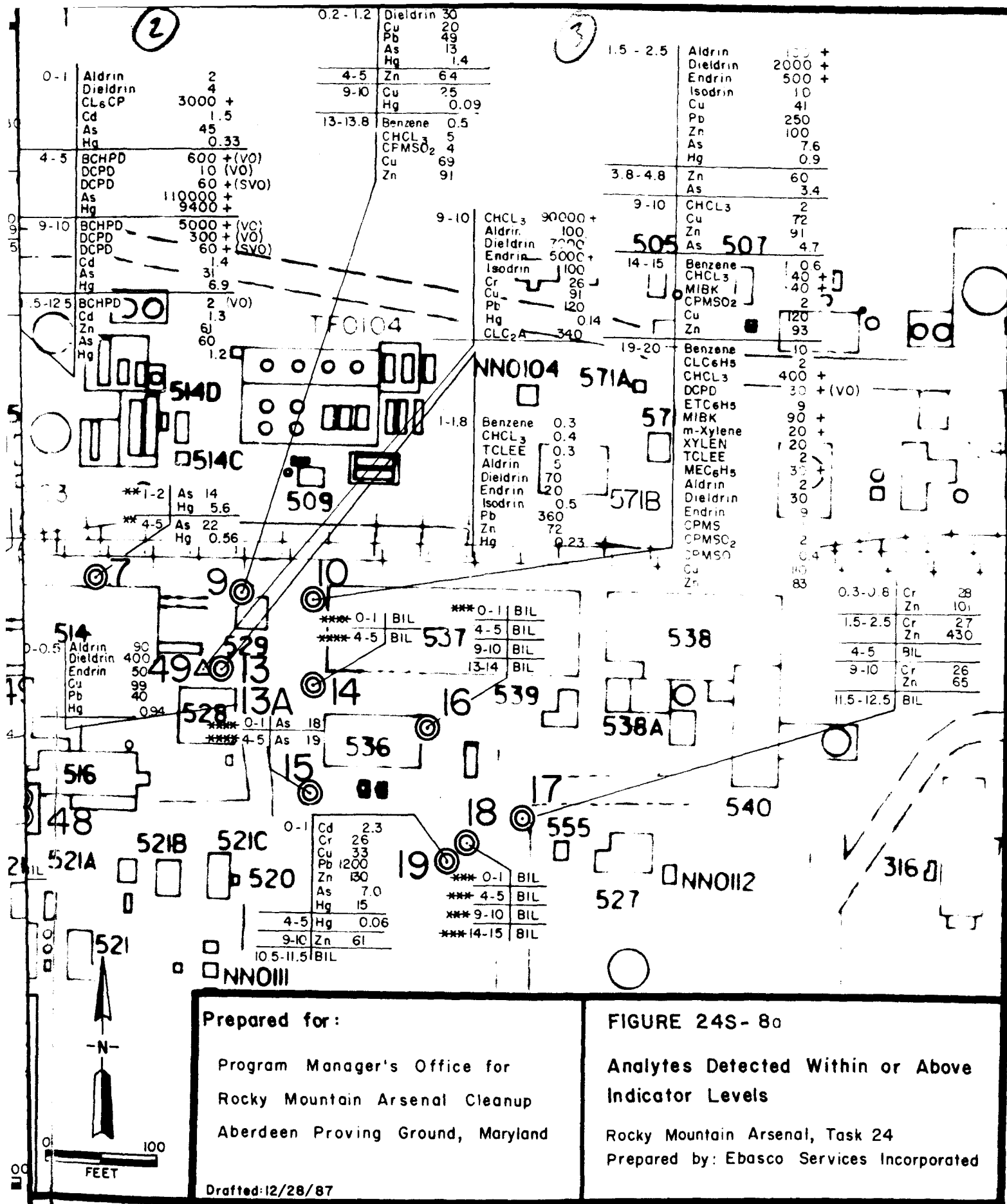
Sample — 0-1 Aldrin 3 — Level
Interval (ft) (ug/g)

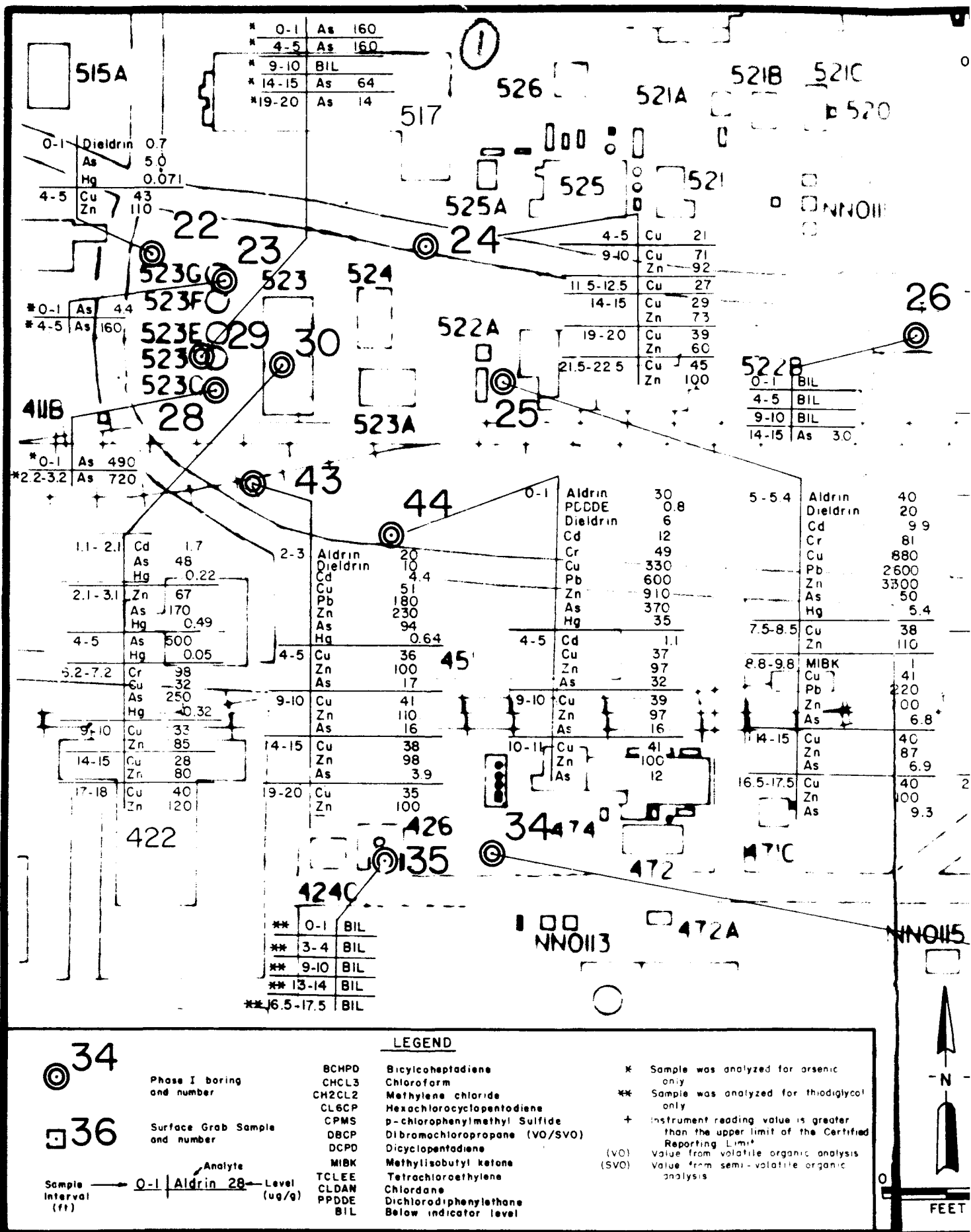
BCHPD	Bicycloheptadiene
CHCL ₃	Chloroform
CH ₂ Cl ₂	Hexachlorocyclopentadiene
CL ₆ CP	Chloroacetic acid
CLC ₆ H ₅	Chlorobenzene
CPMS	p-chlorophenylmethyl Sulfide
CPMSO ₂	p-chlorophenylmethyl Sulfone
CPMSO	p-chlorophenylmethyl Sulfoxide
DCPD	Dicyclopentadiene
ETC ₆ H ₅	Ethylbenzene
MIBK	Methylisobutyl ketone
TCLEE	Tetrachloroethylene
MEC ₆ H ₅	Toluene
XYLEN	o- & p-Xylene

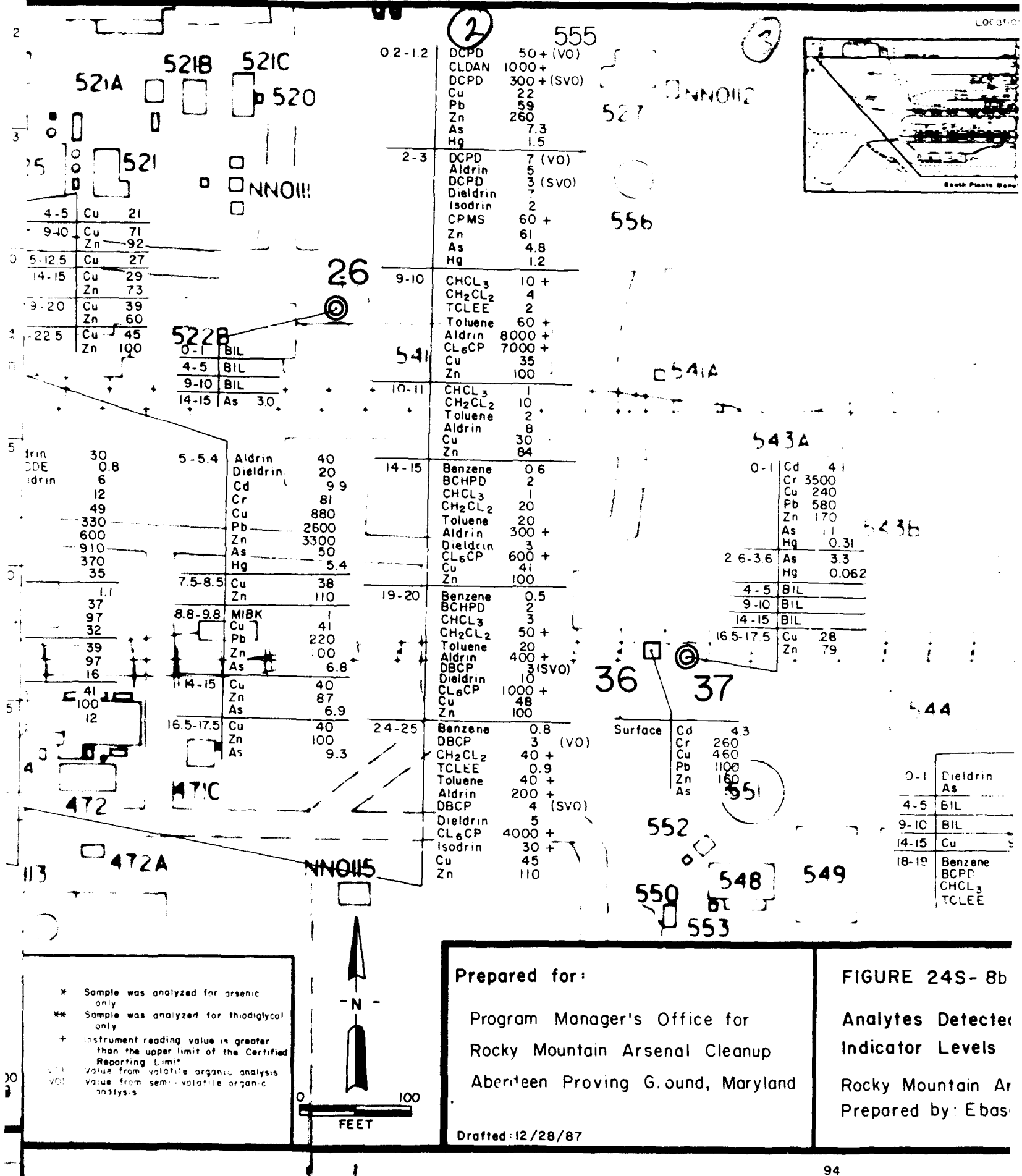
* Results of redrilling
 ** Samples analyzed for arsenic,
 mercury and thiodiglycol only
 *** Samples analyzed for thiodiglycol
 only
 **** Samples analyzed for arsenic and
 thiodiglycol only
 + Instrument reading value is greater
 than the upper limit of the
 Certified Reporting Limit
 (VC) Value from volatile organic analysis
 (SVC) Value from semi-volatile organic
 analysis

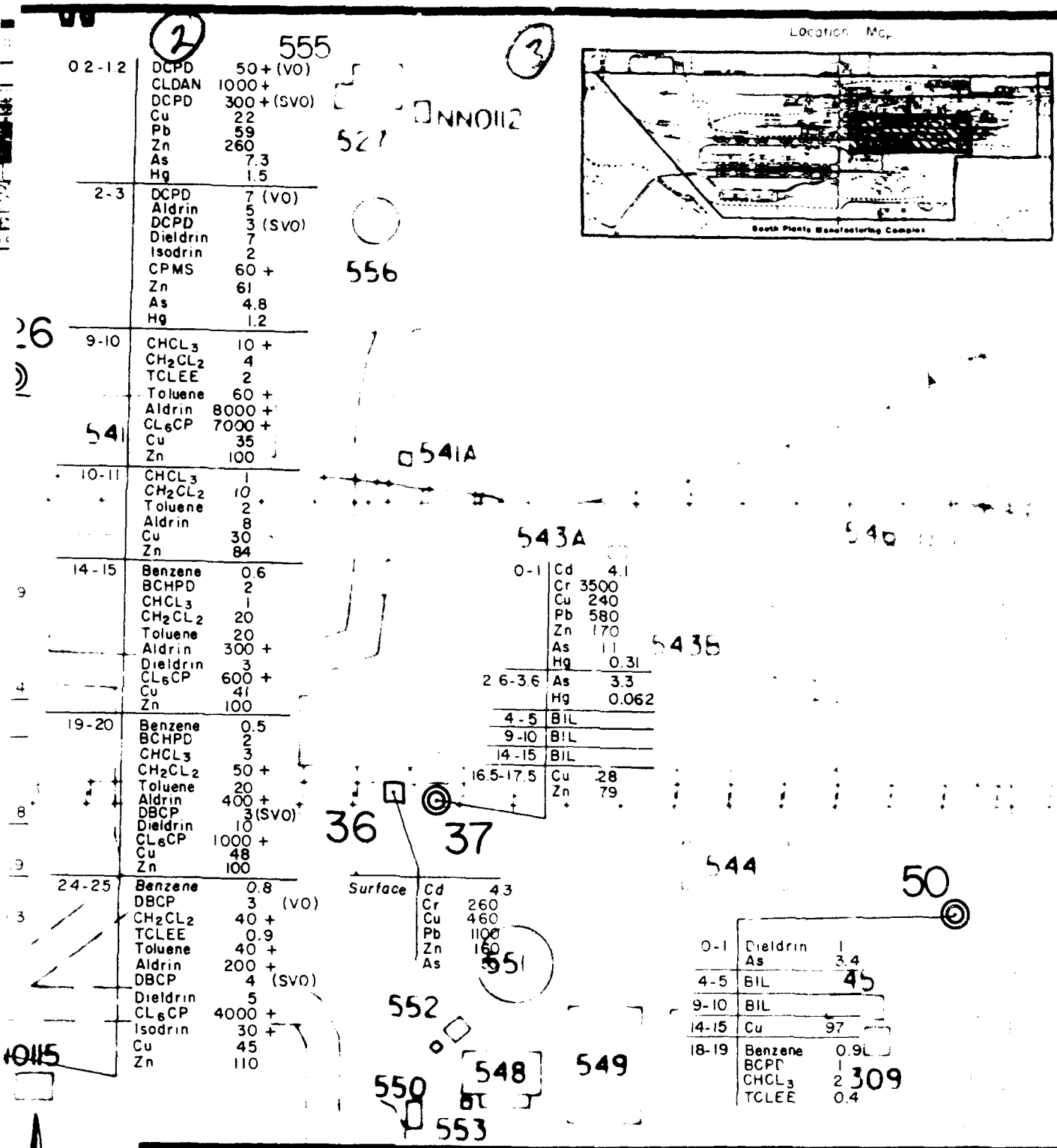


FEET









Prepared for:

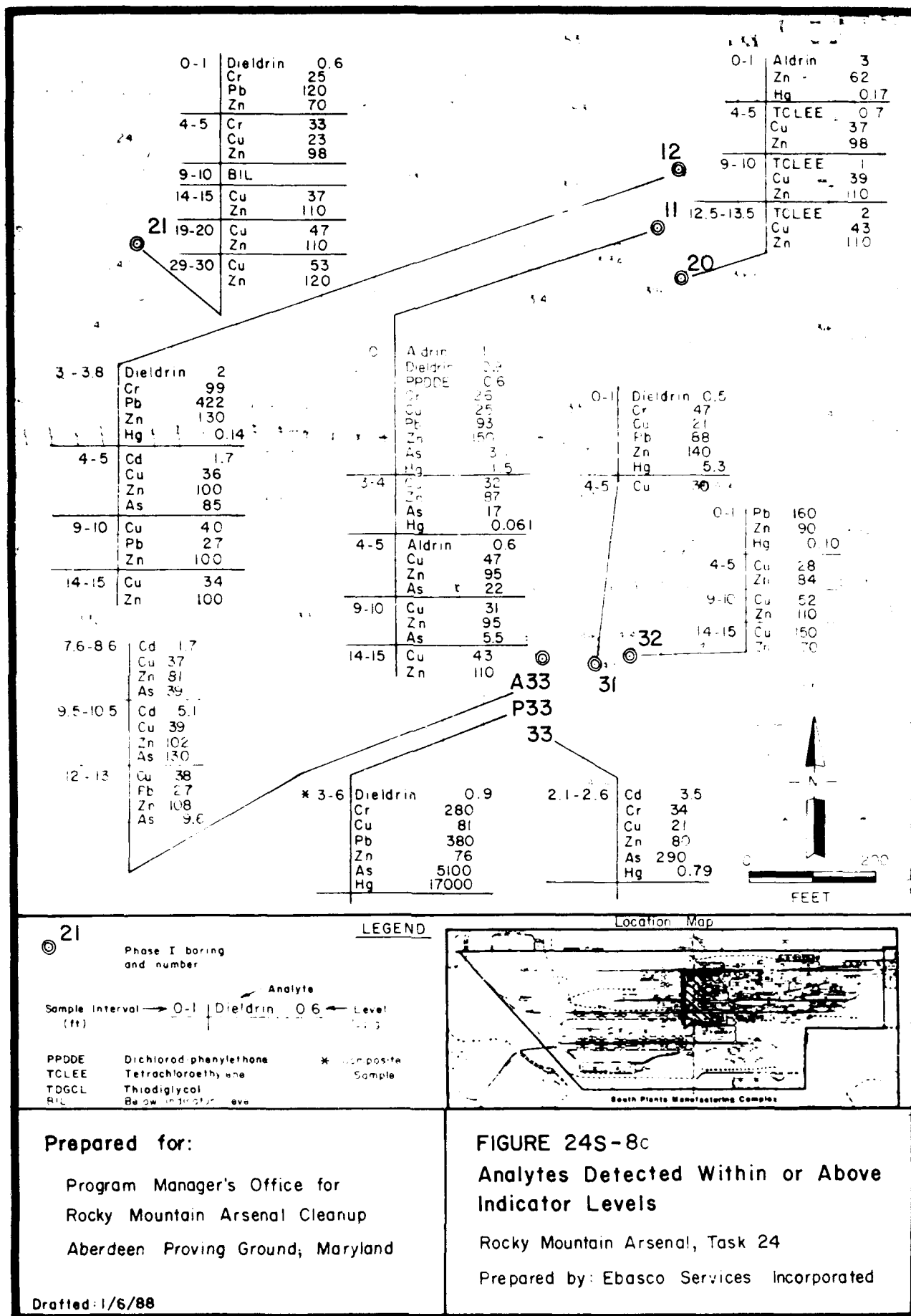
Program Manager's Office for
Rocky Mountain Arsenal Cleanup
Aberdeen Proving Ground, Maryland

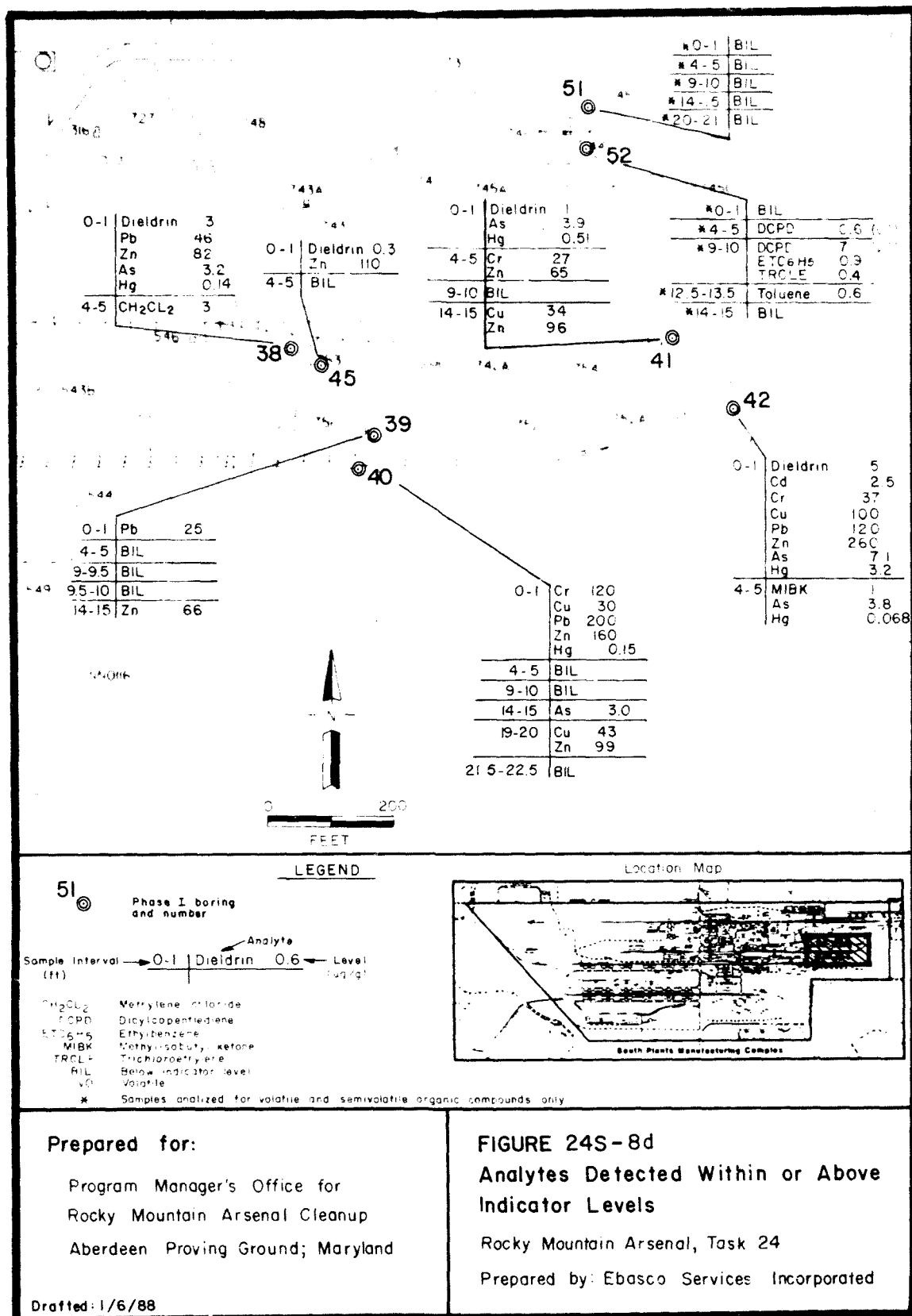
Drafted 12/28/87

FIGURE 24S- 8b

Analytes Detected Within or Above
Indicator Levels

Rocky Mountain Arsenal, Task 24
Prepared by: Ebasco Services Incorporated





in concentrations ranging from 0.4 to 90,000 ug/g. The highest concentration detected, 90,000 ug/g, was from Boring 49 in the 9 to 10 ft interval beneath a pit.

Two separate analytical methods were used to identify dibromochloropropane. Using the GC/MS method for volatile organics (EPA 8240), dibromochloropropane was detected in 1 sample from Site 14, Boring 34, at 3 ug/g in the 24 to 25 ft interval. Using the GC/MS method for semivolatile organics (EPA 8270) it was detected in 2 samples from Site 14, Boring 34, at 3 ug/g from the 19 to 20 ft interval and at 4 ug/g from the 24 to 25 ft interval.

Dicyclopentadiene was detected in 18 samples. Two separate analytical methods were used to identify dicyclopentadiene. Using the GC/MS method for volatile organics (EPA 8240), dicyclopentadiene was detected in 9 samples from 5 borings at Sites 2, 6, 9, and 14 in concentrations ranging from 0.6 to 4,000 ug/g. The highest concentration detected, 4,000 ug/g, occurred in the 4 to 5 ft interval of Boring 5, Site 2. Dicyclopentadiene was detected in the 0.2 to 1.2 ft interval of Boring 34, Site 14 at 50 ug/g. Usually this interval is not analyzed for volatile organics. However, it was analyzed for volatiles in this instance because the sample was taken from under the floor of a concrete pit.

Using the GC/MS method for semivolatile organics (EPA 8270), dicyclopentadiene was detected in 9 samples from 3 borings at Sites 2 and 14 in concentrations ranging from 0.6 to 3,000 ug/g. The highest concentration, 3,000 ug/g, occurred in the 4 to 5 ft interval of Boring 5, Site 2. Using the semivolatile method, dicyclopentadiene was most often detected in the 4 to 5 and 9 to 10 ft intervals of the same boring. However, in one boring it was detected in the 0.2 to 1.2 and 2 to 3 ft intervals (Site 14, Boring 34 at 3 ug/g). Dicyclopentadiene was detected in only 1 surface sample using the semivolatile method (Boring 34, Site 14, 0.2-1.2 ft interval at 300 ug/g).

Ethylbenzene was detected in 2 samples from 2 borings: Boring 10, Site 6, at 9 ug/g in the 19 to 20 ft interval, and in Boring 52, Site 9, at 0.9 ug/g in the 9 to 10 ft interval.

Methylene chloride was detected in 6 samples from 2 borings at Sites 10 and 14 in concentrations ranging from 3 to 50 ug/g. No methylene chloride was found in the method blanks from the samples where the chemical was detected, making it probable that the methylene chloride was not laboratory introduced.

Methylene chloride was found in the 4 to 5 ft interval of 1 boring (Boring 38, Site 10) and at every sampled interval in and between the 9 to 10 and 24 to 25 ft intervals of Boring 34, Site 14. The highest concentration reported, 50 ug/g, occurred at Site 14, Boring 34 in the 19 to 20 ft interval.

Methylisobutyl ketone was detected in 4 samples at concentrations ranging from 1 to 90 ug/g. It was found at its lowest concentration, 1 ug/g, in the 8.8 to 9.8 ft interval (Site 12, Boring 25), the shallowest interval where it occurred. The two highest concentrations were found at Site 6, Boring 10 in the 14 to 15 ft interval (40 ug/g) and in the 19 to 20 ft interval (90 ug/g).

Tetrachloroethylene was detected in 8 samples from 6 borings at Sites 6, 14, 15, 16, and 18 in concentrations ranging from 0.3 to 2 ug/g. With the exception of Boring 13, Site 15, where tetrachloroethylene was detected in a near-surface interval (1-1.8 ft) in a pit area, it was always detected at intervals 4 to 5 ft or below. The highest concentration, 2 ug/g, was detected in 3 borings (Site 6, Boring 10 in the 19-20 ft interval; Site 14, Boring 34 in the 9-10 ft interval; and Site 16, Boring 20 in the 12.5-13.5 ft interval).

Toluene was detected in 7 samples from 3 borings at Sites 6, 9, and 14 in concentrations ranging from 0.6 to 60 ug/g. It was always detected at depth ranging from the 9 to 10 to the 24 to 25 ft intervals. The highest concentration detected, 60 ug/g, occurred at Site 14, Boring 34 in the 9 to 10 ft interval.

Four volatiles were detected in 1 sample each. Three of these analytes were detected at Site 6, Boring 10 in the 19 to 20 ft interval: chlorobenzene (at 2 ug/g); m-xylene (at 20 ug/g); and o- and p-xylene (at 20 ug/g). Trichloroethylene was detected at Site 9, Boring 52, at 0.4 ug/g in the 9 to 10 ft interval.

Aldrin was detected in 20 samples from 13 borings at Sites 2, 6, 12, 14, 15, 16, 17, 25, and 40 in concentrations ranging from 0.6 to 8,000 ug/g. Aldrin was usually found in the surface or near-surface intervals only. However, in Boring 10 (Site 6), aldrin was detected both in the surface sample (1.5-2.5 ft) at 100 ug/g and at depth (19-20 ft) at 2 ug/g. Aldrin was also detected at Site 15 in Boring 49, below a pit, in the 9 to 10 ft interval at 1 ug/g. At Site 14 in Boring 34, aldrin was detected first in the 2 to 3 ft interval, below a pit, and in each successive interval to the water table at 25 ft. The highest concentration of aldrin detected in this study, 8,000 ug/g, occurred in the 9 to 10 ft interval of this boring.

Dichlorodiphenylethane was detected in two surface samples (0-1 ft interval) at concentrations of 0.6 and 0.8 ug/g. These hits were from Boring 11 (Site 17) and Boring 44 (Site 25).

Dieldrin was the most commonly detected semivolatile in this study, occurring in 28 samples from 24 borings at Sites 2, 6, 8, 10, 12, 13, 14, 15, 17, 18, 25, 37, 40, and 41 in concentrations ranging from 0.3 to 7,000 ug/g. In all but two of the borings in which it was detected, dieldrin occurred only in the 0 to 1 ft interval or the first interval sampled. Dieldrin was found in more than one interval in Boring 10, Site 6 (1.5-2.5 and 19-20 ft intervals) and in Boring 34, Site 14 (2-3, 14-15, 19-20, and 24-25 ft intervals). The highest concentration of dieldrin found in this study, 2,000 ug/g, (Boring 49, Site 15) occurred in the only interval sampled (9-10 ft), which was beneath a reported disposal pit.

Endrin was detected in 5 samples from 4 borings at Sites 6 and 15 in concentrations ranging from 9 to 5,000 ug/g. It was always detected in the same intervals and in samples with aldrin and dieldrin. In Boring 10 (Site 6), it was found in surface or near-surface samples and again at depth. The highest concentration, 5,000 ug/g, occurred at Site 15, Boring 49, in the 9 to 10 ft interval, which was directly below a pit.

Hexachlorocyclopentadiene was detected in 5 samples from borings at Site 2 (Boring 4) and Site 14 (Boring 34). All hits were at high concentrations

(Site 2, Boring 4, 3,000 ug/g in the 0-1 ft interval; Site 14, Boring 34, 7,000 ug/g in the 9-10 ft interval, 600 ug/g in the 14-15 ft interval, 1,000 ug/g in the 19-20 ft interval, and 4,000 ug/g in the 24-25 ft interval).

Isodrin was detected in 7 samples from 6 borings at Sites 2, 6, 14, 15, and 40 in concentrations ranging from 0.6 to 100 ug/g. Isodrin was always detected in samples with aldrin and dieldrin. In all but one instance, isodrin was detected either in the surface or near-surface samples or directly beneath a pit. However, the highest concentration, 100 ug/g, was detected in the 9 to 10 ft interval (Boring 49, Site 15). This boring was located under a pit.

p-Chlorophenylmethyl sulfide was detected in 2 samples from 2 borings: Boring 10, Site 6, at 1 ug/g in the 19 to 20 ft interval, and Boring 34, Site 14, at 60 ug/g in the 2 to 3 ft interval.

p-Chlorophenylmethyl sulfone was detected in 3 samples from 2 borings: Boring 10, Site 6, at 2 ug/g in both the 14 to 15 and 19 to 20 ft intervals and in Boring 9, Site 8, at 4 ug/g in the 13 to 13.8 ft interval.

Two semivolatiles were detected in only one sample each. Chlordane was detected at 1,000 ug/g in the 0.2 to 1.2 ft interval at Site 14, Boring 34, and p-chlorophenylmethyl sulfoxide was detected at 0.4 ug/g in Boring 10, Site 6 in the 19 to 20 ft interval.

Cadmium concentrations in 23 samples (ranging from 1.1 to 3,000 ug/g), chromium concentrations in 18 samples (ranging from 25 to 3,500 ug/g), copper concentrations in 78 samples (ranging from 20 to 880 ug/g), lead concentrations in 38 samples (ranging from 25 to 2,600 ug/g), and zinc concentrations in 90 samples (ranging from 60 to 3,300 ug/g) were detected within or above their indicator ranges. Cadmium was always detected within or below the 4 to 5 ft interval and usually associated with nonclay soils. In five of the six instances where cadmium was detected at or below the 7.6 to 8.6 ft interval, it was found in soils with clay content. The highest concentration detected, 3,900 ug/g, occurred at Site 2, Boring 1, in the 2 to 3 ft interval. Chromium was detected in intervals to 6 ft and usually

associated with silty and sandy soils. In the one instance where it was detected at depth (Site 29, Boring 30, 6.2-7.2 ft interval), it was associated with soil with some clay content. The highest concentration detected was 3,500 ug/g in silty sand with clay and trace gravel (Site 18, Boring 37 in the 0-1 ft interval). In the majority of samples where copper was detected, it was found at depths below the 7.6 to 8.6 ft interval. However, copper was detected at its highest concentration, 880 ug/g, in the 5 to 5.4 ft interval in organic sandy silt (Site 12, Boring 25). Where lead was detected in the intervals to 6 ft, it was associated with nonclay soils. In the three instances where lead was detected at depth (8.8-9.8 and 9-10 ft intervals), it was associated with clay soil or claystone. The highest concentration of lead, 2,600 ug/g, was detected in organic sandy silt (Site 12, Boring 25, in the 5-5.4 ft interval). Zinc was detected relatively evenly throughout the range of sampling intervals and was associated with both clay and nonclay soils. Zinc was detected at its highest concentration, 3,300 ug/g, in organic sandy silt (Site 12, Boring 25, in the 5-5.4 ft interval).

Arsenic was detected within or above its indicator range in 73 samples from 33 borings in concentrations ranging from 3.0 to 110,000 ug/g. Arsenic was not detected in 12 borings (14, 17, 45, 24, 13A, 13, 21, 49, 31, 32, 20, and 39) from Sites 6, 7, 10, 12, 14, 15, 16, 19, and 41.

Where it was detected, arsenic generally occurred in both the 0 to 1 and 4 to 5 ft intervals (or in the first 2 intervals sampled where these depths varied). Arsenic was detected in the intervals between 8.8 and 10.5 ft in 10 borings (1, 4, 5, 10, 25, A33, 11, 43, 44, and 8) from Sites 2, 6, 12, 14, 17, 25, and 40. In 7 of these borings (1, 4, 25, 29, A33, 43, and 44) from Sites 12, 13, 14, and 25, arsenic was also detected below the 9 to 10 ft interval. Isolated low concentrations (3.0 ug/g) of arsenic occurred in the 14 to 15 ft interval of 2 borings (40 and 26) at Sites 19 and 26. The highest concentration of arsenic detected in this spill study area, 110,000 ug/g, occurred at Site 2, Boring 4. Arsenic was also detected at 5,100 ug/g in Boring P33 (Site 14).

Mercury was detected within or above its indicator range in 50 samples from 31 borings in concentrations ranging from 0.050 to 17,000 ug/g. Mercury was not

detected in 9 borings (17, 45, 24, A33, 36, 50, 39, 26, and 21 from Sites 7, 10, 12, 14, 18, 19, and 41).

Where it was detected, mercury generally followed a vertical distribution pattern similar to that of arsenic, occurring usually in both the 0 to 1 and 4 to 5 ft intervals. Mercury was found in the 9 to 10 ft intervals of only 5 borings (1, 4, 5, 9, and 49) and below the 9 to 10 ft intervals of only 2 borings (1 and 4). The highest concentration of mercury detected in this spill study area, 17,000 ug/g, occurred in a composite sample of sludge from a pit at Site 14, Boring P33. Mercury was also detected at 9,400 ug/g in the 4 to 5 ft interval (Site 2, Boring 4) and at 7,800 ug/g in the 2 to 3 ft interval (Site 2, Boring 1).

Chloroacetic acid was detected at 340 ug/g at Site 15, Boring 49, in the 9 to 10 ft interval. Thiodiglycol was not detected in any sample for which it was analyzed.

In addition, many compounds were detected by GC/MS that were not included in the target compound list and that were not conclusively identified. Table 24S-4 lists the borehole number, sample interval depth, relative retention time (shown as "unknown number" on the table), concentration, sample number, lot, best-fit identification, and comments for these nontarget compounds. It should be noted that an individual compound may have more than one retention time, and also that a particular retention time may be assigned to more than one compound. Therefore, Table 24S-4 provides only a general indication of additional compounds that may be present.

Concentrations of nontarget compounds tentatively identified as chlorinated hydrocarbons were detected at relatively high concentrations at Site 2, Borings 4 and 5, in the 0 to 1 ft interval at 80 ppm and 600, respectively; at Site 6, Boring 10 (300 ppm in the 1.5-2.5 ft interval and at 40 ppm in the 19-20 ft interval); Site 14, Boring 34 (600 ppm in the 0.2-1.2 ft interval, including 200 ppm of chlordane and 300 ppm of heptachlor, 7 ppm in the 2-3 ft interval, 200 ppm in the 9-10 ft interval, 20 ppm in the 10-11 ft interval, 40 ppm in the 14-15 ft interval, 100 ppm in the 19-20 ft interval, and 40 ppm in

Table 24S-4. Tentative Identification of Nontarget Compounds. Page 1 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
1	0.5-1.5			010	CQC		K
	2-3	575	0.8	002	CQF	alkane, C-14	K
		578	0.4	002	CQD	cyclic hydrocarbon, C-15	
		580	0.5	002	CQD	alkane, C-16	A
		581	0.4	002	CQD		
		582	1	002	CQD	alkane, C-16	
		595	0.5	002	CQD	alkane, C-17	
		612	0.5	002	CQD	alkene, GT C-18	
		619	0.5	002	CQD	hexanedioic acid, dioctyl ester	A
		631	0.4	002	CQD		C, F
	9-10						
		587	0.7	003	CQF		K
		587	0.4	003	CQD	alcohol or alkene, GT C-14	A
		593	1	003	CQD	alcohol or alkene, GT C-14	
		597	0.8	003	CQD	alkene, GT C-16	
		603	0.6	003	CQD	alkene, GT C-16	
		608	0.3	003	CQD	alkene, GT C-18	
4	10.7-11.7			005	CQF		K
				005	CQD		K
	0-1	547	0.4	002	CHF	alkane with 4 chlorines	
		561	0.9	002	CHF	tetrachlorocyclopentadiene isomer	
		569	8	002	CHF	hydrocarbon with 5 chlorines	J
		581	0.4	002	CHF	unknown siloxane	
		591	30	002	CHF	octachlorocyclopentene	
		595	0.5	002	CHF	diethyl-1,1'-biphenyl isomer	
		597	20	002	CHF	1,2-dichloro-3,4-bis(dichloromethylene) cyclobutane isomer	
		598	0.4	002	CHF	diethyl-1,1'-biphenyl isomer	
		599	1	002	CHF	cyclic hydrocarbon, C-19	
		604	0.4	002	CHF	unknown phthalate	C, F

A - No positive identification

C - Plasticizer

F - Low concentration

GT - Greater than

J - Possible column bleed

K - None detected

* - Values reported are blank corrected

Task 24

5044A/1116A

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 2 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
4	0-1	605	1	002	CHF	cyclic hydrocarbon, C-20	C, F A
		606	0.5	002	CHF	bridged hydrocarbon, C-20	
		609	1	002	CHF	unknown phthalate	
		612	0.9	002	CHF		
		615	10	002	CHF	pentachloro(trichloroethenyl benzene)	
		630	1	002	CHF	alkane, C-24	
		634	0.4	002	CHF	octachloronaphthalene isomer	
		637	4	002	CHF	octachloronaphthalene isomer	
		639	8	002	CHF	dodecachlorooctahydro-1,3,4-metheno-1H-cyclobutapentalene	
4-5		536	0.5	003	CHD	tricyclo[2.2.1.0 ^{2,6}] heptan-3-ol	K
		560	0.5	003	CHF	bridged hydrocarbon, C-11	
		584	0.5	003	CHF	bridged hydrocarbon, C-15	
		635	0.8	003	CHF	alkene, C-25	
		650	0.6	003	CHF	alkene, C-26	
9-10		111	500	004	CHD	1,3,5-cycloheptatriene	A
		175	1000	004	CHD		
		532	4	004	CHF	2-methyl-2,4-pentanediol	
		535	0.7	004	CHF	bridged hydrocarbon, C-8	
		544	4	004	CHF	bridged hydrocarbon, C-9	
		546	0.7	004	CHF	alkylated benzene, C-9	
		548	0.7	004	CHF	alkylated benzene, C-9	
		550	0.4	004	CHF	3,4-diethenylcyclohexene	
		554	0.6	004	CHF	bridged hydrocarbon, C-10	
		557	1	004	CHF	bridged hydrocarbon, C-11	
		558	3	004	CHF	bridged hydrocarbon, C-11	
		560	0.3	004	CHF	bridged hydrocarbon, C-11	
		561	10	004	CHF	bridged alkane, C-11	
		562	2	004	CHF	bridged hydrocarbon, C-12	
		562	4	004	CHF	bridged hydrocarbon, C-12	
		564	6	004	CHF	bridged hydrocarbon, C-12	
		565	0.4	004	CHF	bridged hydrocarbon, C-12	
		566	3	004	CHF	bridged hydrocarbon, C-12	
		567	0.5	004	CHF	bridged hydrocarbon, C-12	
		569	2	004	CHF	branched alkane, C-12	
		575	0.4	004	CHF	branched alkane, C-14	

A - No positive identification

C - Plasticizer

F - Low concentration

K - None detected

* - Values reported are blank corrected

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5044A/1116A

Rev. 3/22/88

Table 24S-4. Tentative Identification of Nontarget Compounds. Page 3 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
4	9-10	580	0.8	004	CHF	bridged hydrocarbon, C-15	
		582	0.5	004	CHF	4,8-methano-indacene-decahydro-2-methylene	
		583	0.4	004	CHF	unknown hydrocarbon, C-15	
		585	1	004	CHF	bridged hydrocarbon, C-15	
		586	1	004	CHF	bridged hydrocarbon, C-15	
		587	0.4	004	CHF	bridged hydrocarbon, C-16	
		596	0.9	004	CHF	unknown hydrocarbon, C-17	
		599	2	004	CHF	2-propenoic acid, 3-(1-cyclopenten-1-yl)-methyl ester	
		614	0.8	004	CHF	unknown hydrocarbon, C-22	
		650	0.7	004	CHF	branched alkane, C-28	
5	11.5-12.5	537	10	005	CHD	2-methyl-2,4-pentanediol	K
		581	0.7	005	CHF	alkene, C-5	
		635	0.5	005	CHF	alkene, C-8	
		535	0.6	009	CPC	aromatic hydrocarbon	
		541	0.7	009	CPC	polyunsaturated cyclic oxyhydrocarbon	
	0-1	542	4	009	CPC	polyunsaturated cyclic oxyhydrocarbon	
		560	20	009	CPC	polyunsaturated heterocyclic hydrocarbon	
		561	3	009	CPC	1,1,2,3,4,4-hexachloro-1,3-butadiene	
		562	0.5	009	CPC	polyunsaturated cyclic oxyhydrocarbon	
		563	2	009	CPC	polyunsaturated heterocyclic hydrocarbon	
		564	1	009	CPC	polyunsaturated heterocyclic hydrocarbon	
		565	2	009	CPC	polyunsaturated heterocyclic hydrocarbon	
		569	0.5	009	CPC	hydrocarbon with 4 chlorines	
		580	3	009	CPC	polyunsaturated heterocyclic oxyhydrocarbon	
		583	0.7	009	CPC	polyunsaturated heterocyclic oxyhydrocarbon	
		585	20	009	CPC	polyunsaturated heterocyclic alcohol	
		591	10	009	CPC	polyunsaturated hydrocarbon with 8 chlorines	
		596	0.6	009	CPC	cyclic hydrocarbon with 8 chlorines	
		601	9	009	CPC	cyclic hydrocarbon with 6 chlorines	

K - None detected
 * - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 4 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
5	0-1	616	0.4	009	CPC	aromatic hydrocarbon	
		623	8	009	CPC	polychlorinated aromatic	
		624	0.9	009	CPC	bridged polycyclic chlorinated hydrocarbon	
		625	4	009	CPC	aromatic hydrocarbon	
		626	1	009	CPC	bridged polycyclic chlorinated hydrocarbon	
		627	100	009	CPC	aromatic hydrocarbon	
		628	300	009	CPC	bridged polycyclic chlorinated hydrocarbon	
		629	0.3	009	CPC	bridged polycyclic chlorinated hydrocarbon	
		629	2	009	CPC	unknown hydrocarbon	
		630	40	009	CPC	bridged polycyclic chlorinated hydrocarbon	
		631	0.3	009	CPC	aromatic oxyhydrocarbon	
		632	0.6	009	CPC	unknown hydrocarbon	
		633	0.9	009	CPC	bridged polycyclic chlorinated hydrocarbon	
		633	8	009	CPC	bridged polycyclic chlorinated hydrocarbon	
		634	3	009	CPC	bridged polycyclic chlorinated hydrocarbon	
		635	0.5	009	CPC	bridged polycyclic chlorinated hydrocarbon	
		635	10	009	CPC	bridged polycyclic chlorinated hydrocarbon	
		636	7	009	CPC	bridged polycyclic chlorinated hydrocarbon	
		636	0.4	009	CPC	bridged polycyclic chlorinated hydrocarbon	
		637	0.5	009	CPC	polyunsaturated cyclic hydrocarbon	
		638	20	009	CPC	bridged polycyclic chlorinated hydrocarbon	
		639	50	009	CPC	bridged polycyclic chlorinated hydrocarbon	
		639	40	009	CPC	bridged polycyclic hydrocarbon with 7 chlorines	

* - Values reported are blank corrected

Table 24S-4. Tentative Identification of Nontarget Compounds. Page 5 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
5	0-1	641	30	009	CPC	bridged polycyclic chlorinated hydrocarbon	
		642	4	009	CPC	bridged polycyclic chlorinated hydrocarbon	
		643	0.6	009	CPC	polyunsaturated cyclic hydrocarbon	
		646	0.5	009	CPC	polyunsaturated cyclic hydrocarbon	
		649	0.6	009	CPC	polyunsaturated cyclic hydrocarbon	
		652	3	009	CPC	bridged polycyclic chlorinated hydrocarbon	
		652	20	009	CPC	polyunsaturated cyclic oxyhydrocarbon	
		654	1	009	CPC	polyunsaturated cyclic oxyhydrocarbon	
		656	20	009	CPC	bridged polycyclic chlorinated hydrocarbon	
		659	0.4	009	CPC	polyunsaturated cyclic oxyhydrocarbon	
	4-5	660	0.7	009	CPC	polyunsaturated cyclic oxyhydrocarbon	
		60	300	007	CPE	1,3-cyclopentadiene	
		146	800	007	CPE	unknown dicyclopentadiene isomer	
		161	300	007	CPE	unknown triene	
		179	400	007	CPE	unknown alkene	
		544	40	010	CPC	dicyclopentadiene derivative hydrocarbon	
		546	60	010	CPC	1,2,3,3A-tetrahydroazulene	
		557	10	010	CPC	heterocyclic polyunsaturated hydrocarbon	
		558	20	010	CPC	heterocyclic polyunsaturated hydrocarbon	
		561	2000	010	CPC	heterocyclic polyunsaturated hydrocarbon	
		561	80	010	CPC	heterocyclic polyunsaturated hydrocarbon	
		562	200	010	CPC	heterocyclic polyunsaturated hydrocarbon	
		563	60	010	CPC	heterocyclic polyunsaturated hydrocarbon	
		564	60	010	CPC	heterocyclic polyunsaturated hydrocarbon	
		565	40	010	CPC	polyunsaturated heterocyclic oxyhydrocarbon	
		569	5	010	CPC	heterocyclic polyunsaturated hydrocarbon	
		578	4	010	CPC	1,4,4A,4B,5,8,8A,8B-octahydro-1,4:5,8-dimethanobiphenylene isomer	
		578	4	010	CPC	1,4,4A,4B,5,8,8A,8B-octahydro-1,4:5,8-dimethanobiphenylene isomer	
		579	7	010	CPC	unknown hydrocarbon	

* - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 6 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
5	4-5	580	40	010	CPC	polyunsaturated heterocyclic oxyhydrocarbon	
		583	10	010	CPC	dicyclopentadiene relative	
		584	70	010	CPC	polyunsaturated heterocyclic oxyhydrocarbon	
		586	40	010	CPC	polyunsaturated heterocyclic oxyhydrocarbon	
		587	30	010	CPC	polyunsaturated heterocyclic oxyhydrocarbon	
		587	3	010	CPC	polyunsaturated heterocyclic oxyhydrocarbon	
		595	7	010	CPC	polyunsaturated heterocyclic hydrocarbon	
		599	30	010	CPC	polyunsaturated heterocyclic hydrocarbon	
		601	7	010	CPC	polyunsaturated heterocyclic oxyhydrocarbon	
		620	8	010	CPC	polyunsaturated heterocyclic oxyhydrocarbon	
		631	4	010	CPC	polyunsaturated heterocyclic oxyhydrocarbon	
		632	10	010	CPC	polyunsaturated heterocyclic oxyhydrocarbon	
		633	5	010	CPC	polyunsaturated heterocyclic oxyhydrocarbon	
	9-10	146	300	002	CPV	probably dicyclopentadiene isomer	
		537	8	006	CPP	dicyclopentadiene isomer	
		544	1	006	CPP	dicyclopentadiene isomer	
		545	30	006	CPP	dicyclopentadiene isomer	
		547	7	006	CPP	unknown aromatic with saturated tail	
		547	6	006	CPP	unknown aromatic with saturated tail	
		549	5	006	CPP	unknown aromatic with saturated tail	
		550	2	006	CPP	bridged hydrocarbon	
		551	4	006	CPP	bridged hydrocarbon	
		555	0.8	006	CPP	bridged polycyclic hydrocarbon	
		557	0.4	006	CPP	bridged polycyclic hydrocarbon	
		558	7	006	CPP	aromatic with unsaturated tail	
		559	10	006	CPP	aromatic with unsaturated tail	
		560	2	006	CPP	branched alkane, C-12	

* - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 7 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
5	9-10	561	400	006	CPP	bridged hydrocarbon	
		563	90	006	CPP	bridged hydrocarbon	
		564	2	006	CPP	bridged hydrocarbon	
		564	20	006	CPP	bridged hydrocarbon	
		566	4	006	CPP	cyclic hydrocarbon	
		566	3	006	CPP	bridged polycyclic hydrocarbon	
		566	6	006	CPP	unknown aromatic	
		567	3	006	CPP	unknown aromatic	
		568	2	006	CPP	branched alkane, C-13	
		569	5	006	CPP	substituted aromatic	
		572	1	006	CPP	unknown hydrocarbon	
		574	50	006	CPP	1,1'-biphenyl	
		576	100	006	CPP	oxybis-1,1'-benzene	
		577	0.6	006	CPP	bridged polycyclic hydrocarbon	
		578	1	006	CPP	bridged polycyclic hydrocarbon	
		579	1	006	CPP	bridged polycyclic hydrocarbon	
		580	2	006	CPP	bridged polycyclic hydrocarbon	
		580	5	006	CPP	bridged polycyclic hydrocarbon	
		581	0.5	006	CPP	bridged polycyclic hydrocarbon	
		583	2	006	CPP	unknown aromatic	
		584	6	006	CPP	bridged polycyclic hydrocarbon	
		585	30	006	CPP	cyclic hydrocarbon	
		586	1	006	CPP	substituted benzene	
		587	20	006	CPP	bridged polycyclic hydrocarbon	
		587	10	006	CPP	bridged polycyclic hydrocarbon	
		588	2	006	CPP	bridged polycyclic hydrocarbon	
		589	0.9	006	CPP	substituted benzene	
		590	1	006	CPP	bridged polycyclic hydrocarbon	
		592	0.6	006	CPP	bridged polycyclic hydrocarbon	
		593	0.5	006	CPP	bridged polycyclic hydrocarbon	
		595	1	006	CPP	alkane, C-19	A
		595	4	006	CPP	cyclic hydrocarbon	
		596	2	006	CPP	cyclic hydrocarbon	
		596	4	006	CPP	cyclic hydrocarbon	
		600	20	006	CPP	bridged polycyclic hydrocarbon	
		602	1	006	CPP	substituted aromatic	
		602	0.4	006	CPP	bridged polycyclic hydrocarbon	
		613	0.7	006	CPP	substituted aromatic	

A - No positive identification
 * - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 8 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
5	9-10	614	0.9	006	CPP	substituted aromatic	
		617	0.4	006	CPP	bridged polycyclic hydrocarbon	
		618	0.5	006	CPP	bridged polycyclic hydrocarbon	
		620	2	006	CPP	bridged polycyclic hydrocarbon	
		620	1	006	CPP	bridged polycyclic hydrocarbon	
		621	0.8	006	CPP	substituted aromatic	A
		624	0.6	006	CPP	substituted aromatic	
		625	0.4	006	CPP	substituted aromatic	A
		626	0.8	006	CPP	substituted aromatic	
		627	0.8	006	CPP	substituted aromatic	
		631	3	006	CPP	substituted aromatic	
		637	0.6	006	CPP	bridged polycyclic hydrocarbon	
8	0-1	610	7	006	CQD	unknown with 6 chlorines	
		634	2	006	CQD	unknown with 6 chlorines	
	4-5						
		638	0.6	006	CQF	alkene, GT C-18	K
9	9-10						
		568	0.5	007	CQF	alkane, C-14	
		575	0.5	008	CQD	alkane, C-14	K
		582	0.5	008	CQD	alkane, C-16	
	0.2-1.2	595	0.5	008	CQD	alkane, C-19	
		612	0.4	008	CQD	alkene or alcohol, GT C-14	
		581	2	010	COF	bridged hydrocarbon with 6 chlorines	
	0.2-1.2	585	1	010	COF	bridged polycyclic hydrocarbon	
		587	3	010	COF	bridged polycyclic hydrocarbon	
		596	0.9	010	COF	tetrachloro benzene	
		604	1	010	COF	unknown phthalate	
		611	2	010	COF	bridged hydrocarbon with 6 chlorines	C, F
		614	0.6	010	COF	bridged hydrocarbon with 6 chlorines	
		622	0.8	010	COF	bridged hydrocarbon with 6 chlorines	
		624	1	010	COF	bridged hydrocarbon with 6 chlorines	
		631	6	010	COF	hexanedioic acid, dioctyl ester	E
		633	0.7	010	COF	bridged polycyclic hydrocarbon with 6 chlorines	

A - No positive identification

C - Plasticizer

E - Suspected laboratory contaminant

F - Low concentration

GT - Greater than

K - None detected

* - Values reported are blank corrected

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Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
9	0.2-1.2	635	1	010	COF	dimethyl undecane	
		648	2	010	COF	trimethyl undecane	
	4-5	636	0.4	002	COL	octadecene isomer	K
				002	CON		
	9-10	615	2	003	COL	molecular sulfur, S8	K
		630	0.4	003	CON	hexanedioic acid, dioctyl ester	D
		635	0.4	003	CON	octadecene isomer	C, F
		642	1	003	CON	2,6,10,14-tetramethylpentadecane	
	13.0-13.8	549	1	004	COL	alkane amide, GT C-5	K
		585	2	004	COL	1-chloro-4-(methylsulfonyl) benzene	
10	1.5-2.5	615	3	004	COL	molecular sulfur, S8	D
		621	0.6	004	COL		A
		635	0.7	004	COL	octadecene isomer	
		541	5	004	CGP	bridged hydrocarbon, C-9	
		557	6	004	CGP	trichlorocyclopentene	
		560	4	004	CGP	hexachlorobutadiene	
		565	30	004	CGP	1-chloro-4-(methylthio) benzene	
		568	10	004	CGP	tetrachlorocyclopentene	
		570	10	004	CGP	hexachlorocyclopentadiene	
		591	200	004	CGP	1,2-dichloro-3,4-bis(dichloromethylene) cyclobutane	
		596	7	004	CGP	octachlorocyclopentene	
		601	10	004	CGP	chlordene	A
		603	7	004	CGP		A
		606	4	004	CGP		
		611	80	004	CGP	aldrin isomer	A
		625	4	004	CGP		A
		627	9	004	CGP		A
		627	10	004	CGP	endrin isomer	
		628	40	004	CGP	endrin isomer	
		629	4	004	CGP	bridged hydrocarbon, C-24	

A - No positive identification
 C - Plasticizer
 D - Derived from natural products
 F - Low concentration
 GT - Greater than
 K - None detected
 * - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 10 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
10	1.5-2.5	630	4	004	CGP	bridged hydrocarbon with 6 chlorines	
		630	5	004	CGP	bridged hydrocarbon with 6 chlorines	
		632	3	004	CGP	bridged hydrocarbon with 5 chlorines	
		634	60	004	CGP	endrin isomer	
		636	10	004	CGP	isodrin isomer	
		638	10	004	CGP	dieldrin isomer	
	3.8-4.8	639	4	004	CGP	aldrin isomer	
				005	CGR		K
				002	CGY		K
				006	CGR		K
	9-10	604	2	003	CGY	unknown phthalate	C, F
		610	0.4	003	CGY	unknown phthalate	C, F
				007	CGR	acetone	
	14-15	584	0.8	004	CGY	substituted benzene, GT C-10	
		622	0.8	004	CGY	cyclic hydrocarbon, C-23	
		636	0.4	004	CGY	hydrocarbon, C-25	
				008	CGR	acetone	
11	19-20	31	1	008	CGR	acetone	
		108	2	008	CGR	methylcyclohexane	
		143	7	008	CGR	unknown alicyclic compound	A
		156	10	008	CGR		
		172	20	008	CGR	unknown alicyclic compound	
		179	30	008	CGR	hexachloro butene isomer	
		568	0.5	005	CGY	tetrachlorocyclopentene	
		591	5	005	CGY	octachlorocyclopentene	
		615	2	005	CGY	molecular sulfur, S8	D
		628	0.8	005	CGY	bridged hydrocarbon, C-24	
		635	0.5	005	CGY	alkene, C-25	
	0-1	576	1	002	CFT	trichloro benzenamine isomer	
		578	1	002	CFT	unknown polyaromatic with 3 chlorines	A
		599	1	002	CFT		C, F
		609	1	002	CFT	unknown phthalate	C, F
		637	0.3	002	CFT	unknown phthalate	
		641	1	002	CFT	alkane, GT C-26	

A - No positive identification
 C - Plasticizer
 D - Derived from natural products
 F - Low concentration
 GT - Greater than
 K - None detected
 * - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 11 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
11	3-4	596	0.4	007	CFN	dicyclopentadiene isomer	K
		609	0.8	004	CFT	hexadecanoic acid	D
		622	0.4	004	CFT	DDT isomer	
		625	1	004	CFT	DDT isomer	
		650	0.6	004	CFT	alkane, GT C-26	
	4-5	576	1	006	CFN	trichloro benzenamine isomer	K
		577	1	003	CFT	unknown polyaromatic with 2 chlorines	
		622	0.4	003	CFT	unknown polyaromatic with 2 chlorines	
		626	1	003	CFT	unknown polyaromatic with 2 chlorines	
12	9-10	609	0.5	008	CFV	hexadecanoic acid	K
				005	CFU		D
	14-15	609	0.6	002	CGK	hexadecanoic acid	K
				006	CFU		D
	3.0-3.8			009	CGH		K
	4-5	576	4	004	CGK	trichloro benzenamine isomer	K
		577	4	010	CGH	polyaromatic hydrocarbon, C-14	
	9-10	615	0.7	005	CGK	nonanedioic acid, diester	K
		631	0.3	002	CGP	hexanedioic acid, dioctyl ester	D
	14-15	615	0.8	006	CGK	nonanedioic acid, diester	K
				003	CGP		D
13A	0-0.5	582	0.6	003	CQP	1,2-dihydro-acenaphthylene	A
		590	0.7	003	CQP		
		595	1	003	CQP	alkane, C-15	
		597	2	003	CQP		A

A - No positive identification
 C - Plasticizer
 D - Derived from natural products
 F - Low concentration
 GT - Greater than
 K - None detected
 * - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 12 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
13A	0-0.5	601	10	003	CQP	bridged polycyclic hydrocarbon	
		603	3	003	CQP	unknown with 2 chlorines	
		604	3	003	CQP	bridged polycyclic hydrocarbon	
		606	2	003	CQP	bridged polycyclic hydrocarbon	
		607	2	003	CQP	polynuclear aromatic	
		613	6	003	CQP	substituted benzene	
		616	6	003	CQP	fluoranthene or pyrene	
		618	5	003	CQP	pyrene or fluoranthene	
		628	3	003	CQP	hexanedioic acid, dioctyl ester	A
		630	3	003	CQP	bridged polycyclic hydrocarbon with 6 chlorines	E
		634	4	003	CQP	bridged polycyclic hydrocarbon	
		637	2	003	CQP	bridged polycyclic hydrocarbon	
		568	0.4	008	CQF	alkane, C-13	K
		575	0.6	004	CQP	alkane, C-14	
13	1.0-1.8	576	0.7	004	CQP	trichlorobenzene isomer	
		578	0.7	004	CQP	hydrocarbon with 3 chlorines	
		580	0.4	004	CQP	alkane, C-15	
		582	0.7	004	CQP	alkane, C-15	
		591	0.4	004	CQP	alkane, C-17	
		595	2	004	CQP	alkane, C-17	
		604	1	004	CQP	bridged polycyclic hydrocarbon with 2 chlorines	
		606	1	004	CQP	bridged polycyclic hydrocarbon with 2 chlorines	
		607	2	004	CQP	bridged polycyclic hydrocarbon with 7 chlorines	
		608	1	004	CQP	bridged polycyclic hydrocarbon with 6 chlorines	
		610	0.5	004	CQP	bridged polycyclic hydrocarbon with 2 chlorines	
		627	0.4	004	CQP	bridged polycyclic hydrocarbon with 2 chlorines	
		634	2	004	CQP	bridged polycyclic hydrocarbon with 6 chlorines	

A - No positive identification
E - Suspected laboratory contaminant
K - None detected
* - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 13 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
13	1.0-1.8	634	0.3	004	CQP	bridged polycyclic hydrocarbon with 6 chlorines	
		637	0.8	004	CQP	bridged polycyclic hydrocarbon with 2 chlorines	
16	4-5			002	CFB		K
	9-10			003	CFB		K
	13-14			004	CFB		K
17	0.3-0.8			002	CFJ		K
	1.5-2.5			008	CFI		K
		635	0.9	006	CFJ	alkene, C-25	
	4-5			005	CFI		K
		635	0.6	003	CFJ	stearyl alcohol	D
	9-10			006	CFI		K
				004	CFJ		K
	11.5-12.5			007	CFI		K
		604	0.8	005	CFJ	unknown phthalate	C, F
		635	0.5	005	CFJ	stearyl alcohol	D
19	0-1			002	CFA	fluoranthene	
		616	9	002	CFA	pyrene	
		618	8	002	CFA	ethyl benzene	E
		624	2	002	CFA	a xylene isomer	E
		625	1	002	CFA	chrysene	
		635	2	002	CFA		
	4-5			005	CFB		K
		529	3	003	CFA	ethyl benzene	E
		529	2	003	CFA	xylene isomer	E
		545	0.8	003	CFA	alkane, C-12	
		631	0.3	003	CFA	hexanedioic acid, mono(2-ethylhexyl) ester	C, F

C - Plasticizer
 D - Derived from natural products
 E - Suspected laboratory contaminant
 F - Low concentration
 K - None detected
 * - Values reported are blank corrected

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Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
19	9-10	580	0.4	006 004	CFB CFA	2-butenedioic acid, bis(2-methylpropyl) ester	K D
	10.5-11.5	580	0.8	007 005	CFB CFA	2-butenedioic acid, bis(2-methylpropyl) ester	K D
		614	0.8	005	CFA	hexanedioic acid, bis(2-methylpropyl) ester	C, F
		631	2	005	CFA	hexanedioic acid, mono(2-ethylhexyl) ester	C, F
20	0-1	635	6	006	CFT	unknown aromatic	
	4-5	603	0.6	002 007	CFV CFT	bridged polycyclic hydrocarbon with 6 chlorines	K
		607	4	007	CFT	bridged polycyclic hydrocarbon with 6 chlorines	
		609	6	007	CFT	bridged polycyclic hydrocarbon with 6 chlorines	
		650	0.5	007	CFT	alkane, GT C-26	
	9-10	609 650	0.4 0.4	003 008 008	CFV CFT CFT	unknown phthalate alkane, GT C-26	K C, F
	12.5-13.5	604 609	0.6 0.6	004 009 009	CFV CFT CFT	unknown phthalate unknown phthalate	K C, F C, F
21	0-1	638	0.6	009	CDT	olefin, GT C-18	
	4-5			006 010	CDM CDT		K K
	9-10	598 604	0.7 0.4	007 010 010	CDM CDE CDE	carboxylic acid, C-13 unknown phthalate	K C, F

C - Plasticizer
 D - Derived from natural products
 F - Low concentration
 GT - Greater than
 K - None detected
 * - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 15 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
21	9-10	609	0.4	010	CDE	carboxylic acid, C-13	
		630	1	010	CDE	hexanedioic acid, dioctyl ester	C, F
		637	1	010	CDE	unknown phthalate	C, F
	14-15	610	0.3	003	CDY	hexadecanoic acid, di-n-butyl phthalate	K
		616	1	009	CDX	nonanedioic acid, dibutyl ester	D, C, F
				009	CDX		D
	19-20	616	0.5	004	CDY	nonanedioic acid, dibutyl ester	K
				010	CDX		D
	29-30	616	2	005	CDY	nonanedioic acid, dibutyl ester	K
				001	CDX		D
22	0-1			007	CCY		K
	4-5			002	CHD		K
24	4-5	639	0.5	008	CGY	hydrocarbon, C-25	
		609	0.8	003	CDZ	hexadecanoic acid	K
		635	0.8	004	CEN	octadecene isomer	D
				004	CDZ	octadecene isomer	K
	9-10	635	0.6	005	CEN		
				005	CDZ	octadecene isomer	K
	11.5-12.5	635	0.5	005	CEN		
				006	CDZ	octadecene isomer	K
	14-15	609	0.7	006	CDZ	hexadecanoic acid	K
		635	0.5	007	CEN	octadecene isomer	D
				007	CEN		
	19-20			007	CDZ		K
				008	CEN		K
	21.5-22.5			008	CDZ		K
				009	CEN		K

C - Plasticizer
 D - Derived from natural products
 F - Low concentration
 K - None detected
 * - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 16 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
25	5.0-5.4	616	20	008	CGH	fluoranthene or pyrene isomer	
		619	20	008	CGH	pyrene or fluoranthene isomer	
		620	10	008	CGH	bridged hydrocarbon, C-23	
		635	5	008	CGH	chrysene isomer	
	7.5-8.5	615	0.5	007	CGK		K
				005	CGP	nonanedioic acid, diester	D
	8.8-9.8			002	CGR		K
				006	CGP		K
	14-15			003	CGR		K
				007	CGP		K
	16.5-17.5			004	CGR		K
				008	CGP		K
26	0-1	609	0.6	010	CFT	hexadecanoic acid	D
	4-5	609	0.5	005	CFV		K
				002	CFU	hexadecanoic acid	D
	9-10			006	CFV		K
				003	CFU		K
	14-15	609	0.8	007	CFV	hexadecanoic acid	K
				004	CFU		D
30	1.1-2.1	608	0.4	002	CRJ	polyunsaturated oxy-hydrocarbon	
		610	0.8	002	CRJ	hexadecanoic acid	D
		619	0.4	002	CRJ	polyunsaturated alkene	
	2.1-3.1	604	1	003	CRJ	dibutylphthalate isomer	C, F
		610	0.5	003	CRJ	hexadecanoic acid	D
		615	2	003	CRJ	nonanedioic acid, dibutyl ester	D
		650	0.3	003	CRJ	polyunsaturated alkene	
	4-5	610	0.9	002	CRI		K
				004	CRJ	hexadecanoic acid	D

C - Plasticizer
 D - Derived from natural products
 F - Low concentration
 K - None detected
 * - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 17 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
30	6.2-7.2	604	0.7	003	CRI		K
		610	0.6	005	CRJ	dibutylphthalate isomer	C, F
		610	0.1	005	CRJ	hexadecanoic acid	D
		631	0.5	005	CRJ	di-n-butylphthalate	C, F
		650	0.1	005	GRJ	hexanedioic acid, dioctyl ester polyunsaturated alkene	
	9-10	610	0.2	004	CRI		K
		613	60	006	CRJ	hexadecanoic acid	D
				006	CRJ	molecular sulfur	D
	14-15	610	0.5	005	CRI		K
				007	CRJ	hexadecanoic acid	D
	17-18	610	0.1	006	CRI		K
				008	CRJ	hexadecanoic acid	D
31	0-1	610	0.6	006	CEA	hexadecanoic acid	D
		616	0.4	006	CEA	mixed spectra: pentachloro biphenyl isomer plus an unknown	
		616	0.6	006	CEA	pentachloro biphenyl isomer	
		618	4	006	CEA	pentachloro biphenyl isomer	
		620	0.4	006	CEA	octadecanoic acid	
		622	0.6	006	CEA	pentachloro biphenyl isomer	
		624	0.8	006	CEA	hexachlorinated biphenyl isomer	
		625	3	006	CEA	hexachlorinated biphenyl isomer	
		627	4	006	CEA	hexachlorinated biphenyl isomer	
		629	1	006	CEA	heptachlorinated biphenyl isomer	
		630	3	006	CEA	hexachlorinated biphenyl isomer	
		632	2	006	CEA	heptachlorinated biphenyl isomer	
		632	0.6	006	CEA	heptachlorinated biphenyl isomer	
		634	2	006	CEA	heptachlorinated biphenyl isomer	
		635	0.6	006	CEA	heptachlorinated biphenyl isomer	
		635	0.9	006	CEA	alkene, C-25	
		637	4	006	CEA	heptachlorinated biphenyl isomer	
		640	1	006	CEA	heptachlorinated biphenyl isomer	

C - Plasticizer
 D - Derived from natural products
 F - Low concentration
 K - None detected
 * - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 18 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
31	0-1	641	1	006	CEA	octachlorinated biphenyl isomer	
		641	1	006	CEA	octachlorinated biphenyl isomer	
		644	0.7	006	CEA	octachlorinated biphenyl isomer	
32	0-1	635	0.7	002	CDY	unknown alkene	K
		635	0.7	007	CEA	unknown alkene	
		581	0.5	002	CEA	1,2-dihydroacenaphthylene isomer	
		609	0.5	002	CEA	hexadecanoic acid	D
33	0-1	616	3	002	CEA	pyrene or fluoranthene	
		619	3	002	CEA	pyrene or fluoranthene	
		634	0.7	002	CEA	naphthalene isomer	
		635	1	002	CEA	triphenylene isomer	
		605	0.8	006	CDY	unknown phthalate	K
		609	0.4	003	CEA	hexadecanoic acid	C, F
33	0-1	635	0.5	003	CEA	alkene, C-25	D
		605	2	007	CDY	unknown phthalate	K
		609	0.4	004	CEA	hexadecanoic acid	C, F
		635	0.6	004	CEA	alkene, C-25	D
33	2.1-2.6	615	0.6	008	CDY	nonanedioic acid, diester	K
		615	0.6	005	CEA	nonanedioic acid, diester	D
		599	0.6	009	CDE	carboxylic acid, C-13	
P33	3-6	630	1	009	CDE	hexanedioic acid, dioctyl ester	C, F
		637	0.7	009	CDE	unknown phthalate	C, F
		550	1	006	CGY	branched hydrocarbon, C-18	
		551	0.3	006	CGY	cyclic hydrocarbon, C-10	
		559	1	006	CGY	branched alkane, C-11	
		561	0.4	006	CGY	1,3,5,7,9-pentathiacene	
		567	2	006	CGY	branched hydrocarbon, C-13	
		572	2	006	CGY	3,5-dimethyl-1,2,4-trithiokene	
		574	20	006	CGY	1,1'-biphenyl isomer	
		576	40	006	CGY	1,1'-oxybis-benzene	

C - Plasticizer
 D - Derived from natural products
 F - Low concentration
 K - None detected
 * - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 19 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
P33	3-5	577	0.6	006	CCY	trichlorinated hydrocarbon	
		578	0.4	006	CCY	bridged hydrocarbon, C-14	
		579	0.8	006	CCY	alkane, C-15	
		582	2	006	CCY	alkane, C-15	
		591	1	006	CCY	alkane, C-17	
		593	1	006	CCY	alkane, C-17	
		594	2	006	CCY	alkane, C-17	
		595	1	006	CCY	branched alkane, C-17	
		600	1	006	CCY	alkane, C-18	
		601	0.8	006	CCY	alkane, C-18	
		603	0.9	006	CCY	alkane, C-19	
		606	0.8	006	CCY	alkane, C-20	
		610	1	006	CCY	unknown phthalate	
		611	0.6	006	CCY	alkane, C-21	
		618	2	006	CCY	unknown hydrocarbon, C-23	
		619	0.4	006	CCY	pyrene isomer	
		621	8	006	CCY	hexadecanoic acid	
		638	0.4	006	CCY	alkene, C-25	
		640	2	006	CCY	unknown hydrocarbon, C-26	
		642	0.4	006	CCY	unknown hydrocarbon, C-26	
A33	7.6-8.6	574	0.4	007	CQE	polynuclear aromatic	
		575	0.3	007	CQC	n-tetradecane	
		575	3	007	CQC	1,1'-oxybis-benzene	
		582	0.3	007	CQC	branched alkane, C-15	
		594	0.4	007	CQC	branched alkane, C-17	
		595	0.4	007	CQC	n-heptadecane	
		600	0.4	007	CQC	n-octadecane	
		609	0.6	007	CQC	hexadecanoic acid	
		650	0.7	007	CQC	polyunsaturated alkene	
		574		008	CQE		
		575	0.3	008	CQC	polynuclear aromatic	
		575	0.9	008	CQC	1,1'-oxybis-benzene	
	9.5-10.5	574	0.3	009	CQC	polynuclear aromatic	
		575	0.9	009	CQC	1,1'-oxybis-benzene	
	12-13	574	0.3	009	CQC	polynuclear aromatic	
		575	0.9	009	CQC	1,1'-oxybis-benzene	

C - Plasticizer
 D - Derived from natural products
 F - Low concentration
 K - None detected
 * - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 20 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
A33	12-13	609	0.3	009	CQC	hexadecanoic acid	D
		615	0.5	009	CQC	nonanedioic acid, dibutyl ester	D
34	0.2-1.2	144	4	002	CFE	unknown alicyclic compound	
		157	20	002	CFE	unknown alicyclic compound	
		176	400	002	CFE	unknown alicyclic compound	A
		561	400	007	CFK		
		568	100	007	CFK	1-chloro-4(methylthio)-benzene	
		601	200	007	CFK	chlordane	
		607	300	007	CFK	heptachlor	
	2-3						
		559	1	003	CFE	trichlorocyclopentene	K
		561	0.9	008	CFK		
		567	1	008	CFK	trichlorocyclopentene	A
		568	3	008	CFK	1-chloro-4(methylthio)-benzene	
		569	1	008	CFK	tetrachlorocyclopentene	
		580	0.6	008	CFK	2-butenedioic acid, bis(2-methylpropyl) ester	D
		583	3	008	CFK		A
		585	2	008	CFK		A
		591	0.3	008	CFK	1,2,3,4,5,7,7-heptachloro-bicyclo[2,2,1]hept-2-ene	
		596	0.3	008	CFK	1,2,3,4-tetrachloro-5-(dichloromethylene)-1,3-cyclopentane	
		602	0.4	008	CFK	unknown with 2 chlorines	
		610	0.3	008	CFK	hexadecanoic acid plus an unidentified phthalate	D, C, F
		625	0.2	008	CFK	unknown with 6 chlorines (looks sort of like isodrin)	
		634	0.6	008	CFK	endrin ketone	
		637	0.4	008	CFK	photodieldrin	
	9-10	179	40	004	CFE	chlorinated butene	
		570	200	009	CFK	unknown with 5 chlorines	
	10-11						
		647	20	005	CFE	unknown with 6 chlorines	K
				010	CFK		

A - No positive identification
 C - Plasticize
 D - Derived from natural products
 F - Low concentration
 K - None detected
 * - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 21 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
34	14-15			006	CFE		K
		533	0.5	002	CF0	trichloropropene isomer	
		534	0.4	002	CF0		A
		537	0.7	002	CF0	bridged cyclic hydrocarbon, C-7	
		538	2	002	CF0	bridged cyclic hydrocarbon, C-7	
		539	7	002	CF0	phenol	
		560	0.5	002	CF0	hydrocarbon with 4 chlorines, C-5	
		561	3	002	CF0	hexachloro butadiene	A
		562	2	002	CF0		
		569	0.6	002	CF0	unknown with 3 chlorines	
		570	10	002	CF0	unknown with 5 chlorines	
		591	5	002	CF0	unknown with 8 chlorines	
		601	4	002	CF0	polychlorinated polycyclic bridged hydrocarbon, C-10	
		614	1	002	CF0	polycyclic bridged hydrocarbon, C-12	
		615	20	002	CF0	polychlorinated polycyclic bridged hydrocarbon, C-12	
		615	1	002	CF0		A
				007	CFE		K
		549	0.6	003	CF0		A
		556	0.4	003	CF0		A
19-20		557	0.4	003	CF0		A
		561	20	003	CF0	hexachloro butadiene	
		561	0.7	003	CF0	unknown with 5 chlorines	
		569	2	003	CF0		
		569	0.7	003	CF0	polycyclic bridged hydrocarbon with 5 chlorines	A
		572	1	003	CF0	bromo benzene isomer	
		573	1	003	CF0	tetrachlorobenzene isomer	
		584	1	003	CF0	pentachlorobenzene isomer	
		587	1	003	CF0		A
		591	30	003	CF0	unknown with 8 chlorines	
		596	0.5	003	CF0	cyclic hydrocarbon with 6 chlorines	
		599	0.6	003	CF0		A
		601	20	003	CF0	polycyclic bridged hydrocarbon	
		605	0.5	003	CF0	unknown with 4 chlorines	
		613	1	003	CF0		A

A - No positive identification

K - None detected

* - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 22 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
34	19-20	616	80	003	CFO	polycyclic bridged hydrocarbon with 6 chlorines	
		625	1	003	CFO	polycyclic bridged hydrocarbon	A
		626	2	003	CFO	polycyclic bridged hydrocarbon	
		627	5	003	CFO	polycyclic bridged hydrocarbon with 6 chlorines	
		635	1	003	CFO	polycyclic bridged hydrocarbon with 6 chlorines	
	24-25	635	0.4	003	CFO	polycyclic bridged hydrocarbon with 6 chlorines	
		178	20	008	CFT	hexachlorinated butene	
		534	3	005	CFT	benzaldehyde	
		536	2	005	CFT	polycyclic hydrocarbon	
		561	6	005	CFT	hexachloro-1,3-butadiene	
		569	10	005	CFT	unknown aromatic with 3 chlorines	
		591	4	005	CFT	octachloro cyclopentadiene	
		601	6	005	CFT	chlordene isomer	
		603	0.4	005	CFT	polycyclic hydrocarbon	
		605	3	005	CFT	mixed spectra: polyaromatic hydrocarbon with 5 chlorines plus an unknown	
36	Surface Grab	621	2	005	CFT	bridged polycyclic hydrocarbon with 6 chlorines	
		626	0.8	005	CFT	unknown aromatic	
		626	0.4	005	CFT	bridged polycyclic hydrocarbon	
		636	0.7	005	CFT	bridged polycyclic hydrocarbon	
		636	0.7	005	CFT	bridged polycyclic hydrocarbon	
37	0-1	619	4	008	CEA	alkene, C-23	
		624	4	008	CEA	bridged hydrocarbon, C-23	
		639	4	008	CEA	bridged hydrocarbon, C-25	
		535	6	003	CDE	unknown hydrocarbon, C-8	
		542	20	003	CDE	branched alkane, C-9	
		545	10	003	CDE	bridged hydrocarbon, C-9	
		546	10	003	CDE	unknown hydrocarbon, C-9	
		550	40	003	CDE	branched alkane, C-10	
		551	6	003	CDE	branched alkane, C-10	
		552	10	003	CDE	bridged hydrocarbon, C-10	
		558	20	003	CDE	naphthalene isomer	

A - No positive identification

* - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 23 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
37	0-1	559	40	003	CDE	branched alkane, C-12	
		560	20	003	CDE	branched alkane, C-12	
		562	8	003	CDE	cyclic hydrocarbon, C-12	
		564	10	003	CDE	unknown hydrocarbon, C-12	
		565	20	003	CDE	branched alkane, C-12	
		567	40	003	CDE	branched alkane, C-12	
		568	20	003	CDE	branched alkane, C-12	
		571	8	003	CDE	bridged hydrocarbon, C-13	
		572	10	003	CDE	branched alkane, C-13	
		573	60	003	CDE	branched hydrocarbon, C-13	
		575	60	003	CDE	branched hydrocarbon, C-14	
		577	40	003	CDE	octahydro-2,2,4,4,7,7-hexamethyl-1H indene isomer	
		578	20	003	CDE	cyclic hydrocarbon, C-14	
		579	40	003	CDE	unknown hydrocarbon, C-15	
		579	10	003	CDE	octahydro-2,2,4,4,7,7-hexamethyl-1H indene isomer	
		580	10	003	CDE	alkane, C-15	
		581	80	003	CDE	branched alkane, C-15	
		585	10	003	CDE	unknown hydrocarbon, C-16	
		586	20	003	CDE	alkane, C-16	
		589	8	003	CDE	cyclic hydrocarbon, C-16	
		591	60	003	CDE	alkane, C-16	
		592	8	003	CDE	cyclic hydrocarbon, C-17	
		593	8	003	CDE	cyclic hydrocarbon, C-17	
		595	100	003	CDE	branched alkane, C-17	
		595	10	003	CDE	bridged hydrocarbon, C-17	
		596	8	003	CDE	bridged hydrocarbon, C-18	
		597	20	003	CDE	branched alkane, C-18	
		598	10	003	CDE	cyclic hydrocarbon, C-18	
		601	40	003	CDE	alkane, C-18	
		602	8	003	CDE	bridged hydrocarbon, C-18	
		602	20	003	CDE	unknown hydrocarbon, C-18	
		603	10	003	CDE	unknown hydrocarbon, C-19	
		604	10	003	CDE	bridged hydrocarbon, C-19	
		606	8	003	CDE	alkane, C-20	
		606	10	003	CDE	unknown hydrocarbon, C-20	
		607	10	003	CDE	bridged hydrocarbon, C-20	
		608	8	003	CDE	unknown hydrocarbon, C-20	
		611	10	003	CDE	branched alkane, C-21	

* - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 24 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
37	0-1	612	10	003	CDE	branched alkane, C-21	
		613	10	003	CDE	unknown hydrocarbon, C-21	
		614	20	003	CDE	bridged hydrocarbon, C-22	
		615	10	003	CDE	bridged hydrocarbon, C-22	
		616	10	003	CDE	unknown hydrocarbon, C-22	
		620	10	003	CDE	unknown hydrocarbon, C-23	
		621	10	003	CDE	unknown hydrocarbon, C-23	
		622	8	003	CDE	unknown hydrocarbon, C-23	
		628	20	003	CDE	bridged hydrocarbon, C-23	
		628	10	003	CDE	alkane, C-24	
		630	10	003	CDE	alkane, C-24	
		630	10	003	CDE	bridged hydrocarbon, C-25	
		631	20	003	CDE	bridged hydrocarbon, C-25	
		632	10	003	CDE	alkane, C-25	
		633	10	003	CDE	unknown hydrocarbon, C-25	
		633	10	003	CDE	unknown hydrocarbon, C-25	
		634	20	003	CDE	unknown hydrocarbon, C-25	
		636	8	003	CDE	unknown hydrocarbon, C-25	
		637	10	003	CDE	unknown hydrocarbon, C-25	
		640	20	003	CDE	unknown phthalate	
		642	20	003	CDE	unknown hydrocarbon, C-25	
		643	10	003	CDE	bridged hydrocarbon, C-26	
		644	10	003	CDE	unknown hydrocarbon, C-26	
		646	10	003	CDE	alkane, C-26	
		648	8	003	CDE	bridged hydrocarbon, C-26	
		649	10	003	CDE	alkane, C-26	
		650	10	003	CDE	alkane, C-26	
		650	10	003	CDE	bridged hydrocarbon, C-26	
	2.6-3.6	578	0.9	003	CDJ	butendiolic acid, bis(2-methylpropyl) ester isomer	K
		586	0.4	005	CDE	carboxylic acid, C-12	
		598	0.6	005	CDE	carboxylic acid, C-13	
		604	0.4	005	CDE	unknown phthalate	
		608	0.4	005	CDE	carboxylic acid, C-16	
		609	2	005	CDE	hexadecanoic acid	
		614	2	005	CDE	nonanedioic acid, dibutyl ester	D
		630	0.5	005	CDE	alkane, C-25	D

C - Plasticizer
 D - Derived from natural products
 F - Low concentration
 K - None detected
 * - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 25 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
37	2.6-3.6	637	0.4	005	CDE	unknown phthalate	C, F
		638	0.3	005	CDE	unsaturated hydrocarbon, GT C-18	
		649	0.3	005	CDE	alkane, C-26	
	4-5	637	0.4	002	CDJ	alkane, C-25	K
				004	CDE		
				004	CDJ		
	9-10	615	2	006	CDE	nonanedioic acid, dibutyl ester	K D C, F
		630	0.6	006	CDE	hexanedioic acid, dioctyl ester	
		639	0.8	006	CDE	unsaturated hydrocarbon, GT C-18	
				005	CDJ		
	14-15			007	CDE		K K K
38	16.5-17.5	579	0.6	006	CDJ	2-butenedioic acid, bis(2-methylpropyl) ester isomer	K
				008	CDE	alkane, C-25	
				008	CDE		
				010	CDD	hexanedioic acid	
39	0-1	609	0.6	010	CDD	alkane, GT C-25	D
		638	0.9	010	CDD		
	4-5	609	0.4	008	CDI	hexadecanoic acid	K D
				002	CDE		
	0-1	631	6	006	CDN	hexanedioic acid, dioctyl ester	C, F
		635	0.4	006	CDN	octadecene isomer	
	4-5	579	0.7	007	CDN	2-butenedioic acid, bis (2-methylpropyl) ester	D
	9.0-9.5			008	CDJ		K K K
				008	CDN		
	9.5-10.0	615	0.9	002	CDZ		K D K
				010	CDN	nonanedioic acid, dibutyl ester	
	14-15	635	0.4	002	CDM		K
				009	CDN	octadecene isomer	

C - Plasticizer
 D - Derived from natural products
 F - Low concentration
 GT - Greater than
 K - None detected
 * - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 26 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
40	0-1	641	0.4	002	CDD	alkane, GT C-25	
				002	CDI		K
	4-5			003	CDD		K
	9-10	609	0.5	003	CDI	unknown phthalate	K
				004	CDD		C, F
	14-15	604	3	004	CDI	unknown phthalate	K
				005	CDD	unknown phthalate	C, F
				005	CDD	hexanedioic acid, diester	C, F
				005	CDD	hexanedioic acid, diester	C, F
41	19-20	604	0.8	005	CDI	unknown phthalate	K
				006	CDD	hexanedioic acid, diester	
	21.5-22.5	630	2	006	CDD	hexanedioic acid, diester	
	0.5-1.5	637	0.4	006	CDI	alkene, GT C-25	K
				007	CDD		
	4-5	579	0.6	002	CDN		K
				003	CDM	2-butenedioic acid, bis(2-methylpropyl) ester	K
42	9-10			003	CDN		D
	14-15			004	CDM		K
				004	CDN		K
	0-1	611	0.6	005	CDM	compound resembles aldrin	K
				005	CDN	fluoranthene	K
		616	0.7	002	CEO	pyrene	
				002	CEO		
		618	0.2	002	CEO		

C - Plasticizer
 D - Derived from natural products
 F - Low concentration
 GT - Greater than
 K - None detected
 * - Values reported are blank corrected

Table 24S-4. Tentative Identification of Nontarget Compounds. Page 27 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
42	0-1	631	0.6	002	CEO	hexanedioic acid, mono(2-ethylhexyl) ester	C, F
		634	0.1	002	CEO	benzo[c]phenanthrene, crysene or benzo[a]anthracene	
	4-5			002	CEL		K
				003	CEO		K
43	2-3	611	7	002	CFL	aldrin isomer	
		614	0.6	002	CFL	cyclic hydrocarbon with 4 chlorines	
		618	0.5	002	CFL	bridged hydrocarbon with 6 chlorines	
		619	0.4	002	CFL	fluoranthene isomer	
		621	0.5	002	CFL	dieldrin isomer	
		622	3	002	CFL	dieldrin isomer	
		624	0.5	002	CFL	endrin isomer	
		627	1	002	CFL	bridged hydrocarbon with 7 chlorines	
		634	0.4	002	CFL	endrin isomer	
		638	0.3	002	CFL	heptachloro epoxide isomer	
		650	0.5	002	CFL	alkane, C-27	
	4-5			002	CFH		K
				003	CFL		K
	9-10			003	CFH		K
				004	CFL		K
	14-15			004	CFH		K
				005	CFL		K
	19-20			005	CFH		K
				006	CFL		K
44	0-1	599	0.8	007	CFL	alkene, C-18	
		601	0.4	007	CFL	chlordene isomer	
		605	2	007	CFL	aldrin isomer	
		608	0.6	007	CFL	aldrin isomer	
		614	0.4	007	CFL	aldrin isomer	
		616	1	007	CFL	alkane, C-22	

C - Plasticizer
F - Low concentration
K - None detected
* - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 28 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
44	0-1	618	0.6	007	CFL	bridged hydrocarbon with 6 chlorines	
		619	0.4	007	CFL	fluoranthene	
		620	0.5	007	CFL	bridged hydrocarbon, C-23	
		623	0.8	007	CFL	aldrin isomer	
		623	0.6	007	CFL	aldrin isomer	
		625	0.4	007	CFL	isodrin isomer	
		626	0.4	007	CFL	bridged hydrocarbon with 4 chlorines	
		627	2	007	CFL	bridged hydrocarbon with 7 chlorines	
		635	0.4	007	CFL	triphenylene isomer	
		635	0.4	007	CFL	chrysene isomer	
		640	0.5	007	CFL	octachloro-1,1'-biphenyl isomer	
		641	0.7	007	CFL	octachloro-1,1'-biphenyl isomer	
		642	0.5	007	CFL	mixed spectra	A
		643	5	007	CFL	bridged hydrocarbon, GT C-5	
		645	1	007	CFL	possibly lenacil	
		646	0.4	007	CFL	octachloro-1,1'-biphenyl isomer	
		650	1	007	CFL	benzofluoranthene isomer	
	4-5	579		008	CFE		K
		613	0.6	008	CFL	2-butenedioic acid, diester	
		615	0.5	008	CFL	hexanedioic acid, diester	
		630	0.4	008	CFL	molecular sulfur, S8	
	9-10			004	CFN	hexanedioic acid, diester	K
				009	CFL		K
	10-11			005	CFN		K
				010	CFL		K
45	0-1	630	0.6	008	CDD	hexanedioic acid, diester	
		637	0.5	008	CDD	alkene, GT C-25	A
		643	1	008	CDD		
				007	CDI		K
	4-5			009	CDD		K

A - No positive identification

GT - Greater than

K - None detected

* - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 29 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
49	9-10	525	40	002	CQX	phosphonic acid, methyl-, dimethyl ester (DMP)	K
		530	300	005	CQP	methoxy benzene isomer	
		532	60	005	CQP*	phosphoric acid, trimethyl ester	
		538	20	005	CQP	mixed spectra: phosphorothioic acid, 0,0,0-trimethyl ester plus an unknown (1-methoxyethyl)-benzene	
		541	20	005	CQP	unknown containing nitrogen	
		544	6	005	CQP	phosphoric acid, dimethyl 1-methylethenyl ester	
		545	40	005	CQP	.alpha.-methyl-benzenemethanol oxypheanol	
		547	70	005	CQP	alkane containing nitrogen, C-10	
		548	100	005	CQP	branched alkane, C-10	
		549	10	005	CQP	chloro methoxy benzene isomer	A
		551	3	005	CQP	mixed spectra	A
		551	20	005	CQP	unknown, C-11	
		553	7	005	CQP	alkane, C-11	
		556	6	005	CQP	benzenemethanol, methyl acetate isomer	
		557	6	005	CQP	phosphoric acid ester isomer	
		558	3	005	CQP	phosphoric acid ester isomer	A
		559	6	005	CQP	hexachloro-1,3-butadiene	
		560	30	005	CQP	branched alkane, C-12	
		561	7	005	CQP	unknown, C-12	
		561	5	005	CQP	branched alkane, C-12	
		561	60	005	CQP	substituted aromatic	
		562	3	005	CQP	aromatic with 2 chlorines	
		564	4	005	CQP	branched alkane, C-12	
		565	3	005	CQP	phosphoric acid ester	
		566	30	005	CQP	phosphoric acid ester	
		567	3	005	CQP	unknown with 3 chlorines	
		568	10	005	CQP	cyclic unknown	
		576	40	005	CQP	unknown, C-14	
		584	6	005	CQP	mixed spectra	A
		584	9	005	CQP	unknown hydrocarbon	
		585	20	005	CQP	1,1'-(oxydiethylidene) bis benzene	
		585	30	005	CQP	1,1'-(oxydiethylidene) bis benzene isomer	
		586	10	005	CQP		
		587	5	005	CQP		
		588	70	005	CQP		
		589	40	005	CQP		

A - No positive identification

K - None detected

* - Values reported are blank corrected

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Table 26S-4. Tentative Identification of Nontarget Compounds. Page 30 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
49	9-10	590	10	005	CQP	cyclic hydrocarbon, C-16	A
		591	10	005	CQP	alkane with 7 chlorines	
		591	10	005	CQP	unknown, C-16	
		592	3	005	CQP	phosphoric acid, ester	
		593	20	005	CQP	phosphoric acid, ester	
		594	30	005	CQP	branched alkane, C-16	
		595	2	005	CQP	bridged polycyclic hydrocarbon	
		595	8	005	CQP	unknown hydrocarbon	
		596	60	005	CQP		A
		597	6	005	CQP	cyclic alkane	
		598	2	005	CQP	bridged polycyclic hydrocarbon	
		599	5	005	CQP	chlordene	
		601	100	005	CQP	mixed spectra, unknown with 2 chlorines	
		603	30	005	CQP	bridged polycyclic hydrocarbon	
		604	30	005	CQP	bridged polycyclic hydrocarbon	
		604	5	005	CQP	bridged polycyclic hydrocarbon	
		606	20	005	CQP	bridged polycyclic hydrocarbon	
		607	7	005	CQP	unknown containing chlorines	
		608	6	005	CQP	alkane, C-20	A
		610	4	005	CQP		A
		613	10	005	CQP		A
		615	9	005	CQP		A
		616	3	005	CQP	butenoic acid, ester	
		616	4	005	CQP	unknown aromatic	
		617	70	005	CQP	butenoic acid, ester	
		617	10	005	CQP	unknown with 3 chlorines	
		618	4	005	CQP	mixed spectra	A
		619	10	005	CQP	mixed spectra	A
		619	8	005	CQP	mixed spectra	A
		620	10	005	CQP	unknown aromatic	
		623	10	005	CQP		
		623	20	005	CQP		
		625	7	005	CQP		
		627	50	005	CQP	bridged polycyclic hydrocarbon with 6 chlorines	
		628	50	005	CQP		A
		628	200	005	CQP	unknown with 3 chlorines	
		630	5	005	CQP	unknown with 2 chlorines	

A - No positive identification

* - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 31 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
49	9-10	630	20	005	QCP	hexanedioic acid, ester	A
		631	8	005	QCP	unknown with 2 chlorines	
		632	7	005	QCP	bridged polycyclic hydrocarbon with 6 chlorines	
		633	6	005	QCP	bridged polycyclic hydrocarbon with 6 chlorines	
		634	400	005	QCP	bridged polycyclic hydrocarbon with 6 chlorines	
		636	60	005	QCP	bridged polycyclic hydrocarbon with 7 chlorines	
		638	3	005	QCP	alkyne, C-24	
		639	20	005	QCP	cyclic hydrocarbon	
		639	9	005	QCP	unknown with 3 chlorines	
		642	20	005	QCP	unknown with chlorines	
50	0-1	643	8	005	QCP	unknown with 2 chlorines	K
		644	8	005	QCP	unknown containing nitrogen	
		537	0.4	004	CUF	unknown hydrocarbon	
		538	9	002	CUL	substituted aromatic	
		546	0.5	002	CUL	aliphatic compound with 1 chlorine	
		547	2	002	CUL	substituted aromatic	
		548	2	002	CUL	substituted aromatic	
		548	0.7	002	CUL	substituted aromatic	
		550	1	002	CUL	substituted aromatic	
		550	0.8	002	CUL	substituted aromatic	
		551	3	002	CUL	nonanal	
		552	0.5	002	CUL	unknown hydrocarbon	
		552	0.5	002	CUL	substituted aromatic	
		553	0.8	002	CUL	substituted aromatic	
		553	2	002	CUL	substituted aromatic	
		554	0.4	002	CUL	branched alkane, C-11	
		555	1	002	CUL	substituted aromatic	
		556	2	002	CUL	substituted aromatic	
		556	2	002	CUL	substituted aromatic	
		557	0.6	002	CUL	substituted aromatic	
		558	0.6	002	CUL	substituted aromatic mixed with a branched alkane	
		558	2	002	CUL	substituted aromatic	
		559	0.3	002	CUL	substituted aromatic	

A - No positive identification

K - None detected

* - Values reported are blank corrected

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Table 26S-4. Tentative Identification of Nontarget Compounds. Page 32 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
50	0-1	559	0.7	002	CUL	substituted aromatic/substituted indene mixture	
		560	3	002	CUL	substituted aromatic	
		561	0.7	002	CUL	substituted aromatic	
		562	0.4	002	CUL	substituted aromatic	
		563	1	002	CUL	substituted aromatic	
		564	0.4	002	CUL	substituted cyclic ketone	
		564	2	002	CUL	substituted 1H-indene	
		565	0.5	002	CUL	unknown hydrocarbon	
		565	0.6	002	CUL	alkane, C-13	
		566	0.6	002	CUL	alkane, C-13	
		566	0.5	002	CUL	substituted cyclic ketone	
		567	2	002	CUL	substituted aromatic	
		568	2	002	CUL	alkane, C-13	
		569	0.9	002	CUL	substituted indene	
		573	0.4	002	CUL	carboxylic acid	
		574	0.4	002	CUL	alkane, C-14	
		575	1	002	CUL	alkane, C-14	
		576	0.8	002	CUL	dimethylnaphthalene isomer	
		577	1	002	CUL	dimethylnaphthalene isomer	
		578	0.7	002	CUL	dimethylnaphthalene isomer	
		580	0.4	002	CUL	alkane, C-15	
		582	0.6	002	CUL	alkane, C-15	
		587	2	002	CUL	carboxylic acid	
		592	0.6	002	CUL	carboxylic acid	
		595	0.3	002	CUL	alkane, C-17	
		599	8	002	CUL	carboxylic acid	
		602	3	002	CUL	carboxylic acid	
		602	0.5	002	CUL	carboxylic acid	
		604	5	002	CUL	carboxylic acid/phthalate mixture	
		606	1	002	CUL	long chain alcohol	
		608	0.5	002	CUL	9-hexadecenoic acid	
		611	20	002	CUL	hexadecanoic acid	
		611	0.9	002	CUL	unknown amide	
		613	1	002	CUL	unknown hydrocarbon mixture	
		613	0.4	002	CUL	carboxylic acid	
		615	4	002	CUL	carboxylic acid	
		616	1	002	CUL	unknown amide	
		616	2	002	CUL	alkane, C-21	
		619	3	002	CUL	unknown oxyhydrocarbon	
		620	9	002	CUL	carboxylic acid	
		621	3	002	CUL	unknown amide	

* - Values reported are blank corrected

Table 24S-4. Tentative Identification of Nontarget Compounds. Page 33 of 39.

Borehole Number	Interval		Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
	Depth (ft)							
50	0-1		624	1	002	CUL	unknown amide	
			625	2	002	CUL	cyclic oxyhydrocarbon alkane, C-24	
			626	0.4	002	CUL	alkene	
			629	0.6	002	CUL	carboxylic acid	
			631	0.4	002	CUL	unknown hydrocarbon	
			632	2	002	CUL	cyclic oxyhydrocarbon	
			635	0.3	002	CUL	alkane, C-25	
			636	2	002	CUL	alkene	
			638	0.6	002	CUL	diisooctyl phthalate	C, P
			643	3	002	CUL	unknown amide	
			645	4	002	CUL	alkane, C-27	
				0.6	002	CUL		
4-5	4-5		637	0.4	005	CUF	octadecene isomer	K
					003	CUL		
9-10	9-10		615	1	006	CUL	nonanedioic acid, dibutyl ester	K
					004	CUL		D
14-15	14-15				007	CUF		K
					005	CUL		K
18-19	18-19		609	0.5	008	CUF	hexadecanoic acid	K
			652	0.7	006	CUL	unknown hydrocarbon	D
51	0-1		551	0.6	007	CUL	branched alkane, GT C-10	
			560	0.7	007	CUL	branched alkane, GT C-11	
			575	0.3	007	CUL	alkane, GT C-13	
4-5	4-5				005	CUM		K
					008	CUL		K
9-10	9-10		154	3	006	CUM	substituted cyclohexane	
			150	1	006	CUM		A
			155	3	006	CUM	disubstituted cyclohexane (C-8)	
			161	7	006	CUM	methylhexanol isomer (C-7)	
			168	3	006	CUM	cyclic alkane (C-8)	

A - No positive identification
 C - Plasticizer
 D - Derived from natural products
 F - Low concentration
 GT - Greater than
 K - None detected
 * - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 34 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
51	9-10	175	10	006	CUL	substituted cyclic alkane	
		528	0.4	009	CUL	branched alkane, C-8	
		532	0.6	009	CUL	branched alkane, C-8	
		541	3	009	CUL	branched alkane, C-9	
		543	1	009	CUL	branched alkane, C-9	
		544	2	009	CUL	cyclic hydrocarbon, C-10	
		545	0.4	009	CUL	mixed spectra: substituted aromatic plus an unknown	
		546	2	009	CUL	branched alkane, GT C-9	
		546	0.7	009	CUL	branched alkane, GT C-9	
		547	2	009	CUL	substituted aromatic	
		548	2	009	CUL	substituted aromatic	
		550	10	009	CUL	branched alkane, GT C-10	
		550	2	009	CUL	decahydro-2-methyl naphthalene	
		551	5	009	CUL	unknown alkyl alcohol	
		552	8	009	CUL	branched alkane, GT C-10	
		553	1	009	CUL	undecylcyclohexane	
		553	0.8	009	CUL	polycyclic aromatic hydrocarbon	
		554	1	009	CUL	substituted aromatic	
		554	0.5	009	CUL	2,3-dihydromethyl-1H-indene isomer	
		555	2	009	CUL	branched alkane, GT C-10	
		556	2	009	CUL	branched alkane, C-11	
		556	6	009	CUL	branched alkane, C-11	
		557	2	009	CUL	branched alkane, C-11	
		558	3	009	CUL	polycyclic aromatic hydrocarbon	
		558	4	009	CUL	2,3-dihydro-1H-indene isomer	
		559	2	009	CUL	polycyclic aromatic hydrocarbon	
		559	10	009	CUL	alkane, GT C-11	
		560	0.6	009	CUL	polycyclic aromatic hydrocarbon	
		561	10	009	CUL	branched alkane, GT C-11	
		561	6	009	CUL	octadecene isomer	
		563	6	009	CUL	substituted cyclohexane	
		564	6	009	CUL	substituted aromatic	
		564	2	009	CUL	4-methyl dodecane	
		565	5	009	CUL	branched alkane, GT C-12	
		565	10	009	CUL	branched alkane, GT C-12	
		566	5	009	CUL	alkane	
		567	2	009	CUL	alkene or alcohol	
		567	10	009	CUL	mixed spectra: methyl naphthalene plus an unknown	
		568	0.5	009	CUL	hydrated naphthalene	A
		568	1	009	CUL	hydrated naphthalene	

A - No positive identification

GT - Greater than

* - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 36 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
51	9-10	592	2	009	CUL	alcohol or alkene	
		593	0.5	009	CUL	branched alkane, GT C-16	
		593	1	009	CUL	polycyclic aromatic hydrocarbon	
		595	10	009	CUL	branched alkane, GT C-16	
		596	0.6	009	CUL	mixed spectra	A
		596	0.4	009	CUL	cyclic alkane	
		597	2	009	CUL	branched alkane, GT C-16	
		598	1	009	CUL	branched alkane, C-18	
		598	1	009	CUL	cyclic alkane	
		601	5	009	CUL	branched alkane, GT C-18	
		602	0.6	009	CUL	mixed spectra: naphthofuran and fluorene derivatives	
		603	0.8	009	CUL	alkane, GT C-18	
		604	0.5	009	CUL	mixed spectra	A
		604	0.7	009	CUL	alkane, GT C-18	
		605	2	009	CUL	alkane, GT C-18	
		606	0.7	009	CUL	mixed spectra: polycyclic aromatic hydrocarbon plus an unknown	
		607	0.6	009	CUL	polycyclic aromatic hydrocarbon	
		611	0.4	009	CUL	branched alkane, GT C-20	
52	0-1	613	1	009	CUL	dimethyl phenanthrene isomer	
		614	0.5	009	CUL	dimethyl phenanthrene isomer	
		615	0.5	009	CUL	branched alkane, GT C-20	
		618	0.2	009	CUL	branched alkane, GT C-20	
		638	0.4	009	CUL	alkene or alcohol	
		615	0.6	007	CUM	nonanedioic acid, dibutyl ester	K
				010	CUL		D
		616	0.3	008	CUM	nonanedioic acid, dibutyl ester	K
		638	0.3	002	CUN	alcohol, C-16	D
				002	CUN		D
52	0-1	533	2	003	CUN	alkane, C-12	
		541	3	003	CUN	alkane, C-11	
		543	2	003	CUN	alkene, C-11	
		544	3	003	CUN	decahydronaphthalene	

A - No positive identification
D - Derived from natural products
GT - Greater than
K - None detected
* - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 37 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
52	0-1	546	3	003	CUN	2,4-diethyl-1-methyl cyclohexane or isomer	
		549	8	003	CUN	alkane, C-11	
		550	5	003	CUN	decahydro-2-methyl naphthalene or isomer	
		551	10	003	CUN	decahydro-2-methyl naphthalene or isomer	
		555	8	003	CUN	decahydro-1,6-dimethyl naphthalene or isomer	
		556	8	003	CUN	decahydro-1,6-dimethyl naphthalene or isomer	
		557	6	003	CUN		A
		558	20	003	CUN	alkane, C-12	
		560	20	003	CUN	alkane, C-13	
		560	10	003	CUN	alcohol, C-13	
		562	4	003	CUN		A
		563	6	003	CUN		A
		563	9	003	CUN		A
		564	20	003	CUN	alkane, C-13	
		565	10	003	CUN	alkene, C-14	
		566	6	003	CUN	alkene, C-14	
		567	30	003	CUN	alkane, C-13	
		568	9	003	CUN		A
		570	10	003	CUN		A
		571	7	003	CUN		A
		573	30	003	CUN	alkane, C-15	
		574	40	003	CUN	alkane, C-14	
		576	10	003	CUN		
		578	20	003	CUN	alcohol, C-16 or alkane, C-14	A
		579	40	003	CUN	alkane, C-16	
		580	10	003	CUN	alkene, C-16	
		582	40	003	CUN	alkane, C-16	
		585	20	003	CUN	alkane, C-17 plus an unidentified compound	
		588	40	003	CUN	alkane, C-19	
		591	20	003	CUN	alkane, C-16	
		592	8	003	CUN		A
		594	40	003	CUN	alkane, C-19	
		595	20	003	CUN	alkane, C-19	
		600	30	003	CUN	alkane, C-19	
		601	20	003	CUN	alkane, C-20	

A - No positive identification
 * - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 38 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
52	0-1	606	20	003	CUN	alkane, C-19	
		612	20	003	CUN	alkane, C-19	
		617	10	003	CUN	alkane, C-19	
		622	6	003	CUN	alkane, C-22	
	4-5	542	10	004	CUN	2-ethyl-1,4-dimethyl benzene or isomer	
		550	100	004	CUN	alkane, C-11	A
		552	50	004	CUN		
		555	30	004	CUN	alkane, C-12	A
		557	40	004	CUN		
		558	100	004	CUN	alkane, C-13	
		560	80	004	CUN	alkane, C-13	
		560	30	004	CUN	alkane, C-13	
		564	80	004	CUN	alkane, C-13	
		567	100	004	CUN	alkane, C-13	
		570	30	004	CUN		A
		572	70	004	CUN	alkane, C-15	
		574	90	004	CUN	alkane, C-14	
		575	30	004	CUN	1,5-dimethyl naphthalene or isomer	
		576	30	004	CUN	1,5-dimethyl naphthalene or isomer	A
		578	40	004	CUN		
		579	60	004	CUN	alkane, C-16	
		581	80	004	CUN	alkane, C-17	A
		585	20	004	CUN		
		591	30	004	CUN	alkane, C-18	
	9-10	594	20	004	CUN	alkane, C-19	
		595	40	004	CUN	alkane, C-19	
		601	10	004	CUN	alkane, C-20	
		541	20	005	CUN	alkane, C-11	
		549	60	005	CUN	alkane, C-11	
		552	20	005	CUN	alkane, C-13	
		555	20	005	CUN	alkane, C-12	
		557	20	005	CUN		A
		558	90	005	CUN	alkane, C-12	
		559	60	005	CUN	alkane, C-13	
		564	50	005	CUN	alkane, C-14	
		566	80	005	CUN	alkane, C-13	

A - No positive identification
 * - Values reported are blank corrected

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Table 24S-4. Tentative Identification of Nontarget Compounds. Page 39 of 39.

Borehole Number	Interval Depth (ft)	Unknown Number	Concentration (ppm)*	Sample Number	Lot	Best-fit Identification	Comments
52	9-10	570	20	005	CUN	1,1'-(1,2-ethanediyl)bis cyclohexane plus an unidentified compound	
		574	60	005	CUN	alkane, C-14	
		575	30	005	CUN	1,5-dimethyl naphthalene or isomer	
		576	30	005	CUN	1,5-dimethyl naphthalene or isomer	
		578	30	005	CUN	a dimethyl naphthalene plus an unidentified compound	
		579	50	005	CUN	alkane, C-16	
		581	80	005	CUN	alkane, C-17	
		585	30	005	CUN		A
		591	40	005	CUN	alkane, C-17	
		594	30	005	CUN	alkane, C-17	
		595	50	005	CUN	alkane, C-19	
		601	30	005	CUN	alkane, C-20	
	12.5-13.5	564	0.3	007	CUN		A
		564	2	007	CUN	1,2,4-metheno-3H-cyclobuta[CD]pentalen-3-one, octahydro-	
		571	0.1	007	CUN		A
		579	0.2	007	CUN		A
		581	0.3	007	CUN		A
		586	0.3	007	CUN		A
		610	0.2	007	CUN	hexadecanoic acid	D
		616	0.7	007	CUN	nonanedioic acid, dibutyl ester	D
		632	0.1	007	CUN	hexanedioic acid, dioctyl ester	C, F
		637	0.7	007	CUN	alkene, C-18	
		639	0.4	007	CUN		A
	14-15	564	0.3	006	CUN		A
		564	0.8	006	CUN	1,2,4-metheno-3H-cyclobuta[CD]pentalen-3-one, octahydro-	
		581	0.3	006	CUN	(1-methylpentyl) benzene	A
		586	0.3	006	CUN		
		638	0.4	006	CUN	alkene, C-18	

A - No positive identification
C - Plasticizer
D - Derived from natural products
F - Low concentration
* - Values reported are blank corrected

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the 24-25 ft interval); and Site 15, Boring 49 (900 ppm in the 9-10 ft interval). Lower concentrations were detected at Site 8, Boring 9; Site 14, Boring 33; Site 15, Borings 13A and 13; Site 17, Borings 11 and 12; Site 18, Boring 50; Site 25, Borings 43 and 44; and Site 40, Boring 8.

A high concentration of a compound tentatively identified as 1,3,5-cycloheptatriene was detected at Site 2, Boring 4 (500 ppm in the 9-10 ft interval). A volatile that was not identified was also detected at 1,000 ppm in the same interval of this boring. A compound tentatively identified as 1,3-cyclopentadiene was detected at Site 2, Boring 5 (300 ppm in the 4-5 ft interval). In the same boring and interval, compounds were tentatively identified as an unknown dicyclopentadiene isomer (800 ppm), an unknown triene (300 ppm), an unknown alkene (400 ppm), and heterocyclic polyunsaturated hydrocarbons possibly related to dicyclopentadiene (2,000 ppm). Compounds tentatively identified as dicyclopentadiene isomers were also detected in Boring 5 in the 9 to 10 ft interval (300 ppm).

Compounds tentatively identified as polychlorinated biphenyls (PCBs) were detected in a pit at Site 14, Boring 31 (30 ppm in the 0-1 ft interval) and in a ditch at Site 25, Boring 44 (2 ppm in the 0-1 ft interval). Dimethylmethyl phosphonate and other related phosphonate compounds were detected at Site 15, Boring 49 (300 ppm in the 9-10 ft interval).

Numerous nontarget compounds tentatively identified as the remnants of a fuel spill were detected at Site 9, Boring 51 (300 ppm in the 9-10 ft interval) and Boring 52 (1,000 ppm in the 4-5 ft interval and 800 ppm in the 9-10 ft interval).

Numerous nontarget compounds tentatively identified as the possible remnants of mixed fuel and solvent spills were detected at Site 18, Boring 36 (10 ppm in a surface grab sample); Boring 37 (1,000 ppm in the 0-1 ft interval); and Boring 50 (100 ppm in the 0-1 ft interval).

In addition, many samples contained naturally occurring organic acids and ubiquitous phthalates at low concentrations.

The draft final version of this report was provided to the Colorado Department of Health (CDH), Shell Oil Company, and the U.S. Environmental Protection Agency (EPA) for review on April 4, 1988. Comments and responses are provided in Appendix 24S-C.

3.3 PHASE II SURVEY

No Phase II survey is proposed for the Army Spills program because additional sampling and analysis has been conducted under Task 2 site programs, the Shell Spills program, and the South Plants Regional Study.

The Task 2 program, as proposed, includes the investigation of eighteen sites within the South Plants manufacturing area. One hundred and twenty-two borings were drilled and 355 samples taken during this investigation (Ebasco, 1985a). The program that investigated the area where reported Shell spills have occurred included drilling 92 borings, yielding a total of 249 samples (Ebasco, 1987f).

Additionally, there are areas within the South Plants complex that are not covered by Task 2 site borings, the Shell Spills program, or the Army Spills program. The South Plants Regional Study was conducted to investigate those areas in which data gaps exist. Fifty borings, yielding 111 soil samples, were completed for this investigation (Ebasco, 1986b, c).

The data from the Task 2 site borings, the Army and Shell Spills programs, and the South Plants Regional Study are being integrated. Data will be evaluated to determine if contamination patterns exist. This evaluation will be included in the South Plants Study Area Report.

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Appendix 24S-A

Chemical Names and Abbreviations

APPENDIX 24S-A
Chemical Names and Abbreviations

Analytic Methods

Abbreviations

Atomic Absorption Spectroscopy	AA
Gas Chromatography/Conductivity Detector	GCCON
Gas Chromatography/Electron Capture Detector	GCECD
Gas Chromatography/Flame Ionization Detector	GCFID
Gas Chromatography/Flame Photometric Detector	GCFPD
Gas Chromatography/Mass Spectrometry	GCMS
Gas Chromatography/Nitrogen Phosphorous Detector	GCNPD
Gas Chromatography/Photoionization Detector	GCPID
High Performance Liquid Chromatography	HPLC
Inductive Coupled Argon Plasma Screen	ICP
Ion Chromatography	IONCHROM
Spectrophotometry	SPECT

PHASE I ANALYTES AND CERTIFIED METHODS SOIL SAMPLES

<u>Analysis/Methods/Analytes</u>	<u>Synonymous Names Used in Appendix B</u>	<u>Abbreviations</u>
<u>AGENT PRODUCTS/HPLC</u>		
Chloroacetic acid	Chloroacetic acid	TDG
Thiodiglycol	Thiodiglycol (TDG)	CLC2A TDGCL
<u>AGENT PRODUCTS/IONCHROM</u>		
Isopropylmethylphosphonic acid	Isopropylmethylphosphonate	GBDP IMPA
<u>ANIONS/IONCHROM</u>		
Chloride	Chloride	<u>ANIONS</u>
Fluoride	Fluoride	CL
Sulfate	Sulfate	FL SO4
<u>ARSENIC/AA</u>	Arsenic	AS
<u>DIBROMOCHLOROPROPANE/GCECD</u>	Dibromochloropropane	DBCP
<u>HYDRAZINES/SPECT</u>		
Hydrazine	Hydrazine	HYD
Methylhydrazine	Methylhydrazine	HYDRZ
Unsymmetrical dimethyl hydrazine	Unsymmetrical dimethyl hydrazine	MHYDRZ
		UDMH
<u>MERCURY/AA</u>	Mercury	HG

APPENDIX 24S-A (Continued)
Phase I

<u>Analysis/Methods/Analytes</u>	<u>Synonymous Names Used in Appendix B</u>	<u>Abbreviations</u>
<u>METALS/ICP</u>		
Cadmium	Cadmium	ICP CD
Chromium	Chromium	CR
Copper	Copper	CU
Lead	Lead	PB
Zinc	Zinc	ZN
<u>ORGANONITROGEN COMPOUNDS/GCNPd</u>		
n-Nitrosodimethylamine	n-Nitrosodimethylamine	ONC NNDMEA
n-Nitrosodi-n-propylamine	n-Nitrosodi-n-propylamine	NNDNPA
<u>ORGANOPHOSPHOROUS COMPOUNDS/GCFPD</u>		
Diisopropylmethyl phosphonate	Diisopropylmethyl phosphonate	OPC DIMP
Dimethylmethyl phosphonate	Dimethylmethyl phosphate	DMMP
<u>SEMIVOLATILE ORGANIC COMPOUNDS/ GCMS</u>		
1,4-Oxathiane	1,4-Oxathiane	SVO OXAT
2,2-bis(Para-chlorophenyl)- 1,1-dichloroethane	Dichlorodiphenylethane	PPDDE
2,2-bis(Para-chlorophenyl)- 1,1,1-trichloroethane	Dichlorodiphenyltrichloro- ethane	PPDDT
Aldrin	Aldrin	ALDRN
Atrazine	Atrazine	ATZ
Chlordane	Chlordane	CLDAN
Chlorophenylmethyl sulfide	p-Chlorophenylmethyl sulfide	CPMS
Chlorophenylmethyl sulfone	p-Chlorophenylmethyl sulfone	CPMSO2
Chlorophenylmethyl sulfoxide	p-Chlorophenylmethyl sulfoxide	CPMSO
Dibromochloropropane	Dibromochloropropane	DBCP
Dicyclopentadiene	Dicyclopentadiene	DCPD
Dieldrin	Dieldrin	DLDRN
Diisopropylmethyl phosphonate	Diisopropylmethyl phosphonate	DIMP
Dimethylmethyl phosphonate	Dimethylmethyl phosphonate	DMMP*
Dithiane	Dithiane	DITH
Endrin	Endrin	ENDRN
Hexachlorocyclopentadiene	Hexachlorocyclopentadiene	CL6CP
Isodrin	Isodrin	ISODR
Malathion	Malathion	MLTHN
Parathion	Parathion	PRTHN
Supona	2-Chloro-1 (2,4-dichlorophenyl) vinyl-diethyl phosphates	SUPONA
Vapona	Vapona	DDVP

* DMMP is certified as part of the semivolatile organic compound method only for Hittman-Ebasco Laboratory.

APPENDIX 24S-A (Continued)
Phase I

<u>Analysis/Methods/Analytes</u>	<u>Synonymous Names Used in Appendix B</u>	<u>Abbreviations</u>
<u>VOLATILE ORGANIC COMPOUNDS/ GCMS</u>		<u>VO</u>
1,1-Dichloroethane	1,1-Dichloroethane	11DCLE
1,2-Dichloroethane	1,2-Dichloroethane	12DCLE
1,1,1-Trichloroethane	1,1,1-Trichloroethane	111TCE
1,1,2-Trichloroethane	1,1,2-Trichloroethane	112TCE
Benzene	Benzene	C6H6
Bicycloheptadiene	Bicycloheptadiene	BCHPD
Carbon tetrachloride	Carbon tetrachloride	CCL4
Chlorobenzene	Chlorobenzene	CLC6H5
Chloroform	Chloroform	CHCL3
Dibromochloropropane	Dibromochloropropane	DBCP
Dicyclopentadiene	Dicyclopentadiene	DCPD
Dimethyldisulfide	Dimethyldisulfide	DMDS
Ethylbenzene	Ethylbenzene	ETC6H5
m-Xylene	m-Xylene	13DMB
Methylene chloride	Methylene chloride	CH2CL2
Methylisobutyl ketone	Methylisobutyl ketone	MIBK
o- and p-Xylene	Ortho- & Para-xylene	XYLEN
Tetrachloroethylene	tetrachloroethene	TCLEE
Toluene	Toluene	MEC6H5
Trans-1,2-dichloroethylene	Trans-1,2-dichloroethene	12DCE
Trichloroethylene	Trichloroethene	TRCLE

APPENDIX 24S-A
Phase II

PHASE II ANALYTES AND CERTIFIED METHODS
SOIL SAMPLES

<u>Analysis/Methods/Analytes</u>	<u>Synonymous Names Used in Appendix B</u>	<u>Abbreviations</u>
<u>AGENT PRODUCTS/HPLC</u> (Same as Phase I)		<u>TDG</u>
<u>AGENT PRODUCTS/IONCHROM</u> (Same as Phase I)		<u>GBDP</u>
<u>ANIONS/IONCHROM</u> (Same as Phase I)		<u>ANIONS</u>
<u>ARSENIC/AA</u>	Arsenic	<u>AS</u>
<u>DIBROMOCHLOROPROPANE/GC</u>	Dibromochloropropane	<u>DBCP</u>
<u>HYDRAZINES/SPECT</u> (Same as Phase I)		<u>HYD</u>
<u>MERCURY/AA</u>	Mercury	<u>HG</u>
<u>METALS/ICP</u> (Same as Phase I)		<u>ICP</u>
<u>ORGANOCHLORINE PESTICIDES/GCECD</u>		<u>OCP</u>
2,2-bis(Para-chlorophenyl)- 1,1-dichloroethane	Dichlorodiphenylethane	<u>PPDDE</u>
2,2-bis(Para-chlorophenyl)- 1,1,1-trichloroethane	Dichlorodiphenyltrichloro- ethane	<u>PPDDT</u>
Aldrin	Aldrin	<u>ALDRN</u>
Chlordane	Chlordane	<u>CLDAN</u>
Dieldrin	Dieldrin	<u>DLDRN</u>
Endrin	Endrin	<u>ENDRN</u>
Hexachlorocyclopentadiene	Hexachlorocyclopentadiene	<u>CL6CP</u>
Isodrin	Isodrin	<u>ISODR</u>
<u>ORGANONITROGEN COMPOUNDS/GCNPd</u> (Same as Phase I)		<u>ONC</u>
<u>ORGANOPHOSPHOROUS COMPOUNDS/GCFPD</u> (Same as Phase I)		<u>OPC</u>

APPENDIX 24S-A (Continued)
Phase II

<u>Analysis/Methods/Analytes</u>	<u>Synonymous Names Used in Appendix B</u>	<u>Abbreviations</u>
<u>ORGANOPHOSPHORUS PESTICIDES/ GCNPD</u>		
Atrazine	Atrazine	OPP
Malathion	Malathion	ATZ
Parathion	Parathion	MLTHN
Supona	2-Chloro-1 (2,4-dichlorophenyl) vinyl diethyl phosphates	PRTHN
Vapona	Vapona	SUPONA
		DDVP
<u>ORGANOSULPHUR COMPOUNDS/GCFPD</u>		
1,4-Oxathiane	1,4-Oxathiane	QSC
Chlorophenylmethyl sulfide	p-Chlorophenylmethyl sulfide	OXAT
Chlorophenylmethyl sulfone	p-Chlorophenylmethyl sulfone	CPMS
Chlorophenylmethyl sulfoxide	p-Chlorophenylmethyl sulfoxide	CPMS02
Dimethyldisulfide	Dimethyldisulfide	CPMSO
Dithiane	Dithiane	DMDS
		DITH
<u>SEMIVOLATILE ORGANIC COMPOUNDS/ GCMS</u>		
(Same as Phase I)		SVQ
<u>VOLATILE AROMATIC ORGANIC COMPOUNDS/GCPID</u>		
Benzene	Benzene	VAO
Ethylbenzene	Ethylbenzene	C6H6
m-Xylene	m-Xylene	ETC6H5
o- and p-Xylene	Ortho- & Para-xylene	13DMB
Toluene	Toluene	XYLEN
		MEC6H5
<u>VOLATILE HALOGENATED ORGANIC COMPOUNDS/GCCON</u>		
1,1-Dichloroethane	1,1-Dichloroethane	VHO
1,2-Dichloroethane	1,2-Dichloroethane	11DCLE
1,1-Dichloroethene	1,1-Dichloroethene	12DCLE
1,1,1-Trichloroethane	1,1,1-Trichloroethane	11DCE
1,1,2-Trichloroethane	1,1,2-Trichloroethane	111TCE
Carbon tetrachloride	Carbon tetrachloride	112TCE
Chlorobenzene	Chlorobenzene	CCL4
Chloroform	Chloroform	CLC6H5
Methylene chloride	Methylene chloride	CHCL3
Tetrachloroethylene	Tetrachloroethene	CH2CL2
Trans-1,2-dichloroethylene	Trans-1,2-dichloroethene	TCLEE
Trichloroethylene	Trichloroethene	T12DCE
		TRCLE

APPENDIX 24S-A (Continued)
Phase II

<u>Analysis/Methods/Analytes</u>	<u>Synonymous Names Used in Appendix B</u>	<u>Abbreviations</u>
<u>VOLATILE HYDROCARBON COMPOUNDS/ GCFID</u>		
Bicycloheptadiene	Bicycloheptadiene	HYDCBN
Dicyclopentadiene	Dicyclopentadiene	BCHPD
Methylisobutyl ketone	Methylisobutyl ketone	DCPD
		MIBK
<u>VOLATILE ORGANIC COMPOUNDS/GCMS</u> (Same as Phase I)		VQ

Appendix 24S-B

Phase I Chemical Data

APPENDIX 24S-B

Chemical Data

The analytical results of the laboratory analysis of soil samples collected as part of the program comprise the first part of Appendix 24S-B. Data are listed sequentially by boring number and successive depths below the surface. Within each depth, all analytes for which the samples were tested are listed alphabetically. Results are given as less than (LT) the detection limit for the test laboratory, or as detected concentrations above this limit. Based on the accuracy of laboratory test methods, values for volatile and semivolatile compounds are considered accurate to one significant figure, values for dibromochloropropane when tested separately and for metals are considered accurate to two significant figures.

The second part of Appendix 24S-B contains data from the blanks associated with the analytical work. Blanks for the soil samples were based on a homogenized subsample of composited samples from a known uncontaminated soil that is stratigraphically similar to the RMA soils. Blanks for the water samples were based on distilled water. Control samples, or blanks, are introduced into the train of environmental samples to function as monitors on the performance of the analytical method. These samples function as quality control (QC) samples, and are an integral part of the quality assurance (QA) program for the project. The method blanks listed in this Appendix were utilized to verify that the laboratory was not a source of sample contamination. If contamination were detected in a method blank, corrective actions were taken to assure that reported concentrations of target analytes reflected sample analytes, and not analytes introduced by the laboratory process.

Summary of Analytical Results

Run ID#	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0001	0.5, 1.5	Soil	Aldrin	LT 3.00	-1 ug/g	COC010
			Asbestos	1.33	1 ug/g	CPJ022
			Atrazine	LT 3.00	-1 ug/g	COC010
			Cadmium	LT 7.40	-1 ug/g	COK005
			Hexachlorocyclopentadiene	LT 6.00	-1 ug/g	COC010
			Chloroacetic Acid	LT 3.55	1 ug/g	C01013
			Chlordane	LT 2.00	0 ug/g	COC010
			p-chlorophenylmethyl Sulfide	LT 9.00	-1 ug/g	COC010
			p-chlorophenylmethyl Sulfonide	LT 3.00	-1 ug/g	COC010
			p-chlorophenylmethyl Sulfone	LT 3.00	1 ug/g	COC010
			Chromium	1.90	1 ug/g	COK005
			Copper	1.61	1 ug/g	COK005
			Dibromochloropropane	LT 3.00	-1 ug/g	COC010
			Dicyclopentadiene	LT 1.00	0 ug/g	COC010
			Endrin	LT 3.00	0 ug/g	COC010
			Mercury	5.20	1 ug/g	C0A016
			Diisopropylmethyl Phosphonate	LT 1.00	0 ug/g	COC010
			Dibutylane	LT 4.00	-1 ug/g	COC010
			Dieldrin	1.28	0 ug/g	COC010
			Endrin	LT 5.00	-1 ug/g	COC010
			Mercury	5.20	1 ug/g	C0A016
			Teaclin	LT 3.00	-1 ug/g	COC010
			Malathion	LT 7.00	-1 ug/g	COC010
			1,4-dioxatiane	LT 3.00	1 ug/g	COC010
			Lead	2.59	1 ug/g	COK005
			Dichlorodiphenylethane	LT 6.00	-1 ug/g	COC010
			Dichlorodiphenyltrichloroethane	LT 5.00	-1 ug/g	COC010
			Parathion	LT 9.00	-1 ug/g	COC010
			2,4-Dichloro-1-(2,4-dichlorophenyl)	LT 6.00	-1 ug/g	COC010
			Vinyltoluene Phosphates	LT 4.20	0 ug/g	C01013
			Triethylal	5.59	1 ug/g	COK005
			Zinc			
0001	2.5	Soil	1,1,1-Trichloroethane	LT 4.30	-1 ug/g	C0F002

Note: Results for some parameters may appear in more than one analytical fraction.

Fluor Services Incorporated
Summary of Analytical Results

Rocky Mountain Arsenal Program
Task 24 Spill Sites

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Ring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0001	2.3	Soil	1,1,2-Trichloroethane	LT 3.90 -1	ug/g	COF002
			1,1-Dichloroethane	LT 1.70 0	ug/g	COF002
			1,2-Dichloroethane	LT 1.70 0	ug/g	COF002
			1,2-Dichloroethane	LT 5.60 -1	ug/g	COF002
			m-Xylene	LT 7.40 -1	ug/g	COF002
			Aldrin	LT 3.00 -1	ug/g	CO0002
			Arsenic	7.70 4	ug/g	CPJ023
			Atrazine	LT 3.00 -1	ug/g	CO0002
			Bicycloheptadiene	LT 3.60 -1	ug/g	COF002
			Benzene	LT 2.50 -1	ug/g	COF002
			Carbon Tetrachloride	LT 2.50 -1	ug/g	COF002
			Cadmium	3.90 3	ug/g	COK006
			Methylene Chloride	LT 1.50 0	ug/g	COF002
			Chloroform	LT 2.90 -1	ug/g	COF002
			Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	CO0002
			Chloroacetic Acid	LT 3.55 1	ug/g	COI014
			Chlorobenzene	LT 1.50 0	ug/g	COF002
			Chloroethane	LT 2.00 0	ug/g	CO0002
			p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	CO0002
			p-Chlorophenylmethyl Sulfoxide	LT 3.00 -1	ug/g	CO0002
			p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	CO0002
			Chromium	LT 6.50 0	ug/g	COK006
			Copper	9.02 0	ug/g	COK006
			Dibromochloropropane	LT 3.00 -1	ug/g	CO0002
			Dibromochloropropane	LT 2.40 0	ug/g	COF002
			Dicyclopentadiene	LT 1.00 0	ug/g	CO0002
			Dicyclopentadiene	LT 6.40 -1	ug/g	COF002
			Vapona	LT 3.00 0	ug/g	CO0002
			Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	CO0002
			Diethane	LT 4.00 -1	ug/g	CO0002
			Dieldrin	LT 3.00 1	ug/g	CO0002
			Dimethyldisulfide	LT 2.00 1	ug/g	COF002
			Endrin	LT 5.00 1	ug/g	CO0002
			Ethylbenzene	LT 3.80 -1	ug/g	COF002

Note: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

EPA Services Incorporated

Task 24

Summary of Analytical Results

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Summary of Analytical Results

Bar ID Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0001	2-3	Soil	Mercury	7.80	3	COA017
			Isodrin	LT	3.00 -1	COA002
			Toluene	LT	2.50 -1	COF002
			Methylisobutyl Ketone	LT	7.30 -1	COF002
			Malathion	LT	7.00 -1	COA002
			1,4-Dioxathiane	LT	3.00 -1	COA002
			Lead	6.36	1	COA006
			Dichlorodiphenylethane	LT	6.00 -1	COA002
			Dichlorodiphenyltrichloroethane	LT	5.00 -1	COA002
			Parathion	LT	9.00 -1	COA002
			2,4-Dichlorophenyl	LT	6.00 -1	COA002
			Vinylidene Phosphates	LT	2.50 -1	COF002
			Tetrachloroethene	LT	4.20 0	COA014
			Thiodiglycol	LT	5.40 -1	COF002
			Trichloroethene	LT	4.90 0	COF002
			Ortho- & Para-xylene	3.27	1	COA006
			Zinc	LT	4.30 -1	COF003
			1,1,1-Trichloroethane	LT	3.90 -1	COF003
			1,1,2-Trichloroethane	LT	1.70 0	COF003
			1,1-Dichloroethane	LT	1.70 0	COF003
			1,2-Dichloroethane	LT	5.60 -1	COF003
			m Xylene	LT	7.40 -1	COF003
			Arsenic	LT	1.20 2	COA024
			Bicycloheptadiene	LT	3.60 -1	COF003
			Benzene	LT	2.50 -1	COF003
			Carbon Tetrachloride	LT	2.50 -1	COF003
			Cadmium	5.26	0	COA007
			Methylene Chloride	LT	1.50 0	COF003
			Chloroform	LT	2.90 -1	COF003
			Chloroacetic Acid	LT	3.45 1	COA015
			Chlorobenzene	LT	1.60 0	COF003

Note: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Phase 1: Overview, Incorporated

Summary of Analytical Results Last 24 Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number	
0001	4-6	Soil	Chromium	1.73	1	CCK007	
			Copper	1.02	1	CCK007	
			Trichloroethene	LT	2.40	0	CCK003
			Dichloroethene	LT	6.40	-1	CCK003
			Dimethylsulfide	LT	2.00	1	CCK003
			Ethylbenzene	LT	3.80	-1	CCK003
			Mercury	1.10	0	CCK018	
			Toluene	LT	2.50	-1	CCK003
			Methylisobutyl ketone	LT	7.30	-1	CCK003
			Lead	LT	8.40	0	CCK007
			Tetrachloroethene	LT	2.50	-1	CCK003
			Thiodiglycol	LT	4.20	0	CCK015
			Trichloroethene	LT	5.40	-1	CCK003
			Ortho & Para-Xylene	LT	4.90	0	CCK003
			Zinc	LT	4.89	1	CCK007
0001	9-10	Soil	1,1,1-Trichloroethene	LT	4.30	-1	CCK004
			1,1,2-Trichloroethene	LT	3.90	-1	CCK004
			1,1-Dichloroethene	LT	1.70	0	CCK004
			1,2-Dichloroethene	LT	1.70	0	CCK004
			1,2-Dichloroethane	LT	5.60	-1	CCK004
			m-Xylene	LT	7.40	-1	CCK004
			Aldrin	LT	3.00	-1	CCK003
			Arsenic	LT	1.32	1	CCK005
			Atrazine	LT	3.00	-1	CCK003
			Bis-2-chloroethene	LT	3.60	-1	CCK004
			Benzene	LT	2.50	-1	CCK004
			Carbon Tetrachloride	LT	2.50	-1	CCK004
			Cadmium	LT	7.40	-1	CCK008
			Methylene Chloride	LT	1.50	0	CCK004
			Chloroform	LT	2.90	-1	CCK004
			Hexachlorocyclopentadiene	LT	4.00	-1	CCK003
			Chloroacetic Acid	LT	2.65	1	CCK016
			Chlorobenzene	LT	1.50	0	CCK004

Note: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Phase Carcasses Incorporated

Spill Sites

Task 24

Summary of Analytical Results

Boxing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0001	9-10	Soil	Chlordane	LT 2.00	0	ug/g
			p-Chlorophenylmethyl Sulfide	LT 9.00	-1	ug/g
			p-Chlorophenylmethyl Sulfoxide	LT 3.00	-1	ug/g
			p-Chlorophenylmethyl Sulfone	LT 3.00	-1	ug/g
			Chromium	1.37	1	ug/g
			Copper	8.63	0	ug/g
			Dibromochloropropane	LT 3.00	-1	ug/g
			Dibromochloropropane	LT 2.40	0	ug/g
			Dicyclopentadiene	LT 1.00	0	ug/g
			Dicyclopentadiene	LT 6.40	-1	ug/g
			Vapona	LT 3.00	0	ug/g
			Diisopropylmethyl Phosphonate	LT 1.00	0	ug/g
			Diisobutylmethyl Phosphonate	LT 4.00	-1	ug/g
			Diethylmethyl Phosphonate	LT 3.00	-1	ug/g
			Dimethylmethyl Phosphonate	LT 2.00	1	ug/g
			Diethylmethyl Phosphonate	LT 5.00	-1	ug/g
			Diethylmethyl Phosphonate	LT 3.80	-1	ug/g
			Diethylmethyl Phosphonate	1.10	1	ug/g
			Diethylmethyl Phosphonate	LT 3.00	1	ug/g
			Diethylmethyl Phosphonate	LT 2.50	1	ug/g
			Methylisobutyl ketone	LT 2.30	-1	ug/g
			Malathion	LT 7.00	-1	ug/g
			1,4-naphthylene	LT 3.00	-1	ug/g
			Lead	1.52	1	ug/g
			1,1-dichloro-2,2-bis(4-chlorophenyl)ethane	LT 6.00	-1	ug/g
			1,1-dichloro-2,2-bis(4-chlorophenyl)ethane	LT 5.00	-1	ug/g
			1,1-dichloro-2,2-bis(4-chlorophenyl)ethane	LT 9.00	1	ug/g
			1,1-dichloro-2,2-bis(4-chlorophenyl)ethane	LT 6.00	-1	ug/g
			1,1-dichloro-2,2-bis(4-chlorophenyl)ethane	LT 2.50	-1	ug/g
			1,1-dichloro-2,2-bis(4-chlorophenyl)ethane	LT 4.20	0	ug/g
			1,1-dichloro-2,2-bis(4-chlorophenyl)ethane	LT 5.40	1	ug/g
			1,1-dichloro-2,2-bis(4-chlorophenyl)ethane	LT 4.90	0	ug/g

Note: Results for some parameters may appear to be zero. These are analytical detection limits.

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Rocky Mountain Arsenal Program

Ebasco Services, Incorporated

Spill Sites

Task 24

Summary of Analytical Results

Por ing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0001	9-10	Soil	Inc	3.90	1 ug/g	CQK008
0001	10.7-11.7	Soil	1,1,1-Trichloroethane	LT 4.30 -1	ug/g	CQF005
			1,1,2-Trichloroethane	LT 3.90 -1	ug/g	CQF005
			1,1-Dichloroethane	LT 1.70 0	ug/g	CQF005
			1,2-Dichloroethane	LT 1.70 0	ug/g	CQF005
			1,2-Dichloroethane	LT 5.60 -1	ug/g	CQF005
			m-Xylene	LT 7.40 -1	ug/g	CQF005
			Aldrin	LT 3.00 -1	ug/g	CQD005
			Arsenic	9.24 0	ug/g	CQJ006
			Atrazine	LT 3.00 -1	ug/g	CQD005
			Bicycloheptadiene	LT 3.60 -1	ug/g	CQF005
			Benzene	LT 2.50 -1	ug/g	CQF005
			Carbon Tetrachloride	LT 2.50 -1	ug/g	CQF005
			Cadmium	LT 7.40 -1	ug/g	CQK009
			Methylene Chloride	LT 1.50 0	ug/g	CQF005
			Chloroform	LT 2.90 -1	ug/g	CQF005
			Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	CQD005
			Chloroacetic Acid	LT 3.55 1	ug/g	CQI017
			Chlorobenzene	LT 1.50 0	ug/g	CQF005
			Chlordane	LT 2.00 0	ug/g	CQD005
			p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	CQD005
			p-Chlorophenylmethyl Sulfonide	LT 3.00 -1	ug/g	CQD005
			p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	CQF005
			Chromium	2.34 1	ug/g	CQK009
			Copper	1.30 1	ug/g	CQK009
			Diethyleneglycolchloropropane	LT 3.00 -1	ug/g	CQD005
			Diethyleneglycolchloropropane	LT 2.40 0	ug/g	CQF005
			Bicyclopentadiene	LT 1.00 0	ug/g	CQD005
			Bicyclopentadiene	LT 6.40 -1	ug/g	CQF005
			Vapona	LT 3.00 0	ug/g	CQD005
			Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	CQD005
			Diethyleneglycolchloropropane	LT 4.00 -1	ug/g	CQD005
			Diethyleneglycolchloropropane	LT 3.00 -1	ug/g	CQD005

Note: Results for some parameters may appear in more than one analytical table.

Summary of Analytical Results

Task 24

Spill Sites

Runing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0001	10.7-11.7	Soil	Dimethyldisulfide	LT 2.00	1	CGF005
			Endrin	LT 5.00	-1	CGD005
			Ethylbenzene	LT 3.80	-1	CGF005
			Mercury	1.40	0	CGA020
			Isodrin	LT 3.00	-1	CGD005
			Toluene	LT 2.50	-1	CGF005
			Methylisobutyl Ketone	LT 7.30	-1	CGF005
			Malathion	LT 7.00	-1	CGD005
			1,4-Oxathiane	LT 3.00	-1	CGD005
			Lead	3.24	1	CGK009
			Dichlorodiphenylethane	LT 6.00	-1	CGD005
			Dichlorodiphenyltrichloroethane	LT 5.00	-1	CGD005
			Parathion	LT 9.00	-1	CGD005
0001	14-15	Soil	2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.00	-1	CGD005
			Tetrachloroethene	LT 2.50	-1	CGF005
			Triiodoglycol	LT 4.20	0	CGI017
			Trichloroethene	LT 5.40	-1	CGF005
			Ortho- & Para-Xylene	LT 4.90	0	CGF005
			Zinc	6.16	1	CGK009
			Aldrin	LT 3.00	-1	CGD004
			Atrazine	LT 3.00	-1	CGD004
			Hexachlorocyclopentadiene	LT 6.00	-1	CGD004
			Chloroform	LT 2.00	0	CGD004
			p-Chlorophenylmethyl Sulfide	LT 9.00	-1	CGD004
			p-Chlorophenylmethyl Sulfonate	LT 3.00	-1	CGD004
			p-Chlorophenylmethyl Sulfone	LT 3.00	-1	CGD004
0001	14-15	Soil	Diethylchlorophosphate	LT 3.00	1	CGD004
			Bicyclopentadiene	LT 1.00	0	CGD004
			Vaniline	LT 3.00	0	CGD004
			Diisopropylmethyl Phosphonate	LT 1.00	0	CGD004
			Diethane	LT 4.00	-1	CGD004
			Diethanol	LT 3.00	1	CGD004

Note: Results for some parameters may appear in more than one analytical fraction.

Summary of Analytical Results

Task 24

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0001	14-15	Soil	Endrin	LT 5.00 -1	ug/g	C00004
			Isodrin	LT 3.00 -1	ug/g	C00004
			Malathion	LT 7.00 -1	ug/g	C00004
			1,4-Oxathiane	LT 3.00 -1	ug/g	C00004
			Dichlorodiphenylethane	LT 6.00 -1	ug/g	C00004
			Dichlorodiphenyltrichloroethane	LT 5.00 -1	ug/g	C00004
0004	0-1	Soil	Parathion	LT 9.00 -1	ug/g	C00004
			2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.00 -1	ug/g	C00004
			Aldrin	1.5 +00	ug/g	CHF002
			Arsenic	4.51+01	ug/g	CHB012
			Atrazine	LT 3.0 -01	ug/g	CHF002
			Cadmium	1.51+00	ug/g	CHE007
			Hexachlorocyclopentadiene	2.6 +03	ug/g	CHF002
			Chloroacetic Acid	LT 3.55+01	ug/g	CHG005
			Chlordane	LT 2.0 +00	ug/g	CHF002
			p-Chlorophenylmethyl Sulfide	LT 9.0 -01	ug/g	CHF002
			p-Chlorophenylmethyl Sulfoxide	LT 3.0 -01	ug/g	CHF002
			p-Chlorophenylmethyl Sulfone	LT 3.0 -01	ug/g	CHF002
			Chromium	1.83+01	ug/g	CHE007
			Copper	7.16+00	ug/g	CHE007
			Dibromochloropropane	LT 3.0 -01	ug/g	CHF002
			Dicyclopentadiene	LT 1.0 +00	ug/g	CHF002
			Vapona	LT 3.0 +00	ug/g	CHF002
			Diisopropylmethyl Phosphonate	LT 1.0 +00	ug/g	CHF002
			Dithiane	LT 4.0 -01	ug/g	CHF002
			Dieldrin	3.8 +00	ug/g	CHF002
			Endrin	LT 5.0 -01	ug/g	CHF002
			Mercury	3.25-01	ug/g	CHA016
			Isodrin	LT 3.0 -01	ug/g	CHF002
			Malathion	LT 2.0 01	ug/g	CHF002
			1,4-Oxathiane	LT 3.0 -01	ug/g	CHF002
			Lead	1.28+01	ug/g	CHE007

Note: Results for some parameters may appear in more than one analytical fraction.

Summary of Analytical Results

Task 24

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0006	0-1	Soil	Dichlorodiphenylethane	LT 6.0 -01	ug/g	CHF002
			Dichlorodiphenyltrichloroethane	LT 5.0 -01	ug/g	CHF002
			Parathion	LT 9.0 -01	ug/g	CHF002
			2-Chloro-1(2,4-Dichlorophenyl)	LT 6.0 -01	ug/g	CHF002
			Vinylidene Phosphates	LT 4.20+00	ug/g	CHG005
0006	4-5	Soil	Thiodiglycol			
			Zinc	5.31+01	ug/g	CHE007
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CHD003
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CHD003
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CHD003
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CHD003
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CHD003
			m-Xylene	LT 7.4 -01	ug/g	CHD003
			Aldrin	LT 3.0 -01	ug/g	CHF003
			Arsenic	1.12+05	ug/g	CHB013
			Atrazine	LT 3.0 -01	ug/g	CHF003
			Bicycloheptadiene	5.5 +02	ug/g	CHD003
			Benzene	LT 2.5 -01	ug/g	CHD003
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CHD003
			Cadmium	LT 7.36-01	ug/g	CHE008
			Methylene Chloride	LT 1.5 +00	ug/g	CHD003
			Chloroform	LT 2.9 -01	ug/g	CHD003
			Hexachlorocyclopentadiene	LT 6.0 -01	ug/g	CHF003
			Chloroacetic Acid	LT 3.55+01	ug/g	CHG006
			Chlorobenzene	LT 1.5 +00	ug/g	CHF003
			Chloroethane	LT 2.0 +00	ug/g	CHF003
			p-Chlorophenylmethyl Sulfide	LT 9.0 -01	ug/g	CHF003
			p-Chlorophenylmethyl Sulfonate	LT 3.0 -01	ug/g	CHF003
			p-Chlorophenylmethyl Sulfone	LT 3.0 -01	ug/g	CHF003
			Chloroform	LT 6.53+00	ug/g	CHF008
			Carbon	LT 4.72+00	ug/g	CHF008
			Dibromochloroethane	LT 2.4 +00	ug/g	CHD003

Note: Results for some parameters may appear to more than one analytical location

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Rocky Mountain Arsenal Program

Field Sampling Data Reported

Spill Sites

Task 24

Summary of Analytical Results

Welling Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
RM004	4-5	Soil	Dibromochloropropane	LT 3.0 -01	ug/g	CHF003
			Dibromocyclopentadiene	LT 9.9 +00	ug/g	CHF003
			Dibromocyclopentadiene	LT 6.0 +01	ug/g	CHF003
			Vapona	LT 3.0 +00	ug/g	CHF003
			Diisopropylmethyl Phosphonate	LT 1.0 +00	ug/g	CHF003
			lithiane	LT 4.0 -01	ug/g	CHF003
			Dieldrin	LT 3.0 -01	ug/g	CHF003
			Dimethyldisulfide	LT 2.0 +01	ug/g	CHF003
			Endrin	LT 5.0 -01	ug/g	CHF003
			Ethylbenzene	LT 3.8 -01	ug/g	CHF003
			Mercury	9.35+03	ug/g	CHA017
			Isodrin	LT 3.0 -01	ug/g	CHF003
			Toluene	LT 2.5 -01	ug/g	CHF003
			Methylisobutyl ketone	LT 7.3 01	ug/g	CHF003
			Malathion	LT 7.0 -01	ug/g	CHF003
			1,4-Oxathiane	LT 3.0 -01	ug/g	CHF003
			Lead	LT 8.38+00	ug/g	CHF008
			Dichlorodiphenylethane	LT 6.0 -01	ug/g	CHF003
			Dichlorodiphenyltrichloroethane	LT 5.0 -01	ug/g	CHF003
			Parathion	LT 9.0 -01	ug/g	CHF003
RM004	9-10	Soil	2-chloro-1(2,4-dichlorophenyl) Vinylidethyl Phosphates	LT 6.0 -01	ug/g	CHF003
			Tetrachloroethene	LT 2.5 -01	ug/g	CHF003
			Triodiglycol	LT 4.20+00	ug/g	CHF006
			Trichloroethene	LT 5.4 -01	ug/g	CHF003
			Ortho- & Para-xylene	LT 4.9 +00	ug/g	CHF003
			Zinc	5.08+01	ug/g	CHF008
			1,1,1 Trichloroethane	LT 4.3 -01	ug/g	CHF004
			1,1,2 Trichloroethane	LT 3.9 -01	ug/g	CHF004
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CHF004
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CHF004
			1,2-Dichloroethane	LT 5.6 01	ug/g	CHF004
						CHF004

Note: Results for some parameters may appear in more than one analytical fraction.

Phase 2 Services Incorporated

Rocky Mountain Arsenal Program

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Summary of Analytical Results

Task 24

Soil Sites

Ring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0004	9-10	Soil	m-Xylene	LT 7.4 -01	ug/g	CHD004
			Aldrin	LT 1.0 +02	ug/g	CHF004
			Arsenic	LT 3.10+01	ug/g	CHD014
			Atrazine	LT 3.0 -01	ug/g	CHF004
			Bicycloheptadiene	LT 5.1 +03	ug/g	CHD004
			Benzene	LT 2.5 -01	ug/g	CHD004
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CHD004
			Cadmium	LT 1.44+00	ug/g	CHF009
			Methylene Chloride	LT 1.5 +00	ug/g	CHD004
			Chloroform	LT 2.9 -01	ug/g	CHD004
			Hexachlorocyclopentadiene	LT 6.0 -01	ug/g	CHF004
			Chloroacetic Acid	LT 3.55+01	ug/g	CHG007
			Chlorobenzene	LT 1.5 +00	ug/g	CHD004
			Chloroethane	LT 2.0 +00	ug/g	CHF004
			p-Chlorophenylmethyl Sulfide	LT 9.0 -01	ug/g	CHF004
			p-Chlorophenylmethyl Sulfonide	LT 3.0 -01	ug/g	CHF004
			p-Chlorophenylmethyl Sulfone	LT 3.0 -01	ug/g	CHF004
			Chromium	LT 1.79+01	ug/g	CHF009
			Copper	LT 1.05+01	ug/g	CHF009
			Dibromochloropropane	LT 2.4 +00	ug/g	CHD004
			Dibromochloropropane	LT 3.0 -01	ug/g	CHF004
			Dicyclopentadiene	LT 2.6 +02	ug/g	CHD004
			Dicyclopentadiene	LT 5.3 +01	ug/g	CHF004
			Vanillin	LT 3.0 +00	ug/g	CHF004
			Diisopropylmethyl Phosphonate	LT 1.0 +00	ug/g	CHF004
			Dithiane	LT 4.0 -01	ug/g	CHF004
			Dieldrin	LT 1.0 +02	ug/g	CHF004
			Dimethyldisulfide	LT 2.0 +01	ug/g	CHD004
			Endrin	LT 2.5 +01	ug/g	CHF004
			Ethylbenzene	LT 3.8 -01	ug/g	CHD004
			Mercaptan	LT 6.89+00	ug/g	CHD018
			Isodrin	LT 3.0 -01	ug/g	CHF004
			Toluene	LT 2.5 -01	ug/g	CHF004
			Methylisobutyl Ketone	LT 2.3 -01	ug/g	CHD004

Note: Results for some parameters may appear in more than one analytical section.

Soil Sites

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Summary of Analytical Results

Box and Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0004	9-10	Soil	Malathion	LT 7.0 -01	ug/g	CHF004
			1,4 Oxathiane	LT 3.0 -01	ug/g	CHF004
			lead	LT 5.5+01	ug/g	CHF009
			Dichlorodiphenylethane	LT 6.0 -01	ug/g	CHF004
			Dichlorodiphenyltrichloroethane	LT 5.0 -01	ug/g	CHF004
0004	11-12, 15	Soil	Parathion	LT 9.0 -01	ug/g	CHF004
			2-Chloro-1(2,4-dichlorophenyl) Vinylidethyl Phosphates	LT 6.0 -01	ug/g	CHF004
			Tetrachloroethene	LT 2.5 -01	ug/g	CHG004
			Triiodolycol	LT 4.20+00	ug/g	CHG007
			trichloroethene	LT 5.4 -01	ug/g	CHD004
			Ortho & Para-Xylene	LT 4.9 +00	ug/g	CHC004
			Zinc	5.60+01	ug/g	CHC009
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CHD005
			1,1,2-trichloroethane	LT 3.9 -01	ug/g	CHC005
			1,1-bichloroethane	LT 1.7 +00	ug/g	CHD005
0004	11-12, 15	Soil	1,2-Dichloroethane	LT 1.7 +00	ug/g	CHD005
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CHD005
			m Xylene	LT 7.4 -01	ug/g	CHD005
			Aldrin	LT 3.0 -01	ug/g	CHC005
			Arsenic	6.02+01	ug/g	CHB015
			Atrazine	LT 3.0 -01	ug/g	CHC005
			Bicycloheptadiene	1.5 +00	ug/g	CHD005
			Benzene	LT 2.5 -01	ug/g	CHD005
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CHD005
			Cadmium	1.28+00	ug/g	CHC010
0005	11-12, 15	Soil	Methylene Chloride	LT 1.5 +00	ug/g	CHD005
			Chloroform	LT 2.9 -01	ug/g	CHD005
			Hexachlorocyclopentadiene	LT 6.0 -01	ug/g	CHC005
			Chloroacetic Acid	LT 3.55+01	ug/g	CHC008
			Chlorobenzene	LT 1.5 +00	ug/g	CHD005
			Chloroethane	LT 2.0 +00	ug/g	CHC005
			p-Chlorophenylmethyl chloride	LT 9.0 -01	ug/g	CHC005

Note: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Phase Services Incorporated

Spill Sites

Task 24

Summary of Analytical Results

Ring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0004	11.5-12.5	Soil	n-Chlorophenylmethyl Sulfoxide	LT 3.0 -01	ug/g	CHF005
			n-Chlorophenylmethyl Sulfone	LT 3.0 -01	ug/g	CHF005
			Chromium	LT 2.05+01	ug/g	CHE010
			Copper	LT 1.40+01	ug/g	CHE010
			Dibromochloropropane	LT 2.4 +00	ug/g	CHD005
			Dibromochloropropane	LT 3.0 -01	ug/g	CHF005
			Dicyclopentadiene	LT 6.4 -01	ug/g	CHD005
			Dicyclopentadiene	LT 1.0 +00	ug/g	CHF005
			Vapona	LT 3.0 +00	ug/g	CHF005
			Diisopropylmethyl Phosphonate	LT 1.0 +00	ug/g	CHF005
			Dithiane	LT 4.0 -01	ug/g	CHF005
			Dieldrin	LT 3.0 -01	ug/g	CHF005
			Dimethyldisulfide	LT 2.0 +01	ug/g	CHD005
			Endrin	LT 5.0 -01	ug/g	CHF005
			Ethylbenzene	LT 3.8 -01	ug/g	CHD005
			Mercury	1.24+00	ug/g	CHA019
			Isodrin	LT 3.0 -01	ug/g	CHF005
			Toluene	LT 2.5 -01	ug/g	CHD005
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CHD005
			Malathion	LT 7.0 -01	ug/g	CHF005
0005	0.1	Soil	1,4-Oxathiane	LT 3.0 -01	ug/g	CHF005
			Lead	LT 8.38+00	ug/g	CHE010
			Dichlorodiphenylethane	LT 6.0 -01	ug/g	CHF005
			Dichlorodiphenyltrichloroethane	LT 5.0 -01	ug/g	CHF005
			Parathion	LT 9.0 -01	ug/g	CHF005
			2-Chloro 1(2,4-Dichlorophenyl) Vinyl Ethyl Phosphates	LT 6.0 -01	ug/g	CHF005
			Tetrachloroethene	LT 2.5 -01	ug/g	CHD005
			Tridiglycol	LT 4.20+00	ug/g	CHG008
			Trichloroethene	LT 5.4 -01	ug/g	CHD005
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CHD005
			Zinc	6.05+01	ug/g	CHE010
			Aldrin	7.59 1	ug/g	CPC009

Note: Results for some parameters may appear in more than one analytical fraction.

Summary of Analytical Results

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
00015	0-1	Soil	Arsenic	8.20	1 ug/g	CPJ016
			Atrazine	LT	3.00 -1 ug/g	CPC009
			Cadmium	2.92	0 ug/g	CPT014
			Hexachlorocyclopentadiene	LT	6.00 -1 ug/g	CPC009
			Chloroacetic Acid	LT	3.55 1 ug/g	CPS009
			Chlordane	LT	2.00 0 ug/g	CPC009
			p-Chlorophenylmethyl Sulfide	LT	9.00 -1 ug/g	CPC009
			p-Chlorophenylmethyl Sulfoxide	LT	3.00 -1 ug/g	CPC009
			p-Chlorophenylmethyl Sulfone	LT	3.00 -1 ug/g	CPC009
			Chromium	1.93	1 ug/g	CPT014
			Copper	2.05	1 ug/g	CPT014
			Dibromochloropropane	LT	3.00 -1 ug/g	CPC009
			Dicyclopentadiene	LT	1.00 0 ug/g	CPC009
			Vapona	LT	3.00 0 ug/g	CPC009
			Diisopropylmethyl Phosphonate	LT	1.00 0 ug/g	CPC009
			Dithiane	LT	4.00 -1 ug/g	CPC009
			Dieldrin	9.60	1 ug/g	CPC009
			Endrin	LT	5.00 -1 ug/g	CPC009
			Mercury	2.10	1 ug/g	CPL018
			Isodrin	1.02	1 ug/g	CPC009
00015	4-5	Soil	Malathion	LT	7.00 -1 ug/g	CPC009
			1,4-Oxathiane	LT	3.00 -1 ug/g	CPC009
			Lead	3.45	1 ug/g	CPT014
			Dichlorodiphenylmethane	LT	6.00 -1 ug/g	CPC009
			Dichlorodiphenyltrichloroethane	LT	5.00 -1 ug/g	CPC009
			Parathion	LT	4.00 -1 ug/g	CPC009
			2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT	6.00 -1 ug/g	CPC009
			Thiodiethylcol	LT	4.20 0 ug/g	CPS009
			Zinc	7.05	1 ug/g	CPT014
			1,1,1-Trichloroethane	LT	4.30 -1 ug/g	CPT007
			1,1,2-Trichloroethane	LT	3.90 -1 ug/g	CPT007
			1,1-Dichloroethane	LT	1.70 0 ug/g	CPT007

Note: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Station Services Incorporated

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Spill Sites

Summary of Analytical Results

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0005	4-5	Soil	1,2-Dichloroethene	LT 1.70	0	CPE007
			1,2-Dichloroethane	LT 5.60	-1	CPE007
			m-Xylene	LT 7.40	-1	CPE007
			Aldrin	LT 3.00	-1	CPC010
			Arsenic	LT 1.10	3	CPI017
			Atrazine	LT 3.00	-1	CPC010
			Bicycloheptadiene	LT 5.34	2	CPE007
			Benzene	LT 2.50	-1	CPE007
			Carbon Tetrachloride	LT 2.50	-1	CPE007
			Cadmium	LT 3.10	1	CPT015
			Methylene Chloride	LT 1.50	0	CPE007
			Chloroform	LT 2.90	-1	CPE007
			Hexachlorocyclopentadiene	LT 6.00	-1	CPC010
			Chloroacetic Acid	LT 3.55	1	CPS010
			Chlorobenzene	LT 1.50	0	CPE007
			Chlordane	LT 2.00	0	CPC010
			p-Chlorophenylmethyl Sulfide	LT 9.00	-1	CPC010
			p-Chlorophenylmethyl Sulfoxide	LT 3.00	-1	CPC010
			p-Chlorophenylmethyl Sulfone	LT 3.00	-1	CPC010
			Chromium	LT 2.18	1	CPT015
			Copper	LT 1.36	1	CPT015
			Dibromochloropropane	LT 3.00	-1	CPC010
			Dibromochloropropane	LT 2.40	0	CPE007
			Dicyclopentadiene	LT 3.49	3	CPC010
			Dicyclopentadiene	LT 2.50	1	CPE007
			Vapors	LT 3.00	0	CPC010
			Diisopropylmethyl Phosphonate	LT 1.00	0	CPC010
			Dithiane	LT 4.00	-1	CPC010
			Dieldrin	LT 3.00	-1	CPC010
			Dimethyldisulfide	LT 2.00	1	CPI007
			Endrin	LT 5.00	1	CPC010
			Ethylbenzene	LT 3.80	1	CPE007
			Mercury	LT 1.60	2	CPI019
			Lead in	LT 3.00	-1	CPC010

Note: Results for some parameters may appear in more than one analytical fraction.

Summary of Analytical Results

Task 24

Spill Sites

Boxing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0005	4-5	Soil	Toluene	LT 2.50 -1	ug/g	CPE007
			Methylisobutyl Ketone	LT 7.30 -1	ug/g	CPE007
			Malathion	LT 7.00 -1	ug/g	CPC010
			1,4-Oxathiane	LT 3.00 -1	ug/g	CPC010
			Lead	2.17 1	ug/g	CPT015
			Dichlorodiphenylethane	LT 6.00 -1	ug/g	CPC010
			Dichlorodiphenyltrichloroethane	LT 5.00 -1	ug/g	CPC010
			Parathion	LT 9.00 -1	ug/g	CPC010
			2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.00 -1	ug/g	CPC010
			Tetrachloroethene	LT 2.50 -1	ug/g	CPE007
0005	9-10	Soil	Thiodiglycol	LT 4.20 0	ug/g	CPS010
			Trichloroethene	LT 5.40 -1	ug/g	CPE007
			Ortho- & Para-Xylene	LT 4.90 0	ug/g	CPE007
			Zinc	7.62 1	ug/g	CPT015
			1,1,1-Trichloroethane	LT 4.30 -1	ug/g	CPV002
			1,1,2-Trichloroethane	LT 3.90 -1	ug/g	CPV002
			1,1-Dichloroethane	LT 1.70 0	ug/g	CPV002
			1,2-Dichloroethane	LT 1.70 0	ug/g	CPV002
			1,2-Dichloroethane	LT 5.60 -1	ug/g	CPV002
			m-Xylene	LT 7.40 -1	ug/g	CPV002
			Aldrin	LT 3.00 -1	ug/g	CPV006
			Arsenic	7.10 1	ug/g	CPJ018
			Atrazine	LT 3.00 -1	ug/g	CPV006
			Bicycloheptadiene	6.37 2	ug/g	CPV002
			Benzene	LT 2.50 -1	ug/g	CPV002
			Carbon Tetrachloride	LT 2.50 -1	ug/g	CPV002
			Cadmium	2.47 0	ug/g	CPT016
			Methylene Chloride	LT 1.50 0	ug/g	CPV002
			Chloroform	LT 2.90 -1	ug/g	CPV002
			Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	CPV006
			Chloroacetic Acid	LT 3.65 1	ug/g	CPS011
			Chlorobenzene	LT 1.50 0	ug/g	CPV002

Note: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Fluoro Services Incorporated

Spill Sites

Task 24

Summary of Analytical Results

Sampling Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0005	9-10	Soil	Chlordane	LT 2.00	0	ug/g
			p-Chlorophenylmethyl Sulfide	LT 9.00	-1	ug/g
			p-Chlorophenylmethyl Sulfonate	LT 3.00	-1	ug/g
			p-Chlorophenylmethyl Sulfone	LT 3.00	-1	ug/g
			Chromium	2.08	1	ug/g
			Copper	1.29	1	ug/g
			Dibromochloropropane	LT 3.00	-1	ug/g
			Dibromochloropropane	LT 2.40	0	ug/g
			Dibromocyclopentadiene	8.21	2	ug/g
			Dibromocyclopentadiene	1.64	3	ug/g
			Vanone	LT 3.00	0	ug/g
			Diisopropylmethyl Phosphonate	LT 1.00	0	ug/g
			Dithiane	LT 4.00	-1	ug/g
			Dieldrin	LT 3.00	-1	ug/g
			Dimethyldisulfide	LT 2.00	1	ug/g
			Endrin	LT 5.00	-1	ug/g
			Ethylbenzene	LT 3.80	-1	ug/g
			Mercury	6.45	-1	ug/g
			Isodrin	LT 3.00	-1	ug/g
			Toluene	LT 2.50	-1	ug/g
			Methylisobutyl Ketone	LT 7.30	-1	ug/g
			Malathion	LT 7.00	-1	ug/g
			1,4-Oxathiane	LT 3.00	-1	ug/g
			Lead	2.48	1	ug/g
			Dichlorodiphenylethane	LT 6.00	-1	ug/g
			Dichlorodiphenyltrichloroethane	LT 5.00	-1	ug/g
			Parathion	LT 9.00	-1	ug/g
			2,4-Dichlorophenyl	LT 6.00	-1	ug/g
			Vinylidene Phosphates	LT 2.50	-1	ug/g
			Tetrachloroethene	LT 4.20	0	ug/g
			Triethylol	LT 5.40	1	ug/g
			Trichloroethene	LT 4.90	0	ug/g
			Ortho & Para Xylene	LT 4.90	0	ug/g

Note: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Fluoro Services Incorporated

Task #4

Summary of Analytical Results

Spill Sites

Boxing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0005	0-10	Soil	Zinc	6.91	1 ug/g	CPT016
0006	0-1	Soil	Arsenic	7.25	0 ug/g	COH005
			Chloroacetic Acid	LT 3.55	1 ug/g	COH019
			Mercury	2.48	-1 ug/g	COX005
			Thiodiglycol	LT 4.20	0 ug/g	COH019
0006	4-5	Soil	Arsenic	LT 2.50	0 ug/g	COH006
			Chloroacetic Acid	LT 3.55	1 ug/g	COH020
			Mercury	LT 5.00	-2 ug/g	COX006
			Thiodiglycol	LT 4.20	0 ug/g	COH020
0007	1-2	Soil	Arsenic	1.35	1 ug/g	COH007
			Chloroacetic Acid	LT 3.55	1 ug/g	COV010
			Mercury	5.60	0 ug/g	COX007
			Thiodiglycol	LT 4.20	0 ug/g	COV010
0007	4-5	Soil	Arsenic	2.22	1 ug/g	COH008
			Chloroacetic Acid	LT 3.55	1 ug/g	COV011
			Mercury	5.61	-1 ug/g	COX008
			Thiodiglycol	LT 4.20	0 ug/g	COV011
0008	0-1	Soil	Aldrin	2.50	0 ug/g	COH006
			Arsenic	2.54	1 ug/g	COJ007
			Atrazine	LT 3.00	-1 ug/g	COH006
			Cadmium	2.72	0 ug/g	COK010
			Hexachlorocyclopentadiene	LT 6.00	1 ug/g	COH006
			Chloroacetic Acid	LT 3.55	1 ug/g	COH005
			Chlordane	LT 2.00	0 ug/g	COH006
			p-Chlorophenylmethyl Sulfide	LT 9.00	-1 ug/g	COH006
			p-Chlorophenylmethyl Sulfoxide	LT 3.00	-1 ug/g	COH006
			p-Chlorophenylmethyl Sulfone	LT 3.00	-1 ug/g	COH006
			Chromium	1.30	1 ug/g	COK010
			Copper	2.82	1 ug/g	COK010
			Polychlorinated biphenyls	LT 3.00	-1 ug/g	COH006
			Polycyclopentadiene	LT 1.00	0 ug/g	COH006
			Vapona	LT 3.00	0 ug/g	COH006

Note: Results for some parameters may appear in more than one analytical fraction

Spill Sites

Task 24

Summary of Analytical Results

Reporting Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0008	0-1	Soil	Diisopropylmethyl Phosphonate	LT 1.00	0	CD0006
			Dithiane	LT 4.00	-1	CD0006
			Dieldrin	LT 1.44	1	CD0006
			Endrin	LT 5.00	-1	CD0006
			Mercury	LT 2.15	-1	CD0005
			Isodrin	LT 1.54	1	CD0006
			Malathion	LT 7.00	-1	CD0006
			1,4-Oxathiane	LT 3.00	-1	CD0006
			Lead	LT 3.24	1	CD0010
			Dichlorodiphenylethane	LT 6.00	-1	CD0006
			Dichlorodiphenyltrichloro-ethane	LT 5.00	-1	CD0006
			Parathion	LT 9.00	-1	CD0006
			2-(chloro-1(2,4-dichlorophenyl)vinyl)ethyl Phosphates	LT 6.00	-1	CD0006
			Thiodiethylol	LT 4.20	0	CD0005
			Zinc	LT 8.50	1	CD0010
0008	4-5	Soil	1,1,1-Trichloroethane	LT 4.30	1	CF0006
			1,1,2-Trichloroethane	LT 3.90	-1	CF0006
			1,1-Dichloroethane	LT 1.70	0	CF0006
			1,2-Dichloroethane	LT 1.70	0	CF0006
			1,2-Dichloroethane	LT 5.60	-1	CF0006
			m xylene	LT 7.40	-1	CF0006
			Aldrin	LT 3.00	-1	CF0007
			Arsenic	LT 1.12	1	CD0008
			Atrazine	LT 3.00	-1	CD0007
			Bicycloheptadiene	LT 3.60	-1	CF0006
			Benzene	LT 2.50	1	CF0006
			Carbon Tetrachloride	LT 2.50	-1	CF0006
			Cadmium	LT 7.40	1	CD0011
			Methylene Chloride	LT 1.50	0	CF0006
			Chloroform	LT 2.90	-1	CF0006
0008	4-5	Soil	Hexachlorocyclopentadiene	LT 6.00	1	CD0007

Note: Results for some parameters may appear to more than one analytical fraction.

Summary of Analytical Results

Abstract: $\mathbf{Ker}_n(\mathcal{U}) = \ker \mathcal{U} \circ \mathbf{Ker}_{n-1}(\mathcal{U})$ is the n -th iterated kernel of a linear operator $\mathcal{U}$ on a vector space V . We study the properties of the iterated kernels of a linear operator $\mathcal{U}$ on a vector space V and show that $\mathbf{Ker}_n(\mathcal{U}) = \mathbf{Ker}_{n+1}(\mathcal{U})$ if and only if $\mathcal{U}^n(V) \subseteq \mathbf{Ker}(\mathcal{U})$. We also show that $\mathbf{Ker}_n(\mathcal{U}) = \mathbf{Ker}_{n+1}(\mathcal{U})$ if and only if $\mathcal{U}^n(V) \subseteq \mathbf{Ker}(\mathcal{U})$. We also show that $\mathbf{Ker}_n(\mathcal{U}) = \mathbf{Ker}_{n+1}(\mathcal{U})$ if and only if $\mathcal{U}^n(V) \subseteq \mathbf{Ker}(\mathcal{U})$.

08/06/88

Rocky Mountain Arsenal Program

Spill Sites

Fluoro Services Incorporated

Task 24

Summary of Analytical Results

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0008	4-5	Soil	Trichloroethene Ortho- & Para-Xylene Zinc	LT 5.40 -1 LT 4.90 0 8.55 1	ug/g ug/g ug/g	COF006 COF006 COK011
0008	9-10	Soil	1,1,1-Trichloroethane 1,1,2-Trichloroethane 1,1-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane	LT 4.30 -1 LT 3.90 -1 LT 1.70 0 LT 1.70 0 LT 5.60 -1	ug/g ug/g ug/g ug/g ug/g	COF007 COF007 COF007 COF007 COF007
			m-Xylene Atrazine Arsenic Bicycloheptadiene	LT 7.40 -1 LT 3.00 -1 1.73 1 LT 3.00 -1	ug/g ug/g ug/g ug/g	COF007 CUB008 COT009 CUB008
			Benzene Carbon Tetrachloride Cadmium Methylene Chloride Chloroform	LT 2.50 1 LT 2.50 -1 1.07 0 LT 1.50 0 LT 2.90 -1	ug/g ug/g ug/g ug/g ug/g	COF007 COF007 COK012 COF007 COF007
			Hexachlorocyclopentadiene Chloroacetic Acid Chlorobenzene Chloroethane p-Chlorophenylmethyl Sulfide	LT 6.00 -1 LT 3.55 1 LT 1.50 0 LT 2.00 0 LT 9.00 1	ug/g ug/g ug/g ug/g ug/g	CUB008 CUB007 COF007 COF008 CUB008
			p-Chlorophenylmethyl Sulfonate p-Chlorophenylmethyl Sulfone Chromium Copper Diethylmethoxyacetate	LT 3.00 -1 LT 3.00 -1 1.00 1 3.67 1 LT 3.00 -1	ug/g ug/g ug/g ug/g ug/g	CUB008 CUB008 COK012 COK012 CUB008
			Dibromochloroacetate Dibromochloropentane Hexachlorocyclopentadiene Vapor Diisopropylmethyl Phosphonate	LT 2.40 0 LT 1.00 0 LT 6.40 1 LT 3.00 0 LT 1.00 0	ug/g ug/g ug/g ug/g ug/g	COF007 CUB008 COF007 CUB008 CUB008

Note: Results for some parameters may appear in more than one analytical fraction

08/04/88

Rocky Mountain Arsenal Program

Environmental Data Incorporated

Lab 24 Soil Sites

Summary of Analytical Results

Report Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0008	9-10	Soil	Dithiane	LT 4.00	-1	C00008
			Dieldrin	LT 3.00	-1	C00008
			Dimethyldisulfide	LT 2.00	1	C0F007
			Endrin	LT 5.00	-1	C00008
			Ethylbenzene	LT 3.80	-1	C0F007
			Mercury	LT 5.00	-2	C00007
			Isodrin	LT 3.00	-1	C00008
			Toluene	LT 2.50	-1	C0F007
			Methylisobutyl Ketone	LT 7.50	-1	C0F007
			Malathion	LT 7.00	-1	C00008
			1,4-Dioxathiane	LT 3.00	-1	C00008
			Lead	2.83	1	C0K012
			Dichlorodiphenylethane	LT 6.00	-1	C00008
			Dichlorodiphenyltrichloroethane	LT 5.00	-1	C00008
			Parathion	LT 9.00	-1	C00008
			2-Chloro-1-(2,4-Dichlorophenyl) Vinyl)diethyl Phosphates	LT 6.00	-1	C00008
			Tetrachloroethene	LT 2.50	-1	C0F007
			Triiodoglycerol	LT 4.20	0	C00007
			Trichloroethene	LT 5.50	-1	C0F007
			Ortho- & Para-Xylene	LT 4.90	0	C0F007
0009	0-1.5	Soil	Zinc	9.87	1	C0K012
			Aldrin	LT 3.00	-1	C0F010
			Atrazine	LT 3.00	1	C0F010
			Hexachlorocyclopentadiene	LT 6.00	1	C0F010
			Chloroform	LT 2.00	0	C0F010
			p-Chlorophenylmethyl Sulfide	LT 2.00	-1	C0F010
			p-Chlorodiphenylmethyl Sulfonate	LT 3.00	1	C0F010
			p-Chlorodiphenylmethyl Sulfonate	LT 3.00	1	C0F010
			Ortho-chlorophenylmethyl Sulfonate	LT 3.00	1	C0F010
			Para-chlorophenylmethyl Sulfonate	LT 3.00	1	C0F010
			Valonia	LT 3.00	0	C0F010

Note: Results for some parameters may appear in more than one analytical report.

James M. Smith, Agent in Charge.

Summary of Analytical Results

[illegible]

Notes:

Reactor Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0009	4.5	Soil	Carbon tetrachloride	LT 2.50	1 ug/g	COL002
			Cadmium	LT 2.40	1 ug/g	COL018
			Methylene Chloride	LT 1.50	0 ug/g	COL002
			Chloroform	LT 2.90	1 ug/g	COL002
			Hexachlorocyclopentadiene	LT 6.00	1 ug/g	CON002
			Chloroacetic Acid	LT 3.55	1 ug/g	CON016
			Chlorobenzene	LT 1.50	0 ug/g	COL002
			Chloroethane	LT 2.00	0 ug/g	CON002
			p-Chlorophenylmethyl Sulfide	LT 9.00	1 ug/g	CON002
			p-Chlorophenylmethyl Sulfoxide	LT 3.00	1 ug/g	CON002
			p-Chlorophenylmethyl Sulfone	LT 3.00	1 ug/g	CON002
			Chromium	2.26	1 ug/g	COG018
			Copper	1.59	1 ug/g	COG018
			Dibromochloropropane	LT 2.40	0 ug/g	COL002
			Dibromochloropropane	LT 3.00	1 ug/g	CON002
			Dicyclopentadiene	LT 6.40	1 ug/g	COL002
			Dicyclopentadiene	LT 1.00	0 ug/g	CON002
			Vapona	LT 3.00	0 ug/g	CON002
			Diisopropylmethyl Phosphonate	LT 1.00	0 ug/g	CON002
			Diethane	LT 4.00	1 ug/g	CON002
			Dieldrin	LT 3.00	1 ug/g	CON002
			Dimethyldisulfide	LT 2.00	1 ug/g	CON002
			Endrin	LT 5.00	1 ug/g	CON002
			Ethylbenzene	LT 5.80	1 ug/g	COL002
			Mercury	LT 5.00	2 ug/g	COL018
			Endrin	LT 3.00	1 ug/g	CON002
			Toluene	LT 2.50	1 ug/g	COL002
			Methylcyclohexyl Ketone	LT 2.50	1 ug/g	COL002
			Malathion	LT 2.00	1 ug/g	CON002
			1,4 Dioxane	LT 3.00	1 ug/g	CON002
			Lead	2.26	1 ug/g	COG018
			Dichlorodimethylmethane	LT 6.00	1 ug/g	CON002
			Dichlorodimethylmethane	LT 5.00	1 ug/g	CON002

Note: Results for some parameters may appear in more than one analytical batch.

08/10/88

Rocky Mount Air National Guard

Lab 24

Spill Sites

Data Summary - Interpretation

Summary of Analytical Results

Baring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0004	4.5	Soil	Parathion	LT 9.00 -1	ug/g	CON002
			2-Chloro-1(7,4-dichlorophenyl) Vinyl diethyl Phosphates	LT 6.00 -1	ug/g	CON002
			Tetrachloroethene	LT 2.50 -1	ug/g	COL002
			Trichloroethylene	LT 4.20 0	ug/g	COH016
			Trichloroethene	LT 5.40 -1	ug/g	COL002
			Ortho- & Para-xylene	LT 4.90 0	ug/g	COL002
0004	9.10	Soil	Zinc	6.39 1	ug/g	CO6018
			1,1,1-Trichloroethane	LT 4.30 1	ug/g	COL003
			1,1,2-Trichloroethane	LT 3.90 -1	ug/g	COL003
			1,1-Dichloroethane	LT 1.70 0	ug/g	COL003
			1,2-Dichloroethane	LT 1.70 0	ug/g	COL003
			1,2-Dichloroethane	LT 5.60 -1	ug/g	COL003
			m-Xylene	LT 7.40 -1	ug/g	COL003
			Atrazine	LT 3.00 -1	ug/g	CON003
			Atrazine	LT 5.00 0	ug/g	COE023
			Bioxytoluene	LT 3.00 -1	ug/g	CON003
			Bioxytoluene	LT 3.60 -1	ug/g	COL003
			Benzene	LT 2.50 -1	ug/g	COL003
			Carbon Tetrachloride	LT 2.50 -1	ug/g	COL003
			Cadmium	LT 7.40 -1	ug/g	COG019
			Methylene Chloride	LT 1.50 0	ug/g	COL003
			Chloroform	LT 2.90 -1	ug/g	COL003
			Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	CON003
			Chloroacetic Acid	LT 3.55 1	ug/g	COH017
			Chlorobenzene	LT 1.50 0	ug/g	COI003
			Chloroethane	LT 2.00 0	ug/g	CON003
			p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	CON003
			p-Chlorophenylmethyl Sulfide	LT 3.00 -1	ug/g	CON003
			p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	CON003
			Chromium	LT 6.50 0	ug/g	COG019
			Copper	2.45 1	ug/g	COG019
			Chloroacetic Acid	LT 2.40 0	ug/g	COI003

Note: Results for some analytes may appear to more than one analytical fraction.

Summary of Analytical Results

Task #

Spill Sites

Reporting Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0009	9-10	Soil	Dibromochloropropane	LT 3.00 -1	ug/g	CON003
			Dicyclopentadiene	LT 6.40 -1	ug/g	COL003
			Dicyclopentadiene	LT 1.00 0	ug/g	CON003
			Vapona	LT 3.00 0	ug/g	CON003
			Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	CON003
			Dithiane	LT 4.00 -1	ug/g	CON003
			Dieldrin	LT 3.00 -1	ug/g	CON003
			Dimethyldisulfide	LT 2.00 1	ug/g	COL003
			Endrin	LT 5.00 -1	ug/g	CON003
			Ethylbenzene	LT 3.80 -1	ug/g	COL003
			Mercury	8.87 -2	ug/g	COL019
			Isodrin	LT 3.00 -1	ug/g	CON003
			Toluene	LT 2.50 -1	ug/g	COL003
			Methyl Isobutyl Ketone	LT 7.30 -1	ug/g	COL003
			Malathion	LT 7.00 -1	ug/g	CON003
			1,4-Oxathiane	LT 3.00 -1	ug/g	CON003
			Lead	LT 8.40 0	ug/g	COG019
			Dichlorodiphenylethane	LT 6.00 -1	ug/g	CON003
			Dichlorodiphenyltrichloroethane	LT 5.00 -1	ug/g	CON003
			Parathion	LT 9.00 1	ug/g	CON003
0009	13-15	Soil	2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.00 -1	ug/g	CON003
			Tetrachloroethene	LT 2.50 -1	ug/g	COL003
			Triodiglycol	LT 4.20 0	ug/g	COH017
			Trichloroethene	LT 5.40 -1	ug/g	COL003
			Ortho & Para Xylene	LT 4.90 0	ug/g	COL003
			Zinc	4.07 1	ug/g	COG019
			1,1,1-Trichloroethane	LT 4.30 -1	ug/g	COL004
			1,1,2-Trichloroethane	LT 3.90 1	ug/g	COL004
			1,1-Dichloroethane	LT 1.20 0	ug/g	COL004
			1,2-Dichloroethane	LT 1.20 0	ug/g	COL004
			1,2-Trichloroethane	LT 5.60 1	ug/g	COL004

Note: Results for some parameters may differ from those reported in the field.

08/06/88

Rocky Mountain Arsenal Program

Task 24

Summary of Analytical Results

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0009	13-13.8	Soil	m-Xylene	LT 7.40 -1	ug/g	COL004
			Aldrin	LT 3.00 -1	ug/g	CON004
			Arsenic	LT 5.00 0	ug/g	COE024
			Atrazine	LT 3.00 -1	ug/g	CON004
			Bicycloheptadiene	LT 3.60 -1	ug/g	COL004
			Benzene	4.94 -1	ug/g	COL004
			Carbon Tetrachloride	LT 2.50 -1	ug/g	COL004
			Cadmium	LT 7.40 -1	ug/g	COG020
			Methylene Chloride	LT 1.50 0	ug/g	COL004
			Chloroform	4.57 0	ug/g	COL004
			Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	CON004
			Chloroacetic Acid	LT 3.55 1	ug/g	COH018
			Chlorobenzene	LT 1.50 0	ug/g	COL004
			Chloroethane	LT 2.00 0	ug/g	CON004
			p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	CON004
			p-Chlorophenylmethyl Sulfoxide	LT 3.00 -1	ug/g	CON004
			p-Chlorophenylmethyl Sulfone	3.89 0	ug/g	CON004
			Chromium	1.07 1	ug/g	COG020
			Copper	6.90 1	ug/g	COG020
			Dibromochloropropane	LT 2.40 0	ug/g	COL004
			Dibromochloropropane	LT 3.00 -1	ug/g	CON004
			Dicyclopentadiene	LT 6.40 -1	ug/g	COL004
			Dicyclopentadiene	LT 1.00 0	ug/g	CON004
			Vapona	LT 3.00 0	ug/g	CON004
			Isopropylmethyl Phosphonate	LT 1.00 0	ug/g	CON004
			Dithiane	LT 4.00 -1	ug/g	CON004
			Dieldrin	LT 3.00 -1	ug/g	CON004
			Dimethyldisulfide	LT 2.00 1	ug/g	COL004
			Endrin	LT 5.00 -1	ug/g	CON004
			Ethylbenzene	LT 3.80 -1	ug/g	COL004
			Mercury	LT 5.00 -2	ug/g	COI020
			Isodrin	LT 3.00 -1	ug/g	CON004
			Toluene	LT 2.50 -1	ug/g	COL004
			Methyl Ethyl Ketone	LT 7.30 1	ug/g	COL004

Notes: Results for some parameters may differ from one analytical method.

Forcing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0009	1.5-1.8	Soil	Malathion	LT 7.00 -1	ug/g	CND004
			1,4-dioxathiane	LT 3.00 -1	ug/g	CND004
			Lead	LT 8.40 0	ug/g	COG020
			Dichlorodiphenylethane	LT 6.00 -1	ug/g	CND004
			Dichlorodiphenyltrichloroethane	LT 5.00 -1	ug/g	CND004
			Parathion	LT 9.00 -1	ug/g	CND004
			2,4-dichloro-1(2,4-dichlorophenyl) Vinyl diethyl Phosphates	LT 6.00 -1	ug/g	CND004
			Tetrachloroethene	LT 2.50 -1	ug/g	COL004
			Trichloroethene	LT 4.20 0	ug/g	COL018
			Trichloroethene	LT 5.40 -1	ug/g	COL004
0010	1.5-2.5	Soil	ortho & Para Xylene	LT 4.90 0	ug/g	COL004
			Zinc	9.13 1	ug/g	COL020
			Aldrin	1.1 +02	ug/g	CGP004
			Arseic	7.57+00	ug/g	CGP020
			Atrazine	LT 3.0 -01	ug/g	CGP004
			Calcium	LT 7.36-01	ug/g	CGV014
			Hexachlorocyclopentadiene	LT 6.0 -01	ug/g	CGP004
			Chloroacetic Acid	LT 3.55+01	ug/g	CGW009
			Chloroethane	LT 2.0 +00	ug/g	CGP004
			p-Chlorophenylmethyl Sulfide	LT 9.0 -01	ug/g	CGP004
			p-Chlorophenylmethyl Sulfonate	LT 3.0 -01	ug/g	CGP004
			p-Chlorophenylmethyl Sulfone	LT 3.0 -01	ug/g	CGP004
			Chromium	1.53+01	ug/g	CGV014
			Copper	4.05+01	ug/g	CGV014
			Dibromochloropropane	LT 3.0 -01	ug/g	CGP004
			Dicyclopentadiene	LT 1.0 +00	ug/g	CGP004
			Valone	LT 3.0 +00	ug/g	CGP004
			Diisopropylmethyl Phosphonate	LT 1.0 +00	ug/g	CGP004
			Diethane	LT 4.0 -01	ug/g	CGP004
			Diethylin	1.8 +03	ug/g	CGP004
			Endrin	5.3 +02	ug/g	CGP004
			Mercury	2.04 01	ug/g	CGV019

Note: Results for some parameters may appear to more than one analytical fraction.

Rocky Mountain Arsenal Program

Task 24 Soil Sites

Summary of Analytical Results

Rowing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0000	1.5-2.5	Soil	Isodrin	1.2 +01	ug/g	CGP004
			Malathion	LT 7.0 -01	ug/g	CGP004
			1,4-Oxathiane	LT 3.0 -01	ug/g	CGP004
			Lead	2.52+02	ug/g	CGV014
			Dichlorodiphenylethane	LT 6.0 -01	ug/g	CGP004
			Dichlorodiphenyltrichloroethane	LT 5.0 -01	ug/g	CGP004
			Parathion	LT 9.0 -01	ug/g	CGP004
			2 Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.0 -01	ug/g	CGP004
			Vinyl diglycol	LT 4.20+00	ug/g	CGM009
			Zinc	1.01+02	ug/g	CGV014
0000	3.8-4.8	Soil	1,1,1 Trichloroethane	LT 4.3 -01	ug/g	CGR005
			1,1,2 Trichloroethane	LT 3.9 -01	ug/g	CGR005
			1,1 Dichloroethane	LT 1.7 +00	ug/g	CGR005
			1,2 Dichloroethane	LT 1.7 +00	ug/g	CGR005
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CGR005
			m-xylene	LT 7.4 -01	ug/g	CGR005
			Aldrin	LT 2.5 -01	ug/g	CGY002
			Arsenic	LT 3.4+00	ug/g	CGO021
			Atrazine	LT 2.5 -01	ug/g	CGY002
			Bicycloheptadiene	LT 3.6 -01	ug/g	CGR005
			Benzene	LT 2.5 01	ug/g	CGR005
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CGR005
			Cadmium	LT 7.36-01	ug/g	CGV015
			Methylene Chloride	LT 1.5 +00	ug/g	CGR005
			Chloroform	LT 2.9 -01	ug/g	CGR005
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CGY002
			Chloroacetic Acid	LT 3.55+01	ug/g	CGZ005
			Chlorobenzene	LT 1.5 +00	ug/g	CGR005
			Chloroethane	LT 1.7 +00	ug/g	CGY002
			1,1-Dichloroethyl methyl Sulfide	LT 9.1 -01	ug/g	CGY002
			1,1-Dichloroethyl methyl Sulfoxide	LT 2.5 01	ug/g	CGY002

Note: Results for some parameters may differ in more than one analytical fraction.

08/06/88

Rocky Mountain Arsenal Program

Chemical Warfare Incorporated

Task 24

Summary of Analytical Results

Spill Sites

Revised Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0010	3.8-4.8	Soil	p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CGY002
			Chromium	1.86+01	ug/g	CGV015
			Copper	1.14+01	ug/g	CGV015
			Dibromochloropropane	LT 2.8 -01	ug/g	CGY002
			Dibromochloropropane	LT 2.4 +00	ug/g	CGR005
			Dicyclopentadiene	LT 1.1 +00	ug/g	CGY002
			Dicyclopentadiene	LT 6.4 -01	ug/g	CGR005
			Vapona	LT 3.0 +00	ug/g	CGY002
			Bisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CGY002
			Dithiane	LT 3.6 -01	ug/g	CGY002
			Diethrin	LT 2.5 -01	ug/g	CGY002
			Dimethyldisulfide	LT 2.0 +01	ug/g	CGR005
			Endrin	LT 4.6 -01	ug/g	CGY002
			Ethylbenzene	LT 3.8 -01	ug/g	CGR005
			Mercury	LT 5.01+02	ug/g	CHA009
			Perlin	LT 2.9 -01	ug/g	CGY002
			Toluene	LT 2.5 -01	ug/g	CGR005
			Methylisobutyl ketone	LT 7.3 -01	ug/g	CGR005
			Malathion	LT 7.1 -01	ug/g	CGY002
			1,4-Oxathiane	LT 2.5 -01	ug/g	CGY002
0010	9-10	Soil	Lead	1.33+01	ug/g	CGV015
			Bichlorodiphenylethane	LT 5.7 -01	ug/g	CGY002
			Bichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CGY002
			Parathion	LT 8.5 -01	ug/g	CGY002
			2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CGY002
			Tetrachloroethene	LT 2.5 -01	ug/g	CGR005
			Triodiglycol	LT 4.20+00	ug/g	CGZ005
			Trichloroethene	LT 5.4 -01	ug/g	CGR005
			Ortho & Para-Xylene	LT 4.9 +00	ug/g	CGR005
			Zinc	6.02+01	ug/g	CGV015
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CGR006

Note: Results for some parameters may appear in more than one analytical fraction

08/06/88

Rocky Mountain Arsenal Program

Ebasco Services Incorporated

Spill Sites

Task 24

Summary of Analytical Results

Receiving Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0010	9-10	Soil	1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CGR006
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CGR006
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CGR006
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CGR006
			m-Xylene	LT 7.4 -01	ug/g	CGR006
			Aldrin	LT 2.5 -01	ug/g	CGY003
			Arsenic	4.66+00	ug/g	CGO022
			Atrazine	LT 2.5 -01	ug/g	CGY003
			Bicycloheptadiene	LT 3.6 -01	ug/g	CGR006
			Benzene	LT 2.5 -01	ug/g	CGR006
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CGR006
			Cadmium	LT 7.36-01	ug/g	CGV016
			Methylene Chloride	LT 1.5 +00	ug/g	CGR006
			Chloroform	LT 2.1 +00	ug/g	CGR006
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CGY003
			Chloroacetic Acid	LT 3.55+00	ug/g	CGZ006
			Chlorobenzene	LT 1.5 +00	ug/g	CGR006
			Chloroethane	LT 1.7 +00	ug/g	CGY003
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CGY003
			p-Chlorophenylmethyl Sulfide	LT 2.5 -01	ug/g	CGY003
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CGY003
			Chromium	1.19+01	ug/g	CGV016
			Copper	7.20+01	ug/g	CGV016
			Dibromochloropropane	LT 2.8 -01	ug/g	CGY003
			Dibromochloropropane	LT 2.4 +00	ug/g	CGR006
			Dicyclopentadiene	LT 6.4 01	ug/g	CGR006
			Dicyclopentadiene	LT 1.1 +00	ug/g	CGY003
			Valonia	LT 3.0 +00	ug/g	CGY003
			Diisopropylmethyl Phosphate	LT 1.1 +00	ug/g	CGY003
			Nitriane	LT 3.6 -01	ug/g	CGY003
			Heptadecan	LT 2.5 -01	ug/g	CGY003
			Dimethyldisulfide	LT 2.0 +01	ug/g	CGR006
			Endrin	LT 4.6 01	ug/g	CGY003
			Ethylbenzene	LT 3.8 -01	ug/g	CGR006

Note: Results for some parameters may appear in more than one analytical fraction.

Soil Sites

Back 24

Summary of Analytical Results

Baring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0010	9-10	Soil	Mercury	LT 5.00-02	ug/g	CHA010
			Isodrin	LT 2.9 -01	ug/g	CGY003
			Toluene	LT 2.5 -01	ug/g	CGR006
			Methylisobutyl Ketone	LT 2.3 -01	ug/g	CGR006
			Malathion	LT 7.1 -01	ug/g	CGY003
			1,4-Oxathiane	LT 2.5 -01	ug/g	CGY003
			Lead	1.98+01	ug/g	CGV016
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CGY003
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CGY003
			Parathion	LT 8.5 -01	ug/g	CGY003
			2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CGY003
			Tetrachloroethene	LT 2.5 -01	ug/g	CGR006
			Thiodiglycol	LT 4.20+00	ug/g	CGZ006
			Trichloroethene	LT 5.4 -01	ug/g	CGR006
0010	14-15	Soil	Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CGR006
			Zinc	9.06+01	ug/g	CGV016
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CGR007
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CGR007
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CGR007
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CGR007
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CGR007
			m Xylene	LT 7.4 -01	ug/g	CGR007
			Aldrin	LT 2.5 -01	ug/g	CGY004
			Azinphos	LT 2.50+00	ug/g	CGN023
			Atrazine	LT 2.5 -01	ug/g	CGY004
			Bicycloheptadiene	LT 3.6 -01	ug/g	CGR007
			Benzene	6.3 -01	ug/g	CGR007
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CGR007
			Cadmium	LT 7.36 -01	ug/g	CGV017
			Methylene Chloride	LT 1.5 +00	ug/g	CGR007
			Chloroform	4.3 +01	ug/g	CGR007

Note: Results for some parameters may differ in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Rural Services Incorporated

Task 24

Spill Sites

Summary of Analytical Results

Ring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0010	14-15	Soil	Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CGY004
			Chloroacetic Acid	LT 3.55+01	ug/g	CGZ007
			Chlorobenzene	LT 1.5 +00	ug/g	CGR007
			Chlordane	LT 1.7 +00	ug/g	CGY004
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CGY004
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CGY004
			p-Chlorophenylmethyl Sulfone	LT 1.6 +00	ug/g	CGY004
			Chromium	LT 6.53+00	ug/g	CGV017
			Copper	LT 1.17+02	ug/g	CGV017
			Dibromochloropropane	LT 2.8 -01	ug/g	CGY004
			Dibromochloropropane	LT 2.4 +00	ug/g	CGR007
			Dicyclopentadiene	LT 6.4 -01	ug/g	CGR007
			Dicyclopentadiene	LT 1.1 +00	ug/g	CGY004
			Vapona	LT 3.0 +00	ug/g	CGY004
			Disopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CGY004
			Dithiane	LT 3.6 -01	ug/g	CGY004
			Dieldrin	LT 2.5 -01	ug/g	CGY004
			Dimethyldisulfide	LT 2.0 +01	ug/g	CGR007
			Endrin	LT 4.6 -01	ug/g	CGY004
			Ethylbenzene	LT 3.8 -01	ug/g	CGR007
			Mercury	LT 5.00-02	ug/g	CHA011
			Isodrin	LT 2.9 -01	ug/g	CGY004
			Toluene	LT 2.5 -01	ug/g	CGR007
			Methylisobutyl ketone	LT 4.5 +01	ug/g	CGR007
			Malathion	LT 7.1 -01	ug/g	CGY004
			1,4-Oxathiane	LT 2.5 -01	ug/g	CGY004
			Leaol	LT 8.38+00	ug/g	CGV017
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CGY004
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CGY004
			Parathion	LT 8.5 -01	ug/g	CGY004
			2-Chloro-1(2,4-dichlorophenyl) Vinylmethyl Phosphates	LT 6.1 -01	ug/g	CGY004
			Tetrachloroethane	LT 2.5 -01	ug/g	CGR007

Note: Results for some parameters may appear in more than one analytical fraction.

08/10/88

Rocky Mountain Arsenal Program

Grill Sites

Fluoride - Interfered
 Summary of Analytical Results

Lab 24

Boiling Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0010	14-15	Soil	Triiodoglycol	LT 4.20+00	ug/g	CGZ007
			Trichloroethene	LT 5.4 -01	ug/g	CGR007
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CGR007
			Zinc	9.27+01	ug/g	CGV017
0010	19-20	Soil	1,1,1 Trichloroethene	LT 4.3 -01	ug/g	CGR008
			1,1,2-Trichloroethene	LT 3.9 -01	ug/g	CGR008
			1,1-Dichloroethene	LT 1.7 +00	ug/g	CGR008
			1,2-Dichloroethene	LT 1.7 +00	ug/g	CGR008
			1,2-Trichloroethene	LT 5.6 -01	ug/g	CGR008
			m-Xylene	1.8 +01	ug/g	CGR008
			Aldrin	1.5 +00	ug/g	CGY005
			Arsenic	LT 2.50+00	ug/g	CG0024
			Atrazine	LT 2.5 -01	ug/g	CGY005
			Bicycloheptadiene	LT 3.6 -01	ug/g	CGR008
			Benzene	1.4 +01	ug/g	CGR008
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CGR008
			Cadmium	LT 2.36-01	ug/g	CGV018
			Methylene Chloride	LT 1.5 +00	ug/g	CGR008
			Chloroform	4.0 +02	ug/g	CGR008
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CGY005
			Chloroacetic Acid	LT 3.55+01	ug/g	CGZ008
			Chlorobenzene	2.4 +00	ug/g	CGR008
			Chloroethane	LT 1.7 +00	ug/g	CGY005
			p-Chlorophenylmethyl Sulfide	1.1 +00	ug/g	CGY005
			p-Chlorophenylmethyl Sulfonide	3.8 -01	ug/g	CGY005
			p-Chlorophenylmethyl Sulfone	1.5 +00	ug/g	CGY005
			Chromium	LT 6.53+00	ug/g	CGV018
			Copper	1.07+02	ug/g	CGV018
			Diethoxychloroethane	LT 2.8 -01	ug/g	CGY005
			Diethoxychloroethane	LT 2.4 +00	ug/g	CGR008
			Diethylpentadiene	2.6 +01	ug/g	CGR008
			Diethylpentadiene	LT 1.1 +00	ug/g	CGY005
			Vanillin	LT 3.0 +00	ug/g	CGY005
			Diethylphenylmethyl Phosphonate	LT 1.1 +00	ug/g	CGY005

Note: Results for some parameters may appear in Red. This was analytical fraction

Summary of Analytical Results

Bar ID Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
00110	19.20	Soil	Nitriane	LT 3.6 -01	ug/g	CGY005
			formidin	LT 2.9 +01	ug/g	CGY005
			dimethylsulfide	LT 2.0 +01	ug/g	CGR008
			formin	LT 9.0 +00	ug/g	CGY005
			Ethylbenzene	LT 9.2 +00	ug/g	CGR008
			Mercapty	LT 5.00 +02	ug/g	CHAD12
			Lead in	LT 2.9 -01	ug/g	CGY005
			Toluene	LT 3.0 +01	ug/g	CGR008
			Methylisobutyl Ketone	LT 8.9 +01	ug/g	CGR008
			Malathion	LT 7.1 -01	ug/g	CGY005
			1,4-Dioxathiane	LT 2.5 -01	ug/g	CGY005
			Lead	LT 3.4 +01	ug/g	CGY018
			bichlorodiphenylethane	LT 5.7 -01	ug/g	CGY005
			bichlorodiphenyltrichloro-ethane	LT 4.7 -01	ug/g	CGY005
			Parathion	LT 8.5 -01	ug/g	CGY005
			2-Chloro-1(2,4-dichlorophenyl) Vinyl Ethyl Fluorophates	LT 6.1 -01	ug/g	CGY005
			Tetra chloroethene	LT 1.6 +00	ug/g	CGR008
			Trichloroethylene	LT 4.20 +00	ug/g	CGZ008
			Trichloroethene	LT 5.4 -01	ug/g	CGR008
			Ortho- & Para Xylene	LT 2.2 +01	ug/g	CGR008
			Zinc	LT 8.30 +01	ug/g	CGY018
00111	0.1	Soil	Aldrin	LT 1.1 +00	ug/g	CF T002
			Ascaric	LT 3.06 +00	ug/g	CF S022
			Atrazine	LT 2.5 -01	ug/g	CF T002
			Carbium	LT 2.56 -01	ug/g	CF P011
			Mexachloro-1,4-cyclohexadiene	LT 5.7 -01	ug/g	CF T002
			Chloroacetic Acid	LT 3.55 +01	ug/g	CF Z005
			Chloroethane	LT 1.7 +00	ug/g	CF T002
			perchloroethylene (methyl sulfide)	LT 9.1 +01	ug/g	CF T002
			perchloroethylene (methyl sulfide)	LT 2.5 -01	ug/g	CF T002
			perchloroethylene (methyl sulfide)	LT 2.5 -01	ug/g	CF T002

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References

[illegible]

Lab #

Spill sites

Runing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0011	3.4	Soil	Parathion	LT 8.5 -01	ug/g	CF1004
			2-chloro-1-(2,4-dichlorophenoxy)	LT 6.1 -01	ug/g	CF1004
			Vinylidene Chloride			
			Trichloroethylene	LT 2.5 -01	ug/g	CFN007
			Trichloroethylene	LT 4.20+00	ug/g	CF2007
			Trichloroethylene	LT 5.4 -01	ug/g	CFN007
			Trichloroethylene			
0011	4.5	Soil	ortho & Para-xylene	LT 4.9 +00	ug/g	CFN007
			Zinc	8.70+01	ug/g	CFP013
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CFN006
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CFN006
			1,1,1-Dichloroethane	LT 1.7 +00	ug/g	CFN006
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CFN006
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CFN006
			m-Xylene			
			Alkyln	LT 2.4 -01	ug/g	CFN006
			Arsenic	5.2 -01	ug/g	CF1003
			Atmosphere	2.17+01	ug/g	CFS023
			Atmosphere	LT 2.5 -01	ug/g	CF1003
			Atmosphere	LT 3.6 -01	ug/g	CFN006
			Benzene			
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CFN006
			Carbonium	LT 2.36+01	ug/g	CFP012
			Methylene Chloride	LT 1.5 +00	ug/g	CFN006
			Chloroform	LT 2.9 -01	ug/g	CFN006
			Hexachlorocyclopentadiene	LT 5.2 -01	ug/g	CF1003
			Chloroacetic Acid	LT 3.55+01	ug/g	CF2006
			Chloroacetylene	LT 1.5 +00	ug/g	CFN006
			Chloroethane	LT 1.2 +00	ug/g	CF1003
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CF1003
			p-Chlorophenylmethyl Sulfide			
			p-Chlorophenylmethyl Sulfide	LT 2.5 -01	ug/g	CF1003
			Carbonium	LT 1.19+01	ug/g	CFP012
			Carbonium	LT 4.22+01	ug/g	CFP012
			Polychlorinated biphenyls	LT 2.4 +00	ug/g	CFN006

Notes: Results for the parameters listed above are based on the analysis of the samples.

11/10/88

Rock Mountain Arsenal Program

4111 Sites

Task 2a

Summary of Analytical Results

Porting Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
001	4-5	Soil	Dibromochloropropane	LT 2.8 -01	ug/g	CF1003
			Dibromopentadiene	LT 6.4 -01	ug/g	CFN006
			Dibromopentadiene	LT 1.1 +00	ug/g	CF1003
			Vapona	LT 3.0 +00	ug/g	CF1003
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CF1003
			Dithiane	LT 3.6 -01	ug/g	CF1003
			Dieldrin	LT 2.5 -01	ug/g	CF1003
			Dimethyldisulfide	LT 2.0 +01	ug/g	CFN006
			Endrin	LT 4.6 -01	ug/g	CF1003
			Ethylbenzene	LT 3.8 -01	ug/g	CFN006
			Mercury	LT 5.00-02	ug/g	CFY008
			Lead	LT 2.9 -01	ug/g	CF1003
			Toluene	LT 2.5 -01	ug/g	CFN006
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CFN006
			Nalathion	LT 7.1 -01	ug/g	CF1003
			1,4-Dioxane	LT 2.5 -01	ug/g	CF1003
			Lead	LT 8.38+00	ug/g	CFP012
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CF1003
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CF1003
			Parathion	LT 8.5 -01	ug/g	CF1003
			2-Chloro-1(2,4-Dichlorophenyl) Vinyl Ethyl Phosphates	LT 6.1 -01	ug/g	CF1003
			Tetrachloroethene	LT 2.5 -01	ug/g	CFN006
			Triiodoglycol	LT 4.20+00	ug/g	CFZ006
			Trichloroethene	LT 5.4 -01	ug/g	CFN006
			Ortho & Para-Xylene	LT 4.9 +00	ug/g	CFN006
			Zinc	9.48+01	ug/g	CFP012
001	9-10	Soil	1,1,1-Trichloroethane	LT 4.5 -01	ug/g	CFV008
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CFV008
			1,1,1-Trichloroethane	LT 1.7 +00	ug/g	CFV008
			1,2-Trichloroethane	LT 1.7 -00	ug/g	CFV008
			1,2-Trichloroethane	LT 5.6 -01	ug/g	CFV008

Note: Results for some parameters may appear to more than one analytical method.

08/06/88

Rocky Mountain Arsenal Program

Field Survey - Incorporated

Spill Sites

Task 24

Summary of Analytical Results

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0011	9-10	Soil	m-Xylene	LT 2.4 -01	ug/g	CFV008
			Aldrin	LT 2.5 -01	ug/g	CFU005
			Arsenic	LT 5.54+00	ug/g	CFX014
			Atrazine	LT 2.5 -01	ug/g	CFU005
			Bicycloheptadiene	LT 3.6 -01	ug/g	CFV008
			Benzene	LT 2.5 -01	ug/g	CFV008
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CFV008
			Cadmium	LT 7.36 -01	ug/g	CFW008
			Methylene Chloride	LT 1.5 +00	ug/g	CFV008
			Chloroform	LT 2.9 -01	ug/g	CFV008
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFU005
			Chloroacetic Acid	LT 3.55+01	ug/g	CFZ018
			Chlorobenzene	LT 1.5 +00	ug/g	CFV008
			Chlordane	LT 1.7 +00	ug/g	CFU005
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CFH015
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CFU005
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFU005
			Chromium	LT 6.53+00	ug/g	CFW008
			Copper	LT 3.07+01	ug/g	CFW008
			Dibromochloropropane	LT 2.4 +00	ug/g	CFV008
			Dibromochloropropane	LT 2.8 -01	ug/g	CFU005
			Dicyclopentadiene	LT 6.4 -01	ug/g	CFV008
			Dicyclopentadiene	LT 1.1 +00	ug/g	CFU005
			Vapors	LT 3.0 +00	ug/g	CFU005
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CFU005
			Dithiane	LT 3.6 -01	ug/g	CFU005
			Diethylin	LT 2.5 -01	ug/g	CFU005
			Dimethyldisulfide	LT 2.0 +01	ug/g	CFV008
			Endrin	LT 4.6 -01	ug/g	CFU005
			Ethylbenzene	LT 3.8 -01	ug/g	CFV008
			Mercury	LT 5.00-02	ug/g	CFV019
			Lead, Pb	LT 2.9 -01	ug/g	CFU005
			Isobutene	LT 2.5 -01	ug/g	CFV008
			Methylisobutyl Ketone	LT 2.3 -01	ug/g	CFV008

Note: Results for some parameters may appear to more than one analytical fraction.

Phase 2: Results Incorporated

Rocky Mountain Arsenal Program

03/06/88

Summary of Analytical Results

Task 2/4

Spill Sites

Per Line Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0001	9-16	Soil	Malathion	LT 7.1 -01	ug/g	CFU005
			1,4-dioxathiane	LT 2.5 -01	ug/g	CFU005
			Lead	LT 1.34+01	ug/g	CFW003
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CFU005
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CFU005
			Parathion	LT 8.5 -01	ug/g	CFU005
			2-Chloro-1(2,4-dichlorophenyl)vinyl diethyl phosphates	LT 6.1 -01	ug/g	CFU005
			Tetrachloroethene	LT 2.5 -01	ug/g	CFV008
			Thiodiglycol	LT 4.20+00	ug/g	CFZ018
			Trichloroethene	LT 5.4 -01	ug/g	CFV008
0001	14-15	Soil	Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CFV008
			Zinc	LT 9.52+01	ug/g	CFW008
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CGK002
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CGK002
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CGK002
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CGK002
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CGK002
			m-Xylene	LT 2.4 -01	ug/g	CGK002
			Aldrin	LT 2.5 -01	ug/g	CFU006
			Arsenic	LT 2.50+00	ug/g	CFX015
			Atrazine	LT 2.5 -01	ug/g	CFU006
			River Heptachlor	LT 5.6 -01	ug/g	CFU002
			Benzene	LT 2.5 -01	ug/g	CGK002
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CGK002
			Calcium	LT 7.36 01	ug/g	CFW009
			Methylene Chloride	LT 1.5 +00	ug/g	CGK002
			Chloroform	LT 2.9 01	ug/g	CGK002
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFU006
			Chloroacetic Acid	LT 3.65+01	ug/g	CFZ019
			Chlorobenzene	LT 1.5 +00	ug/g	CGK002
			Chloroethane	LT 1.7 +00	ug/g	CFU006
			p-Chlorodiphenylmethyl Sulfide	LT 9.1 -01	ug/g	CFU006

Note: Results for some parameters may appear in more than one analytical fraction.

08/06/88

Rocky Mountain Arsenal Program

Fluorocarbon, Incorporated

Task 24 Spill Sites

Summary of Analytical Results

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0011	14-15	Soil	p-Chlorophenylmethyl Sulfonide	LT 2.5 -01	ug/g	CFU006
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFU006
			Chromium	LT 6.53+00	ug/g	CFW009
			Copper	LT 4.30+00	ug/g	CFW009
			Dibromochloropropane	LT 2.4 +00	ug/g	CGK002
			Dibromochloropropane	LT 2.8 -01	ug/g	CFU006
			Dicyclopentadiene	LT 6.4 -01	ug/g	CGK002
			Dicyclopentadiene	LT 1.1 +00	ug/g	CFU006
			Vapona	LT 3.0 +00	ug/g	CFU006
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CFU006
			Diethane	LT 3.6 -01	ug/g	CFU006
			Diethane	LT 2.5 -01	ug/g	CFU006
			Dimethyldisulfide	LT 2.0 +01	ug/g	CGK002
			Endrin	LT 4.6 -01	ug/g	CFU006
			Ethylbenzene	LT 3.8 -01	ug/g	CGK002
			Mercury	LT 5.00-02	ug/g	CFY020
			Isodrin	LT 2.9 -01	ug/g	CFU006
			Toluene	LT 2.5 -01	ug/g	CGK002
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CGK002
			Malathion	LT 7.1 -01	ug/g	CFU006
0012	3-3.8	Soil	1,4-Oxathiane	LT 2.5 -01	ug/g	CFU006
			Lead	LT 1.37+01	ug/g	CFW009
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CFU006
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CFU006
			Parathion	LT 8.5 -01	ug/g	CFU006
			2-Chloro 1(2,4-Dichlorophenyl) Vinyl Diethyl Phosphates	LT 6.1 -01	ug/g	CFU006
			Tetrachloroethene	LT 2.5 -01	ug/g	CGK002
			Trichloroglycol	LT 4.20+00	ug/g	CFZ019
			Trichloroethene	LT 5.4 -01	ug/g	CGK002
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CGK002
			Zinc	1.12+02	ug/g	CFW009
			Aldrin	LT 2.5 -01	ug/g	CGH009

Note: Results for some parameters may appear in more than one analytical fraction.

Boiling Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0012	3-3.8	Soil	Arsenic	LT 2.50+00	ug/g	CG0011
			Atrazine	LT 2.5 -01	ug/g	CGH009
			Cadmium	LT 7.36-01	ug/g	CGV005
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CGH009
			Chloroacetic Acid	LT 3.55+01	ug/g	CGW005
			Chlordane	LT 1.7 +00	ug/g	CGH009
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CGH009
			p-Chlorophenylmethyl Sulfonide	LT 2.5 -01	ug/g	CGH009
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CGH009
			Chromium	9.89+01	ug/g	CGV005
			Copper	1.67+01	ug/g	CGV005
			Dibromochloropropane	LT 2.8 -01	ug/g	CGH009
			Dicyclopentadiene	LT 1.1 +00	ug/g	CGH009
			Vapona	LT 3.0 +00	ug/g	CGH009
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CGH009
			Dithiane	LT 3.6 -01	ug/g	CGH009
			Dieldrin	1.7 +00	ug/g	CGH009
			Endrin	LT 4.6 -01	ug/g	CGH009
			Mercury	1.42-01	ug/g	CGL014
			Isodrin	LT 2.9 -01	ug/g	CGH009
0013	4-5	Soil	Malathion	LT 7.1 -01	ug/g	CGH009
			1,4-Oxathiane	LT 2.5 -01	ug/g	CGH009
			Lead	4.22+02	ug/g	CGV005
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CGH009
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CGH009
			Parathion	LT 8.5 -01	ug/g	CGH009
			2-(chloro-1(2,4-dichlorophenyl)vinyl)diethyl phosphates	LT 6.1 -01	ug/g	CGH009
			Thiodiethylol	LT 4.20+00	ug/g	CGW005
			Zinc	1.28+02	ug/g	CGV005
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CGK004
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CGK004
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CGK004

Note: Results for some parameters may appear in more than one analytical fraction

Summary of Analytical Results

Table 2A

Soil Sites

Sampling Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
U012	4-5	Soil	1,2-Dichloroethene	LT 1.7 +00	ug/g	CGK004
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CGK004
			m-Xylene	LT 7.4 -01	ug/g	CGK004
			Aldrin	LT 2.5 -01	ug/g	CGH010
			Arsenic	8.46+01	ug/g	CGU012
			Atrazine	LT 2.5 -01	ug/g	CGH010
			Bicycloheptadiene	LT 3.6 -01	ug/g	CGK004
			Benzene	LT 2.5 -01	ug/g	CGK004
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CGK004
			Cadmium	1.66+00	ug/g	CGV006
			Methylene Chloride	LT 1.5 +00	ug/g	CGK004
			Chloroform	LT 2.9 -01	ug/g	CGK004
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CGH010
			Chloroacetic Acid	LT 3.55+01	ug/g	CGW006
			Chlorobenzene	LT 1.5 +00	ug/g	CGK004
			Chlordane	LT 1.7 +00	ug/g	CGH010
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CGH010
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CGH010
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CGH010
			Chromium	1.05+01	ug/g	CGV006
			Copper	3.62+01	ug/g	CGV006
			Dibromochloropropane	LT 2.8 -01	ug/g	CGH010
			Dibromochloropropane	LT 2.4 +00	ug/g	CGK004
			Dicyclopentadiene	LT 6.4 -01	ug/g	CGK004
			Dicyclopentadiene	LT 1.1 +00	ug/g	CGH010
			Vanone	LT 3.0 +00	ug/g	CGH010
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CGH010
			Diethane	LT 3.6 -01	ug/g	CGH010
			Diethane	LT 2.5 -01	ug/g	CGH010
			Dimethyldisulfide	LT 2.0 +01	ug/g	CGK004
			Endrin	LT 4.6 -01	ug/g	CGH010
			Ethylbenzene	LT 3.8 -01	ug/g	CGK004
			Mercury	LT 5.00 -02	ug/g	CGH010
			Isodrin	LT 2.9 -01	ug/g	CGH010

Note: Results for some parameters may appear in more than one analytical fraction.

Fluorin Services Incorporated
Summary of Analytical Results

Rocky Mountain Arsenal Program

08/06/88

Task #4 Spill Sites

Runing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0012	4-5	Soil	Toluene	LT 2.5 -01	ug/g	CGK004
			Methylisobutyl ketone	LT 2.3 -01	ug/g	CGK004
			Malathion	LT 7.1 -01	ug/g	CGH010
			1,4-Dioxane	LT 2.5 -01	ug/g	CGH010
			Lead	1.98+01	ug/g	CGV006
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CGH010
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CGH010
			Parathion	LT 8.5 -01	ug/g	CGH010
			2-Chloro-1(2,4-dichlorophenyl) Vinyl diethyl Phosphates	LT 6.1 -01	ug/g	CGH010
			Tetrachloroethane	LT 2.5 -01	ug/g	CGK004
0012	9-10	Soil	Triiodoglycol trichloroethane	LT 4.20+00	ug/g	CGW006
			Ortho- & Para-xylene	LT 5.4 -01	ug/g	CGK004
			Zinc	LT 4.9 +00	ug/g	CGK004
				1.01+02	ug/g	CGV006
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CGK005
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CGK005
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CGK005
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CGK005
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CGK005
			m-Xylene	LT 7.4 -01	ug/g	CGK005
			Aldrin	LT 3.0 -01	ug/g	CGP002
			Arsenic	LT 2.50+00	ug/g	CG0013
			Atrazine	LT 3.0 -01	ug/g	CGP002
			Bicycloheptadiene	LT 3.6 -01	ug/g	CGK005
			Benzene	LT 2.5 -01	ug/g	CGK005
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CGK005
			Calcium	LT 2.36 -01	ug/g	CGV007
			Methylene Chloride	LT 1.5 +00	ug/g	CGK005
			Chloroform	LT 2.9 -01	ug/g	CGK005
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CGP002
			Chloroacetic Acid	LT 3.66+01	ug/g	CGW007
			Chlorobenzene	LT 1.5 +00	ug/g	CGK005

Note: Results for some parameters may appear to be more than one analytical technique

Rocky Mountain Arsenal Program

Flasque Services Incorporated

Task 24

Summary of Analytical Results

Spill Sites

Baring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0012	9-10	Soil	Chlordane	LT 2.0 +00	ug/g	CGP002
			p-Chlorophenylmethyl Sulfide	LT 9.0 -01	ug/g	CGP002
			p-Chlorophenylmethyl Sulfoxide	LT 3.0 -01	ug/g	CGP002
			p-Chlorophenylmethyl Sulfone	LT 3.0 -01	ug/g	CGP002
			Chromium	LT 1.09+01	ug/g	CGV007
			Copper	4.03+01	ug/g	CGV007
			Dibromochloropropane	LT 3.0 -01	ug/g	CGP002
			Dibromochloropropane	LT 2.4 +00	ug/g	CGK005
			Dibromodichloroethene	LT 6.4 -01	ug/g	CGK005
			Dibromodichloroethene	LT 1.0 +00	ug/g	CGP002
			Vapour	LT 3.0 +00	ug/g	CGP002
			Diisopropylmethyl Phosphonate	LT 1.0 +00	ug/g	CGP002
			Dithiane	LT 4.0 -01	ug/g	CGP002
			Dieldrin	LT 2.5 -01	ug/g	CGP002
			Dimethyldisulfide	LT 2.0 +01	ug/g	CGK005
			Endrin	LT 5.0 -01	ug/g	CGP002
			Ethylbenzene	LT 3.8 -01	ug/g	CGK005
			Mercury	LT 5.00-02	ug/g	CGL016
			Isodrin	LT 3.0 -01	ug/g	CGP002
			Toluene	LT 2.5 -01	ug/g	CGK005
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CGK005
			Malathion	LT 2.0 -01	ug/g	CGP002
			1,4-Oxathiane	LT 3.0 -01	ug/g	CGP002
			Lead	2.72+01	ug/g	CGV007
			Dichlorodiphenylethane	LT 6.0 -01	ug/g	CGP002
			Dichlorodiphenyltrichloroethane	LT 5.0 -01	ug/g	CGP002
			Parathion	LT 9.0 -01	ug/g	CGP002
			2-Chloro-1,2,4-Trichlorophenyl Vinyl Dimethyl Phosphates	LT 6.0 01	ug/g	CGP002
			Tetrachloroethene	LT 2.5 -01	ug/g	CGK005
			Dibutylglycol	LT 4.20+00	ug/g	CGW007
			Trichloroethene	LT 5.4 -01	ug/g	CGK005
			m-Phe & Para-xylene	LT 4.9 +00	ug/g	CGK005

Notes: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Thames Services Incorporated

Task 24

Summary of Analytical Results

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0012	9-10	Soil	Zinc	1.02+02	ug/g	CGV007
0012	14-15	Soil	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CGK006
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CGK006
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CGK006
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CGK006
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CGK006
			m-Xylene	LT 7.4 -01	ug/g	CGK006
			Aldrin	LT 3.0 -01	ug/g	CGP003
			Arsenic	LT 2.50+00	ug/g	CG0014
			Atrazine	LT 3.0 -01	ug/g	CGP003
			Bicycloheptadiene	LT 3.6 -01	ug/g	CGK006
			Benzene	LT 2.5 -01	ug/g	CGK006
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CGK006
			Cadmium	LT 7.36-01	ug/g	CGV008
			Methylene Chloride	LT 1.5 +00	ug/g	CGK006
			Chloroform	LT 2.9 -01	ug/g	CGK006
			Hexachlorocyclopentadiene	LT 6.0 -01	ug/g	CGP003
			Chloroacetic Acid	LT 3.55+01	ug/g	CGW008
			Chlorobenzene	LT 1.5 +00	ug/g	CGK006
			Chlordane	LT 2.0 +00	ug/g	CGP003
			p-Chlorophenylmethyl Sulfide	LT 9.0 -01	ug/g	CGP003
			p-Chlorophenylmethyl Sulfonide	LT 3.0 -01	ug/g	CGP003
			p-Chlorophenylmethyl Sulfone	LT 3.0 -01	ug/g	CGP003
			Chromium	9.94+00	ug/g	CGV008
			Copper	3.35+01	ug/g	CGV008
			Dibromochloropropane	LT 2.4 +00	ug/g	CGK006
			Dibromochloropropane	LT 3.0 -01	ug/g	CGP003
			Dibromocyclopentadiene	LT 6.4 -01	ug/g	CGK006
			Dibromocyclopentadiene	LT 1.0 +00	ug/g	CGP003
			Vapona	LT 3.0 +00	ug/g	CGP003
			Diisopropylmethyl Phosphonate	LT 1.0 +00	ug/g	CGP003
			Diethane	LT 4.0 -01	ug/g	CGP003
			Dieldrin	LT 3.0 -01	ug/g	CGP003

Notes: Results for some parameters may appear as "None" due to analytical detection.

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Rocky Mountain Arsenal Program

Phase 1: Soil Sampling Incorporated

Spill Sites

Task 24

Summary of Analytical Results

Boxing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0012	14.15	Soil	Dimethyldisulfide	LT 2.0 +01	ug/g	CGK006
			Endrin	LT 5.0 -01	ug/g	CGP003
			Ethylbenzene	LT 3.8 -01	ug/g	CGK006
			Mercury	LT 5.00 -02	ug/g	CGL017
			Isodrin	LT 3.0 -01	ug/g	CGP003
			Toluene	LT 2.5 -01	ug/g	CGK006
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CGK006
			Malathion	LT 7.0 -01	ug/g	CGP003
			1,4-Oxathiane	LT 3.0 -01	ug/g	CGP003
			Lead	2.04+01	ug/g	CGV008
0013	11.8	Soil	Dichlorodiphenylethane	LT 6.0 -01	ug/g	CGP003
			Dichlorodiphenyltrichloroethane	LT 5.0 -01	ug/g	CGP003
			Parathion	LT 9.0 -01	ug/g	CGP003
			2-Chloro 1(2,4-Dichlorophenyl)	LT 6.0 -01	ug/g	CGP003
			Vinylidene Phosphates			
			Tetrahydroethene	LT 2.5 -01	ug/g	CGK006
			Thiodiglycol	LT 4.20+00	ug/g	CGW008
			Trichloroethene	LT 5.4 -01	ug/g	CGK006
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CGK006
			Zinc	1.03+02	ug/g	CGV008
			1,1,1-Trichloroethane	LT 4.30 1	ug/g	CGF008
			1,1,2-Trichloroethane	LT 3.90 -1	ug/g	CGF008
			1,1-Dichloroethane	LT 1.70 0	ug/g	CGF008
			1,2-Dichloroethene	LT 1.70 0	ug/g	CGF008
			1,2-Dichloroethane	LT 5.60 -1	ug/g	CGF008
			m-Xylene	LT 7.40 -1	ug/g	CGF008
			Aldrin	4.85 0	ug/g	CGP004
			Arsenic	LT 5.00 0	ug/g	CGT011
			Aluminum	LT 3.00 1	ug/g	CGP004
			Polyheptadiene	LT 3.60 -1	ug/g	CGF008
0014	11.8	Soil	Benzene	2.90 1	ug/g	CGF008
			Carbon Tetrachloride	LT 2.50 -1	ug/g	CGF008
			Cadmium	LT 7.40 -1	ug/g	CGL019

Notes: Results for some parameters may differ from those obtained from previous

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0013	1-1.8	Soil	Methylene Chloride	LT 1.50	0	COF008
			Chloroform	LT 4.38	-1	COF008
			Hexachlorocyclopentadiene	LT 6.00	-1	COF004
			Chloroacetic Acid	LT 3.55	1	COQ009
			Chlorobenzene	LT 1.50	0	COF008
			Chloroethane	LT 2.00	0	COF004
			p-Chlorophenylmethyl Sulfide	LT 9.00	-1	COF004
			p-Chlorophenylmethyl Sulfonide	LT 3.00	-1	COF004
			Chromium	LT 1.22	1	COL019
			Copper	LT 1.32	1	COL019
			Dibromochloropropane	LT 2.40	0	COF008
			Dibromochloropropane	LT 3.00	-1	COF004
			Dicyclopentadiene	LT 6.40	-1	COF008
			Dicyclopentadiene	LT 1.00	0	COF004
			Vapor	LT 3.00	0	COF004
			Diisopropylmethyl Phosphonate	LT 1.00	0	COF004
			Diethane	LT 4.00	-1	COF004
			Diethyl disulfide	LT 7.31	1	COF004
			Endrin	LT 2.00	1	COF008
			Ethylbenzene	LT 2.21	1	COF004
			Mercury	LT 3.80	-1	COF008
			Isodrin	LT 2.31	-1	COQ020
			Toluene	LT 5.27	-1	COF004
				LT 2.50	1	COF008
			Methylisobutyl Ketone	LT 7.30	-1	COF008
			Malathion	LT 2.00	-1	COF004
			1,4-Oxathiane	LT 3.00	-1	COF004
			Lead	LT 3.52	2	COL019
			1,1-Dichloroethane	LT 6.00	-1	COF004
			Dichlorodiphenyltrichloroethane	LT 5.00	1	COF004
			Parathion	LT 9.00	1	COF004
			2-Chloro-1(2,4-dichlorophenyl) Vinyl diethyl Phosphate	LT 6.00	1	COF004

Note: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Task 24

Summary of Analytical Results

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0013	1-1.8	Soil	Tetrachloroethene	3.43 -1	ug/g	CUF008
			Trichloroglycol	LT 4.20 -1	ug/g	COU009
			Trichloroethene	LT 5.40 -1	ug/g	COF008
			Ortho- & Para-xylene	LT 4.90 -1	ug/g	COF008
			Zinc	7.15 -1	ug/g	CCL019
0014	0-1	Soil	Arsenic	LT 2.50+00	ug/g	CHR008
			Chloroacetic Acid	LT 3.55+01	ug/g	CGZ012
			Trichloroglycol	LT 4.20+00	ug/g	CG. 012
0016	4-5	Soil	Arsenic	LT 2.50+00	ug/g	CHB009
			Chloroacetic Acid	LT 3.55+01	ug/g	CGZ013
			Trichloroglycol	LT 4.20+00	ug/g	CGZ013
0015	0-1	Soil	Arsenic	1.76+01	ug/g	CHB006
			Chloroacetic Acid	LT 3.55+01	ug/g	CGZ010
			Trichloroglycol	LT 4.20+00	ug/g	CGZ010
0015	4-5	Soil	Arsenic	1.89+01	ug/g	CHB007
			Chloroacetic Acid	LT 3.55+01	ug/g	CGZ011
			Trichloroglycol	LT 4.20+00	ug/g	CGZ011
0016	0-1	Soil	Chloroacetic Acid	LT 3.55+01	ug/g	CEX017
			Trichloroglycol	LT 4.20+00	ug/g	CEX017
0016	4-5	Soil	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CFB002
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CFB002
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CFB002
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CFB002
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CFB002
			m-Xylene	LT 2.4 -01	ug/g	CFB002
			Bis(2-chloroethyl)ethene	LT 3.6 -01	ug/g	CFR002
			Benzene	LT 2.5 -01	ug/g	CFR002
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CFR002
			Methylene Chloride	LT 1.5 +00	ug/g	CFB002
0016	4-5	Soil	Chloroform	LT 2.4 -01	ug/g	CFR002
			Chloroacetic Acid	LT 3.55+01	ug/g	CEX018

Note: Results for some parameters may appear to be greater than one standard deviation.

08/06/88

Rocky Mountain Arsenal Program

Flasco Services, Incorporated

Summary of Analytical Results Task #6 Spill Sites

Running Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0016	4-5	Soil	Chlorobenzene	LT 1.5 +00	ug/g	CFB002
			Dibromochloropropane	LT 2.4 +00	ug/g	CFB002
			Dibromodipentadiene	LT 6.4 -01	ug/g	CFB002
			Dimethyldisulfide	LT 2.0 +01	ug/g	CFB002
			Ethylbenzene	LT 3.8 -01	ug/g	CFB002
			Toluene	LT 2.5 -01	ug/g	CFB002
			Methylisobutyl ketone	LT 7.3 -01	ug/g	CFB002
			Tetrachloroethene	LT 2.5 -01	ug/g	CFB002
			Triiodoglycol	LT 4.20+00	ug/g	CEX018
			Trichloroethene	LT 5.4 -01	ug/g	CFB002
0016	9-10	Soil	Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CFB002
			1,1,1-Trichloroethane	LT 4.3 01	ug/g	CFB003
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CFB003
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CFB003
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CFB003
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CFB003
			m-Xylene	LT 7.4 -01	ug/g	CFB003
			Bicycloheptadiene	LT 3.6 -01	ug/g	CFB003
			Benzene	LT 285 -01	ug/g	CFB003
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CFB003
			Methylene Chloride	LT 1.5 +00	ug/g	CFB003
			Chloroform	LT 2.9 -01	ug/g	CFB003
			Chloroacetic Acid	LT 3.55+01	ug/g	CEX019
			Chlorobenzene	LT 1.5 +00	ug/g	CFB003
			Dibromochloropropane	LT 2.4 +00	ug/g	CFB003
			Dibromodipentadiene	LT 6.4 -01	ug/g	CFB003
			Dimethyldisulfide	LT 2.0 +01	ug/g	CFB003
			Ethylbenzene	LT 3.8 01	ug/g	CFB003
			Toluene	LT 2.5 -01	ug/g	CFB003
			Methylisobutyl ketone	LT 7.3 01	ug/g	CFB003
			Tetrachloroethene	LT 2.5 -01	ug/g	CFB003
			Triiodoglycol	LT 4.20+00	ug/g	CEX019
			Trichloroethene	LT 5.4 01	ug/g	CFB003

Note: Results for some parameters may appear to more than one analytical location.

Summary of Analytical Results

Poring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0015	9-10	Soil	Ortho- & Para-Xylene	11 4.9 +00	ug/g	CFB003
0016	13-14	Soil	1,1,1-Trichloroethane	11 4.3 -01	ug/g	CFB004
			1,1,2-Trichloroethane	11 3.9 -01	ug/g	CFB004
			1,1-Dichloroethane	11 1.7 +00	ug/g	CFB004
			1,2-Dichloroethane	11 1.7 +00	ug/g	CFB004
			1,2-Dichloroethane	11 5.6 -01	ug/g	CFB004
			m-Xylene	11 7.4 -01	ug/g	CFB004
			Bicycloheptadiene	11 3.1 -01	ug/g	CFB004
			Benzene	11 2.5 -01	ug/g	CFB004
			Carbon Tetrachloride	11 2.5 -01	ug/g	CFB004
			Methylene Chloride	11 1.5 +00	ug/g	CFB004
			Chloroform	11 2.9 -01	ug/g	CFB004
			Chloroacetic Acid	11 3.5 +00	ug/g	CEX120
			Chlorobenzene	11 1.5 +00	ug/g	CFB004
			1,1-Dichloroethane	11 2.4 +00	ug/g	CFB004
			1,2-Dichloroethane	11 6.4 -01	ug/g	CFB004
			Dimethylsulfide	11 2.0 +01	ug/g	CFB004
			Ethylbenzene	11 3.8 -01	ug/g	CFB004
			Toluene	11 2.5 -01	ug/g	CFB004
			Methylisobutyl ketone	11 7.3 -01	ug/g	CFB004
			Tetrachloroethene	11 2.5 -01	ug/g	CFB004
			Triiodoglycol	11 4.20 +00	ug/g	CFX020
			Trichloroethene	11 5.4 -01	ug/g	CFB004
			Ortho- & Para Xylene	11 4.9 +00	ug/g	CFB004
0017	01, 3, 11, 13	Soil	Aldrin	11 2.5 -01	ug/g	CF1002
			Arsenic	11 5.0 +00	ug/g	CFB010
			Atrazine	11 2.5 -01	ug/g	CF1002
			Cadmium	11 2.40 -	ug/g	CFX015
			Hexachlorocyclopentadiene	11 5.7 -01	ug/g	CF1002
			Chloroacetic Acid	11 3.5 +01	ug/g	CFB009
			Chloroform	11 1.7 +00	ug/g	CF1002
			p-Chlorophenylmethyl Sulfide	11 9.3 -01	ug/g	CF1002
			p-Chlorophenylmethyl Sulfonate	11 7.5 -01	ug/g	CF1002

Note: Results for some parameters may appear in more than one analytical table.

08/10/88

Rocky Mountain Arsenal Program

Test 24

Summary of Analytical Results

Spill Sites

Receiving Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0017	0, 3-0.8	Soil	p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFJ002
			Chromium	2.83 1	ug/g	CEY015
			Copper	1.86 1	ug/g	CEY015
			Diisopropylchloropropane	LT 2.8 -01	ug/g	CFJ002
			Dicyclopentadiene	LT 1.1 +00	ug/g	CFJ002
			Vanone	LT 3.0 +00	ug/g	CFJ002
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CFJ002
			Dithiane	LT 3.6 -01	ug/g	CFJ002
			Dieldrin	LT 2.5 -01	ug/g	CFJ002
			Endrin	LT 4.6 -01	ug/g	CFJ002
			Mercury	LT 5.00-02	ug/g	CFC007
			Isodrin	LT 2.9 -01	ug/g	CFJ002
			Malathion	LT 7.1 -01	ug/g	CFJ002
			1,4-Oxathiane	LT 2.5 -01	ug/g	CFJ002
			Lead	2.40 1	ug/g	CEY015
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CFJ002
			Dichlorodiphenyltrichloro-ethane	LT 4.7 -01	ug/g	CFJ002
0017	1.5-2.5	Soil	Parathion	LT 8.5 -01	ug/g	CFJ002
			2 Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 01	ug/g	CFJ002
			Thiodiglycol	LT 4.20+00	ug/g	CFM009
			Zinc	1.01 2	ug/g	CEY015
			1,1,1-Trichloroethane	LT 3. -01	ug/g	CFI008
			1,1,2-Trichloroethane	LT 3. -01	ug/g	CFI008
			1,1-Dichloroethane	LT 9. -01	ug/g	CFI008
			1,2-Dichloroethane	LT 3. -01	ug/g	CFI008
			m-Xylene	LT 7. -01	ug/g	CFI008
			Aldrin	LT 2.5 -01	ug/g	CFJ006
			Arsenic	LT 5.0 000	ug/g	CFD014
			Atrazine	LT 2.5 01	ug/g	CFJ006
			Bicycloheptadiene	LT 3. 01	ug/g	CFI008

Note: Results for some parameters may appear in more than one analytical fraction.

Boxing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0017	1.5-2.5	Soil	Benzene	LT 3. -01	ug/g	CF1008
			Carbon Tetrachloride	LT 3. -01	ug/g	CF1008
			Cadmium	LT 7.40 -1	ug/g	CEY019
			Methylene Chloride	LT 7. -01	ug/g	CF1008
			Chloroform	LT 3. -01	ug/g	CF1008
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFJ006
			Chloroacetic Acid	LT 3.55+01	ug/g	CFM013
			Chlorobenzene	LT 3. -01	ug/g	CF1008
			Chlordane	LT 1.7 +00	ug/g	CFJ006
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CFJ006
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CFJ006
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFJ006
			Chromium	2.74 1	ug/g	CEY019
			Copper	1.47 1	ug/g	CEY019
			Dibromochloropropane	LT 2.8 -01	ug/g	CFJ006
			Dibromochloropropane	LT 4. -01	ug/g	CF1008
			Dicyclopentadiene	LT 1.1 +00	ug/g	CFJ006
			Dicyclopentadiene	LT 3. -01	ug/g	CF1008
			Varona	LT 3.0 +00	ug/g	CFJ006
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CFJ006
			Dithiane	LT 3.6 -01	ug/g	CFJ006
			Dieldrin	LT 2.5 -01	ug/g	CFJ006
			Dimethyldisulfide	LT 8. -01	ug/g	CF1008
			Endrin	LT 4.6 -01	ug/g	CFJ006
			Ethylbenzene	LT 3. -01	ug/g	CF1008
			Mercury	LT 5.00+02	ug/g	CF0011
			Endrin	LT 2.9 -01	ug/g	CFJ006
			Toluene	LT 3. -01	ug/g	CF1008
			Methylisobutyl Ketone	LT 3. -01	ug/g	CF1008
			Malathion	LT 2.1 -01	ug/g	CFJ006
			1,4-Oxathiane	LT 2.5 -01	ug/g	CF1006
			Lead	2.31 1	ug/g	CEY019
			1,1-Dichloro-2,2-diphenylethane	LT 5.7 00	ug/g	CF1006
			1,1-Dichloro-2,2-diphenylethane ethane	LT 4.7 -01	ug/g	CF1006

Note: Results for some parameters may appear in more than one analytical fraction.

Pharm Services Incorporated
Summary of Analytical Results

Rocky Mountain Arsenal Program
Task 24
Spill Sites

08/06/88

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0017	1.5-2.5	Soil	Parathion	LT 8.5 -01	ug/g	CFJ006
			2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.1 -01	ug/g	CFJ006
			Tetrachloroethene	LT 3. -01	ug/g	CFI008
			Triiodoglycol	LT 4 20+00	ug/g	CFM013
			Trichloroethene	LT 3. -01	ug/g	CFI008
			Ortho- & Para-Xylene	LT 3. -01	ug/g	CFI008
0017	4-5	Soil	Zinc	4.25 2	ug/g	CEY019
			1,1,1-Trichloroethane	LT 3. -01	ug/g	CFI005
			1,1,2-Trichloroethane	LT 3. -01	ug/g	CFI005
			1,1-Dichloroethane	LT 9. -01	ug/g	CFI005
			1,2-Dichloroethane	LT 3. -01	ug/g	CFI005
			1,2-Dichloroethane	LT 3. -01	ug/g	CFI005
			m-Xylene	LT 7. -01	ug/g	CFI005
			Aldrin	LT 2.5 -01	ug/g	CFJ003
			Arsenic	LT 5.0 +00	ug/g	CFM011
			Atrazine	LT 2.5 -01	ug/g	CFJ003
			Bicycloheptadiene	LT 3. -01	ug/g	CFI005
			Benzene	LT 3. -01	ug/g	CFI005
			Carbon Tetrachloride	LT 3. -01	ug/g	CFI005
			Cadmium	LT 7.40 -1	ug/g	CEY016
			Methylene Chloride	LT 7. -01	ug/g	CFI005
			Chloroform	LT 3. -01	ug/g	CFI005
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFJ003
			Chloroacetic Acid	LT 3.55+01	ug/g	CFM010
			Chlorobenzene	LT 3. -01	ug/g	CFI005
			Chloroethane	LT 1.7 +00	ug/g	CFI003
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CFJ003
			p-Chlorophenylmethyl Sulfonide	LT 2.5 -01	ug/g	CFJ003
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFJ003
			Chromium	1.26 1	ug/g	CEY016
			Copper	6.44 0	ug/g	CEY016
			Dibromochloroethane	LT 2.8 -01	ug/g	CFJ003

Note: Results for some parameters may appear in more than one analytical fraction.

Summary of Analytical Results

Task 24

Spill Sites

Sampling Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0017	4.5	Soil	Dibromochloropropane	LT 4. -01	ug/g	CFI005
			Dicyclopentadiene	LT 1.1 +00	ug/g	CFJ003
			Dicyclopentadiene	LT 3. -01	ug/g	CFI005
			Vapona	LT 3.0 +00	ug/g	CFJ003
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CFJ003
			Diethane	LT 3.6 -01	ug/g	CFJ003
			Diethane	LT 2.5 -01	ug/g	CFJ003
			Dimethyldisulfide	LT 8. -01	ug/g	CFI005
			Endrin	LT 4.6 -01	ug/g	CFJ003
			Ethylbenzene	LT 3. -01	ug/g	CFI005
			Mercury	LT 5.00-02	ug/g	CFG008
			Isodrin	LT 2.9 -01	ug/g	CFJ003
			Toluene	LT 3. -01	ug/g	CFI005
			Methylisobutyl Ketone	LT 3. -01	ug/g	CFI005
			Malathion	LT 7.1 -01	ug/g	CFJ003
			1,4-Oxathiane	LT 2.5 -01	ug/g	CFJ003
			Lead	LT 8.40 0	ug/g	CEY016
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CFJ003
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CFJ003
			Parathion	LT 8.5 -01	ug/g	CFJ003
0017	9.10	Soil	2-Chloro-1(2,4-Dichlorophenyl) Vinylalcohol Phosphates	LT 6.1 -01	ug/g	CFJ003
			Tetrachloroethene	LT 3. -01	ug/g	CFI005
			Thiodiglycol	LT 4.20+00	ug/g	CFM010
			Trichloroethene	LT 3. -01	ug/g	CFI005
			Ortho- & Para-Xylene	LT 3. -01	ug/g	CFI005
			Zinc	3.35 1	ug/g	CEY016
			1,1,1-Trichloroethane	LT 3. -01	ug/g	CFI006
			1,1,2-Trichloroethane	LT 3. -01	ug/g	CFI006
			1,1 Dichloroethane	LT 9. -01	ug/g	CFI006
			1,2 Dichloroethane	LT 5. 01	ug/g	CFI006
			1,2-Dichloroethane	LT 3. 01	ug/g	CFI006

Note: Results for some parameters may appear in more than one analytical fraction.

Summary of Analytical Results

Task 24

Spill Sites

Rowing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0017	9-10	Soil	m-Xylene	LT 7. -01	ug/g	CF1006
			Aldrin	LT 2.5 -01	ug/g	CF1004
			Arsenic	LT 5.0 +00	ug/g	CFD012
			Atrazine	LT 2.5 -01	ug/g	CFJ004
			Bicycloheptadiene	LT 3. -01	ug/g	CF1006
			Benzene	LT 3. -01	ug/g	CF1006
			Carbon Tetrachloride	LT 3. -01	ug/g	CF1006
			Cadmium	LT 7.40 -1	ug/g	CEY017
			Methylene Chloride	LT 7. -01	ug/g	CF1006
			Chloroform	LT 3. -01	ug/g	CF1006
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFJ004
			Chloroacetic Acid	LT 3.55+01	ug/g	CFM011
			Chlorobenzene	LT 3. -01	ug/g	CF1006
			Chloroethane	LT 1.7 +00	ug/g	CFJ004
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CFJ004
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CF1004
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFJ004
			Chromium	2.56 1	ug/g	CEY017
			Copper	1.30 1	ug/g	CEY017
			Dibromochloropropane	LT 2.8 -01	ug/g	CFJ004
			Dibromochloropropane	LT 4. -01	ug/g	CF1006
			Dicyclopentadiene	LT 1.1 +00	ug/g	CFJ004
			Dicyclopentadiene	LT 3. -01	ug/g	CF1006
			Vapona	LT 3.0 +00	ug/g	CFJ004
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CFJ004
			Dithiane	LT 3.6 -01	ug/g	CFJ004
			Dieldrin	LT 2.5 01	ug/g	CFJ004
			Dimethyldisulfide	LT 8. -01	ug/g	CF1006
			Endrin	LT 4.6 -01	ug/g	CF1004
			Ethylbenzene	LT 3. -01	ug/g	CF1006
			Mercury	LT 5.00-02	ug/g	CF0009
			Isodrin	LT 2.9 01	ug/g	CFJ014
			Toluene	LT 3. -01	ug/g	CF1006
			Methylisobutyl Ketone	LT 3. 01	ug/g	CF1006

Note: Results for some parameters may appear in more than one analytical fraction.

Summary of Analytical Results

Task 24

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0017	9-10	Soil	Malathion	LT 7.1 -01	ug/g	CFJ004
			1,4-Oxathiane	LT 2.5 -01	ug/g	CFJ004
			Lead	LT 8.40 0	ug/g	CEY017
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CFJ004
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CFJ004
			Parathion	LT 8.5 -01	ug/g	CFJ004
			2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.1 -01	ug/g	CFJ004
			Tetrachloroethene	LT 3. -01	ug/g	CFI006
			Triiodoglycol	LT 4.20+00	ug/g	CFM011
			Trichloroethene	LT 3. -01	ug/g	CFI006
0017	11.5-12.5	Soil	Ortho- & Para-Xylene	LT 3. -01	ug/g	CFI006
			Zinc	6.54 1	ug/g	CEY017
			1,1,1-Trichloroethane	LT 3. -01	ug/g	CFI007
			1,1,2-Trichloroethane	LT 3. -01	ug/g	CFI007
			1,1-Dichloroethane	LT 9. -01	ug/g	CFI007
			1,2-Dichloroethane	LT 3. -01	ug/g	CFI007
			1,2-Dichloroethane	LT 3. -01	ug/g	CFI007
			m-Xylene	LT 7. -01	ug/g	CFI007
			Aldrin	LT 2.5 -01	ug/g	CFJ005
			Arsenic	LT 5.0 +00	ug/g	CFD013
			Atrazine	LT 2.5 -01	ug/g	CFJ005
			Bicycloheptadiene	LT 3. -01	ug/g	CFI007
			Benzene	LT 3. -01	ug/g	CFI007
			Carbon Tetrachloride	LT 3. -01	ug/g	CFI007
			Cadmium	LT 7.40 -1	ug/g	CEY018
			Methylene Chloride	LT 7. -01	ug/g	CFI007
			Chloroform	LT 3. -01	ug/g	CFI007
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFJ005
			Chloroacetic Acid	LT 3.55+01	ug/g	CFM012
			Chlorobenzene	LT 3. -01	ug/g	CFI007
			Chlordane	LT 1.7 +00	ug/g	CFJ005
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CFJ005

Note: Results for some parameters may appear in more than one analytical fraction.

Ebasco Services Incorporated

Rocky Mountain Arsenal Program

08/06/88

Summary of Analytical Results

Task 24

Spill Sites

Baring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0017	11.5-12.5	Soil	p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CFJ005
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFJ005
			Chromium	2.02 1	ug/g	CEY018
			Copper	1.28 1	ug/g	CEY018
			Dibromochloropropane	LT 2.8 -01	ug/g	CFJ005
			Dibromochloropropane	LT 4. -01	ug/g	CFI007
			Dicyclopentadiene	LT 1.1 +00	ug/g	CFJ005
			Dicyclopentadiene	LT 3. -01	ug/g	CFI007
			Vapona	LT 3.0 +00	ug/g	CFJ005
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CFJ005
			Dithiane	LT 3.6 -01	ug/g	CFJ005
			Dieldrin	LT 2.5 -01	ug/g	CFJ005
			Dimethyldisulfide	LT 8. -01	ug/g	CFI007
			Endrin	LT 4.6 -01	ug/g	CFJ005
			Ethylbenzene	LT 3. -01	ug/g	CFI007
			Mercury	LT 5.00-02	ug/g	CFC010
			Isodrin	LT 2.9 -01	ug/g	CFJ005
			Toluene	LT 3. -01	ug/g	CFI007
			Methylisobutyl Ketone	LT 3. -01	ug/g	CFI007
			Malathion	LT 7.1 -01	ug/g	CFJ005
0018	0-1	Soil	1,4-Oxathiane	LT 2.5 -01	ug/g	CFJ005
			Lead	LT 8.40 0	ug/g	CEY018
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CFJ005
			Parathion	LT 8.5 -01	ug/g	CFJ005
			2-Chloro 1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CFJ005
			Tetrachloroethene	LT 3. -01	ug/g	CFI007
			Tridiglycol	LT 4.20+00	ug/g	CFM012
			Trichloroethene	LT 3. -01	ug/g	CFI007
			Trichloroethene	LT 3. -01	ug/g	CFI007
			ortho- & Para-Xylene	LT 3. -01	ug/g	CFI007
			Zinc	5.49 1	ug/g	CEY018
			Chloroacetic Acid	LT 3.55+01	ug/g	CFM005

Note: Results for some parameters may appear in more than one analytical fraction.

Summary of Analytical Results

task 24

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0018	0-1	Soil	Thiodiglycol	LT 4.20+00	ug/g	CFM005
0018	4-5	Soil	Chloroacetic Acid Thiodiglycol	LT 3.55+01 LT 4.20+00	ug/g ug/g	CFM006 CFM006
0018	9-10	Soil	Chloroacetic Acid Thiodiglycol	LT 3.55+01 LT 4.20+00	ug/g ug/g	CFM007 CFM007
0018	14-15	Soil	Chloroacetic Acid Thiodiglycol	LT 3.55+01 LT 4.20+00	ug/g ug/g	CFM008 CFM008
0019	0-1	Soil	Aldrin Arsenic Atrazine Cadmium Hexachlorocyclopentadiene	LT 3.0 +00 7.0 +00 LT 3. +00 2.31 0 LT 3. +00	ug/g ug/g ug/g ug/g ug/g	CFAD02 CFAD06 CFAD02 CFAD01 CFAD02
			Chloroacetic Acid Chlordane p-Chlorophenylmethyl Sulfide p-Chlorophenylmethyl Sulfoxide p-Chlorophenylmethyl Sulfone	LT 3.55+01 LT 6. +00 LT 4. +01 LT 7. +01 LT 6. +00	ug/g ug/g ug/g ug/g ug/g	CEX013 CFA002 CFA002 CFA002 CFA002
			Chromium Copper Dibromochloropropane Dicyclopentadiene Vapona	2.59 1 3.34 1 LT 3. +00 LT 4. +00 LT 3. +00	ug/g ug/g ug/g ug/g ug/g	CEY011 CEY011 CFA002 CFA002 CFA002
			Diisopropylmethyl Phosphonate Dithiane Dieldrin Endrin Mercury	LT 3. +00 LT 7. +01 LT 3. +00 LT 3. +00 1.5 +01	ug/g ug/g ug/g ug/g ug/g	CFA002 CFA002 CFA002 CFA002 CES019
			Lead Lead in Malathion 1,4-Dioxathiane Lead Dichlorodiphenylethane	LT 3. +00 LT 3. +00 LT 6. +01 1.20 3 LT 3. +00	ug/g ug/g ug/g ug/g ug/g	CFA002 CFA002 CFA002 CFY011 CFA002

Note: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Fluoro Services Incorporated

Task 24

Summary of Analytical Results

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0019	0-1	Soil	Dichlorodiphenyltrichloroethane	LT 6. +00	ug/g	CFAD02
			Parathion	LT 4. +00	ug/g	CFAD02
			2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 3. +00	ug/g	CFAD02
			Thiodiglycol	LT 4.20+00	ug/g	CEX013
			Zinc	1.31 2	ug/g	CEY011
0019	4-5	Soil	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CFB001
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CFB005
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CFB005
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CFB005
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CFB005
			m-Xylene	LT 7.4 -01	ug/g	CFB005
			Aldrin	LT 3. -01	ug/g	CFAD03
			Arsenic	LT 5.0 +00	ug/g	CFD007
			Atrazine	LT 3. -01	ug/g	CFAD03
			Bicycloheptadiene	LT 3.6 -01	ug/g	CFB005
			Benzene	LT 2.5 -01	ug/g	CFB005
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CFB005
			Cadmium	LT 7.40 -1	ug/g	CEY012
			Methylene Chloride	LT 1.5 +00	ug/g	CFB005
			Chloroform	LT 2.9 -01	ug/g	CFB005
			Hexachlorocyclopentadiene	LT 3. -01	ug/g	CFAD03
			Chloroacetic Acid	LT 3.55+01	ug/g	CEX014
			Chlorobenzene	LT 1.5 +00	ug/g	CFB005
			Chlordane	LT 6. -01	ug/g	CFAD03
			p-Chlorophenylmethyl Sulfide	LT 4. +00	ug/g	CFAD03
			p-Chlorophenylmethyl Sulfonide	LT 7. +00	ug/g	CFAD03
			p-Chlorophenylmethyl Sulfone	LT 6. -01	ug/g	CFAD03
			Chromium	1.35 1	ug/g	CEY012
			Copper	LT 4.70 0	ug/g	CEY012
			Dibromochloropropane	LT 3. -01	ug/g	CFAD03
			Dibromochloropropane	LT 2.4 +00	ug/g	CFB005

Note: Results for some parameters may appear in more than one analytical fraction.

Summary of Analytical Results

Spill Sites

Rowing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0019	4-5	Soil	Dicyclopentadiene	LT 6.4 -01	ug/g	CFB005
			Dicyclopentadiene	LT 4. -01	ug/g	CFAD03
			Vapona	LT 3. -01	ug/g	CFAD03
			Diisopropylmethyl Phosphonate	LT 3. -01	ug/g	CFAD03
			Dithiane	LT 7. +00	ug/g	CFAD03
			Dieldrin	LT 3. -01	ug/g	CFAD03
			Dimethyldisulfide	LT 2.0 +01	ug/g	CFB005
			Endrin	LT 3. -01	ug/g	CFAD03
			Ethylbenzene	LT 3.8 -01	ug/g	CFB005
			Mercury	5.97-02	ug/g	CES020
			Isodrin	LT 3. -01	ug/g	CFAD03
			Toluene	LT 2.5 -01	ug/g	CFB005
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CFB005
			Malathion	LT 3. -01	ug/g	CFAD03
			1,4-Oxathiane	LT 6. +00	ug/g	CFAD03
			Lead	1.22 1	ug/g	CEY012
			Dichlorodiphenylethane	LT 3. -01	ug/g	CFAD03
			Dichlorodiphenyltrichloroethane	LT 6. -01	ug/g	CFAD03
			Parathion	LT 4. -01	ug/g	CFAD03
			2 Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 3. -01	ug/g	CFAD03
0019	9-10	Soil	Tetrachloroethene	LT 2.5 -01	ug/g	CFB005
			Thiodiglycol	LT 4.20+00	ug/g	CEX014
			Trichloroethene	LT 5.4 -01	ug/g	CFB005
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CFB005
			Zinc	3.77 1	ug/g	CEY012
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CFB006
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CFB006
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CFB006
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CFB006
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CFB006
			m-Xylene	LT 7.4 -01	ug/g	CFB006

Note: Results for some parameters may appear in more than one analytical fraction.

Pharmco Services, Incorporated
Summary of Analytical Results

Rocky Mountain Arsenal Program
Task 24

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Drill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0019	9-10	Soil	Aldrin	LT 3.0 -01	ug/g	CFA004
			Arsenic	LT 5.0 +00	ug/g	CFD008
			Atrazine	LT 3.0 -01	ug/g	CFA004
			Bicycloheptadiene	LT 3.6 -01	ug/g	CFB006
			Benzene	LT 2.5 -01	ug/g	CFB006
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CFB006
			Cadmium	LT 7.40 -1	ug/g	CEY013
			Methylene Chloride	LT 1.5 +00	ug/g	CFB006
			Chloroform	LT 2.9 -01	ug/g	CFB006
			Hexachlorocyclopentadiene	LT 3.0 -01	ug/g	CFA004
			Chloroacetic Acid	LT 3.55+01	ug/g	CEX015
			Chlorobenzene	LT 1.5 +00	ug/g	CFB006
			Chlordane	LT 6.0 -01	ug/g	CFA004
			p-Chlorophenylmethyl Sulfide	LT 4.0 +00	ug/g	CFA004
			p-Chlorophenylmethyl Sulfoxide	LT 7.0 +00	ug/g	CFA004
			p-Chlorophenylmethyl Sulfone	LT 6.0 -01	ug/g	CFA004
			Chromium	2.41 1	ug/g	CEY013
			Copper	1.38 1	ug/g	CEY013
			Dibromochloropropane	LT 3.0 -01	ug/g	CFA004
			Dibromochloropropane	LT 2.4 +00	ug/g	CFB006
			Dicyclopentadiene	LT 4. -01	ug/g	CFA004
			Dicyclopentadiene	LT 6.4 -01	ug/g	CFB006
			Valonia	LT 3.0 -01	ug/g	CFA004
			Diisopropylmethyl Phosphonate	LT 3.0 -01	ug/g	CFA004
			Dithiane	LT 7. +00	ug/g	CFA004
			Diethyltin	LT 3.0 -01	ug/g	CFA004
			Dimethyldisulfide	LT 2.0 +01	ug/g	CFB006
			Endrin	LT 3.0 -01	ug/g	CFA004
			Ethylbenzene	LT 3.8 -01	ug/g	CFB006
			Mercury	LT 5.00-02	ug/g	CFD015
			Isodrin	LT 3.0 -01	ug/g	CFA004
			Toluene	LT 2.5 -01	ug/g	CFB006
			Methylisobutyl Ketone	LT 7.3 01	ug/g	CFB006
			Malathion	LT 3. -01	ug/g	CFA004

Note: Results for some parameters may appear in more than one analytical fraction.

Summary of Analytical Results

Task 24

Spill Sites

Receiving Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0019	9-10	Soil	1,4-Oxathiane	LT 6.40	ug/g	CFA004
			Lead	LT 8.40	0	CEY013
			Dichlorodiphenylethane	LT 3.01	ug/g	CFA004
			Dichlorodiphenyltrichloroethane	LT 6.01	ug/g	CFA004
			Parathion	LT 4.01	ug/g	CFA004
			2 Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 3.01	ug/g	CFA004
			Tetrachloroethene	LT 2.5	-01	CFBC06
			Thiodiglycol	LT 4.20	+00	CEX015
			Trichloroethene	LT 5.4	-01	CFB006
			Ortho- & Para-Xylene	LT 4.9	+00	CFB006
			Zinc	6.08	1	CEY013
			1,1,1-Trichloroethane	LT 4.3	-01	CFB007
			1,1,2-Trichloroethane	LT 3.9	-01	CFBC07
			1,1-Dichloroethane	LT 1.7	+00	CFB007
0019	10.5-11.5	Soil	1,2-Dichloroethane	LT 1.7	+00	CFB007
			1,2-Dichloroethane	LT 5.6	-01	CFB007
			m-Xylene	LT 7.4	-01	CFB007
			Aldrin	LT 3.01	ug/g	CFA005
			Arsenic	LT 5.0	+00	CFD009
			Atrazine	LT 3.01	ug/g	CFA005
			Bicycloheptadiene	LT 3.6	-01	CFB007
			Benzene	LT 2.5	-01	CFB007
			Carbon Tetrachloride	LT 2.5	-01	CFB007
			Cadmium	LT 7.40	-1	CEY014
			Methylene Chloride	LT 1.5	+00	CFB007
			Chloroform	LT 2.9	-01	CFB007
			Hexachlorocyclopentadiene	LT 3.01	ug/g	CFA005
			Chloroacetic Acid	LT 3.55	+01	CEX016
0019	11.5-12.5	Soil	Chlorobenzene	LT 1.5	+00	CFB007
			Chloroethane	LT 6.01	ug/g	CFA005
			p-Chlorophenylmethyl Sulfide	LT 4.00	ug/g	CFA005

Note: Results for some parameters may appear in more than one analytical fraction.

Summary of Analytical Results Task 24 Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0019	10.5-11.5	Soil	p-Chlorophenylmethyl Sulfonide	LT 7. +00	ug/g	CFAD05
			p-Chlorophenylmethyl Sulfone	LT 6. -01	ug/g	CFAD05
			Chromium	LT 6.50 0	ug/g	CEY014
			Copper	LT 1.16 1	ug/g	CEY014
			Dibromochloropropane	LT 2.4 +00	ug/g	CFB007
			Dibromochloropropane	LT 3. -01	ug/g	CFAD05
			Dicyclopentadiene	LT 6.4 -01	ug/g	CFB007
			Dicyclopentadiene	LT 4. -01	ug/g	CFAD05
			Vapona	LT 3. -01	ug/g	CFAD05
			Diisopropylmethyl Phosphonate	LT 3. -01	ug/g	CFAD05
			Dithiane	LT 7. +00	ug/g	CFAD05
			Endrin	LT 3. -01	ug/g	CFAD05
			Dimethyldisulfide	LT 2.0 +01	ug/g	CFB007
			Endrin	LT 3. -01	ug/g	CFAD05
			Ethylbenzene	LT 3.8 -01	ug/g	CFB007
0020	0.1	Soil	Mercury	LT 5.00-02	ug/g	CFC006
			Isodrin	LT 3. -01	ug/g	CFAD05
			Toluene	LT 2.5 -01	ug/g	CFB007
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CFB007
			Malathion	LT 3. -01	ug/g	CFAD05
			1,4-Oxathiane	LT 6. +00	ug/g	CFAD05
			Lead	LT 8.40 0	ug/g	CEY014
			Dichlorodiphenylethane	LT 3. -01	ug/g	CFAD05
			Dichlorodiphenyltrichloroethane	LT 6. -01	ug/g	CFAD05
			Parathion	LT 4. -01	ug/g	CFAD05
			2-Chloro-1(2,4-dichlorophenyl) Vinylidethyl Phosphates	LT 3. -01	ug/g	CFAD05
			Tetrachloroethene	LT 2.5 -01	ug/g	CFB007
			Thiodiglycol	LT 4.20+00	ug/g	CFX016
			Trichloroethene	LT 5.4 -01	ug/g	CFB007
			Ortho & Para-Xylene	LT 4.9 +00	ug/g	CFB007
			Zinc	3 24 1	ug/g	CEY014
			Aldrin	1.4 +00	ug/g	CFI006

Note: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Task 24

Summary of Analytical Results

Spill Sites

Ring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0020	0-1	Soil	Arsenic	LT 2.50+00	ug/g	CFX006
			Atrazine	LT 2.5 -01	ug/g	CFI006
			Cadmium	LT 7.36-01	ug/g	CFP015
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFI006
			Chloroacetic Acid	LT 3.55+01	ug/g	CFZ009
			Chlordane	LT 1.7 +00	ug/g	CFI006
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CFI006
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CFI006
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFI006
			Chromium	LT 6.53+00	ug/g	CFP015
			Copper	1.15+01	ug/g	CFP015
			Dibromochloropropane	LT 2.8 -01	ug/g	CFI006
			Dicyclopentadiene	LT 1.1 +00	ug/g	CFI006
			Vapour	LT 3.0 +00	ug/g	CFI006
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CFI006
			Dithiane	LT 3.6 -01	ug/g	CFI006
			Dieldrin	LT 2.5 -01	ug/g	CFI006
			Endrin	LT 4.6 -01	ug/g	CFI006
			Mercury	1.72-01	ug/g	CFY011
			Isodrin	LT 2.9 -01	ug/g	CFI006
			Malathion	LT 7.1 -01	ug/g	CFI006
			1,4-Oxathiane	LT 2.5 -01	ug/g	CFI006
			Lead	1.38+01	ug/g	CFP015
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CFI006
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CFI006
			Parathion	LT 8.5 -01	ug/g	CFI006
			2-Chloro-1(2,4-Dichlorophenyl)	LT 6.1 -01	ug/g	CFI006
			Vinylalcohol Phosphate	LT 4.20+00	ug/g	CFZ009
			Triethylglycol	6.17+01	ug/g	CFP015
0020	4-5	Soil	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CFV002
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CFV002
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CFV002

Note: Results for some parameters may appear in more than one analytical location.

Back 1/4 Spill Sites

Parameter Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
00101	4-5	Soil	1,2-Dichloroethane	LT 1.7 +00	ug/g	CFV002
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CFV002
			m-Xylene	LT 7.4 -01	ug/g	CFV002
			Aldrin	LT 2.5 -01	ug/g	CFV007
			Arsenic	LT 2.50+00	ug/g	CFV007
			Atrazine	LT 2.5 -01	ug/g	CFT001
			o,p'-Dichlorodiphenyl Ether	LT 3.6 -01	ug/g	CFV002
			Benzene	LT 2.5 -01	ug/g	CFV002
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CFV002
			Cadmium	LT 7.36-01	ug/g	CFV016
			Methylene Chloride	LT 1.5 +00	ug/g	CFV002
			Chloroform	LT 2.9 -01	ug/g	CFV002
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFT007
			Chloroacetic Acid	LT 3.55+01	ug/g	CFV010
			Chlorobenzene	LT 1.5 +00	ug/g	CFV002
			Chloroethane	LT 1.7 +00	ug/g	CFT007
			p-Chlorophenylmethyl Sulfide	LT 4.1 -01	ug/g	CFT007
			p-Chlorophenylmethyl Sulfonate	LT 2.5 -01	ug/g	CFT007
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFT007
			Chromium	LT 6.53+00	ug/g	CFV016
			Copper	LT 3.22+01	ug/g	CFV016
			Diethylchloropropene	LT 2.4 +00	ug/g	CFV002
			Diethylchloropropene	LT 2.8 -01	ug/g	CFT007
			Diethylchloropropene	LT 1.1 +00	ug/g	CFT007
			Diethylchloropropene	LT 5.4 -01	ug/g	CFV002
			Diethylchloropropene	LT 3.0 +00	ug/g	CFT007
			Diethylchloropropene	LT 1.1 +00	ug/g	CFT007
			Diethylchloropropene	LT 3.6 -01	ug/g	CFT007
			Diethylchloropropene	LT 2.5 -01	ug/g	CFT007
			Diethylchloropropene	LT 2.0 +01	ug/g	CFV002
			Diethylchloropropene	LT 4.6 -01	ug/g	CFT007
			Diethylchloropropene	LT 3.8 -01	ug/g	CFV002
			Diethylchloropropene	LT 5.00 -02	ug/g	CFV012
			Diethylchloropropene	LT 2.9 -01	ug/g	CFT007

Note: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Spill Sites

Summary of Analytical Results

Depth: 4-5

Sample Type: Soil

Parameter Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
00001	4-5	Soil	Toluene	LT 2.5 -01	ug/g	CFV002
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CFV002
			Malathion	LT 7.1 -01	ug/g	CFV002
			1,4 Dioxane	LT 2.5 -01	ug/g	CFV002
			Lead	LT 8.38+00	ug/g	CFV002
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CFV002
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CFV002
			Parathion	LT 8.5 -01	ug/g	CFV002
			2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.1 -01	ug/g	CFV002
			Tetrachloroethene	7.2 -01	ug/g	CFV002
			Diiodoglycol	LT 4.20+00	ug/g	CFV002
			Trichloroethene	LT 5.4 -01	ug/g	CFV002
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CFV002
			Zinc	9.80+01	ug/g	CFV002
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CFV002
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CFV002
00002	9-10	Soil	1,1-Dichloroethane	LT 1.7 +00	ug/g	CFV003
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CFV003
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CFV003
			m-Xylene	LT 7.4 -01	ug/g	CFV003
			Aldrin	LT 2.5 -01	ug/g	CFV003
			Arsenic	LT 2.50+00	ug/g	CFV003
			Atrazine	LT 2.5 -01	ug/g	CFV003
			Allyl heptadiene	LT 3.6 -01	ug/g	CFV003
			Benzene	LT 2.5 -01	ug/g	CFV003
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CFV003
			Cadmium	LT 7.36-01	ug/g	CFV003
			Methylene Chloride	LT 1.5 +00	ug/g	CFV003
			Chloroform	LT 2.9 -01	ug/g	CFV003
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFV003
			Chloroacetic Acid	LT 3.55+01	ug/g	CFV003
			Chlorobenzene	LT 1.5 +00	ug/g	CFV003

Note: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Flammable Gases Incorporated

Summary of Analytical Results

Task 24

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
10020	9-10	Soil	Chlordane	LT 1.7 +00	ug/g	CF1008
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CF1008
			p-Chlorophenylmethyl Sulfonide	LT 2.5 -01	ug/g	CF1008
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CF1008
			Chromium	1.46+01	ug/g	CFP017
			Copper	3.92+01	ug/g	CFP017
			tribromochloropropane	LT 2.4 +00	ug/g	CFV003
			tribromochloropropane	LT 2.8 -01	ug/g	CF1008
			Dicyclopentadiene	LT 1.1 +00	ug/g	CF1008
			Dicyclopentadiene	LT 6.4 -01	ug/g	CFV003
			Vapona	LT 3.0 +00	ug/g	CF1008
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CF1008
			Dithiane	LT 3.6 -01	ug/g	CF1008
			Dieldrin	LT 2.5 -01	ug/g	CF1008
			Dimethyldisulfide	LT 2.0 +01	ug/g	CFV003
			Endrin	LT 4.6 -01	ug/g	CF1008
			Ethylbenzene	LT 3.8 -01	ug/g	CFV003
			Mercury	LT 5.00-02	ug/g	CFV013
			Toxaphen	LT 2.9 -01	ug/g	CF1008
			Toluene	LT 2.5 -01	ug/g	CFV003
			Methyl isobutyl ketone	LT 7.3 -01	ug/g	CFV003
			Malathion	LT 7.1 -01	ug/g	CF1008
			1,4-Oxathiane	LT 2.5 -01	ug/g	CF1008
			Lead	LT 8.38+00	ug/g	CFP017
			Trichlorodiphenylethane	LT 5.7 -01	ug/g	CF1008
			Trichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CF1008
			Parathion	LT 8.5 -01	ug/g	CF1008
			2-Chloro-6-(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.1 -01	ug/g	CF1008
			Tetrachloroethene	1.0 +00	ug/g	CFV003
			Triiodoethylene	LT 4.20+00	ug/g	CFZ011
			Trichloroethene	LT 5.4 -01	ug/g	CFV003
			Ortho & Para-Xylene	LT 4.9 +00	ug/g	CFV003

Note: Results for some parameters may appear in more than one analytical fraction.

Fluoro Services Incorporated

Rocky Mountain Arsenal Program

08/06/88

Summary of Analytical Results

Task #

Spill Sites

Poring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0020	9.10	Soil	Zinc	1.08+02	ug/g	CFP017
0020	12.5, 13.5	Soil	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CFV004
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CFV004
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CFV004
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CFV004
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CFV004
			m-Xylene	LT 7.4 -01	ug/g	CFV004
			Aldrin	LT 2.5 -01	ug/g	CFI009
			Arsenic	LT 2.50+00	ug/g	CFX009
			Atrazine	LT 2.5 -01	ug/g	CFI009
			Bicycloheptadiene	LT 3.6 -01	ug/g	CFV004
			Benzene	LT 2.5 -01	ug/g	CFV004
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CFV004
			Cadmium	LT 7.36-01	ug/g	CFP018
			Methylene Chloride	LT 1.5 +00	ug/g	CFV004
			Chloroform	LT 2.9 -01	ug/g	CFV004
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFI009
			Chloroacetic Acid	LT 3.55+01	ug/g	CFZ012
			Chlorobenzene	LT 1.5 +00	ug/g	CFV004
			Chlordane	LT 1.7 +00	ug/g	CFI009
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CFI009
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CFI009
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFI009
			Chromium	1.31+01	ug/g	CFP018
			Copper	4.33+01	ug/g	CFP018
			Dibromochloropropane	LT 2.4 +00	ug/g	CFV004
			Dibromochloropropane	LT 2.8 -01	ug/g	CFI009
			Dibromocyclopentadiene	LT 1.1 +00	ug/g	CFI009
			Dibromocyclopentadiene	LT 6.4 -01	ug/g	CFV004
			Vaporol	LT 3.0 +00	ug/g	CFI009
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CFI009
			Dithiane	LT 3.6 -01	ug/g	CFI009
			Dieldrin	LT 2.5 -01	ug/g	CFI009

Note: Results for some parameters may appear in more than one analytical fraction.

Phase 3 Services Incorporated

Rocky Mountain Arsenal Program

08/06/88

Summary of Analytical Results

Task 24

Spill Sites

Runing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0020	12.5-13.5	Soil	Dimethyldisulfide	LT 2.0 +01	ug/g	CFV004
			Endrin	LT 4.6 -01	ug/g	CFI009
			Ethylbenzene	LT 3.8 -01	ug/g	CFV004
			Mercury	LT 5.00-02	ug/g	CFV014
			Isodrin	LT 2.9 -01	ug/g	CFI009
			Toluene	LT 2.5 -01	ug/g	CFV004
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CFV004
			Malathion	LT 7.1 -01	ug/g	CFI009
			1,4-Oxathiane	LT 2.5 -01	ug/g	CFI009
			Lead	LT 8.38+00	ug/g	CFP018
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CFI009
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CFI009
			Parathion	LT 8.5 -01	ug/g	CFI009
			2 Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CFI009
			Tetrachloroethene	2.4 +00	ug/g	CFV004
			Thiodiglycol	LT 4.20+00	ug/g	CFZ012
0022	0-1	Soil	Trichloroethene	LT 5.4 -01	ug/g	CFV004
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CFV004
			Zinc	1.05+02	ug/g	CFP018
			Aldrin	LT 2.5 -01	ug/g	CGY007
			Arsenic	5.03+00	ug/g	CHS010
			Atrazine	LT 2.5 -01	ug/g	CGY007
			Cadmium	LT 7.36-01	ug/g	CHE005
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CGY007
			Chlordane	LT 1.7 +00	ug/g	CGY007
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CGY007
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CGY007
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CGY007
			Chromium	1.89+01	ug/g	CHE005
			Copper	1.18+01	ug/g	CHE005
			Dibromochloropropane	LT 2.8 -01	ug/g	CGY007
			Dicyclopentadiene	LT 1.1 +00	ug/g	CGY007

Note: Results for some parameters may appear in more than one analytical fraction.

Bar ID Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0022	0-1	Soil	Vapors	LT 3.0 +00	ug/g	CGY007
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CGY007
			Dithiane	LT 3.6 -01	ug/g	CGY007
			Dieldrin	LT 7.4 -01	ug/g	CGY007
			Endrin	LT 4.6 -01	ug/g	CGY007
			Mercury	7.11-02	ug/g	CHAD14
			Isodrin	LT 2.9 -01	ug/g	CGY007
			Malathion	LT 2.1 -01	ug/g	CGY007
			1,4-Oxathiane	LT 2.5 -01	ug/g	CGY007
			Lead	LT 8.38+00	ug/g	CHE005
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CGY007
			Dichlorodiphenyltrichloro- ethane	LT 4.7 -01	ug/g	CGY007
			Parathion	LT 8.5 -01	ug/g	CGY007
			2-(chloro-1(2,4-dichlorophenyl) vinyl)diethyl phosphates	LT 6.1 -01	ug/g	CGY007
0022	4-5	Soil	Zinc	5.51+01	ug/g	CHE005
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CHD002
			1,1,2-trichloroethane	LT 3.9 -01	ug/g	CHD002
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CHD002
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CHD002
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CHD002
			m-Xylene	LT 7.4 -01	ug/g	CHD002
			Aldrin	LT 2.5 -01	ug/g	CGY008
			Arsenic	LT 2.50+00	ug/g	CHB011
			Atrazine	LT 2.5 -01	ug/g	CGY008
			Bicycloheptadiene	LT 3.6 -01	ug/g	CHD002
			Benzene	LT 2.5 -01	ug/g	CHD002
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CHD002
			Cadmium	LT 7.36-01	ug/g	CHF006
			Methylene Chloride	LT 1.5 +00	ug/g	CHD002
			Chloroform	LT 2.9 -01	ug/g	CHD002
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CGY008

Note: Results for some parameters may appear in more than one analytical fraction.

Summary of Analytical Results

Table 2a

Spill Sites

Paving Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0022	4-5	Soil	Chlorobenzene	LT 1.5 +00	ug/g	CH0002
			Chlordane	LT 1.7 +00	ug/g	CGY008
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CGY008
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CGY008
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CGY008
			Chromium	1.16+01	ug/g	CHE006
			Copper	4.27+01	ug/g	CHE006
			Nitromochloropropane	LT 2.8 -01	ug/g	CGY008
			Dibromochloropropane	LT 2.4 +00	ug/g	CH0002
			Dicyclopentadiene	LT 1.1 +00	ug/g	CGY008
			Dicyclopentadiene	LT 6.4 -01	ug/g	CH0002
			Varona	LT 3.0 +00	ug/g	CGY008
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CGY008
			Nitriane	LT 3.6 -01	ug/g	CGY008
			Dieldrin	LT 2.5 -01	ug/g	CGY008
			Dimethyldisulfide	LT 2.0 +01	ug/g	CH0002
			Fudrin	LT 4.6 -01	ug/g	CGY008
			Ethylbenzene	LT 3.8 -01	ug/g	CH0002
			Mercury	LT 5.00-02	ug/g	CHA015
			Isodrin	LT 2.9 -01	ug/g	CGY008
			Toluene	LT 2.5 -01	ug/g	CH0002
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CH0002
			Malathion	LT 7.1 -01	ug/g	CGY008
			1,4-Dioxane	LT 2.5 -01	ug/g	CGY008
			Lead	LT 8.38+00	ug/g	CHE006
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CGY008
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CGY008
			Parathion	LT 8.5 -01	ug/g	CGY008
			2-Chloro-1(2,4-Dichlorophenyl)	LT 6.1 -01	ug/g	CGY008
			Vinylidene Phosphates	LT 2.5 -01	ug/g	CH0002
			Tetrafluoroethene	LT 5.4 -01	ug/g	CH0002
			Trichloroethene	LT 4.9 +00	ug/g	CH0002
			Ortho & Para-Xylene			CH0002

Note: Results for some parameters may appear in more than one analytical fraction

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Rocky Mountain Arsenal Program

Fluorocarbon Incorporated

Spill Sites

Task 24

Summary of Analytical Results

Boiling Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0024	4-5	Soil	Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CEN004
			Dithiane	LT 3.6 -01	ug/g	CEN004
			Dieldrin	LT 2.5 -01	ug/g	CEN004
			Dimethyldisulfide	LT 2.0 +01	ug/g	CDZ003
			Endrin	LT 4.6 -01	ug/g	CEN004
			Ethylbenzene	LT 3.8 -01	ug/g	CDZ003
			Mercury	LT 5.00-02	ug/g	CE0011
			Isodrin	LT 2.9 -01	ug/g	CEN004
			Toluene	LT 2.5 -01	ug/g	CDZ003
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CDZ003
			Malathion	LT 7.1 -01	ug/g	CEN004
			1,4-Oxathiane	LT 2.5 -01	ug/g	CEN004
			Lead	LT 8.18+00	ug/g	CEK015
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CEN004
0024	9-10	Soil	Dichlorodiphenyltrichloro- ethane	LT 4.7 -01	ug/g	CEN004
			Parathion	LT 8.5 -01	ug/g	CEN004
			2-(chloro-1(2,4-dichlorophenyl) vinylethyl) phosphates	LT 6.1 -01	ug/g	CEN004
			Tetrachloroethene	LT 2.5 -01	ug/g	CDZ003
			Triiodoglycol	LT 4.20+00	ug/g	CDV019
			Trichloroethene	LT 5.4 -01	ug/g	CDZ003
			Ortho- & Para-Xylene Zinc	LT 4.9 +00	ug/g	CDZ003
				5.69+01	ug/g	CEK015
			1,1,1-Trichloroethane	LT 4.7 -01	ug/g	CDZ004
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CDZ004
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CDZ004
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CDZ004
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CDZ004
			m-Xylene	LT 7.4 -01	ug/g	CDZ004
0024	9-10	Soil	Acetone	LT 2.5 -01	ug/g	CEN005
			Arsenic	LT 2.50+00	ug/g	CEK015
			Atrazine	LT 2.5 -01	ug/g	CEN005
			Brevibacterium	LT 3.6 -01	ug/g	CDZ004

Note: Results for some parameters may appear in more than one analytical fraction.

Fluorobenzene Incorporated
Summary of Analytical Results

Rocky Mountain Arsenal Program

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Task 24 Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0024	9.10	Soil	Benzene	LT 2.5 -01	ug/g	CDZ004
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CDZ004
			Cadmium	LT 7.36 -01	ug/g	CEK016
			Methylene Chloride	LT 1.5 +00	ug/g	CDZ004
			Chloroform	LT 2.9 -01	ug/g	CDZ004
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CEN005
			Chloroacetic Acid	LT 3.55 +01	ug/g	CDV020
			Chlorobenzene	LT 1.5 +00	ug/g	CDZ004
			Chlordane	LT 1.7 +00	ug/g	CFN005
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CEN005
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CEN005
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CEN005
			Chromium	1.29 +01	ug/g	CEK016
			Copper	7.06 +01	ug/g	CEK016
			Bromochloropropane	LT 2.8 -01	ug/g	CEN005
			Dibromochloropropane	LT 2.4 +00	ug/g	CDZ004
			Dicyclopentadiene	LT 1.1 +00	ug/g	CEN005
			Dicyclopentadiene	LT 6.4 -01	ug/g	CDZ004
			Varonia	LT 3.0 +03	ug/g	CEN005
			Diisopropylmethyl Phosphonate	LT 1.1 +03	ug/g	CEN005
			Dithiane	LT 3.6 -01	ug/g	CEN005
			Dieldrin	LT 2.5 -01	ug/g	CEN005
			Dimethylidithiide	LT 2.0 +01	ug/g	CDZ004
			Endrin	LT 4.6 -01	ug/g	CEN005
			Ethylbenzene	LT 3.8 -01	ug/g	CDZ004
			Mercury	LT 5.00 -02	ug/g	CEK012
			Isodrin	LT 2.9 -01	ug/g	CEN005
			Toluene	LT 2.5 -01	ug/g	CDZ004
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CDZ004
			Malathion	LT 7.1 -01	ug/g	CEN005
			1,4-Oxathiane	LT 2.5 -01	ug/g	CEN005
			Lead	LT 8.38 +00	ug/g	CFK016
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CEN005
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CEN005

Note: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

EPA Services Incorporated

Spill Sites

Task 24

Summary of Analytical Results

Run Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0024	9-10	Soil	Parathion	LT 8.5 -01	ug/g	CEN005
			2-Chloro-1-(2,4-Dichlorophenyl)	LT 6.1 -01	ug/g	CEN005
			Vinylidene Phosphates			
			Tetrachloroethene	LT 2.5 -01	ug/g	CDZ004
			Thiodiglycol	LT 4.20+00	ug/g	CDV020
			Trichloroethene	LT 5.4 -01	ug/g	CDZ004
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CDZ004
			Zinc	9.21+01	ug/g	CEK016
0024	11.5-12.5	Soil	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CDZ005
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CDZ005
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CDZ005
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CDZ005
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CDZ005
			m-Xylene	LT 7.4 -01	ug/g	CDZ005
			Aldrin	LT 2.5 -01	ug/g	CEN006
			Arsenic	LT 2.50+00	ug/g	CEK021
			Alarazine	LT 2.5 -01	ug/g	CEN006
			Bicycloheptadiene	LT 3.6 -01	ug/g	CDZ005
			Benzene	LT 2.5 -01	ug/g	CDZ005
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CDZ005
			Cadmium	LT 7.36-01	ug/g	CEK017
			Methylene Chloride	LT 1.5 +00	ug/g	CDZ005
			Chloroform	LT 2.9 -01	ug/g	CDZ005
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CEN006
			Chloroacetic Acid	LT 3.55+01	ug/g	CEI005
			Chlorobenzene	LT 1.5 +00	ug/g	CDZ005
			Chloroethane	LT 1.7 +00	ug/g	CEN006
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CEN006
			p-Chlorophenylmethyl Sulfide	LT 2.5 -01	ug/g	CEN006
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFN006
			Chromium	LT 6.55+00	ug/g	CEK017
			Copper	2.70+01	ug/g	CEK017
			Dibromochloroethane	LT 2.4 +00	ug/g	CDZ005

Note: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Flammable Liquids Incorporated

Task 24

Summary of Analytical Results

Spill Sites

Barrel Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0024	11.5, 12.5	Soil	Dibromochloropropane	LT 2.8 -01	ug/g	CEN006
			Dibromochloropropane	LT 6.4 -01	ug/g	CDZ005
			Dibromochloropropane	LT 1.1 +00	ug/g	CEN006
			Vapone	LT 3.0 +00	ug/g	CEN006
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CEN006
			Dithiane	LT 3.6 -01	ug/g	CEN006
			Dieldrin	LT 2.5 -01	ug/g	CEN006
			Dimethyldisulfide	LT 2.0 +01	ug/g	CDZ005
			Endrin	LT 4.6 -01	ug/g	CEN006
			Ethylbenzene	LT 3.8 -01	ug/g	CDZ005
			Mercury	LT 5.00-02	ug/g	CEQ013
			Isodrin	LT 2.9 -01	ug/g	CEN006
			Toluene	LT 2.5 -01	ug/g	CDZ005
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CDZ005
			Malathion	LT 7.1 -01	ug/g	CEN006
			1,4-Oxathiane	LT 2.5 -01	ug/g	CEN006
			Lead	LT 8.38+00	ug/g	CEK017
			Trichlorodiphenylethane	LT 5.7 -01	ug/g	CEN006
			Trichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CEN006
			Parathion	LT 8.5 -01	ug/g	CEN006
			2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CEN006
			Tetrachloroethene	LT 2.5 -01	ug/g	CDZ005
			Tridodglycol	LT 4.20+00	ug/g	CEI005
			Trichloroethene	LT 5.4 -01	ug/g	CDZ005
			Ortho & Para Xylene	LT 4.9 +00	ug/g	CDZ005
			Zinc	4.76+01	ug/g	CEK017
0024	14.15	Soil	1,1,1-Trichloroethane	LT 4.7 -01	ug/g	CDZ006
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CDZ006
			1,1,2-Trichloroethane	LT 1.7 +00	ug/g	CDZ006
			1,2-Trichloroethane	LT 1.7 +00	ug/g	CDZ006
			1,2-Trichloroethane	LT 5.6 -01	ug/g	CDZ006

Notes: Results for some parameters may appear in bold type and analytical trace from

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Rocky Mountain Arsenal Program

Task 24

Spill Sites

Summary of Analytical Results

Boiling Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0124	14-15	Soil	m-Xylene	LT 7.4 -01	ug/g	CE2006
			Aldrin	LT 2.5 -01	ug/g	CE2007
			Arsenic	LT 2.50+00	ug/g	CE2022
			Atrazine	LT 2.5 -01	ug/g	CE2007
			Bicycloheptadiene	LT 3.6 -01	ug/g	CE2006
			Benzene	LT 2.5 -01	ug/g	CE2006
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CE2006
			Cadmium	LT 7.36-01	ug/g	CE2018
			Methylene Chloride	LT 1.5 +00	ug/g	CE2006
			Chloroform	LT 2.9 -01	ug/g	CE2006
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CE2007
			Chloroacetic Acid	LT 3.55+01	ug/g	CE2006
			Chlorobenzene	LT 1.5 +00	ug/g	CE2006
			Chloroethane	LT 1.7 +00	ug/g	CE2007
			p-Chloroethenylmethyl Sulfide	LT 9.1 -01	ug/g	CE2007
			p-Chlorophenylmethyl Sulfonide	LT 2.5 -01	ug/g	CE2007
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CE2007
			Chromatium	9.75+00	ug/g	CE2018
			Copper	2.30+01	ug/g	CE2018
			Dibromochloroethane	LT 2.4 +00	ug/g	CE2006
			Dibromochloropropane	LT 2.8 -01	ug/g	CE2007
			Dibromodichloropropane	LT 6.4 -01	ug/g	CE2006
			Dibromodipentadiene	LT 1.1 +00	ug/g	CE2007
			Dibromodipentadiene	LT 1.1 +00	ug/g	CE2007
			Diuron	LT 3.0 +00	ug/g	CE2007
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CE2007
			Dithiane	LT 3.6 -01	ug/g	CE2007
			Dieldrin	LT 2.5 -01	ug/g	CE2007
			Dimethyldisulfide	LT 2.0 +01	ug/g	CE2006
			Endrin	LT 4.6 -01	ug/g	CE2007
			Ethylbenzene	LT 3.8 -01	ug/g	CE2006
			Mercuric	LT 5.00 -02	ug/g	CE2014
			Mercuric	LT 2.9 -01	ug/g	CE2007
			Trichloro	LT 2.5 -01	ug/g	CE2006
			Methylcyclohexyl Ketone	LT 7.3 -01	ug/g	CE2006

Notes: Results for some parameters may differ due to more than one analytical method.

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Rock Mountain Arsenal Program

Spill Sites

Summary of Analytical Results

Loss %

Ref ID#	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
002%	14.15	Soil	Malathion	LT 2.1 -01	ug/g	CEN007
			1,4-Dioxane	LT 2.5 -01	ug/g	CEN007
			Lead	LT 8.38+00	ug/g	CEK018
			1,1-dichloro-2,2-bis(4-chlorophenyl)ethane	LT 5.7 -01	ug/g	CEN007
			1,1-dichloro-2,2-bis(4-chlorophenyl)ethane	LT 4.7 -01	ug/g	CEN007
			Parathion	LT 8.5 -01	ug/g	CEN007
			2-chloro-1(2,4-dichlorophenyl)-vinyl (dithio) phosphates	LT 4.1 -01	ug/g	CEN007
			Tetrachloroethene	LT 2.5 -01	ug/g	CDZ006
			Trichloroethylene	LT 4.20+00	ug/g	CEI006
			Trichloroethene	LT 5.4 -01	ug/g	CDZ006
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CDZ006
			None	7.38+01	ug/g	CEK018
003%	19.20	Soil	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CDZ007
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CDZ007
			1,1-Trichloroethane	LT 1.7 +00	ug/g	CDZ007
			1,2-Trichloroethane	LT 1.7 +00	ug/g	CDZ007
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CDZ007
			m-Xylene	LT 2.4 -01	ug/g	CDZ007
			Aldrin	LT 2.5 -01	ug/g	CEN008
			Arsenic	LT 2.5+00	ug/g	CEI025
			Atrazine	LT 2.5 -01	ug/g	CEN008
			Bis (2,4,6-trichlorophenyl) ether	LT 3.6 -01	ug/g	CDZ007
			Benzene	LT 2.5 -01	ug/g	CDZ007
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CDZ007
			Chloroform	LT 7.26 -01	ug/g	CEK019
			Methylene Chloride	LT 1.5 +00	ug/g	CDZ007
			Chloroform	LT 2.9 -01	ug/g	CDZ007
			Hexachlorocyclopentadiene	LT 5.2 -01	ug/g	CEN008
			Chlorobenzene	LT 3.55+01	ug/g	CEI007
			Chlorobenzene	LT 1.5 +00	ug/g	CDZ007
			Chlorobenzene	LT 1.7 +00	ug/g	CEN008
			1,1-Dichloro-2,2-bis(4-chlorophenyl)ethane	LT 9.1 -01	ug/g	CEN008

Notes: Results for compounds may differ from those analytical method

Spill Sites

Run Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0024	19-20	Soil	p-Chlorophenylmethyl Sulfide	LT 2.5 -01	ug/g	CEN008
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CEN008
			Chromium	LT 6.33+00	ug/g	CEK019
			Copper	LT 3.87+01	ug/g	CEK019
			Dibromodichloropropane	LT 2.4 +00	ug/g	CDZ007
			Dibromodichloropropane	LT 2.8 -01	ug/g	CEN008
			Dibromodichloropropane	LT 6.4 -01	ug/g	CDZ007
			Dibromodichloropropane	LT 1.1 +00	ug/g	CEN008
			Vaporole	LT 3.0 +00	ug/g	CEN008
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CEN008
			Isobutane	LT 3.6 -01	ug/g	CEN008
			Isobutane	LT 2.5 -01	ug/g	CEN008
			Isobutyl Disulfide	LT 2.0 +01	ug/g	CDZ007
			Isobutyl	LT 4.6 -01	ug/g	CEN008
			Isobutyl	LT 3.8 -01	ug/g	CDZ007
			Mercury	LT 5.00+02	ug/g	CEK015
			Isobutyl	LT 2.9 -01	ug/g	CEN008
			Isobutyl	LT 2.5 -01	ug/g	CDZ007
			Methyl Isobutyl Ketone	LT 7.3 -01	ug/g	CDZ007
			Methyl Isobutyl	LT 2.1 -01	ug/g	CEN008
			1,4-Dioxane	LT 2.5 -01	ug/g	CEN008
			Lead	LT 8.38+00	ug/g	CEK019
			Dibromodichloropropane	LT 5.7 -01	ug/g	CEN008
			Dibromodichloropropane	LT 4.7 -01	ug/g	CEN008
			Parathion	LT 8.5 -01	ug/g	CEN008
			2-Chloro-1,2,4-trichlorobenzyl	LT 6.1 01	ug/g	CEN008
			2-Chloro-1,2,4-trichlorobenzyl	LT 2.5 -01	ug/g	CDZ007
			Trichloroethylene	LT 4.20+00	ug/g	CEK019
			Trichloroethylene	LT 5.4 01	ug/g	CDZ007
			Trichloroethylene	LT 4.9 +00	ug/g	CDZ007
			Trichloroethylene	5.00+01	ug/g	CEK019
0024	21-22-23	Soil	1,1,1-Trichloroethylene	LT 4.3 -01	ug/g	CDZ008

Notes: Results for samples for Analytical Monitoring Program are shown in parentheses.

Summary of Analytical Results

Task 24

Soil Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0024	21.5-22.5	Soil	1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CDZ008
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CDZ008
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CDZ008
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CDZ008
			m-Xylene	LT 7.4 -01	ug/g	CDZ008
			Aldrin	LT 2.5 -01	ug/g	CEN009
			Arsenic	LT 2.50+00	ug/g	CEC024
			Atrazine	LT 2.5 -01	ug/g	CEN009
			Bicycloheptadiene	LT 3.6 -01	ug/g	CDZ008
			Benzene	LT 2.5 -01	ug/g	CDZ008
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CDZ008
			Calcium	LT 7.34-01	ug/g	CEK020
			Methylene Chloride	LT 1.5 +00	ug/g	CDZ008
			Chloroform	LT 2.9 -01	ug/g	CDZ008
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CEN009
			Chloroacetic Acid	LT 3.55+01	ug/g	CEI008
			Chlorobenzene	LT 1.5 +00	ug/g	CDZ008
			Chlordane	LT 1.7 +00	ug/g	CEN009
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CEN009
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CEN009
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CEN009
			Chromium	1.25+01	ug/g	CEK020
			Copper	4.52+01	ug/g	CEK020
			Dibromochloropropane	LT 2.4 +00	ug/g	CDZ008
			Dibromochloropropane	LT 2.8 -01	ug/g	CEN009
			Dicyclopentadiene	LT 6.4 -01	ug/g	CDZ008
			Dicyclopentadiene	LT 1.1 +00	ug/g	CEN009
			Vapona	LT 3.0 +00	ug/g	CEN009
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CEN009
			Dithiane	LT 3.6 -01	ug/g	CEN009
			Dieldrin	LT 2.5 -01	ug/g	CEN009
			Dimethyldisulfide	LT 2.0 +01	ug/g	CDZ008
			Dieldrin	LT 4.6 -01	ug/g	CEN009
			Ethylbenzene	LT 3.8 -01	ug/g	CDZ008

Note: Results for some parameters may appear in more than one analytical fraction.

08/06/88

Rocky Mountain Arsenal Program

Phase 1 Services Incorporated

Spill Sites

Task 24

Summary of Analytical Results

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0024	21.5, 22.5	Soil	Mercury	LT 5.00-02	ug/g	CE0016
			Isodrin	LT 2.9 -01	ug/g	CEN009
			Toluene	LT 2.5 -01	ug/g	CDZ008
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CDZ008
			Malathion	LT 7.1 -01	ug/g	CEN009
			1,4-Oxathiane	LT 2.5 -01	ug/g	CEN009
			Lead	LT 8.38+00	ug/g	CEK020
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CEN009
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CEN009
			Parathion	LT 8.5 -01	ug/g	CEN009
			2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.1 -01	ug/g	CEN009
			Tetrachloroethene	LT 2.5 -01	ug/g	CDZ008
			Thiodiglycol	LT 4.20+00	ug/g	CEI008
			Trichloroethene	LT 5.4 -01	ug/g	CDZ008
0025	5-5.4	Soil	Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CDZ008
			Zinc	1.04+02	ug/g	CEK020
			Aldrin	4.0 +01	ug/g	CGH008
			Arsenic	4.95+01	ug/g	CGH008
			Atrazine	LT 2.5 -01	ug/g	CGH008
			Cadmium	9.92+00	ug/g	CGV013
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CGH008
			Chlordane	LT 1.7 +00	ug/g	CGH008
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CGH008
			p-Chlorophenylmethyl Sulfonide	LT 2.5 -01	ug/g	CGH008
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CGH008
			Chromium	8.05+01	ug/g	CGV013
			Copper	8.76+02	ug/g	CGV013
			Bibromochloropropane	LT 2.8 -01	ug/g	CGH008
			Dicyclopentadiene	LT 1.1 +00	ug/g	CGH008
			Vapona	LT 3.0 +00	ug/g	CGH008
			Diisopropylmethyl Phosphate	LT 1.1 +00	ug/g	CGH008

Note: Results for some parameters may appear in more than one analytical fraction.

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Task 24 Spill Sites

Summary of Analytical Results

Bottle Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0015	5-5.4	Soil	Dithiane	LT 3.6 -01	ug/g	CGH008
			Dieldrin	LT 1.9 +01	ug/g	CGH008
			Endrin	LT 4.6 -01	ug/g	CGH008
			Mercury	5.43+00	ug/g	CGH008
			Isodrin	LT 2.9 -01	ug/g	CGH008
			Malathion	LT 7.1 -01	ug/g	CGH008
			1,4-Oxathiane	LT 2.5 -01	ug/g	CGH008
			Lead	2.59+03	ug/g	CGV013
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CGH008
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CGH008
			Parathion	LT 8.5 -01	ug/g	CGH008
			2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.1 -01	ug/g	CGH008
			Zinc	3.32+03	ug/g	CGV013
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CGK007
			1,1,2 Trichloroethane	LT 3.9 -01	ug/g	CGK007
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CGK007
0025	2.5 8.5	Soil	1,2-Dichloroethane	LT 1.7 +00	ug/g	CGK007
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CGK007
			m-Xylene	LT 7.4 -01	ug/g	CGK007
			Aldrin	LT 3.0 -01	ug/g	CGP005
			Arsenic	LT 2.50+00	ug/g	CGP005
			Atrazine	LT 3.0 -01	ug/g	CGP005
			Bicycloheptadiene	LT 3.6 -01	ug/g	CGK007
			Benzene	LT 2.5 -01	ug/g	CGK007
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CGK007
			Cadmium	LT 7.36-01	ug/g	CGV009
			Methylene Chloride	LT 1.5 +00	ug/g	CGK007
			Chloroform	LT 2.9 -01	ug/g	CGK007
			Hexachlorocyclopentadiene	LT 6.0 -01	ug/g	CGP005
			Chlorobenzene	LT 1.5 +00	ug/g	CGK007
			Chlordane	LT 2.0 +00	ug/g	CGP005
			p-Chlorophenylmethyl Sulfide	LT 9.0 -01	ug/g	CGP005

Note: Results for some parameters may appear in more than one analytical fraction.

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0025	7.5-8.5	Soil	p-Chlorophenylmethyl Sulfonide	LT 3.0 -01	ug/g	CGP005
			p-Chlorophenylmethyl Sulfone	LT 3.0 -01	ug/g	CGP005
			Chromium	LT 1.33+01	ug/g	CGV009
			Copper	LT 3.82+01	ug/g	CGV009
			Dibromochloropropane	LT 2.4 +00	ug/g	CGK007
			Dibromochloropropane	LT 3.0 -01	ug/g	CGP005
			Dibromochloropropane	LT 6.4 -01	ug/g	CGK007
			Dibromochloropropane	LT 1.0 +00	ug/g	CGP005
			Vapona	LT 3.0 +00	ug/g	CGP005
			Diisopropylmethyl Phosphonate	LT 1.0 +00	ug/g	CGP005
			Triphenyl	LT 4.0 -01	ug/g	CGP005
			Triphenyl	LT 3.0 -01	ug/g	CGP005
			Dimethyldisulfide	LT 2.0 +01	ug/g	CGK007
			Endrin	LT 5.0 -01	ug/g	CGP005
			Ethylbenzene	LT 3.8 -01	ug/g	CGK007
			Mercury	LT 5.00-02	ug/g	CHG005
			Isodrin	LT 3.0 -01	ug/g	CGP005
			Toluene	LT 2.5 -01	ug/g	CGK007
			Methylisobutyl Ketone	LT 2.3 -01	ug/g	CGK007
			Malathion	LT 2.0 -01	ug/g	CGP005
0026	8.3-9.8	Soil	1,4-Oxathiane	LT 3.0 -01	ug/g	CGP005
			Lead	LT 1.53+01	ug/g	CGV009
			Dichlorodiphenylethane	LT 6.0 -01	ug/g	CGP005
			Dichlorodiphenyltrichloroethane	LT 5.0 -01	ug/g	CGP005
			Parathion	LT 9.0 -01	ug/g	CGP005
			2-Chloro-1-(2,4-Dichlorophenyl)-Vinylethyl Phosphonate	LT 6.0 -01	ug/g	CGP005
			Tetrahydroethene	LT 2.5 -01	ug/g	CGK007
			Trichloroethene	LT 5.4 -01	ug/g	CGK007
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CGK007
			Zinc	LT 1.05+02	ug/g	CGV009
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CGR002

Note: Results for some parameters may appear in more than one analytical fraction.

Fluoro Volatiles Incorporated

Rocky Mountain Arsenal Program

08/06/88

Summary of Analytical Results

Task 24

Soil Sites

Reeling Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0026	8.8-9.8	Soil	1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CGR002
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CGR002
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CGR002
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CGR002
			m Xylene	LT 7.4 -01	ug/g	CGR002
			Aldrin	LT 3.0 -01	ug/g	CGR006
			Asenic	6.75+00	ug/g	CGR016
			Atrazine	LT 3.0 -01	ug/g	CGR006
			Ricynolheptadiene	LT 3.6 -01	ug/g	CGR002
			Benzene	LT 2.5 -01	ug/g	CGR002
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CGR002
			Cadmium	LT 7.36-01	ug/g	CGR010
			Methylene Chloride	LT 1.5 +00	ug/g	CGR002
			Chloroform	LT 2.9 -01	ug/g	CGR002
			Hexachlorocyclopentadiene	LT 6.0 -01	ug/g	CGR006
			Chlorobenzene	LT 1.5 +00	ug/g	CGR002
			Chloroethane	LT 2.0 +00	ug/g	CGR006
			p-Chlorophenylmethyl Sulfide	LT 9.0 -01	ug/g	CGR006
			p-Chlorophenylmethyl Sulfide	LT 3.0 -01	ug/g	CGR006
			p-Chlorophenylmethyl Sulfone	LT 3.0 -01	ug/g	CGR006
			Chromium	1.13+01	ug/g	CGR010
			Copper	4.07+01	ug/g	CGR010
			Bromochloropropane	LT 2.4 +00	ug/g	CGR002
			Bromochloropropane	LT 3.0 -01	ug/g	CGR006
			Bicyclopentadiene	LT 6.4 -01	ug/g	CGR002
			Bicyclopentadiene	LT 1.0 +00	ug/g	CGR006
			Vanillin	LT 3.0 +00	ug/g	CGR006
			Diisopropylmethyl Phosphonate	LT 1.0 +00	ug/g	CGR006
			Diethane	LT 4.0 -01	ug/g	CGR006
			Diethylin	LT 3.0 -01	ug/g	CGR006
			Dimethylsulfide	LT 2.0 +01	ug/g	CGR002
			Diethylin	LT 5.0 -01	ug/g	CGR006
			Ethylbenzene	LT 3.8 -01	ug/g	CGR002
			Mercury	LT 5.00 +0	ug/g	CHAM006

Notes: Results for some parameters may appear in more than one analytical fraction

Fluoroc Services Incorporated

Rocky Mountain Arsenal Program

08/06/88

Summary of Analytical Results

Task 24

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0025	8.8-9.8	Soil	Isodrin	LT 3.0 -01	ug/g	CGP006
			Toluene	LT 2.5 -01	ug/g	CGR002
			Methylisobutyl Ketone	LT 1.2 +00	ug/g	CGR002
			Malathion	LT 2.0 -01	ug/g	CGP006
			1,4-Oxathiane	LT 3.0 -01	ug/g	CGP006
			Lead	2.21+02	ug/g	CGV010
			Dichlorodiphenylethane	LT 6.0 -01	ug/g	CGP006
			Dichlorodiphenyltrichloroethane	LT 5.0 -01	ug/g	CGP006
			Parathion	LT 9.0 -01	ug/g	CGP006
			2-Chloro-1(2,4-Dichlorophenyl) Vinylidichyl Phosphates	LT 6.0 -01	ug/g	CGP006
0026	14-15	Soil	Tetrachloroethene	LT 2.5 -01	ug/g	CGR002
			Trichloroethene	LT 5.4 -01	ug/g	CGR002
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CGR002
			Zinc	1.03+02	ug/g	CGV010
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CGR003
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CGR003
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CGR003
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CGR003
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CGR003
			m-Xylene	LT 7.4 -01	ug/g	CGR003
			Aldrin	LT 3.0 -01	ug/g	CGP007
			Arsenic	6.88+00	ug/g	CGP007
			Atrazine	LT 3.0 -01	ug/g	CGP007
			Bioxy Isopentadiene	LT 3.6 -01	ug/g	CGR003
			Benzene	LT 2.5 -01	ug/g	CGR003
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CGR003
			Cadmium	LT 2.56+01	ug/g	CGV011
			Methylene Chloride	LT 1.5 +00	ug/g	CGR003
			Chloroform	LT 2.9 -01	ug/g	CGR003
			Hexachlorocyclopentadiene	LT 6.0 -01	ug/g	CGP007
			Chlorobenzene	LT 1.5 +00	ug/g	CGR003
			Chloroform	LT 2.0 +00	ug/g	CGP007

Note: Results for some parameters may appear in more than one analytical fraction

Summary of Analytical Results

Task 24

Spill Sites

Runing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0025	14-15	Soil	p-Chlorophenylmethyl Sulfide	LT 9.0 -01	ug/g	CGP007
			p-Chlorophenylmethyl Sulfoxide	LT 3.0 -01	ug/g	CGP007
			p-Chlorophenylmethyl Sulfone	LT 3.0 -01	ug/g	CGP007
			Chromium	9.37+00	ug/g	CGV011
			Copper	3.99+01	ug/g	CGV011
			Dibromochloropropane	LT 2.4 +00	ug/g	CGR003
			Dibromochloropropane	LT 3.0 -01	ug/g	CGP007
			Dicyclopentadiene	LT 6.4 -01	ug/g	CGR003
			Dicyclopentadiene	LT 1.0 +00	ug/g	CGP007
			Vapor	LT 3.0 +00	ug/g	CGP007
			Diisopropylmethyl Phosphonate	LT 1.0 +00	ug/g	CGP007
			Dithiane	LT 4.0 -01	ug/g	CGP007
			Dieldrin	LT 3.0 -01	ug/g	CGP007
			Dimethyldisulfide	LT 2.0 +01	ug/g	CGR003
			Endrin	LT 5.0 -01	ug/g	CGP007
			Ethylbenzene	LT 3.8 -01	ug/g	CGR003
			Mercury	LT 5.00-02	ug/g	CHA007
			Isodrin	LT 3.0 -01	ug/g	CGP007
			Toluene	LT 2.5 -01	ug/g	CGR003
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CGR003
0025	16.5, 17.5	Soil	Malathion	LT 7.0 -01	ug/g	CGP007
			1,4-Oxathiane	LT 3.0 -01	ug/g	CGP007
			Lead	1.71+01	ug/g	CGV011
			Dichlorodiphenylethane	LT 6.0 -01	ug/g	CGP007
			Dichlorodiphenyltrichloroethane	LT 5.0 -01	ug/g	CGP007
			Parathion	LT 9.0 -01	ug/g	CGP007
			2-chloro-1,2,4-dichlorophenyl Vinylidethyl Phosphates	LT 6.0 -01	ug/g	CGP007
			Tetrachloroethene	LT 2.5 -01	ug/g	CGR003
			Trichloroethene	LT 5.4 -01	ug/g	CGR003
			Ortho & Para Xylene	LT 4.9 +00	ug/g	CGR003
			Zinc	8.72+01	ug/g	CGV011
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CGR004

Note: Results for some parameters may appear in more than one analytical fraction

Fluoro Services Incorporated

Rocky Mountain Arsenal Program

08/06/88

Summary of Analytical Results

Task 24

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0025	16.5-17.5	Soil	1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CGR004
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CGR004
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CGR004
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CGR004
			m-Xylene	LT 7.4 -01	ug/g	CGR004
			Aldrin	LT 3.0 -01	ug/g	CGP008
			Arsenic	9.33+00	ug/g	CG0018
			Atrazine	LT 3.0 -01	ug/g	CGP008
			Bicycloheptadiene	LT 3.6 -01	ug/g	CGR004
			Benzene	LT 2.5 -01	ug/g	CGR004
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CGR004
			Cadmium	LT 7.36-01	ug/g	CGV012
			Methylene Chloride	LT 1.5 +00	ug/g	CGR004
			Chloroform	LT 2.9 -01	ug/g	CGR004
			Hexachlorocyclopentadiene	LT 6.0 -01	ug/g	CGP008
			Chlorobenzene	LT 1.5 +00	ug/g	CGR004
			Chloroethane	LT 1.7 +00	ug/g	CGP008
			p-Chlorophenylmethyl Sulfide	LT 9.0 -01	ug/g	CGP008
			p-Chlorophenylmethyl Sulfoxide	LT 3.0 -01	ug/g	CGP008
			p-Chlorophenylmethyl Sulfone	LT 3.0 -01	ug/g	CGP008
			Chromium	1.12+01	ug/g	CGV012
			Copper	3.97+01	ug/g	CGV012
			Dibromochloropropane	LT 2.4 +00	ug/g	CGR004
			Dibromochloropropane	LT 3.0 -01	ug/g	CGP008
			Dicyclopentadiene	LT 6.4 -01	ug/g	CGR004
			Dicyclopentadiene	LT 1.0 +00	ug/g	CGP008
			Vapona	LT 3.0 +01	ug/g	CGP008
			Bis(2-chlorophenyl) Phosphonate	LT 1.0 +00	ug/g	CGP008
			Dithiane	LT 4.0 -01	ug/g	CGP008
			Dieldrin	LT 2.5 -01	ug/g	CGP008
			Dimethylsulfide	LT 2.0 +01	ug/g	CGR004
			Endrin	LT 4.6 -01	ug/g	CGP008
			Ethylbenzene	LT 3.8 -01	ug/g	CGR004
			Mercury	LT 5.00-02	ug/g	CHA008

Note: Results for some parameters may appear in more than one analytical fraction.

Rocky Mountain Arsenal Program

Flammable Gases Incorporated

Summary of Analytical Results

Task 24

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0025	16.5-17.5	Soil	Isodrin	LT 2.9 -01	ug/g	CGP008
			Toluene	LT 2.5 -01	ug/g	CGR004
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CGR004
			Malathion	LT 7.0 -01	ug/g	CGP008
			1,4-Oxathiane	LT 3.0 -01	ug/g	CGP008
			Lead	LT 8.38+00	ug/g	CGV012
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CGP008
			Dichlorodiphenyltrichloro-ethane	LT 4.7 -01	ug/g	CGP008
			Parathion	LT 8.5 -01	ug/g	CGP008
			2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CGP008
0026	0-1	Soil	Tetrachloroethene	LT 2.5 -01	ug/g	CGR004
			Trichloroethene	LT 5.4 -01	ug/g	CGR004
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CGR004
			Zinc	1.02+02	ug/g	CGV012
			Aldrin	LT 2.5 -01	ug/g	CFT010
			Arsenic	LT 2.50+00	ug/g	CFT010
			Atrazine	LT 2.5 -01	ug/g	CFT010
			Cadmium	LT 7.36-01	ug/g	CFP019
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFT010
			Chloroacetic Acid	LT 3.55+01	ug/g	CFZ014
			Chlordane	LT 1.7 +00	ug/g	CFT010
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CFT010
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CFT010
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFT010
			Chromium	1.30+01	ug/g	CFP019
			Copper	6.62+00	ug/g	CFP019
			Trichloroethylene	LT 2.8 -01	ug/g	CFT010
			Tricyclopentadiene	LT 1.1 +00	ug/g	CFT010
			Vapona	LT 3.0 +00	ug/g	CFT010
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CFT010
			Diethane	LT 3.6 -01	ug/g	CFT010
			Diethylin	LT 2.5 -01	ug/g	CFT010

Note: Results for some parameters may appear in more than one analytical fraction

08/06/88

Rocky Mountain Arsenal Program

Task 24

Summary of Analytical Results

Spill Sites

Run ing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0026	0-1	Soil	Endrin	LT 4.6 -01	ug/g	CF1010
			Mercury	LT 5.00-02	ug/g	CFV015
			Isodrin	LT 2.9 -01	ug/g	CF1010
			Malathion	LT 7.1 -01	ug/g	CF1010
			1,4-Oxathiane	LT 2.5 -01	ug/g	CF1010
			Lead	LT 8.38+00	ug/g	CFP019
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CF1010
			Dichlorodiphenyltrichloro- ethane	LT 4.7 -01	ug/g	CF1010
			Parathion	LT 8.5 -01	ug/g	CF1010
			2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.1 -01	ug/g	CF1010
0026	4-5	Soil	Triiodoethyl	LT 4.20+00	ug/g	CFZ014
			Zinc	3.47+01	ug/g	CFP019
			1,1,1-trichloroethane	LT 4.3 -01	ug/g	CFV005
			1,1,2-trichloroethane	LT 3.9 -01	ug/g	CFV005
			1,1-Dichloromethane	LT 1.7 +00	ug/g	CFV005
			1,2-Dichloromethane	LT 1.7 +00	ug/g	CFV005
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CFV005
			m-Xylene	LT 7.4 -01	ug/g	CFV005
			Aldrin	LT 2.5 -01	ug/g	CFV002
			Arsenic	LT 2.50+00	ug/g	CFX011
			Atrazine	LT 2.5 -01	ug/g	CFV002
			Bicycloheptadiene	LT 3.6 -01	ug/g	CFV005
			Benzene	LT 2.5 -01	ug/g	CFV005
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CFV005
			Cadmium	LT 7.36-01	ug/g	CFW005
			Methylene Chloride	LT 1.5 +00	ug/g	CFV005
			Chloroform	LT 2.9 01	ug/g	CFV005
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFV002
			Chloroacetic Acid	LT 3.55+01	ug/g	CFZ015
			Chlorobenzene	LT 1.5 +00	ug/g	CFV005
			Chloroethane	LT 1.7 +00	ug/g	CFV002
			p-Chlorophenylmethyl sulfide	LT 4.1 -01	ug/g	CFV002

Note: Results for some parameters may appear to more than one analytical method.

Fluorocarbon, Incorporated
Summary of Analytical Results

Last 24

Rocky Mountain Aerosol Program

03/06/88

Top 11 Sites

Point Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0026	4-5	Soil	p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CFU002
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFU002
			Chromium	1.61+01	ug/g	CFW005
			Copper	1.22+01	ug/g	CFW005
			Dibromochloropropane	LT 2.4 +00	ug/g	CFV005
			Dibromochloropropane	LT 2.8 -01	ug/g	CFU002
			Dicyclopentadiene	LT 1.1 +00	ug/g	CFU002
			Dicyclopentadiene	LT 6.4 -01	ug/g	CFV005
			Vapors	LT 3.0 +00	ug/g	CFU002
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CFU002
			Diethane	LT 3.6 -01	ug/g	CFU002
			Diethane	LT 2.5 -01	ug/g	CFU002
			Dimethyldisulfide	LT 2.0 +01	ug/g	CFV005
			Diethane	LT 4.6 -01	ug/g	CFU002
			Ethylbenzene	LT 3.8 -01	ug/g	CFV005
			Mercury	LT 5.00-02	ug/g	CFV016
			Lead	LT 2.9 -01	ug/g	CFU002
			Toluene	LT 2.5 -01	ug/g	CFV005
			Methyl isobutyl Ketone	LT 7.3 -01	ug/g	CFV005
			Malathion	LT 7.1 -01	ug/g	CFU002
0026	9-10	Soil	1,4-Dioxathiane	LT 2.5 -01	ug/g	CFU002
			Lead	1.26+01	ug/g	CFU005
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CFU002
			Dichlorodiphenyltrichloro-ethane	LT 4.7 -01	ug/g	CFU002
			Parathion	LT 8.5 -01	ug/g	CFU002
			2-Chloro 1,1,4-bis(chlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CFU002
			Tetra chloroethene	LT 2.5 -01	ug/g	CFV005
			Triethylal	LT 4.20+00	ug/g	CFZ015
			Trichloroethene	LT 5.4 -01	ug/g	CFV005
			Ortho & Para-Xylene	LT 4.9 +00	ug/g	CFV005
			Zinc	5.08+01	ug/g	CFW005
			1,1,1 Trichloroethane	LT 4.3 -01	ug/g	CFV006

Note: Results for some parameters may appear in more than one analytical fraction.

08/06/88

Rocky Mountain Arsenal Program

Spill Sites

Fluorocarbon Services, Incorporated

Task 24

Summary of Analytical Results

Boiling Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0026	9-10	Soil	1,1,2-trichloroethane	LT 3.9 -01	ug/g	CFV006
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CFV006
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CFV006
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CFV006
			m-Xylene	LT 7.4 -01	ug/g	CFV006
			Aldrin	LT 2.5 -01	ug/g	CFU003
			Arsenic	LT 2.50+00	ug/g	CFX012
			Atrazine	LT 2.5 -01	ug/g	CFU003
			Bicycloheptadiene	LT 3.6 -01	ug/g	CFV006
			Benzene	LT 2.5 -01	ug/g	CFV006
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CFV006
			Cadmium	LT 7.36-01	ug/g	CFW006
			Methylene Chloride	LT 1.5 +00	ug/g	CFV006
			Chloroform	LT 2.9 -01	ug/g	CFV006
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFU003
			Chloroacetic Acid	LT 3.55+01	ug/g	CFZ016
			Chlorobenzene	LT 1.5 +00	ug/g	CFV006
			Chlordane	LT 1.7 +00	ug/g	CFU003
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CFU003
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CFU003
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFU003
			Chromium	1.81+01	ug/g	CFW006
			Copper	1.35+01	ug/g	CFW006
			Dibromochloropropane	LT 2.4 +00	ug/g	CFV006
			Dibromochloropropane	LT 2.8 -01	ug/g	CFU003
			Dicyclopentadiene	LT 1.1 +00	ug/g	CFU003
			Dicyclopentadiene	LT 6.4 -01	ug/g	CFV006
			Varona	LT 3.0 +00	ug/g	CFU003
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CFU003
			Diethane	LT 3.6 -01	ug/g	CFU003
			Diethane	LT 2.5 -01	ug/g	CFU003
			Dimethyldisulfide	LT 2.0 +01	ug/g	CFV006
			Freon 11	LT 4.6 -01	ug/g	CFU003
			Ethylbenzene	LT 3.8 -01	ug/g	CFV006

Note: Results for some parameters may appear to more than one analytical fraction

08/06/88

Rocky Mountain Arsenal Program

El Paso Services, Incorporated

Spill Sites

Task 24

Summary of Analytical Results

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0026	9-10	Soil	Mercury	LT 5.00-02	ug/g	CFV017
			Isodrin	LT 2.9 -01	ug/g	CFV003
			Toluene	LT 2.5 -01	ug/g	CFV006
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CFV006
			Methathion	LT 7.1 -01	ug/g	CFV003
			1,4-Oxathiane	LT 2.5 -01	ug/g	CFV003
			Lead	LT 8.38+00	ug/g	CFV006
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CFV003
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CFV003
			Parathion	LT 8.5 -01	ug/g	CFV003
0026	14-15	Soil	2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CFV003
			Tetrachloroethene	LT 2.5 -01	ug/g	CFV006
			Tridiglycol	LT 4.20+00	ug/g	CFZ016
			Trichloroethene	LT 5.4 -01	ug/g	CFV006
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CFV006
			Zinc	4.96+01	ug/g	CFV006
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CFV007
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CFV007
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CFV007
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CFV007
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CFV007
			m Xylene	LT 7.4 -01	ug/g	CFV007
			Aldrin	LT 2.5 -01	ug/g	CFV004
			Arsenic	3.00+00	ug/g	CFX013
			Atrazine	LT 2.5 -01	ug/g	CFV004
			Bicyclopentadiene	LT 3.6 -01	ug/g	CFV007
			Benzene	LT 2.5 -01	ug/g	CFV007
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CFV007
			Calcium	LT 7.36 01	ug/g	CFV007
			Methylene Chloride	LT 1.5 +00	ug/g	CFV007
			Chloroform	LT 2.9 01	ug/g	CFV007

Note: Results for some parameters may appear in more than one analytical fraction.

08/16/88

Rocky Mountain Arsenal Location

Task 26

Soil Sites

Environmental Monitoring

Summary of Analytical Results

Run Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0006	16.15	Soil	Hexachlorocyclopentadiene	11 5.7 -01	ug/g	CFU004
			Chloroacetic Acid	11 3.55+01	ug/g	CFZ017
			Chlorobenzene	11 1.5 +00	ug/g	CFV007
			Chloroform	11 1.7 +00	ug/g	CFU004
			p-Chlorophenylmethyl Sulfide	11 9.1 -01	ug/g	CFU004
			p-Chlorophenylmethyl Sulfonate	11 2.5 -01	ug/g	CFU004
			p-Chlorophenylmethyl Sulfone	11 2.5 -01	ug/g	CFU004
			Chloroform	11 5.5+01	ug/g	CFW007
			Chloromethane	11 4.9+01	ug/g	CFW007
			Chloromethylchloroform	11 2.6 +00	ug/g	CFV007
			Chloromethylchloroform	11 2.8 -01	ug/g	CFU004
			Chloromethylchloroform	11 1.1 +00	ug/g	CFU004
			Chloromethylchloroform	11 6.6 -01	ug/g	CFV007
			Chloromethylchloroform	11 3.9 +00	ug/g	CFU004
			Chloromethylchloroform	11 1.1 +00	ug/g	CFU004
			Chloromethylchloroform	11 3.6 -01	ug/g	CFU004
			Chloromethylchloroform	11 2.5 -01	ug/g	CFU004
			Chloromethylchloroform	11 2.0 +01	ug/g	CFV007
			Chloromethylchloroform	11 4.6 -01	ug/g	CFU004
			Chloromethylchloroform	11 3.8 -01	ug/g	CFV007
			Chloromethylchloroform	11 5.00 -02	ug/g	CFV018
			Chloromethylchloroform	11 2.9 -01	ug/g	CFU004
			Chloromethylchloroform	11 2.5 -01	ug/g	CFV007
			Chloromethylchloroform	11 2.8 -01	ug/g	CFV007
			Chloromethylchloroform	11 2.1 -01	ug/g	CFU004
			Chloromethylchloroform	11 2.5 -01	ug/g	CFU004
			Chloromethylchloroform	11 8.39+00	ug/g	CFV007
			Chloromethylchloroform	11 5.7 -01	ug/g	CFU004
			Chloromethylchloroform	11 4.2 -01	ug/g	CFU004
			Chloromethylchloroform	11 9.5 -01	ug/g	CFU004
			Chloromethylchloroform	11 6.1 -01	ug/g	CFU004
			Chloromethylchloroform	11 2.5 -01	ug/g	CFV007

Rocky Mountain Arsenal Location

26

08/106/88

Rocky Mountain Arsenal Program

Spill Sites

Location	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0006	14.15	Soil	Infodiglycol Trichloroethylene Ortho- & Para-Xylene Zinc	LT 4.20+00 LT 5.4 -01 LT 4.9 +00 5.04+01	ug/g ug/g ug/g ug/g	CF2017 CFV007 CFV007 CFV007
0007	0.1	Soil	Arsenic Chloroacetic Acid Mercury Infodiglycol	3.07 0 LT 3.55 1 1.40 1 LT 4.20 0	ug/g ug/g ug/g ug/g	COV009 COV012 COX009 COV012
0008	4.5	Soil	Arsenic Chloroacetic Acid Mercury Infodiglycol	LT 2.50 0 LT 3.55 1 LT 5.00 -2 LT 4.20 0	ug/g ug/g ug/g ug/g	COV010 COV013 COX010 COV013
0009	0.1	Soil	Arsenic	4.90 2	ug/g	CRH007
0010	2.0 3.2	Soil	Arsenic	7.20 2	ug/g	CRH008
0011	0.1	Soil	Arsenic	1.64+02	ug/g	CG0005
0012	4.5	Soil	Arsenic	1.64+02	ug/g	CG0006
0013	9.10	Soil	Arsenic	LT 2.50+00	ug/g	CG0007
0014	14.15	Soil	Arsenic	6.35+01	ug/g	CG0008
0015	19.20	Soil	Arsenic	1.44+01	ug/g	CG0009
0016	1.1 1.1	Soil	Aluminum Arsenic Atrazine Cadmium Hexachlorocyclopentadiene	LT 3.00 -1 4.80 1 LT 3.00 -1 1.74 0 LT 6.00 -1	ug/g ug/g ug/g ug/g ug/g	CRJ002 CRH009 CRJ002 CRM005 CRJ002
0017	1.1 1.1	Soil	Chloroethane p-Chlorophenylmethyl Sulfide p-Chlorophenylmethyl Sulfonide p-Chlorophenylmethyl Sulfone Cyanide	LT 2.00 0 LT 4.00 1 LT 3.00 -1 LT 3.00 1 1.13 1	ug/g ug/g ug/g ug/g ug/g	CRJ002 CRJ002 CRJ002 CRJ002 CRM005

Note: Results for some parameters were reported in more than one analytical fraction.

Summary of Analytical Results Task 26

Bottom Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0020	1.1 (2)	Sed	Copper	7.26	0	CRM005
			Dibromochloropropane	LT	3.00 -1	CRJ002
			Dibromopentadiene	LT	1.00 0	CRJ002
			Vapona	LT	3.00 0	CRJ002
			Bisopronylmethyl Phosphonate	LT	1.00 0	CRJ002
			Dithiane	LT	4.00 -1	CRJ002
			Dieldrin	LT	3.00 -1	CRJ002
			Endrin	LT	5.00 -1	CRJ002
			Mercury	LT	2.19 -1	CQY020
			Isodrin	LT	3.00 -1	CRJ002
			Malathion	LT	7.00 -1	CRJ002
			1,4-Oxathiane	LT	3.00 -1	CRJ002
			Lead	LT	1.19 1	CRM005
			Dichlorodiphenylethane	LT	6.00 -1	CRJ002
			Dichlorodiphenyltrichloroethane	LT	5.00 -1	CRJ002
			Parathion	LT	9.00 -1	CRJ002
			2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT	6.00 -1	CRJ002
			Zinc	LT	4.09 1	CRM005
			Aldrin	LT	3.00 -1	CRJ003
			Arsenic	LT	1.70 2	CRH010
			Atrazine	LT	3.00 -1	CRJ003
			Cadmium	LT	7.40 -1	CRM006
			Hexachlorocyclopentadiene	LT	6.00 -1	CRJ003
			Chlorobenzene	LT	2.00 0	CRJ003
			p-Chlorophenylmethyl Sulfide	LT	9.00 -1	CRJ003
			p-Chlorophenylmethyl Sulfonate	LT	3.00 1	CRJ003
			p-Chlorophenylmethyl Sulfonate Chloride	LT	3.00 1	CRJ003
			Copper	LT	4.70 0	CRM006
			Dibromochloropropane	LT	3.00 -1	CRJ003
			Dibromopentadiene	LT	1.00 0	CRJ003
			Vapona	LT	3.00 0	CRJ003

Note: Results for some parameters may appear in more than one category of classification.

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Rocky Mountain Arsenal Program

Rocky Mountain Arsenal Program

Task 24

Summary of Analytical Results

Spill Sites

Run/Job Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0070	2-3-5	Soil	Diisopropylmethyl Phosphonate	LT 1.00	0	CRJ003
			Nitrobenzene	LT 4.00	-1	CRJ003
			Endrin	LT 3.00	-1	CRJ003
			Endrin	LT 5.00	-1	CRJ003
			Mercury	4.91	-1	CR0005
			Isodrin	LT 3.00	-1	CRJ003
			Malathion	LT 7.00	-1	CRJ003
			1,4-Oxathiane	LT 3.00	-1	CRJ003
			Lead	2.86	1	CR0006
			Dichlorodiphenylethane	LT 6.00	-1	CRJ003
0070	4-5	Soil	Dichlorodiphenyltrichloroethane	LT 5.00	-1	CRJ003
			Parathion	LT 9.00	-1	CRJ003
			2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.00	-1	CRJ003
			Zinc	1.09	2	CR0006
			1,1,1-Trichloroethane	LT 4.30	-1	CR1002
			1,1,2-Trichloroethane	LT 3.90	-1	CR1002
			1,1-Dichloroethane	LT 1.70	0	CR1002
			1,2-Dichloroethane	LT 1.70	0	CR1002
			1,2-Dichloroethane	LT 5.60	-1	CR1002
			m Xylene	LT 7.40	-1	CR1002
			Aldrin	LT 3.00	-1	CR1004
			Arsenic	5.00	2	CR0011
			Atrazine	LT 3.00	-1	CR1004
			Allyl isothiocyanate	LT 3.60	-1	CR1002
			Benzene	LT 2.50	-1	CR1002
			Carbon Tetrachloride	LT 2.50	1	CR1002
			Cadmium	LT 7.40	-1	CR0007
			Methyl Chloride	LT 1.50	0	CR1002
			Chloroform	LT 2.90	1	CR1002
			Hexachlorocyclopentadiene	LT 6.00	-1	CR1004
			Chlorobenzene	LT 1.50	0	CR1002
			Chloroacetylene	LT 2.00	0	CR1004

Note: Results for some parameters may appear to more than one analytical method.

08/06/88

Rocky Mountain Arsenal Program

Fluoro Services Incorporated

Task 24 Spill Sites

Summary of Analytical Results

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0030	4-5	Soil	p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	CRJ004
			p-Chlorophenylmethyl Sulfide	LT 3.00 -1	ug/g	CRJ004
			p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	CRJ004
			Chromium	LT 6.50 0	ug/g	CRM007
			Copper	LT 4.70 0	ug/g	CRM007
			Dibromochloropropane	LT 2.40 0	ug/g	CRJ002
			Dibromochloropropane	LT 3.00 -1	ug/g	CRJ004
			Dicyclopentadiene	LT 6.40 -1	ug/g	CRJ002
			Dicyclopentadiene	LT 1.00 0	ug/g	CRJ004
			Vapona	LT 3.00 0	ug/g	CRJ004
			Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	CRJ004
			Dithiane	LT 4.00 -1	ug/g	CRJ004
			Dieldrin	LT 3.00 -1	ug/g	CRJ004
			Dimethyldisulfide	LT 2.00 1	ug/g	CRJ002
			Endrin	LT 5.00 -1	ug/g	CRJ004
			Ethylbenzene	LT 3.80 1	ug/g	CRJ002
			Mercury	4.96 -2	ug/g	CR0006
			Isodrin	LT 3.00 -1	ug/g	CRJ004
			Toluene	LT 2.50 -1	ug/g	CRJ002
			Methylisobutyl Ketone	LT 7.30 -1	ug/g	CRJ002
0030	6.2-7.2	Soil	Malathion	LT 2.00 -1	ug/g	CRJ004
			1,4-Oxathiane	LT 3.00 -1	ug/g	CRJ004
			Lead	LT 8.40 0	ug/g	CRM007
			Dichlorodiphenylethane	LT 6.00 -1	ug/g	CRJ004
			Dichlorodiphenyltrichloroethane	LT 5.00 -1	ug/g	CRJ004
			Parathion	LT 9.00 -1	ug/g	CRJ004
			2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.00 -1	ug/g	CRJ004
			Tetrachloroethene	LT 2.50 -1	ug/g	CRJ002
			Trichloroethene	LT 5.40 -1	ug/g	CRJ002
			Ortho- & Para-Xylene	LT 4.90 0	ug/g	CRJ002
			Zinc	2.30 1	ug/g	CRM007
			1,1,1-Trichloroethane	LT 4.30 1	ug/g	CRJ003

Notes: Results for some parameters may appear to more than one analytical fraction

08/06/88

Rocky Mountain Arsenal Program

Phase 2 Services Incorporated

Task 24 Spill Sites

Summary of Analytical Results

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0030	6.2-7.2	Soil	1,1,2-Trichloroethane	LT 3.90 -1	ug/g	CR1003
			1,1-Dichloroethane	LT 1.70 0	ug/g	CR1003
			1,2-Dichloroethane	LT 1.70 0	ug/g	CR1003
			1,2-Dichloroethane	LT 5.40 -1	ug/g	CR1003
			m-Xylene	LT 7.40 -1	ug/g	CR1003
			Aldrin	LT 3.00 -1	ug/g	CRJ005
			Arsenic	2.50 2	ug/g	CRH012
			Atrazine	LT 3.00 -1	ug/g	CRJ005
			Bicycloheptadiene	LT 3.60 -1	ug/g	CR1003
			Benzene	LT 2.50 -1	ug/g	CR1003
			Carbon Tetrachloride	LT 2.50 -1	ug/g	CR1003
			Cadmium	LT 7.40 -1	ug/g	CRM008
			Methylene Chloride	LT 1.50 0	ug/g	CR1003
			Chloroform	LT 2.90 -1	ug/g	CR1003
			Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	CRJ005
			Chlorobenzene	LT 1.50 0	ug/g	CR1003
			Chloroethane	LT 2.00 0	ug/g	CRJ005
			p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	CRJ005
			p-Chlorophenylmethyl Sulfoxide	LT 3.00 -1	ug/g	CR1005
			p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	CRJ005
			Chromium	9.78 1	ug/g	CRM008
			Copper	3.24 1	ug/g	CRM008
			Dibromochloropropane	LT 2.40 0	ug/g	CR1003
			Dibromochloropropane	LT 3.00 -1	ug/g	CRJ005
			Dicyclopentadiene	LT 6.40 -1	ug/g	CR1003
			Dicyclopentadiene	LT 1.00 0	ug/g	CRJ005
			Vanone	LT 3.00 0	ug/g	CRJ005
			Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	CRJ005
			Nitriane	LT 4.00 -1	ug/g	CRJ005
			Isobutrin	LT 3.00 -1	ug/g	CRJ005
			Dimethyldisulfide	LT 2.00 1	ug/g	CR1003
			Endrin	LT 5.00 -1	ug/g	CR1005
			Ethylbenzene	LT 3.80 -1	ug/g	CR1003
			Mercury	3.22 -1	ug/g	CRM007

Note: Results for some parameters may appear in more than one analytical fraction

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Rocky Mountain Arsenal Program

Phase 1 Activities, Incorporated

Summary of Analytical Results

Task 24

Spill Sites

Runing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
00140	6.2-7.7	Soil	Isodrin	LT 3.00 -1	ug/g	CRJ005
			Toluene	LT 2.50 -1	ug/g	CRJ003
			Methylisobutyl Ketone	LT 7.30 -1	ug/g	CRJ003
			Malathion	LT 7.00 -1	ug/g	CRJ005
			1,4-Oxathiane	LT 3.00 -1	ug/g	CRJ005
			Lead	LT 8.40 0	ug/g	CRM008
			Dichlorodiphenylethane	LT 6.00 -1	ug/g	CRJ005
			Dichlorodiphenyltrichloroethane	LT 5.00 -1	ug/g	CRJ005
			Parathion	LT 9.00 -1	ug/g	CRJ005
			2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.00 -1	ug/g	CRJ005
00150	9.10	Soil	Tetrachloroethene	LT 2.50 -1	ug/g	CRJ003
			Trichloroethene	LT 5.40 -1	ug/g	CRJ003
			Ortho- & Para-Xylene	LT 4.90 0	ug/g	CRJ003
			Zinc	5.43 1	ug/g	CRM008
			1,1,1-Trichloroethane	LT 4.30 -1	ug/g	CRJ004
			1,1,2-Trichloroethane	LT 3.90 -1	ug/g	CRJ004
			1,1-Dichloroethane	LT 1.70 0	ug/g	CRJ004
			1,2-Dichloroethane	LT 1.70 0	ug/g	CRJ004
			1,2-Dichloroethane	LT 5.60 -1	ug/g	CRJ004
			m-Xylene	LT 7.40 -1	ug/g	CRJ004
00160	9.10	Soil	Aldrin	LT 3.00 -1	ug/g	CRJ006
			Arsenic	LT 2.50 0	ug/g	CRJ013
			Atrazine	LT 3.00 -1	ug/g	CRJ006
			Bicycloheptadiene	LT 3.60 -1	ug/g	CRJ004
			Benzene	LT 2.50 -1	ug/g	CRJ004
			Carbon Tetrachloride	LT 2.50 -1	ug/g	CRJ004
			Calcium	LT 7.40 -1	ug/g	CRM009
			Methylene Chloride	LT 1.50 0	ug/g	CRJ004
			Chloroform	LT 2.90 -1	ug/g	CRJ004
			Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	CRJ006
00170	9.10	Soil	Chlorobenzene	LT 1.50 0	ug/g	CRJ004
			Chloroform	LT 2.00 0	ug/g	CRJ006

Note: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Summary of Analytical Results

Task 24

Spill Sites

Run Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0030	9-10	Soil	p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	CRJ006
			p-Chlorophenylmethyl Sulfoxide	LT 3.00 -1	ug/g	CRJ006
			p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	CRJ006
			Chromium	1.12 1	ug/g	CRM009
			Copper	3.33 1	ug/g	CRM009
			Dibromochloropropane	LT 2.40 0	ug/g	CRJ004
			Dibromochloropropane	LT 3.00 -1	ug/g	CRJ006
			Dibromochloropropane	LT 6.40 -1	ug/g	CRJ004
			Dibromochloropropane	LT 1.00 0	ug/g	CRJ006
			Vapors	LT 3.00 0	ug/g	CRJ006
			Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	CRJ006
			Diethane	LT 4.1 1	ug/g	CRJ006
			Diethane	LT 3.00 1	ug/g	CRJ006
			Dimethylsulfide	LT 2.00 1	ug/g	CRJ004
			Endrin	LT 5.00 -1	ug/g	CRJ006
			Ethylbenzene	LT 3.80 1	ug/g	CRJ004
			Mercury	LT 5.00 -2	ug/g	CRJ008
			Isodrin	LT 3.00 -1	ug/g	CRJ006
			Toluene	LT 2.50 -1	ug/g	CRJ004
			Methylisobutyl Ketone	LT 7.30 -1	ug/g	CRJ004
0030	14-15	Soil	Malathion	LT 7.00 -1	ug/g	CRJ006
			1,4-Oxathiane	LT 3.00 -1	ug/g	CRJ006
			Lead	1.67 1	ug/g	CRM009
			1,1-Dichloro-2,2-bis(4-chlorophenyl)ethane	LT 6.00 -1	ug/g	CRJ006
			1,1-Dichloro-2,2-bis(4-chlorophenyl)ethane	LT 5.00 -1	ug/g	CRJ006
			Parathion	LT 9.00 -1	ug/g	CRJ006
			2-Chloro-1,1,2,2-tetrachloroethane	LT 6.00 -1	ug/g	CRJ006
			Vinylidene Chloride	LT 2.50 -1	ug/g	CRJ004
			Tetrachloroethane	LT 5.40 -1	ug/g	CRJ004
			Trichloroethane	LT 4.90 0	ug/g	CRJ004
			Ortho- & Para Xylene	8.5 1	ug/g	CRM009
			Zinc	LT 4.30 -1	ug/g	CRJ005
			1,1,1-Trichloroethane	LT 4.30 -1	ug/g	CRJ005

Notes: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Personnel Services Incorporated

Spill Sites

Task 24

Summary of Analytical Results

Runing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0030	14-15	Soil	1,1,2-Trichloroethane	LT 3.90 -1	ug/g	CR1005
			1,1-Dichloroethane	LT 1.70 0	ug/g	CR1005
			1,2-Dichloroethane	LT 1.70 0	ug/g	CR1005
			1,2-Dichloroethane	LT 5.60 -1	ug/g	CR1005
			m-Xylene	LT 7.40 -1	ug/g	CR1005
			Aldrin	LT 3.00 -1	ug/g	CRJ007
			Arsenic	LT 2.50 0	ug/g	CRH014
			Atrazine	LT 3.00 -1	ug/g	CRJ007
			Bicycloheptadiene	LT 3.60 -1	ug/g	CR1005
			Benzene	LT 2.50 -1	ug/g	CR1005
			Carbon Tetrachloride	LT 2.50 -1	ug/g	CR1005
			Cadmium	LT 7.40 -1	ug/g	CRM010
			Methylene Chloride	LT 1.50 0	ug/g	CR1005
			Chloroform	LT 2.90 -1	ug/g	CR1005
			Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	CRJ007
			Chlorobenzene	LT 1.50 0	ug/g	CR1005
			Chloroethane	LT 2.00 0	ug/g	CRJ007
			p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	CRJ007
			p-Chlorophenylmethyl Sulfoxide	LT 3.00 -1	ug/g	CRJ007
			p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	CRJ007
			Chromium	1.23 1	ug/g	CRM010
			Copper	2.82 1	ug/g	CRM010
			Dibromochloropropane	LT 2.40 0	ug/g	CR1005
			Dibromochloropropane	LT 3.00 -1	ug/g	CR1007
			Dicyclopentadiene	LT 6.40 -1	ug/g	CR1005
			Dicyclopentadiene	LT 1.00 0	ug/g	CRJ007
			Vapors	LT 3.00 0	ug/g	CR1007
			Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	CRJ007
			Dithiane	LT 4.00 -1	ug/g	CRJ007
			Dieldrin	LT 3.00 -1	ug/g	CRJ007
			Dimethyldisulfide	LT 2.00 1	ug/g	CR1005
			Diethyl	LT 5.00 -1	ug/g	CRJ007
			Ethylbenzene	LT 3.80 -1	ug/g	CR1005
			Mercury	LT 5.00 -2	ug/g	CR0009

Note: Results for some parameters may appear in more than one analytical fraction.

08/06/88

Rocky Mountain Arsenal Program

Flammable Volatiles Incorporated

Spill Sites

Task 24

Summary of Analytical Results

Porting Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0030	14.15	Soil	Isodrin	LT 3.00 -1	ug/g	CRJ007
			Toluene	LT 2.50 -1	ug/g	CRJ005
			Methylisobutyl Ketone	LT 7.30 -1	ug/g	CRJ005
			Malathion	LT 7.00 -1	ug/g	CRJ007
			1,4-Oxathiane	LT 3.00 -1	ug/g	CRJ007
			Lead	1.98 1	ug/g	CRM010
			Dichlorodiphenylethane	LT 6.00 -1	ug/g	CRJ007
			Dichlorodiphenyltrichloroethane	LT 5.00 -1	ug/g	CRJ007
			Parathion	LT 9.00 -1	ug/g	CRJ007
			2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.00 -1	ug/g	CRJ007
0070	17.18	Soil	Tetrachloroethene	LT 2.50 -1	ug/g	CRJ005
			Trichloroethene	LT 5.40 -1	ug/g	CRJ005
			ortho- & Para-Xylene	LT 4.90 0	ug/g	CRJ005
			Zinc	7.79 1	ug/g	CRM010
			1,1,1 Trichloroethane	LT 4.30 -1	ug/g	CRJ006
			1,1,2 Trichloroethane	LT 3.90 -1	ug/g	CRJ006
			1,1-Dichloroethane	LT 1.70 0	ug/g	CRJ006
			1,2-Dichloroethane	LT 1.70 0	ug/g	CRJ006
			1,2-Dichloroethane	LT 5.60 -1	ug/g	CRJ006
			m Xylene	LT 7.40 -1	ug/g	CRJ006
			Aldrin	LT 3.00 -1	ug/g	CRJ008
			Arsenic	LT 2.50 0	ug/g	CRM015
			Atrazine	LT 3.00 -1	ug/g	CRJ008
			Bicycloheptadiene	LT 3.60 -1	ug/g	CRJ006
			Benzene	LT 2.50 1	ug/g	CRJ006
			Carbon Tetrachloride	LT 2.50 -1	ug/g	CRJ006
			Calcium	LT 7.40 -1	ug/g	CRM011
			Methylene Chloride	LT 1.50 0	ug/g	CRJ006
			Chloroform	LT 2.90 -1	ug/g	CRJ006
			Hexachlorocyclopentadiene	LT 6.00 1	ug/g	CRJ008
			Chlorobenzene	LT 1.50 0	ug/g	CRJ006
			Chloroform	LT 2.00 0	ug/g	CRJ008

Note: Results for some parameters may appear in more than one analytical fraction

Flanagan Services, Incorporated
Summary of Analytical Results

Rocky Mountain Arsenal Program
Task #4

08/10/88

Spill Sites

Por ing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0030	17-18	Soil	p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	CRJ008
			p-Chlorophenylmethyl Sulfoxide	LT 3.00 -1	ug/g	CRJ008
			p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	CRJ008
			Chromium	1.23 1	ug/g	CRM011
			Copper	3.95 1	ug/g	CRM011
			Dibromodichloropropane	LT 2.40 0	ug/g	CRJ006
			Dibromochloropropane	LT 3.00 -1	ug/g	CRJ008
			Dichlorodiphenylmethane	LT 6.40 -1	ug/g	CRJ006
			Dichlorodiphenylmethane	LT 1.00 0	ug/g	CRJ008
			Dichlorodiphenylmethane	LT 3.00 0	ug/g	CRJ008
			Dichlorodiphenylmethane	LT 1.00 0	ug/g	CRJ008
			Dichlorodiphenylmethane	LT 4.00 -1	ug/g	CRJ008
			Dichlorodiphenylmethane	LT 3.00 -1	ug/g	CRJ008
			Dichlorodiphenylmethane	LT 2.00 1	ug/g	CRJ006
			Dichlorodiphenylmethane	LT 3.00 -1	ug/g	CRJ008
			Dichlorodiphenylmethane	LT 3.80 -1	ug/g	CRJ006
			Dichlorodiphenylmethane	LT 5.00 2	ug/g	CRJ010
			Dichlorodiphenylmethane	LT 3.00 -1	ug/g	CRJ008
			Dichlorodiphenylmethane	LT 2.50 1	ug/g	CRJ006
			Dichlorodiphenylmethane	LT 7.50 1	ug/g	CRJ006
0031	0-1	Soil	Malathion	LT 2.00 -1	ug/g	CRJ008
			1,4-Dioxane	LT 3.00 -1	ug/g	CRJ008
			Lead	LT 8.40 0	ug/g	CRM011
			Dichlorodiphenylmethane	LT 6.00 -1	ug/g	CRJ008
			Dichlorodiphenylmethane	LT 5.00 -1	ug/g	CRJ008
			Dichlorodiphenylmethane	LT 2.00 -1	ug/g	CRJ008
			Dichlorodiphenylmethane	LT 6.00 -1	ug/g	CRJ008
			Dichlorodiphenylmethane	LT 2.00 -1	ug/g	CRJ008
			Dichlorodiphenylmethane	LT 6.00 -1	ug/g	CRJ008
			Dichlorodiphenylmethane	LT 2.00 -1	ug/g	CRJ008

Note: Results for some parameters may appear to more than one analytical site.

08/06/88

Rocky Mountain Arsenal Program

Baseline Survey Incorporated

Task 24

Summary of Analytical Results

Soil Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0031	0-1	Soil	Arsenic	LT 5.0 +00	ug/g	CEP016
			Atrazine	LT 2.5 -01	ug/g	CEA006
			Cadmium	LT 7.40 -1	ug/g	CF1009
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CEA006
			Chloroacetic Acid	LT 3.55+01	ug/g	DV009
			Chlordane	LT 1.7 +00	ug/g	CEA006
			p-chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CEA006
			p-chlorophenylmethyl Sulfonate	LT 2.5 -01	ug/g	CEA006
			p-chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CEA006
			Chromium	4.70 1	ug/g	CEJ009
			Copper	2.10 1	ug/g	CEJ009
			Dibromochloropropane	LT 2.8 -01	ug/g	CEA006
			Dichloropentadiene	LT 1.1 +00	ug/g	CEA006
			Valonia	LT 3.0 +00	ug/g	CEA006
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CEA006
			Diethane	LT 3.6 -01	ug/g	CEA006
			Dieldrin	4.9 -01	ug/g	CEA006
			Endrin	4.6 -01	ug/g	CEA006
			Mercury	5.26+00	ug/g	CEA006
			Isodrin	LT 2.9 -01	ug/g	CEA006
			Malathion	LT 7.1 -01	ug/g	CEA006
			1,4-Oxathiane	LT 2.5 -01	ug/g	CEA006
			Lead	8.80 1	ug/g	CEJ009
			1,1,1,1-tetrachloroethane	LT 5.7 -01	ug/g	CEA006
			1,1,1,2-tetrachloroethane	LT 4.7 -01	ug/g	CEA006
0032	4-5	Soil	Parathion	LT 8.5 01	ug/g	CEA006
			2,4-Dichlorophenyl Vinyl Ether	LT 6.1 01	ug/g	CEA006
			Diethyl Phosphates	LT 4.20+00	ug/g	DV009
			Triethyl Phosphate	1.40 2	ug/g	CEJ009
			1,1,1-Trichloroethane	LT 3. 01	ug/g	DV002
			1,1,2-Trichloroethane	LT 3. 01	ug/g	DV002
			1,1,2,2-Tetrachloroethane	LT 2. 01	ug/g	DV002

Notes: Results for some parameters may differ from those reported in the original location.

08/06/88

Rocky Mountain Arsenal Program

Environmental Monitoring Incorporated

Task 24

Summary of Analytical Results

Task 24

Summary of Analytical Results

Task 24

Summary of Analytical Results

Running Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0011	4.5	Soil	1,2-Dichloroethane	LT 3. -01	ug/g	CDY002
			1,2-Dichloroethane	LT 3. -01	ug/g	CDY002
			m-Xylene	LT 2. -01	ug/g	CDY002
			Aldrin	LT 2.5 -01	ug/g	CEA007
			Arsenic	LT 5.0 +00	ug/g	CDY017
			Atrazine	LT 2.5 -01	ug/g	CEA007
			Bicycloheptadiene	LT 3. -01	ug/g	CDY002
			Benzene	LT 3. -01	ug/g	CDY002
			Carbon Tetrachloride	LT 3. -01	ug/g	CDY002
			Cadmium	LT 7.40 -1	ug/g	CEJ010
			Methylene Chloride	LT 2. -01	ug/g	CDY002
			Chloroform	LT 3. -01	ug/g	CDY002
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CEA007
			Chloroacetic Acid	LT 3.55+01	ug/g	CDY010
			Chlorobenzene	LT 3. -01	ug/g	CDY002
			Chloroethane	LT 1.7 +00	ug/g	CEA007
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CEA007
			p-Chlorophenylmethyl Sulfonate	LT 2.5 -01	ug/g	CEA007
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CEA007
			Chromium	LT 6.50 0	ug/g	CEJ010
			Copper	LT 3.00 1	ug/g	CEJ010
			Dibromochloropropane	LT 2.8 -01	ug/g	CEA007
			Dibromodichloropropane	LT 4. -01	ug/g	CDY002
			Dibromodipentadiene	LT 1.1 +00	ug/g	CEA007
			Dibromodipentadiene	LT 3. -01	ug/g	CDY002
			Varona	LT 3.0 +00	ug/g	CEA007
			Dibromodipentadiene Phosphonate	LT 1.1 +00	ug/g	CEA007
			Dibromodipentadiene	LT 3.6 -01	ug/g	CEA007
			Dibromodipentadiene	LT 3.5 01	ug/g	CEA007
			Dibromodipentadiene	LT 8. 01	ug/g	CDY002
			Dibromodipentadiene	LT 4.6 01	ug/g	CEA007
			Dibromodipentadiene	LT 3. 01	ug/g	CDY002
			Mercury	LT 5.00 0.2	ug/g	CDY017
			Lead	LT 2.9 -01	ug/g	CEA007

Note: Results for some parameters may appear to be more than one analytical value.

Task #4

Summary of Analytical Results

Soil Sites

Run Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0011	4.5	Soil	Benzene	LT 3.01	ug/g	CDY002
			Methyl Isobutyl Ketone	LT 3.01	ug/g	CDY002
			Malathion	LT 7.11	ug/g	CEA007
			1,4-Dioxane	LT 2.51	ug/g	CEA007
			Lead	LT 1.80	ug/g	CEJ010
			Dichlorodiphenylethane	LT 5.21	ug/g	CEA007
			Dichlorodiphenyltrichloroethane	LT 4.71	ug/g	CEA007
			Parathion	LT 8.51	ug/g	CEA007
			2-Chloro-1(2,4-dichlorophenyl)vinyl diethyl phosphates	LT 6.11	ug/g	CEA007
			Tetrachloroethene	LT 3.01	ug/g	CDY002
0012	0.1	Soil	Diiodoglycol	LT 4.20	ug/g	CDV010
			Trichloroethene	LT 3.01	ug/g	CDY002
			Ortho & Para-Xylene	LT 3.01	ug/g	CDY002
			Zinc	LT 5.60	ug/g	CEJ010
			Aldrin	LT 2.51	ug/g	CEA002
			Arsenic	LT 5.01	ug/g	CDP013
			Atrazine	LT 2.51	ug/g	CEA002
			Hexachlorocyclopentadiene	LT 5.21	ug/g	CEA002
			Chloroacetic Acid	LT 3.55	ug/g	CDV015
			Chloroform	LT 1.21	ug/g	CEA002
			p-Chlorophenylmethyl Sulfide	LT 4.11	ug/g	CEA002
			p-Chlorophenylmethyl Sulfide	LT 2.51	ug/g	CEA002
			p-Chlorophenylmethyl Sulfone	LT 2.51	ug/g	CEA002
			Chromium	LT 6.50	ug/g	CEJ005
			Copper	LT 1.50	ug/g	CEJ005
			Isobutylchloroacetate	LT 2.81	ug/g	CEA002
			Isobutylchloroacetate	LT 1.11	ug/g	CEA002
			Valerol	LT 1.01	ug/g	CEA002
			Isobutylmethyl Phosphonate	LT 1.11	ug/g	CEA002
			Isobutylmethyl Phosphonate	LT 2.61	ug/g	CEA002
			Isobutylmethyl Phosphonate	LT 2.61	ug/g	CEA002

Notes: Results for some parameters may indicate that more than one analytical method was used.

08/04/88

Rocky Mountain Arsenal Program

Spill Sites

Fluoro Solvents Incorporated

Lab #

Summary of Analytical Results

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0052	0.1	Soil	Mercury	9.92-02	ug/g	CEAD012
			Isodrin	LT 2.9 -01	ug/g	CEAD002
			Malathion	LT 2.1 -01	ug/g	CEAD002
			1,4-Dioxathiane	LT 2.5 -01	ug/g	CEAD002
			Lead	1.60 2	ug/g	CEJ0005
0052	4.6	Soil	Dichlorodiphenylethane	LT 5.7 -01	ug/g	CEAD002
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CEAD002
			Parathion	LT 8.5 01	ug/g	CEAD002
			2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.1 -01	ug/g	CEAD002
			Thiodiethylol	LT 4.20+00	ug/g	CDV015
			Zinc	9.00 1	ug/g	CEJ0005
			1,1,1-Trichloroethane	LT 3. -01	ug/g	CDY0006
			1,1,2-Trichloroethane	LT 3. -01	ug/g	CDY0006
			1,1-Dichloroethane	LT 9. -01	ug/g	CDY0006
			1,2-Dichloroethane	LT 3. -01	ug/g	CDY0006
			1,2-Dichloroethane	LT 3. -01	ug/g	CDY0006
			m-Xylene	LT 7. -01	ug/g	CDY0006
			Aldrin	LT 2.5 -01	ug/g	CEAD003
			Arsenic	LT 5.0 +00	ug/g	CEAD003
			Atrazine	LT 2.5 -01	ug/g	CEAD003
0052	4.6	Soil	Bicycloheptadiene	LT 3. -01	ug/g	CDY0006
			Benzene	LT 3. -01	ug/g	CDY0006
			Carbon Tetrachloride	LT 3. -01	ug/g	CDY0006
			Cardium	LT 2.40 -1	ug/g	CEJ0006
			Methylene Chloride	LT 2. -01	ug/g	CDY0006
			Chloroform	LT 3. -01	ug/g	CDY0006
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CEAD003
			Chloroacetic Acid	LT 3.55+01	ug/g	CDY0016
			Chlorobenzene	LT 3. -01	ug/g	CDY0006
			Chloroethane	LT 1.7 +00	ug/g	CEAD003
			p-Chlorophenylmethyl sulfide	LT 9.1 01	ug/g	CEAD003

Note: Results for some parameters may appear to more than one analytical location.

Summary of Analytical Results

Runing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0032	4-5	Soil	p-Chlorophenylmethyl Sulfonide	LT 2.5 -01	ug/g	CFA003
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CEA003
			Chromium	LT 6.50 0	ug/g	CEJ006
			Copper	LT 2.80 1	ug/g	CEJ006
			Dibromochloropropane	LT 2.8 -01	ug/g	CEA003
			Dibromochloropropane	LT 4. -01	ug/g	CDY006
			Dicyclopentadiene	LT 1.1 +00	ug/g	CEA003
			Dicyclopentadiene	LT 3. -01	ug/g	CDY006
			Vapona	LT 3.0 +00	ug/g	CEA003
			Disinopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CEA003
			Dithiane	LT 3.6 -01	ug/g	CEA003
			Diethrin	LT 2.5 -01	ug/g	CEA003
			Dimethyldisulfide	LT 8. -01	ug/g	CDY006
			Endrin	LT 4.6 -01	ug/g	CEA003
			Ethylbenzene	LT 3. -01	ug/g	CDY006
			Meprobay	LT 5.00 -02	ug/g	CDU013
			Isodrin	LT 2.9 01	ug/g	CEA003
			Toluene	LT 3. -01	ug/g	CDY006
			Methylisobutyl Ketone	LT 3. -01	ug/g	CDY006
			Malathion	LT 7.1 -01	ug/g	CEA003
0032	9-10	Soil	1,4-Oxathiane	LT 2.5 -01	ug/g	CEA003
			Lead	LT 8.40 0	ug/g	CEJ006
			1,1,1,1-Tetrachloro-2,2,2,2-tetrafluoroethane	LT 5.7 -01	ug/g	CEA003
			1,1,1,1-Tetrachloro-2,2,2,2-tetrafluoroethane	LT 4.7 -01	ug/g	CEA003
			Parathion	LT 8.5 -01	ug/g	CEA003
			2,2,4,4-Tetrachloro-3,3,5-trimethylpentane	LT 6.1 -01	ug/g	CEA003
			Vinylidene Chloride	LT 3. -01	ug/g	CDY006
			Tetrahydrofuran	LT 4.20 +00	ug/g	CDY016
			Triethylglycol	LT 3. 01	ug/g	CDY006
			Trichloroethylene	LT 3. -01	ug/g	CDY006
			Ortho- & Para-Xylene	8.40 1	ug/g	CEJ006
			Zinc	LT 3. 01	ug/g	CDY007
			1,1,1-Trichloroethane			

Note: Results for some parameters may appear in more than one analytical fraction

04/06/88

Rocky Mountain Arsenal Program

Phase Services Incorporated

Task 24

Summary of Analytical Results

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0012	9-10	Soil	1,1,2-Trichloroethane	LT 3. -01	ug/g	CDY007
			1,1-Dichloroethane	LT 9. -01	ug/g	CDY007
			1,2-Dichloroethane	LT 3. -01	ug/g	CDY007
			1,2-Dichloroethane	LT 3. -01	ug/g	CDY007
			m Xylene	LT 7. -01	ug/g	CDY007
			Aldrin	LT 2.5 -01	ug/g	CEA004
			Arsenic	LT 5.0 +00	ug/g	CDP015
			Atrazine	LT 2.5 -01	ug/g	CEA004
			Bicycloheptadiene	LT 3. -01	ug/g	CDY007
			Benzene	LT 3. -01	ug/g	CDY007
			Carbon Tetrachloride	LT 3. -01	ug/g	CDY007
			Cadmium	LT 7.40 -1	ug/g	CEJ007
			Methylene Chloride	LT 7. -01	ug/g	CDY007
			Chloroform	LT 3. -01	ug/g	CDY007
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CEA004
			Chloroacetic Acid	LT 3.55+01	ug/g	CDY017
			Chlorobenzene	LT 3. -01	ug/g	CDY007
			Chloroethane	LT 1.7 +00	ug/g	CEA004
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CEA004
			p-Chlorophenylmethyl Sulfonide	LT 2.5 -01	ug/g	CEA004
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CEA004
			Chromium	1.80 1	ug/g	CEJ007
			Copper	5.20 1	ug/g	CEJ007
			Dibromochloropropane	LT 2.8 -01	ug/g	CEA004
			Dibromochloropropane	LT 4. -01	ug/g	CDY007
			Dicyclopentadiene	LT 1.1 +00	ug/g	CEA004
			Dicyclopentadiene	LT 3. -01	ug/g	CDY007
			Vapona	LT 3.0 +00	ug/g	CEA004
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CEA004
			Dithiane	LT 3.6 -01	ug/g	CEA004
			Dieldrin	LT 2.5 -01	ug/g	CEA004
			Dimethylhydrosulfide	LT 8. -01	ug/g	CDY007
			Endrin	LT 4.6 -01	ug/g	CEA004
			Ethylbenzene	LT 3. -01	ug/g	CDY007

Note: Results for some parameters may appear in more than one analytical fraction.

Task 24

Summary of Analytical Results

Spill Sites

Analysis Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0032	9-10	Soil	Mercury	LT 5.00 -02	ug/g	CDU014
			Isodrin	LT 2.9 -01	ug/g	CEA004
			Toluene	LT 3. -01	ug/g	CDY007
			Methylisobutyl ketone	LT 3. -01	ug/g	CDY007
			Malathion	LT 7.1 -01	ug/g	CEA004
			1,4-Oxathiane	LT 2.5 -01	ug/g	CEA004
			Lead	LT 8.40 0	ug/g	CEJ007
			bichlorodiphenylethane	LT 5.7 -01	ug/g	CEA004
			bichlorodiphenyltrichloro-	LT 4.7 -01	ug/g	CEA004
			ethane			
0032	14-15	Soil	Parathion	LT 8.5 -01	ug/g	CEA004
			2 Chloro-1(2,4-Dichlorophenyl)	LT 6.1 -01	ug/g	CEA004
			Vinylidethyl Phosphates			
			Tetrachloroethene	LT 3. -01	ug/g	CDY007
			Triodiglycol	LT 4.20+00	ug/g	CDY017
			Trichloroethene	LT 3. -01	ug/g	CDY007
			Ortho & Para-Xylene	LT 3. -01	ug/g	CDY007
			Zinc	1.10 2	ug/g	CEJ007
			1,1,1-Trichloroethane	LT 3. -01	ug/g	CDY008
			1,1,2 Trichloroethane	LT 3. -01	ug/g	CDY008
0032	14-15	Soil	1,1-Dichloroethane	LT 9. -01	ug/g	CDY008
			1,2-Dichloroethane	LT 3. -01	ug/g	CDY008
			m-Xylene	LT 3. -01	ug/g	CDY008
			Aldrin	LT 2.5 -01	ug/g	CEA005
			Arsenic	LT 2.50+00	ug/g	CEC005
			Atrazine	LT 2.5 -01	ug/g	CEA005
			Bicyclopentadiene	LT 3. -01	ug/g	CDY008
			Benzene	LT 3. -01	ug/g	CDY008
			Carbon Tetrachloride	LT 3. -01	ug/g	CDY008
			Calcium	LT 2.40 1	ug/g	CEJ008
0032	14-15	Soil	Methylene Chloride	LT 7. -01	ug/g	CDY008
			Chloroform	LT 3. 01	ug/g	CDY008

Note: Results for some parameters may appear in more than one analytical fraction.

10/10/88

Rocky Mountain Arsenal Program

Flavor and Vision Incorporated

East 44

Summary of Analytical Results

44-11 Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0032	14-15	Soil	Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CEA005
			Chloroacetic Acid	LT 3.55 +01	ug/g	CDV018
			Chlorobenzene	LT 3. -01	ug/g	CDY008
			Chloroethane	LT 1.7 +00	ug/g	CEA005
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CEA005
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CEA005
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CEA005
			Chromium	LT 6.50 0	ug/g	CEJ008
			Copper	LT 1.50 2	ug/g	CEJ008
			Dibromochloropropane	LT 2.8 -01	ug/g	CEA005
			Dibromochloropropane	LT 4. -01	ug/g	CDY008
			Dicyclopentadiene	LT 1.1 +00	ug/g	CEA005
			Dicyclopentadiene	LT 2. -01	ug/g	CDY008
			Vapona	LT 3.0 +00	ug/g	CEA005
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CEA005
			Dithiane	LT 3.6 -01	ug/g	CEA005
			Dieldrin	LT 2.5 -01	ug/g	CEA005
			Dimethyldisulfide	LT 8. -01	ug/g	CDY008
			Endrin	LT 4.6 -01	ug/g	CEA005
			Ethylbenzene	LT 3. -01	ug/g	CDY008
			Mercury	LT 5.00 -02	ug/g	CDU015
			Isodrin	LT 2.9 -01	ug/g	CEA005
			Toluene	LT 3. -01	ug/g	CDY008
			Methylisobutyl ketone	LT 3. -01	ug/g	CDY008
			Malathion	LT 7.1 -01	ug/g	CEA005
			1,4-Oxathiane	LT 2.5 -01	ug/g	CEA005
			Lead	LT 8.40 0	ug/g	CFJ008
			Dichlorodiphenylmethane	LT 5.7 -01	ug/g	CEA005
			Dichlorodiphenylmethane	LT 4.7 -01	ug/g	CEA005
			Ethane	LT 8.5 -01	ug/g	CEA005
			Parathion	LT 6.1 01	ug/g	CEA005
			2-Chloro-1,2,4-trichloroethoxy	LT 3. 01	ug/g	CDY008
			Vinylmethyl Phosphates			
			Tetrahydroethene			

Note: Results for some parameters may appear in more than one analytical location

Summary of Analytical Results

Task 24

Spill Sites

For Use Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0042	14-15	Soil	Thiodiglycol	LT 4.20+00	ug/g	CDV018
			Trichloroethene	LT 3. -01	ug/g	CDY008
			Ortho- & Para-Xylene	LT 3. -01	ug/g	CDY008
			Zinc	LT 7.00 1	ug/g	CEJ008
0055	2.1-2.6	Soil	Aldrin	LT 2.5 -01	ug/g	CDE009
			Arsenic	LT 2.89+02	ug/g	CDF024
			Atrazine	LT 2.5 -01	ug/g	CDE009
			Cadmium	LT 3.51+00	ug/g	CDE006
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CDE009
			Chloroacetic Acid	LT 3.55+01	ug/g	CDR006
			Chlordane	LT 1.7 +00	ug/g	CDE009
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CDE009
			p-Chlorophenylmethyl Sulfonide	LT 2.5 -01	ug/g	CDE009
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CDE009
			Chromium	3.39+01	ug/g	CDN006
			Copper	2.13+01	ug/g	CDN006
			Dibromochloropropane	LT 2.8 -01	ug/g	CDE004
			Dicyclopentadiene	LT 1.1 +00	ug/g	CUE009
			Vapona	LT 3.0 +00	ug/g	CDE009
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CDE009
			Dithiane	LT 3.6 -01	ug/g	CDE009
			Dieldrin	LT 2.5 -01	ug/g	CDE009
			Endrin	LT 4.6 -01	ug/g	CDE009
			Mercury	7.94-01	ug/g	CDH012
			Isodrin	LT 2.9 -01	ug/g	CDE009
			Malathion	LT 7.1 -01	ug/g	CDE009
			1,4-oxathiane	LT 2.5 -01	ug/g	CDE009
			Lead	LT 8.38+00	ug/g	CDN006
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CDE009
			Dichlorodiphenyltrichloroethane	LT 4.7 01	ug/g	CDE009
			Parathion	LT 8.5 01	ug/g	CDE009
			2-Chloro-1,1,4,4-tetrachlorobut-1-ene	LT 6.1 01	ug/g	CDE009
			Vinylidene Chloride			

Note: Results for some parameters may appear in more than one analytical fraction.

02/10/88

Rusty Mountain Arsenal Program

Fluorocarbon Incorporated

Task 14

Summary of Analytical Results

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
UD32	14-15	Soil	Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CEAD05
			Chloroacetic Acid	LT 3.55+01	ug/g	CDVD18
			Chlorobenzene	LT 3. -01	ug/g	COY008
			Chloroethane	LT 1.7 +00	ug/g	CEAD05
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CEAD05
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CEAD05
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CEAD05
			Chromium	LT 6.50 0	ug/g	CEJ008
			Copper	LT 1.50 2	ug/g	CEJ008
			Dibromochloropropane	LT 2.8 -01	ug/g	CEAD05
			Dibromochloropropane	LT 4. -01	ug/g	COY008
			Dicyclopentadiene	LT 1.1 +00	ug/g	CEAD05
			Dicyclopentadiene	LT 3. -01	ug/g	COY008
			Vapona	LT 3.0 +00	ug/g	CEAD05
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CEAD05
			Dithiane	LT 3.6 -01	ug/g	CEAD05
			Diethanol	LT 2.5 -01	ug/g	CEAD05
			Dimethyldisulfide	LT 8. -01	ug/g	COY008
			Endrin	LT 4.6 -01	ug/g	CEAD05
			Ethylbenzene	LT 3. -01	ug/g	COY008
			Mercury	LT 5.00 02	ug/g	CDU015
			Isodrin	LT 2.9 -01	ug/g	CEAD05
			Toluene	LT 3. -01	ug/g	COY008
			Methyl isobutyl ketone	LT 3. -01	ug/g	COY008
			Malathion	LT 7.1 -01	ug/g	CEAD05
			1,4 Oxathiane	LT 2.5 -01	ug/g	CEAD05
			Lead	LT 8.40 0	ug/g	CEJ008
			1,1,1,2,2,2-Hexachloroethane	LT 5.7 -01	ug/g	CEAD05
			1,1,1,2,2,2-Hexachloroethane	LT 4.7 -01	ug/g	CEAD05
			Parathion	LT 8.5 -01	ug/g	CEAD05
			2-Chloro-1,1,2,2,4,4-hexachlorocyclopentadiene	LT 6.1 -01	ug/g	CEAD05
			1,1,1,2,2,2-Hexachloroethane	LT 5. -01	ug/g	COY008

Note: Results for some parameters may appear in more than one analytical fraction

Rocky Mountain Arsenal Program

Fluorocarbon Incorporated

Summary of Analytical Results

Tank 24

Spill Sites

Sample Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0002	14-15	Soil	Diiodoglycol Trichloroethene Ortho- & Para-Xylene Zinc	LT 4.20+00 LT 3.1 -01 LT 3.1 -01 7.00 1	ug/g ug/g ug/g ug/g	CDV018 CDY008 CDY008 CEJ008
0003	2.1-2.6	Soil	Aldrin Arsenic Atrazine Cadmium Hexachlorocyclopentadiene	LT 2.5 -01 2.89+02 LT 2.5 -01 3.51+00 LT 5.7 -01	ug/g ug/g ug/g ug/g ug/g	CDE009 CUF024 CDE009 CDG006 CDE009
			Chloroacetic Acid Chlordane p-Chlorophenylmethyl Sulfide p-Chlorophenylmethyl Sulfoxide p-Chlorophenylmethyl Sulfone	LT 3.55+01 LT 1.7 +00 LT 9.1 -01 LT 2.5 -01 LT 2.5 -01	ug/g ug/g ug/g ug/g ug/g	CDR006 CDE009 CDE009 CDE009 CDE009
			Chromium Copper Dibromochloropropane Dicyclopentadiene Vapors	3.39+01 2.13+01 LT 2.8 -01 LT 1.1 +00 LT 3.0 +00	ug/g ug/g ug/g ug/g ug/g	CDN006 CDG006 CDE009 CDE009 CDE009
			Diisopropylmethyl Phosphonate Dithiane Dieldrin Endrin Mercury	LT 1.1 +00 LT 3.6 -01 LT 2.5 -01 LT 4.6 -01 7.94 -01	ug/g ug/g ug/g ug/g ug/g	CDE009 CDE009 CDE009 CDE009 CDH012
			Endrin Malathion 1,4-Dioxathiane Lead Bischlorodiphenylethane	LT 2.9 -01 LT 7.1 01 LT 2.5 -01 LT 8.38+00 LT 5.7 -01	ug/g ug/g ug/g ug/g ug/g	CDE009 CDE009 CDE009 CDG006 CDE009
			Bischlorodiphenyltrichloroethane Permethrin 2-Chloro-1,1,1-trichloroethane Vinylmethyl Chlorides	LT 4.7 -01 LT 8.5 01 LT 6.1 01	ug/g ug/g ug/g	CDE009 CDE009 CDE009

Notes: Results for some parameters may appear in more than one analytical fraction.

08/10/88

Reddy Mountain Arsenal Program

Fluoride Survey - Investigated

Task 24 Drill Sites

Summary of Analytical Results

Forcing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0033	2.1-2.6	Soil	Inodiglycol Zinc	LT 4.20+00 8.0+01	ug/g ug/g	CFR006 CD0006
0034	0.2-1.2	Soil	1,1,1-Trichloroethane 1,1,2-Trichloroethane 1,1-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane	LT 4.3 -01 LT 3.9 -01 LT 1.7 +00 LT 1.7 +00 LT 5.6 -01	ug/g ug/g ug/g ug/g ug/g	CFE002 CFE002 CFE002 CFE002 CFE002
			m-Xylene Atrazine Arsenic Atrazine Rinyltoluene	LT 7.4 -01 LT 6.1 +01 LT 7.32+00 LT 6.1 +01 LT 3.6 -01	ug/g ug/g ug/g ug/g ug/g	CFE002 CFR007 CFR007 CFR007 CFE002
			Benzene Cubane, Tetrahydro Cadmium Methylene Chloride Chloroform	LT 2.5 -01 LT 2.5 -01 LT 7.36-01 LT 1.5 +00 LT 2.9 -01	ug/g ug/g ug/g ug/g ug/g	CFE002 CFE002 CFR005 CFE002 CFE002
			Hexachlorocyclopentadiene Chloroacetic Acid Chlorobenzene Chloroform p-Chlorophenylmethyl Sulfide	LT 6.1 +01 LT 3.55+01 LT 1.5 +00 LT 1.5 +03 LT 8.1 +02	ug/g ug/g ug/g ug/g ug/g	CFR007 CFR009 CFE002 CFR007 CFR007
			p-Chlorophenylmethyl Sulfide p-Chlorophenylmethyl Sulfone Chromium Copper Dibromodichloroethane	LT 1.1 +03 LT 1.1 +02 LT 2.20+01 LT 2.24+01 LT 6.1 +01	ug/g ug/g ug/g ug/g ug/g	CFR007 CFR007 CFR005 CFR005 CFR007
			Dibromodichloroethane Dibromodichloroethane Dibromodichloroethane Vanadium Diethylmethyl Phosphonate Gallium	LT 2.9 +00 LT 6.2 +01 LT 3.1 +01 LT 6.1 +03 LT 1.1 +03 LT 1.1 +03	ug/g ug/g ug/g ug/g ug/g ug/g	CFE002 CFE002 CFR007 CFR007 CFR007 CFR007

Notes: Results for some test methods may differ from those reported in the original report.

Summary of Analytical Results

Boxing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0074	0.2-1.2	Soil	Dieldrin	LT 6.401	ug/g	CFK007
			Dimethylsulfide	LT 2.0 +01	ug/g	CFE002
			Endrin	LT 6.4 +01	ug/g	CFK007
			Ethylbenzene	LT 5.8 -01	ug/g	CFE002
			Mercury	1.50+00	ug/g	CFR009
			Isodrin	LT 6.4 +01	ug/g	CFI007
			Toluene	LT 2.5 -01	ug/g	CFE002
			Methylisobutyl ketone	LT 7.3 -01	ug/g	CFE002
			Malathion	LT 6.4 +01	ug/g	CFK007
			1,4-oxathiane	LT 1.4 +03	ug/g	CFK007
			Lead	5.85+01	ug/g	CFP005
			bichlorodiphenylethane	LT 6.4 +01	ug/g	CFK007
			bichlorodiphenyltrichloroethane	LT 1.4 +02	ug/g	CFK007
			Parathion	LT 8.4 +01	ug/g	CFK007
0074	2-3	Soil	2 Chloro 1(2,4-dichlorophenyl) Vinyl diethyl Phosphates	LT 6.4 +01	ug/g	CFK007
			Tetrachloroethene	LT 2.5 -01	ug/g	CFE002
			Triiodoglycol	LT 4.20+00	ug/g	CFQ009
			Trichloroethene	LT 5.4 -01	ug/g	CFE002
			Ortho & Para Xylene	LT 4.9 +00	ug/g	CFE002
			Zinc	2.64+02	ug/g	CFP005
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CFE003
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CFE003
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CFE003
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CFE003
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CFE003
			m-Xylene	LT 2.4 -01	ug/g	CFE003
			Alkyls	5.4 +00	ug/g	CFE003
			Arsenic	4.8 +00	ug/g	CFE003
			Allylamine	LT 3.9 -01	ug/g	CFE003
			Bis(2-chloroethyl)amine	LT 3.4 -01	ug/g	CFE003
			Benzene	LT 2.5 -01	ug/g	CFE003

Note: Results for some parameters may appear to be zero due to detection limit.

Summary of Analytical Results

Table 26

Soil Sites

Rocking Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0036	2.5	Soil	Carbon Tetrachloride	LT 2.5	01	CF003
			Cadmium	LT 7.36	-01	CF006
			Methylene Chloride	LT 1.5	+00	CF003
			Chloroform	LT 2.9	01	CF003
			Hexachlorocyclopentadiene	LT 3.	-01	CF008
			Chloroacetic Acid	LT 3.55	+01	CF010
			Chlorobenzene	LT 1.5	+00	CF003
			Chloroform	LT 6.	-01	CF008
			p-Chlorophenylmethyl Sulfide	LT 6.	+01	CF008
			p-Chlorophenylmethyl Sulfoxide	LT 7.	+00	CF008
			p-Chlorophenylmethyl Sulfone	LT 6.	01	CF008
			Chloromethane	LT 0.07	+01	CF006
			Diethylchloroacetate	LT 1.18	+01	CF006
			Diethylchloroacetate	LT 2.4	+00	CF003
			Diethylchloroacetate	LT 3.	-01	CF008
			Diethylchloroacetate	LT 6.6	+00	CF003
			Diethylchloroacetate	LT 3.	+00	CF008
			Diethylchloroacetate	LT 3.	-01	CF008
			Diethylchloroacetate	LT 3.	01	CF008
			Diethylchloroacetate	LT 7.	+00	CF008
			Diethylchloroacetate	LT 2.	+00	CF008
			Diethylchloroacetate	LT 2.0	+01	CF003
			Diethylchloroacetate	LT 3.	01	CF008
			Diethylchloroacetate	LT 3.8	-01	CF003
			Diethylchloroacetate	LT 1.18	+00	CF010
			Diethylchloroacetate	LT 2.	+00	CF008
			Diethylchloroacetate	LT 2.5	01	CF003
			Diethylchloroacetate	LT 7.5	01	CF003
			Diethylchloroacetate	LT 3.	-01	CF008
			Diethylchloroacetate	LT 6.	+00	CF008
			Diethylchloroacetate	LT 1.20	+01	CF006
			Diethylchloroacetate	LT 3.	01	CF008
			Diethylchloroacetate	LT 6.	01	CF008
			Diethylchloroacetate	LT 6.	01	CF008
			Diethylchloroacetate	LT 6.	01	CF008
			Diethylchloroacetate	LT 6.	01	CF008
			Diethylchloroacetate	LT 6.	01	CF008
			Diethylchloroacetate	LT 6.	01	CF008

Notes: Results for sample parameters may vary due to differences in analytical methods.

Summary of Analytical Results

Barrel Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0034	2-3	Soil	Parathion	11 4. -01	ug/g	CFR008
			2-Chloro-1,2,4-dichlorophenyl	11 3. -01	ug/g	CFR008
			Vinylidene Phosphates			
			Tetrachloroethene	11 2.5 -01	ug/g	CFE003
			Thiodiglycol	11 4.20+00	ug/g	CFE010
0034	9-10	Soil	Trichloroethene	11 5.4 -01	ug/g	CFE003
			ortho & Para Xylene	11 4.9 +00	ug/g	CFE003
			Zinc	6.09+01	ug/g	CFP006
			1,1,1-Trichloroethane	11 4.3 -01	ug/g	CFE004
			1,1,2-Trichloroethane	11 3.9 -01	ug/g	CFE004
			1,1-Dichloroethane	11 1.7 +00	ug/g	CFE004
			1,2-Dichloroethane	11 1.7 +00	ug/g	CFE004
			1,2-Dichloroethane	11 5.6 -01	ug/g	CFE004
			m Xylene	11 2.4 -01	ug/g	CFE004
			Aldrin	8. +03	ug/g	CFR009
			Arsenic	11 2.50+00	ug/g	CFE007
			Atrazine	11 1. +0.2	ug/g	CFE009
			River Heptachlor	11 3.6 -01	ug/g	CFE004
			Benzene	11 2.5 -01	ug/g	CFE004
			Carbon Tetrachloride	11 2.5 -01	ug/g	CFE004
			Cadmium	11 7.9 -01	ug/g	CFE007
			Methylcyclohexane	11 6.0 +00	ug/g	CFE004
			Chloroform	1.4 +01	ug/g	CFE004
			Heptachlor Epoxide			
			Chloroacetic Acid	11 2. +03	ug/g	CFR009
			Chlorobenzene	11 1.5 +00	ug/g	CFE004
			Chloroethane	11 2. +02	ug/g	CFR009
			p-Chloroethoxy (methyl) Sulfide	11 2. +03	ug/g	CFR009
			p-Chloroethoxy (methyl) Sulfonate	11 2. +02	ug/g	CFR009
			p-Chloroethoxy (methyl) Sulfonate	11 2. +02	ug/g	CFR009
			Cadmium	11 2. +01	ug/g	CFR009
			Copper	5.48+01	ug/g	CFR009
			Trichloroethylene	11 1. -01	ug/g	CFR009

Note: Results for some parameters are shown in parentheses in the original report.

Portion Number	Portion (1 of 1)	Sample Type	Analytical Parameters	Results	Units	Sample Number
00124	9.10	soil	Chloromethanol/acetone	1.1	2.4 +00	CFE004
			Isopropylbenzene	1.1	2.4 +02	CFK009
			Isopropylbenzene	1.1	6.4 -01	CFE004
			Isopropylbenzene	1.1	1.4 +02	CFK009
			Isopropylbenzene	1.1	1.4 +02	CFK009
			Isopropylbenzene	1.1	3.4 +03	CFK009
			Isopropylbenzene	1.1	1.4 +02	CFK009
			Isopropylbenzene	1.1	2.0 +01	CFE004
			Isopropylbenzene	1.1	1.4 +02	CFK009
			Isopropylbenzene	1.1	5.8 -01	CFE004
			Isopropylbenzene	1.1	5.00 -02	CFR011
			Isopropylbenzene	1.1	1.4 +02	CFK009
			Isopropylbenzene	1.1	5.8 +01	CFE004
			Isopropylbenzene	1.1	7.3 -01	CFE004
00125	10.11	soil	Isopropylbenzene	1.1	1.4 +02	CFK009
			Isopropylbenzene	1.1	2.4 +03	CFK009
			Isopropylbenzene	1.1	8.18 +00	CFP007
			Isopropylbenzene	1.1	1.4 +02	CFK009
			Isopropylbenzene	1.1	2.4 +02	CFK009
			Isopropylbenzene	1.1	2.4 +02	CFK009
			Isopropylbenzene	1.1	2.4 +02	CFK009
			Isopropylbenzene	1.1	2.4 +02	CFK009
			Isopropylbenzene	1.1	2.4 +02	CFK009
			Isopropylbenzene	1.1	2.4 +02	CFK009
			Isopropylbenzene	1.1	2.4 +02	CFK009
			Isopropylbenzene	1.1	2.4 +02	CFK009
			Isopropylbenzene	1.1	2.4 +02	CFK009
			Isopropylbenzene	1.1	2.4 +02	CFK009

Summary of Analytical Results

Table 2a

Spill Sites

Runing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0004	10-11	Soil	m-Xylene	LT 7.4 -01	ug/g	CFE005
			Alcadin	LT 8.1 +00	ug/g	CFK010
			Arsenic	LT 2.50+00	ug/g	CFE008
			Altrazine	LT 3.1 +00	ug/g	CFK010
			Bicycloheptadiene	LT 3.6 -01	ug/g	CFE005
			Benzene	LT 2.5 -01	ug/g	CFE005
			Carbon tetrachloride	LT 2.5 -01	ug/g	CFE005
			Cadmium	LT 7.36 01	ug/g	CFE008
			Methylene Chloride	LT 1.2 +01	ug/g	CFE005
			Chloroform	LT 1.4 +00	ug/g	CFE005
			Hexachlorocyclopentadiene	LT 3.1 +00	ug/g	CFK010
			Chloroacetic Acid	LT 3.55+01	ug/g	CFE012
			Chlorobenzene	LT 1.5 +00	ug/g	CFE005
			Chloroethane	LT 6.1 +00	ug/g	CFK010
			p-Chlorophenylmethyl Sulfide	LT 4.1 +01	ug/g	CFK010
			p-Chlorophenylmethyl Sulfoxide	LT 7.1 +01	ug/g	CFK010
			p-Chlorophenylmethyl Sulfone	LT 6.1 +00	ug/g	CFK010
			Chromium	LT 2.03+01	ug/g	CFE008
			Copper	LT 3.02+01	ug/g	CFE008
			Dibromochloropropane	LT 2.4 +00	ug/g	CFE005
			Dibromochloropropane	LT 3.1 +00	ug/g	CFK010
			Dicyclopentadiene	LT 6.4 -01	ug/g	CFE005
			Dicyclopentadiene	LT 4.1 +00	ug/g	CFK010
			Varona	LT 3.1 +00	ug/g	CFK010
			Diisopropylmethyl Phosphonate	LT 3.1 +00	ug/g	CFK010
			Diethane	LT 7.1 +01	ug/g	CFK010
			Diethylamine	LT 3.1 +00	ug/g	CFK010
			Dimethyldisulfide	LT 2.0 +01	ug/g	CFE005
			Diethylamine	LT 3.1 +00	ug/g	CFK010
			Ethylbenzene	LT 3.8 -01	ug/g	CFE005
			Hexachlorocyclopentadiene	LT 3.1 +00	ug/g	CFE005
			Isobutylamine	LT 3.1 +00	ug/g	CFE005
			Toluene	LT 2.1 +00	ug/g	CFE005
			Methylcyclopentadiene	LT 2.3 01	ug/g	CFE005

Note: Results for some parameters may appear in more than one analytical fraction.

08/16/88

Rocky Mountain Arsenal Program

Flammable Liquids Incorporated

Spill Sites

Task 24

Summary of Analytical Results

Boxing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0074	10-11	Soil	Malathion	LT 5. +00	ug/g	CFK010
			1,4-Oxathiane	LT 6. +01	ug/g	CFK010
			Lead	LT 1.50+01	ug/g	CFP008
			Dichlorodiphenylethane	LT 3. +00	ug/g	CFK010
			Dichlorodiphenyltrichloroethane	LT 6. +00	ug/g	CFK010
			Parathion	LT 4. +00	ug/g	CFK010
			2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 3. +00	ug/g	CFK010
			Tetrachloroethene	LT 2.5 -01	ug/g	CFE005
			Thiodiglycol	LT 4.20+00	ug/g	CFQ012
			Trichloroethene	LT 5.4 -01	ug/g	CFE005
0074	14-15	Soil	Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CFE005
			Zinc	8.38+01	ug/g	CFP008
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CFE006
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CFE006
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CFE006
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CFE006
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CFE006
			m-Xylene	LT 7.4 -01	ug/g	CFE006
			Aldrin	2.5 +02	ug/g	CFD002
			Arsenic	LT 2.50+00	ug/g	CF5009
			Atrazine	LT 2.5 -01	ug/g	CFD002
			Picrylchlorophenylene	2.0 +00	ug/g	CFE006
			Benzene	5.6 -01	ug/g	CFE006
			Carbonyl Tetrachloride	LT 2.5 -01	ug/g	CFE006
			Cadmium	LT 7.36-01	ug/g	CFP009
			Methylene Chloride	2.0 +01	ug/g	CFE006
			Chloroform	1.4 +00	ug/g	CFE006
			Hexachlorocyclopentadiene	6.4 +02	ug/g	CFD002
			Chloroacetic Acid	LT 3.55+01	ug/g	CFD013
			Chlorobenzene	LT 1.5 +00	ug/g	CFP006
			Chloroethane	LT 1.7 +00	ug/g	CFD002
			p-Chloroethenylmethyl chloride	LT 3.1 -01	ug/g	CFD002

Note: Results for some parameters may appear in more than one analytical fraction.

08/06/88

Rocky Mountain Arsenal Program

Hazardous Wastes Incorporated

Table 24

Summary of Analytical Results

Spill Sites

Barling Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0034	14-15	Soil	p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CF0002
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CF0002
			Chromium	LT 1.49+01	ug/g	CFP009
			Copper	LT 4.17+01	ug/g	CFP009
			Dibromochloropropane	LT 2.4 +00	ug/g	CFE006
			Dibromochloropropane	LT 2.8 -01	ug/g	CF0002
			Dibromochloropropane	LT 1.1 +00	ug/g	CF0002
			Dicyclopentadiene	LT 6.4 -01	ug/g	CFE006
			Dicyclopentadiene	LT 3.0 +00	ug/g	CF0002
			Vapona	LT 1.1 +00	ug/g	CF0002
			Diisopropylmethyl Phosphonate	LT 3.6 -01	ug/g	CF0002
			Diethane	LT 2.6 +00	ug/g	CF0002
			Dimethyldisulfide	LT 2.0 +01	ug/g	CFE006
			Diethane	LT 4.4 -01	ug/g	CF0002
			Ethylbenzene	LT 3.8 -01	ug/g	CFE006
			Mercury	LT 5.00-02	ug/g	CFR013
			Isodrin	LT 2.9 -01	ug/g	CF0002
			Toluene	LT 1.8 +01	ug/g	CFE006
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CFE006
			Malathion	LT 7.1 -01	ug/g	CF0002
0034	19-20	Soil	1,4-Dioxathiane	LT 2.5 -01	ug/g	CF0002
			Lead	LT 8.38+00	ug/g	CFP009
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CF0002
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CF0002
			Parathion	LT 8.5 -01	ug/g	CF0002
			2-chloro-1(2,4-dichlorophenyl) Vinyl ether	LT 6.1 -01	ug/g	CF0002
			1,4-dichlorobenzene	LT 2.5 -01	ug/g	CFE006
			1,4-dichlorobenzene	LT 4.20+00	ug/g	CF0013
			Trichloroethylene	LT 5.4 -01	ug/g	CFE006
			ortho & Para xylene	LT 4.9 +00	ug/g	CFE006
			Zinc	LT 1.00+02	ug/g	CFP009
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CFE007

Note: Results for some parameters may appear in more than one analytical fraction

08/06/88

Rocky Mountain Arsenal Program

April Sites

Data Collected - Interpretation

Task 2a

Summary of Analytical Results

Reporting Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0014	19-20	Soil	1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CFE007
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CFE007
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CFE007
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CFE007
			m-Xylene	LT 7.4 -01	ug/g	CFE007
			Aldrin	4.4 +02	ug/g	CF0003
			Arsenic	LT 2.50+00	ug/g	CF0010
			Atrazine	LT 2.5 -01	ug/g	CF0003
			Bicycloheptadiene	1.9 +00	ug/g	CFE007
			Benzene	5.0 -01	ug/g	CFE007
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CFE007
			Cadmium	LT 7.36-01	ug/g	CF0010
			Methylene Chloride	4.8 +01	ug/g	CFE007
			Chloroform	3.2 +00	ug/g	CFE007
			Hexachlorocyclopentadiene	1.2 +03	ug/g	CF0003
			Chloroacetic Acid	LT 3.55+01	ug/g	CF0014
			Chlorobenzene	LT 1.5 +00	ug/g	CFE007
			Chloroform	LT 1.7 +00	ug/g	CF0003
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CF0003
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CF0003
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CF0003
			Chromium	2.03+01	ug/g	CF0010
			Copper	4.83+01	ug/g	CF0010
			Dibromochloropropane	LT 2.4 +00	ug/g	CFE007
			Dibromochloropropane	3.4 +00	ug/g	CF0003
			Dicyclopentadiene	LT 1.1 +00	ug/g	CF0003
			Dicyclopentadiene	LT 6.4 -01	ug/g	CFE007
			Valuona	LT 3.0 +00	ug/g	CF0003
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CF0003
			Diethane	LT 3.6 -01	ug/g	CF0003
			Diethylin	1.3 +01	ug/g	CF0003
			Dimethyldisulfide	LT 2.0 +01	ug/g	CFE007
			Triethin	LT 6.6 -01	ug/g	CF0003
			Phylthene	LT 3.8 -01	ug/g	CFE007

Note: Results for some parameters may appear in more than one analytical fraction.

THE AMERICAN PEOPLE

Notes: Results for some parameters may appear in more than one analytical population.

08/06/88

Rocky Mountain Arsenal Program

Spill Sites

Tank #4

Summary of Analytical Results

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0034	26.25	Soil	Hexachlorocyclopentadiene	4.1 +03	ug/g	CF1005
			Chloroacetic Acid	LT 3.55+01	ug/g	CFZ008
			Chlorobenzene	LT 1.5 +00	ug/g	CFN008
			Chloroethane	LT 1.7 +00	ug/g	CF1005
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CF1005
			p-Chlorophenylmethyl Sulfonide	LT 2.5 -01	ug/g	CF1005
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CF1005
			Chromium	LT 1.19+01	ug/g	CFP014
			Copper	4.53+01	ug/g	CFP014
			Dibromochloropropane	3.2 +00	ug/g	CFN008
			Dibromochloropropane	4.0 +00	ug/g	CF1005
			Dicyclopentadiene	LT 1.1 +00	ug/g	CF1005
			Dicyclopentadiene	LT 6.4 -01	ug/g	CFN008
			Vapors	LT 3.0 +00	ug/g	CF1005
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CF1005
			Dithiane	LT 3.6 -01	ug/g	CF1005
			Dichlorin	4.6 +00	ug/g	CF1005
			Dimethyldisulfide	LT 2.0 +01	ug/g	CFN008
			Freon 11	LT 4.6 -01	ug/g	CF1005
			Ethylbenzene	LT 3.8 -01	ug/g	CFN008
			Mercury	LT 5.00-02	ug/g	CFY010
			Isodrin	2.8 +01	ug/g	CF1005
			Toluene	4.0 +01	ug/g	CFN008
			Methylisobutyl Ketone	LT 2.3 -01	ug/g	CFN008
			Malathion	LT 7.1 -01	ug/g	CF1005
			1,4-dioxathiane	LT 2.5 -01	ug/g	CF1005
			Lead	LT 8.38+00	ug/g	CFP014
			1,2-dichloroethane	LT 5.7 -01	ug/g	CF1005
			1,1-dichloro-2,2-bis(4-chlorophenyl)ethane	LT 4.7 -01	ug/g	CF1005
			Permethrin	LT 8.5 -01	ug/g	CF1005
			1,2-dichloro-1(2,4-dichlorophenyl)-2(4-chlorophenyl)ethane	LT 6.1 -01	ug/g	CF1005
			Vinylmethyl Phosphonate			
			Tetrachloroethane	8.9 -01	ug/g	CFN008

Notes: Results for some parameters may appear to more than one analytical method.

1/5

Reeling Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0074	24-25	Soil	Thiodiglycol Trichloroethene Ortho- & Para-Xylene Zinc	LT 4.20+00 LT 5.4 -01 LT 4.9 +00 LT 1.08+02	ug/g ug/g ug/g ug/g	CFZ008 CFN008 CFN008 CFP014
0075	0-1	Soil	Chloroacetic Acid Thiodiglycol	LT 3.55 1 LT 4.20 0	ug/g ug/g	CPH005 CPH005
0076	3-4	Soil	Chloroacetic Acid Thiodiglycol	LT 3.55 1 LT 4.20 0	ug/g ug/g	CPH006 CPH006
0077	9-10	Soil	Chloroacetic Acid Thiodiglycol	LT 3.55 1 LT 4.20 0	ug/g ug/g	CPH007 CPH007
0078	13-14	Soil	Chloroacetic Acid Thiodiglycol	LT 3.55 1 LT 4.20 0	ug/g ug/g	CPH008 CPH008
0079	16.5-17.5	Soil	Chloroacetic Acid Thiodiglycol	LT 3.55 1 LT 4.20 0	ug/g ug/g	CPH009 CPH009
0080	0	Soil	Aluminum Arsenic Atrazine Cadmium Hexachlorocyclopentadiene	LT 2.5 -01 LT 5.00+01 LT 2.5 -01 LT 4.30 0 LT 5.7 -01	ug/g ug/g ug/g ug/g ug/g	CEA008 CEC004 CEA008 CEJ011 CEA008
			Chloroacetic Acid Chlordane p-Chlorophenylmethyl Sulfide p-Chlorophenylmethyl Sulfonide p-Chlorophenylmethyl Sulfone	LT 3.55+01 LT 1.7 +00 LT 9.1 -01 LT 2.5 -01 LT 2.5 -01	ug/g ug/g ug/g ug/g ug/g	CDV011 CEA008 CEA008 CEA008 CEA008
			Chromium Copper Dibromochloroacetylene Dicyclopentadiene Vaporizer	2.60 2 4.60 2 LT 2.8 01 LT 1.1 +00 LT 3.0 +00	ug/g ug/g ug/g ug/g ug/g	CFJ011 CFJ011 CEA008 CEA008 CEA008
			Dichlorophenylmethyl Fluoromethane Difluorane	LT 1.1 +00 LT 3.6 -01	ug/g ug/g	CEA008 CEA008

Note: Results for some parameters may appear to have been multiplied by fraction

08/06/88

Rocky Mountain Arsenal Program

Phase I Survey, Incorporated

Spill Sites

Task 24

Summary of Analytical Results

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0036	0	Soil	Dieldrin	LT 2.5 -01	ug/g	CEA008
			Endrin	LT 4.6 -01	ug/g	CEA008
			Mercury	LT 5.00 02	ug/g	CDH018
			Isodrin	LT 2.9 -01	ug/g	CEA008
			Malathion	LT 7.1 -01	ug/g	CEA008
			1,4-Oxathiane	LT 2.5 -01	ug/g	CEA008
			Lead	LT 1.10 3	ug/g	CFJ011
			Bichlorodiphenylethane	LT 5.7 -01	ug/g	CEA008
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CEA008
			Parathion	LT 8.5 -01	ug/g	CEA008
0037	0.1	Soil	2 Chloro-1(2,4-dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CEA008
			Thiodiglycol	LT 4.20+00	ug/g	CDV011
			Zinc	LT 1.60 2	ug/g	CEJ011
			Aldrin	LT 2.5 -01	ug/g	CDE003
			Arsenic	LT 1.06+01	ug/g	CDF014
			Atrazine	LT 2.5 -01	ug/g	CDE003
			Cerium	LT 4.10+00	ug/g	CCX019
			Hexachlorocyclopentadiene	LT 5.7 01	ug/g	CDE003
			Chlordane	LT 1.7 +00	ug/g	CDE003
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CDE003
0038	0.1	Soil	p-Chlorophenylmethyl Sulfide	LT 2.5 -01	ug/g	CDE003
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CDE003
			Chromium	LT 3.47+03	ug/g	CCX019
			Copper	LT 2.37+02	ug/g	CCX019
			Dibromochloropropane	LT 2.8 -01	ug/g	CDE003
			Dicyclopentadiene	LT 1.1 +00	ug/g	CDE003
			Vanessa	LT 3.0 +00	ug/g	CDP003
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CDE003
			lithiane	LT 3.6 01	ug/g	CDE003
			Dieldrin	LT 2.5 -01	ug/g	CDP003
0039	0.1	Soil	Endrin	LT 4.6 01	ug/g	CDP003
			Mercury	LT 3.06-01	ug/g	CDP018

Note: Results for some parameters may appear in more than one analytical fraction

Soil Sites

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Boxing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0002	0.1	Soil	Isodrin Malathion 1,4-dioxathiane Lead Dichlorodiphenylethane Dichlorodiphenyltrichloroethane Parathion 2-chloro-1-(2,4-dichlorophenyl) Vinylidethyl Phosphates Zinc	11 2.9 -01 11 7.1 -01 11 2.5 -01 11 5.84+02 11 5.7 -01 11 4.7 -01 11 8.5 -01 11 6.1 -01 11 21+02	ug/g ug/g ug/g ug/g ug/g ug/g ug/g ug/g ug/g	CDE003 CDE003 CDE003 CCX019 CDE003 CDE003 CDE003 CCX019
0003	2.6, 3.6	Soil	1,1,1-Trichloroethane 1,1,2-Trichloroethane 1,1-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane m-Xylene Aldrin Arsenic Atrazine Bicyclopentadiene Benzene Carbon Tetrachloride Cadmium Methylene Chloride Chloroform Hexachlorocyclopentadiene Chlorobenzene Chloroethane p-Chloroethoxydimethyl Sulfide p-Chloroethoxydimethyl Sulfide p-Chloroethoxydimethyl Sulfide Chloroethoxydimethyl Sulfide Copper	11 4.3 -01 11 3.9 -01 11 1.7 +00 11 1.7 +00 11 5.6 -01 11 7.4 -01 11 2.5 -01 11 3.31+00 11 2.5 -01 11 3.6 -01 11 2.5 -01 11 2.5 -01 11 7.36-01 11 1.5 +00 11 2.9 -01 11 5.7 -01 11 1.5 +00 11 1.7 +00 11 9.1 -01 11 2.5 -01 11 2.5 -01 11 5.1+01 11 4.9+01	ug/g ug/g ug/g ug/g ug/g ug/g ug/g ug/g ug/g ug/g ug/g ug/g ug/g ug/g ug/g ug/g ug/g ug/g ug/g ug/g ug/g ug/g ug/g ug/g	CDJ003 CDJ003 CDJ003 CDJ003 CDJ003 CDJ003 CDE005 CDE016 CDE005 CDJ003 CDJ003 CDJ003 CDE005 CDE005 CDE005 CDE005 CDE005 CDE005 CDE005 CDE005 CDE005 CDE005

Note: Results for some parameters may differ from the upper analytical detection

Run Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0037	4.5	Soil	Dibromochloropropane	11 2.4 +00	ug/g	CDJ003
			Dibromochloropropane	11 2.8 -01	ug/g	CDJ005
			Dibromochloropropane	11 1.1 +00	ug/g	CDJ005
			Dibromochloropropane	11 6.4 -01	ug/g	CDJ003
			Dibromochloropropane	11 5.0 +00	ug/g	CDJ005
			Dibromochloropropane	11 1.1 +00	ug/g	CDJ005
			Dibromochloropropane	11 3.6 -01	ug/g	CDJ005
			Dibromochloropropane	11 2.5 -01	ug/g	CDJ005
			Dibromochloropropane	11 2.0 +01	ug/g	CDJ003
			Dibromochloropropane	11 4.6 -01	ug/g	CDJ005
			Dibromochloropropane	11 3.8 -01	ug/g	CDJ003
			Dibromochloropropane	11 6.18 -02	ug/g	CDJ020
			Dibromochloropropane	11 2.9 -01	ug/g	CDJ005
			Dibromochloropropane	11 2.5 -01	ug/g	CDJ003
			Dibromochloropropane	11 2.5 -01	ug/g	CDJ003
			Dibromochloropropane	11 2.5 -01	ug/g	CDJ003
			Dibromochloropropane	11 2.1 -01	ug/g	CDJ005
			Dibromochloropropane	11 2.5 -01	ug/g	CDJ005
			Dibromochloropropane	11 2.9 +01	ug/g	CDJ005
			Dibromochloropropane	11 5.7 -01	ug/g	CDJ005
			Dibromochloropropane	11 4.7 -01	ug/g	CDJ005
0037	4.5	Soil	Parathion	11 8.5 -01	ug/g	CDJ005
			Parathion	11 6.1 -01	ug/g	CDJ005
			Parathion	11 2.5 -01	ug/g	CDJ003
			Parathion	11 5.4 -01	ug/g	CDJ003
			Parathion	11 4.9 +00	ug/g	CDJ003
			Parathion	11 5.5 +01	ug/g	CDJ005
			Parathion	11 6.7 -01	ug/g	CDJ002
			Parathion	11 5.9 -01	ug/g	CDJ002
			Parathion	11 1.7 +00	ug/g	CDJ002
			Parathion	11 1.7 +00	ug/g	CDJ002

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Rocky Mountain Arsenal Program

Environmental Monitoring

Well Sites

Well #4

Summary of Analytical Results

Portion Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0037	4-6	Soil	m-Xylene	11 7.4 -01	ug/g	CDJ002
			Alcadin	11 2.5 -01	ug/g	CDJ004
			Arsenic	11 2.50+00	ug/g	CDJ015
			Atrazine	11 2.5 -01	ug/g	CDJ004
			Bicycloheptadiene	11 3.6 -01	ug/g	CDJ002
			Benzene	11 2.5 -01	ug/g	CDJ002
			Carbon Tetrachloride	11 2.5 -01	ug/g	CDJ002
			Cadmium	11 7.5+01	ug/g	CCX020
			Methylene Chloride	11 1.5 +00	ug/g	CDJ002
			Chloroform	11 2.9 -01	ug/g	CDJ002
			Hexachlorocyclopentadiene	11 5.7 -01	ug/g	CDJ004
			Chlorobenzene	11 1.5 +00	ug/g	CDJ002
			Chloroethane	11 1.7 +00	ug/g	CDJ004
			p-Chlorophenylmethyl Sulfide	11 9.1 -01	ug/g	CDJ004
			p-Chlorophenylmethyl Sulfonate	11 2.5 -01	ug/g	CDJ004
			p-Chlorophenylmethyl Sulfone	11 2.5 -01	ug/g	CDJ004
			Chromium	11 33+01	ug/g	CCX020
			Copper	11 4.5+00	ug/g	CCX020
			Dibromochloropropane	11 2.8 -01	ug/g	CDJ004
			Dibromochloropropane	11 2.4 +00	ug/g	CDJ002
			Dicyclopentadiene	11 6.4 -01	ug/g	CDJ002
			Dicyclopentadiene	11 1.1 +00	ug/g	CDJ004
			Diisopropylmethyl Phosphonate	11 3.0 +00	ug/g	CDJ004
			Diisopropylmethyl Phosphonate	11 1.1 +00	ug/g	CDJ004
			Diisobutylmethyl Phosphonate	11 3.6 -01	ug/g	CDJ004
			Dichloro	11 2.5 -01	ug/g	CDJ004
			Dimethylsulfide	11 2.0 +01	ug/g	CDJ002
			Diethyl	11 4.6 -01	ug/g	CDJ004
			Diethylbenzene	11 3.8 -01	ug/g	CDJ002
			Methoxy	11 3.00 -02	ug/g	CDJ019
			Phenol	11 2.9 -01	ug/g	CDJ004
			Phenol	11 2.5 -01	ug/g	CDJ002
			Methylchloride	11 2.3 -01	ug/g	CDJ002
			Methylchloride	11 7.1 -01	ug/g	CDJ004

Notes: Results for some parameters may appear to show that one analytical technique

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Rocky Mountain Arsenal Program

Spill Sites

Task 26

Summary of Analytical Results

Receiving Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
00127	4.5	Soil	1,4-Dioxathiane	LT 2.5 -01	ug/g	COE004
			Lead	LT 1.47+01	ug/g	CCX020
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	UE004
			Dichlorodiphenyltrichloro ethane	LT 4.7 -01	ug/g	UE004
			Parathion	LT 8.5 -01	ug/g	COE004
			2-Chloro-1(2,4-dichlorophenyl) Vinyl diethyl phosphates	LT 6.1 -01	ug/g	COE004
			tetrachloroethene	LT 2.5 -01	ug/g	COJ002
			Trichloroethene	LT 5.4 -01	ug/g	COJ002
			methyl & para-xylene	LT 4.9 +00	ug/g	COJ002
			Zinc	LT 3.82+01	ug/g	CCX020
00127	9.00	Soil	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	COJ004
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	COJ004
			1,1,1-Trichloroethane	LT 1.7 +00	ug/g	COJ004
			1,2-Dichloroethane	LT 1.7 +00	ug/g	COJ004
			1,2-Trichloroethane	LT 5.6 -01	ug/g	COJ004
			m-Xylene	LT 7.4 -01	ug/g	COJ004
			Aldehyde	LT 2.5 -01	ug/g	COE006
			Arsenic	LT 2.50+00	ug/g	COF017
			Atrazine	LT 2.5 -01	ug/g	COE006
			Bicyclic diethylene	LT 3.6 -01	ug/g	COJ004
			Benzene	LT 2.5 -01	ug/g	COJ004
			Carbon tetrachloride	LT 2.5 -01	ug/g	COJ004
			Cadmium	LT 2.46 -01	ug/g	COG006
			Methyl form Chloride	LT 1.5 +00	ug/g	COJ004
			Chloroform	LT 2.9 -01	ug/g	COJ004
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	COF006
			Chloroform	LT 1.5 +00	ug/g	COJ004
			Chloroform	LT 1.7 +00	ug/g	COE006
			p-Chlorodiphenylmethoxy (CDD) Chloride	LT 9.1 -01	ug/g	COF006
			p-Chlorodiphenylmethoxy (CDD) Chloride	LT 2.5 -01	ug/g	COF006
			p-Chlorodiphenylmethoxy (CDD) Chloride	LT 2.5 -01	ug/g	COF006

Summary of Analytical Results

Task 24

Spill Sites

Poring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0037	9-10	Soil	Chromium	LT 6.53+00	ug/g	CDG006
			Copper	LT 4.72+00	ug/g	CDG006
			Dibromochloropropane	LT 2.4 +00	ug/g	CDJ004
			Dibromochloropropane	LT 2.8 -01	ug/g	CDE006
			Dicyclopentadiene	LT 1.1 +00	ug/g	CDE006
			Dicyclopentadiene	LT 6.4 -01	ug/g	CDJ004
			Vapona	LT 3.0 +00	ug/g	CDE006
			Bifisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CDF006
			Dithiane	LT 3.6 -01	ug/g	CDE006
			Dieldrin	LT 2.5 -01	ug/g	CDE006
			Dimethyldisulfide	LT 2.0 +01	ug/g	CDJ004
			Endrin	LT 4.6 -01	ug/g	CDE006
			Ethylbenzene	LT 3.8 -01	ug/g	CDJ004
			Mercury	LT 5.00-02	ug/g	CDH005
			Toxdrin	LT 2.9 -01	ug/g	CDE006
0037	14-15	Soil	Toluene	LT 2.5 -01	ug/g	CDJ004
			Methylisobutyl ketone	LT 7.3 -01	ug/g	CDJ004
			Malathion	LT 7.1 -01	ug/g	CDF006
			1,4-Oxathiane	LT 2.5 -01	ug/g	CDE006
			Lead	LT 8.3+00	ug/g	CDG006
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CDE006
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CDE006
			Parathion	LT 8.5 -01	ug/g	CDE006
			2 Chloro-1(2,4-dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CDE006
			Tetrachloroethene	LT 2.5 -01	ug/g	CDJ004
			Trichloroethene	LT 5.4 -01	ug/g	CDJ004
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CDJ004
			Zinc	2.27+01	ug/g	CDG006
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CDJ005
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CDJ005
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CDJ005
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CDJ005

Note: Results for some parameters may appear in more than one analytical fraction.

Result Number	Depth (cm)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0007	14-15	Soil	1,2-Dichloroethane	11 5.6 -01	ug/g	COJ005
			m-Xylene	11 2.4 -01	ug/g	COJ005
			Acetone	11 2.5 -01	ug/g	COE007
			Acetone	11 2.5+00	ug/g	COF018
			Acetone	11 2.5 -01	ug/g	COE007
			Picryl tetraethylene	11 3.6 -01	ug/g	COJ005
			Benzene	11 2.5 -01	ug/g	COJ005
			Carbon Tetrachloride	11 2.5 -01	ug/g	COJ005
			Cadmium	11 2.36-01	ug/g	COE007
			Methyl Chloride	11 1.5 +00	ug/g	COJ005
			Chloroform	11 2.9 -01	ug/g	COJ005
			Hexachlorocyclopentadiene	11 5.7 -01	ug/g	COE007
			Chlorobenzene	11 1.5 +00	ug/g	COJ005
			Chloroethane	11 1.7 +00	ug/g	COF007
			p-Chlorophenylmethyl Sulfide	11 9.1 -01	ug/g	COE007
			p-Chlorophenylmethyl Sulfonate	11 2.5 -01	ug/g	COE007
			p-Chlorophenylmethyl Sulfone	11 2.5 -01	ug/g	COF007
			Chromium	11 6.7+01	ug/g	COE007
			Copper	11 12+01	ug/g	COE007
			Dibromochloropropane	11 2.4 +00	ug/g	COJ005
			Dibromochloropropane	11 2.8 -01	ug/g	COF007
			Dicyclopentadiene	11 1.1 +00	ug/g	COE007
			Dichlorodipentadiene	11 6.4 -01	ug/g	COJ005
			Vaporizer	11 3.0 +00	ug/g	COE007
			Diisopropylmethyl Phosphonate	11 1.1 +00	ug/g	COE007
			Diisobutylmethyl Phosphonate	11 3.6 -01	ug/g	COF007
			Diisobutylmethyl Phosphonate	11 2.5 -01	ug/g	COE007
			Diisobutylmethyl Phosphonate	11 2.0 +00	ug/g	COJ005
			Diisobutylmethyl Phosphonate	11 4.6 -01	ug/g	COE007
			Diisobutylmethyl Phosphonate	11 3.8 -01	ug/g	COJ005
			Diisobutylmethyl Phosphonate	11 5.0 -01	ug/g	COE007
			Diisobutylmethyl Phosphonate	11 2.9 -01	ug/g	COJ005
			Diisobutylmethyl Phosphonate	11 2.5 -01	ug/g	COE007
			Diisobutylmethyl Phosphonate	11 2.5 -01	ug/g	COJ005

Note: Results for some parameters may appear to be more than one in this table.

Summary of Analytical Results

Task 24

Soil Sites

Routing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0037	14-15	Soil	Malathion	LT 2.1 -01	ug/g	CDE007
			1,4-Oxathiane	LT 2.5 -01	ug/g	CDE007
			Lead	1.17+01	ug/g	CDG007
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CDE007
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CDE007
			Parathion	LT 8.5 -01	ug/g	CDE007
			2-Chloro-1(2,4-Dichlorophenyl) Vinyllethyl Phosphates	LT 6.1 -01	ug/g	CDE007
			Tetrachloroethene	LT 2.5 -01	ug/g	CDJ005
			Trichloroethene	LT 5.4 -01	ug/g	CDJ005
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CDJ005
0037	16.5-17.5	Soil	Zinc	4.44+01	ug/g	CDG007
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CDJ006
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CDJ006
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CDJ006
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CDJ006
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CDJ006
			m Xylene	LT 7.4 -01	ug/g	CDJ006
			Aldrin	LT 2.5 -01	ug/g	CDE008
			Arsenic	LT 2.50+00	ug/g	CDF019
			Atrazine	LT 2.5 -01	ug/g	CDE008
			Bicycloheptadiene	LT 3.6 -01	ug/g	CDJ006
			Benzene	LT 2.5 -01	ug/g	CDJ006
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CDJ006
			Cadmium	LT 7.36-01	ug/g	CDG008
			Methylene Chloride	LT 1.5 +00	ug/g	CDJ006
			Chloroform	LT 2.9 -01	ug/g	CDJ006
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CDE008
			Chlorobenzene	LT 1.5 +00	ug/g	CDJ006
			Chloroform	LT 1.7 +00	ug/g	CDE008
			p-Chlorophenylmethyl Sulfone	LT 9.1 -01	ug/g	CDE008
			p-Chlorophenylmethyl Sulfonide	LT 2.5 -01	ug/g	CDE008

Note: Results for some parameters may appear in more than one analytical fraction

Summary of Analytical Results Task #4 Soil Sites

Reactor Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0038	16.5-17.5	Soil	p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CDE008
			Chromium	1.40+01	ug/g	CDS008
			Copper	2.85+01	ug/g	CDS008
			Dibromochloropropane	LT 2.4 +00	ug/g	CDJ006
			Dibromochloropropane	LT 2.8 -01	ug/g	CDE008
			Diisopentadiene	LT 1.1 +00	ug/g	CDE008
			Dicyclopentadiene	LT 6.4 -01	ug/g	CDJ006
			Vanillin	LT 3.0 +00	ug/g	CDE008
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CDE008
			Nitriane	LT 3.6 -01	ug/g	CDE008
			Nitro in	LT 2.5 -01	ug/g	CDE008
			Dimethyldisulfide	LT 2.0 +01	ug/g	CDJ006
			Endrin	LT 4.6 -01	ug/g	CDE008
			Ethylbenzene	LT 3.8 -01	ug/g	CDJ006
			Mercury	LT 5.00-02	ug/g	CDH007
			Endrin	LT 2.9 -01	ug/g	CDE008
			Toluene	LT 2.5 -01	ug/g	CDJ006
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CDJ006
			Malathion	LT 2.1 01	ug/g	CDE008
			1,4-Oxathiane	LT 2.5 -01	ug/g	CDE008
0038	0-1	Soil	Lead	2.40+01	ug/g	CDS008
			Dichlorodiphenylmethane	LT 5.7 -01	ug/g	CDE008
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CDE008
			Parathion	LT 8.5 -01	ug/g	CDE008
			2-Chloro-1(2,4-dichlorophenyl) Vinylalcohol Phosphates	LT 6.1 -01	ug/g	CDE008
			Tetrahydroethene	LT 2.5 -01	ug/g	CDJ006
			Trichloroethene	LT 5.4 -01	ug/g	CDJ006
			Ortho & Para Xylene	LT 4.9 +00	ug/g	CDJ006
			Zinc	7.85+01	ug/g	CDS008
			Aldehyde	LT 2.5 -01	ug/g	CDJ006
			Acetone	3.15+00	ug/g	CDE008
			Atrazine	LT 2.5 -01	ug/g	CDJ006

Note: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Plant Services Incorporated

Spill Sites

Task 24

Summary of Analytical Results

Runing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0038	0-1	Soil	Cadmium	LT 7.36-01	ug/g	CCX017
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CD0010
			Chlordane	LT 1.7 +00	ug/g	CD0010
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CD0010
			p-Chlorophenylmethyl Sulfonide	LT 2.5 -01	ug/g	CD0010
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CD0010
			Chromium	1.92+01	ug/g	CCX017
			Copper	1.15+01	ug/g	CCX017
			Dibromochloropropane	LT 2.8 -01	ug/g	CD0010
			Dicyclopentadiene	LT 1.1 +00	ug/g	CD0010
			Vapona	LT 3.0 +00	ug/g	CD0010
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CD0010
			Dithiane	LT 3.6 -01	ug/g	CD0010
			Dieldrin	LT 2.7 +00	ug/g	CD0010
			Endrin	LT 4.6 -01	ug/g	CD0010
			Mercury	1.38-01	ug/g	CD0016
			Isodrin	LT 2.9 -01	ug/g	CD0010
			Malathion	LT 7.1 -01	ug/g	CD0010
			1,4-Oxathiane	LT 2.5 -01	ug/g	CD0010
			Lead	4.63+01	ug/g	CCX017
0038	4-5	Soil	Dichlorodiphenylethane	LT 5.7 -01	ug/g	CD0010
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CD0010
			Parathion	LT 8.5 -01	ug/g	CD0010
			2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CD0010
			Zinc	8.21+01	ug/g	CCX017
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CD1008
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CD1008
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CD1008
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CD1008
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CD1008
			m Xylene	LT 7.4 -01	ug/g	CD1008

Note: Results for some parameters may appear in more than one analytical fraction.

Summary of Analytical Results

Task #

Spill Sites

Parity Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0038	4-5	Soil	Aldrin	LT 2.5 -01	ug/g	CDE002
			Arsenic	LT 2.50+00	ug/g	CDF013
			Atrazine	LT 2.5 -01	ug/g	CDE002
			Bicycloheptadiene	LT 3.6 -01	ug/g	CDI008
			Benzene	LT 2.5 -01	ug/g	CDI008
			Carbon tetrachloride	LT 2.5 -01	ug/g	CDI008
			Cadmium	LT 7.36-01	ug/g	CCX018
			Methylene Chloride	3.2 +00	ug/g	CDI008
			Chloroform	LT 2.9 -01	ug/g	CDI008
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CDE002
			Chlorobenzene	LT 1.5 +00	ug/g	CDI008
			Chloroethane	LT 1.7 +00	ug/g	CDE002
			p-Chlorophenylmethyl Sulfide	LT 9.1 01	ug/g	CDF002
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CDE002
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CDE002
			Chromium	1.62+01	ug/g	CCX018
			Copper	LT 4.72+00	ug/g	CCX018
			Dibromochloropropane	LT 2.4 +00	ug/g	CDI008
			Dibromochloropropane	LT 2.8 -01	ug/g	CDE002
			Dicyclopentadiene	LT 1.1 +00	ug/g	CDE002
			Dicyclopentadiene	LT 6.4 -01	ug/g	CDI008
			Vapona	LT 3.0 +00	ug/g	CDE002
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CDE002
			Dithiane	LT 3.6 -01	ug/g	CDE002
			Dieldrin	LT 2.5 -01	ug/g	CDE002
			Dimethyldisulfide	LT 2.0 +01	ug/g	CDI008
			Endrin	LT 4.6 -01	ug/g	CDE002
			Ethylbenzene	LT 3.8 -01	ug/g	CDI008
			Mercury	LT 5.00 02	ug/g	CDR017
			Heptalin	LT 3.9 -01	ug/g	CDE002
			Toluene	LT 2.5 -01	ug/g	CDI008
			Methylcyclohexyl ketone	LT 2.3 01	ug/g	CDI008
			Malathion	LT 7.1 -01	ug/g	CDF002
			1,4 Oxathiane	LT 2.5 01	ug/g	CDE002

Notes: Results for some parameters may appear in more than one analytical report.

08/06/88

Rocky Mountain Arsenal Program

Playa de los Hornos Incorporated

Task 24

Summary of Analytical Results

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0038	4-5	Soil	Lead	1.24+01	ug/g	CCX018
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CDE002
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CDE002
			Parathion	LT 8.5 -01	ug/g	CDE002
			2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CDE002
			Tetrachloroethene	LT 2.5 -01	ug/g	CDI008
			Trichloroethene	LT 5.4 -01	ug/g	CDI008
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CDI008
			Zinc	4.42+01	ug/g	CCX018
0039	0-1	Soil	Aldrin	LT 2.5 -01	ug/g	CDN006
			Arsenic	LT 5.0 +00	ug/g	CDP005
			Atrazine	LT 2.5 -01	ug/g	CDN006
			Cadmium	LT 7.36-01	ug/g	CDG017
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CDN006
			Chlordane	LT 1.7 +00	ug/g	CDN006
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CDN006
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CDN006
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CDN006
			Chromium	1.76+01	ug/g	CDG017
			Copper	1.13+01	ug/g	CDG017
			Dibromochloropropane	LT 2.8 -01	ug/g	CDN006
			Dicyclopentadiene	LT 1.1 +00	ug/g	CDN006
			Vapona	LT 3.0 +00	ug/g	CDN006
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CDN006
			Diethane	LT 3.6 -01	ug/g	CDN006
			Diethrin	LT 2.5 -01	ug/g	CDN006
			Endrin	LT 4.6 -01	ug/g	CDN006
			Mercury	LT 5.00-02	ug/g	CDH013
			Isodrin	LT 2.9 -01	ug/g	CDN006
			Malathion	LT 7.1 -01	ug/g	CDN006
			1,4-Dioxathiane	LT 2.5 -01	ug/g	CDN006
			Lead	2.56+01	ug/g	CDG017

Note: Results for some parameters may appear in more than one analytical fraction.

08/06/88

Rocky Mountain Aerial Program

Fluorocarbon, Incorporated

Spill Sites

Task #

Summary of Analytical Results

Boiling Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0079	0.1	Soil	1,1,1-Trichloroethane	LT 5.7 -01	ug/g	CDN006
			1,1,2-Trichloroethane	LT 4.7 -01	ug/g	CDN006
			Parathion	LT 8.5 -01	ug/g	CDN006
			2-Chloro-1,1,2,4-Dichlorophenyl Vinylidene Phosphates	LT 6.1 -01	ug/g	CDN006
			Zinc	5.85+01	ug/g	CDG017
0079	4.5	Soil	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CDJ008
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CDJ008
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CDJ008
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CDJ008
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CDJ008
			m Xylene	LT 7.4 -01	ug/g	CDJ008
			Aldrin	LT 2.5 -01	ug/g	CDN007
			Arsenic	LT 5.0 +00	ug/g	CDP006
			Atrazine	LT 2.5 -01	ug/g	CDN007
			Bicycloheptadiene	LT 3.6 -01	ug/g	CDJ008
			Benzene	LT 2.5 -01	ug/g	CDJ008
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CDJ008
			Cadmium	LT 7.36-01	ug/g	CDG018
			Methylene Chloride	LT 1.5 +00	ug/g	CDJ008
			Chloroform	LT 2.9 -01	ug/g	CDJ008
0079			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CDN007
			Chlorobenzene	LT 1.5 +00	ug/g	CDJ008
			Chloroform	LT 1.7 +00	ug/g	CDN007
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CDN007
			p-Chlorophenylmethyl Sulfonate	LT 2.5 -01	ug/g	CDN007
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CDN007
			Chromium	1.75+01	ug/g	CDG018
			Copper	9.48+00	ug/g	CDG018
			Dichlorodifluoromethane	LT 2.8 -01	ug/g	CDN007
			Dichlorodifluoromethane	LT 2.4 +00	ug/g	CDJ008
0079			Dicyclopentadiene	LT 1.1 +00	ug/g	CDN007

Note: Results for some parameters may appear to more than one analytical fraction.

08/06/88

Rocky Mountain Arsenal Program

Flammable Solvents Incorporated

Task 24 Spill Sites

Summary of Analytical Results

Runing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0039	4.5	Soil	Dicyclopentadiene	LT 6.4 -01	ug/g	CDJ008
			Vamona	LT 3.0 +00	ug/g	CDN007
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CDN007
			Dithiane	LT 3.6 -01	ug/g	CDN007
			Dieldrin	LT 2.5 -01	ug/g	CDN007
			Dimethyldisulfide	LT 2.0 +01	ug/g	CDJ008
			Endrin	LT 4.6 -01	ug/g	CDN007
			Ethylbenzene	LT 3.8 -01	ug/g	CDJ008
			Mercury	LT 5.00-02	ug/g	CDH014
			Isodrin	LT 2.9 -01	ug/g	CDN007
			Toluene	LT 2.5 -01	ug/g	CDJ008
			Methylisobutyl ketone	LT 7.3 -01	ug/g	CDJ008
			Malathion	LT 7.1 -01	ug/g	CDN007
			1,4-Dioxathiane	LT 2.5 -01	ug/g	CDN007
			Lead	LT 8.38+00	ug/g	CDG018
0039	9.5	Soil	Dichlorodiphenylethane	LT 5.7 01	ug/g	CDN007
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CDN007
			Parathion	LT 8.5 -01	ug/g	CDN007
			2 Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CDN007
			Tetrachloroethene	LT 2.5 -01	ug/g	CDJ038
			Trichloroethene	LT 5.4 -01	ug/g	CDJ008
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CDJ008
			Zinc	5.03+01	ug/g	CDG018
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CDJ007
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CDJ007
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CDJ007
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CDJ007
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CDJ007
			m-Xylene	LT 7.4 -01	ug/g	CDJ007
			Aldrin	LT 2.5 -01	ug/g	CDN008
0039	9.5	Soil	Arsenic	LT 5.0 +00	ug/g	CDP007
			Atrazine	LT 2.5 -01	ug/g	CDN008

Note: Results for some parameters may appear in more than one analytical fraction.

03/06/88

Rocky Mountain Arsenal Program

Spill Sites

Phase 1: Survey, Incorporated

Table 2a

Summary of Analytical Results

Sample Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0039	9-9.5	Soil	1,2-Dichloroethane	LT 3.6 -01	ug/g	CD1007
			1,2-Dichloroethane	LT 2.5 -01	ug/g	CD1007
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CD1007
			Cadmium	LT 7.36-01	ug/g	CD1019
			Methylene Chloride	LT 1.50+00	ug/g	CD1007
			Chloroform	LT 2.9 -01	ug/g	CD1007
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CD1008
			Chlorobenzene	LT 1.5 +00	ug/g	CD1007
			Chloroethane	LT 1.7 +00	ug/g	CD1008
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CD1008
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CD1008
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CD1008
			Chromium	1.14+01	ug/g	CD1019
			Copper	7.05+00	ug/g	CD1019
			Dibromochloropropane	LT 2.8 -01	ug/g	CD1008
			Dibromochloropropane	LT 2.4 +00	ug/g	CD1007
			Dibromochloropropane	LT 1.1 +00	ug/g	CD1008
			Dibromochloropropane	LT 6.4 -01	ug/g	CD1007
			Vaporone	LT 3.0 +00	ug/g	CD1008
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CD1008
			Dithiane	LT 3.6 -01	ug/g	CD1008
			Dieldrin	LT 2.5 -01	ug/g	CD1008
			Dimethyldisulfide	LT 2.0 +01	ug/g	CD1007
			Endrin	LT 4.6 -01	ug/g	CD1008
			Ethylbenzene	LT 3.8 -01	ug/g	CD1007
			Mercury	LT 5.00 02	ug/g	CD1015
			Isodrin	LT 2.9 -01	ug/g	CD1008
			Toluene	LT 2.5 -01	ug/g	CD1007
			Methyl Isobutyl Ketone	LT 7.3 -01	ug/g	CD1007
			Metalation	LT 7.1 -01	ug/g	CD1008
			1,4-Dioxane	LT 2.5 -01	ug/g	CD1008
			Lead	LT 8.38+00	ug/g	CD1019
			1,1-Dichloroethane	LT 5.7 -01	ug/g	CD1008
			1,1-Dichloroethane	LT 4.7 -01	ug/g	CD1008

Notes: Results for some parameters may differ in more than one analysis of a location.

08/06/88

Rocky Mountain Arsenal Program

Fluorocarbon Incorporated

Task 24 Spill Sites

Summary of Analytical Results

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0079	9-9.5	Soil	Parathion	LT 8.5 -01	ug/g	CDN008
			2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CDN008
			Tetrachloroethene	LT 2.5 -01	ug/g	CDJ007
			Trichloroethene	LT 5.4 -01	ug/g	CDJ007
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CDJ007
			Zinc	3.61+01	ug/g	COG019
0079	9.5-10	Soil	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CDZ002
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CDZ002
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CDZ002
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CDZ002
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CDZ002
			m Xylene	LT 7.4 -01	ug/g	CDZ002
			Aldrin	LT 2.5 -01	ug/g	CDN010
			Arsenic	LT 5.0 +00	ug/g	CDP009
			Atrazine	LT 2.5 -01	ug/g	CDN010
			Bicycloheptadiene	LT 3.6 -01	ug/g	CDZ002
			Benzene	LT 2.5 -01	ug/g	CDZ002
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CDZ002
			Cadmium	LT 7.3A -01	ug/g	CDN005
			Methylene Chloride	LT 1.5 +00	ug/g	CDZ002
			Chloroform	LT 2.9 -01	ug/g	CDZ002
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CDN010
			Chlorobenzene	LT 1.5 +00	ug/g	CDZ002
			Chloroform	LT 1.7 +00	ug/g	CDN010
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CDN010
			p-Chlorophenylmethyl Sulfonide	LT 2.5 -01	ug/g	CDN010
0079	9.5-10	Soil	p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CDN010
			Chromium	1.62+01	ug/g	CDN005
			Copper	9.14+00	ug/g	CDN005
			Dibromochloropropane	LT 2.4 +00	ug/g	CDZ002
			Dibromochloropropane	LT 2.8 -01	ug/g	CDN010
			Dicycloheptadiene	LT 6.4 -01	ug/g	CDZ002

Note: Results for some parameters may appear in more than one analytical fraction.

Summary of Analytical Results

Jack 24

Spill Sites

Rowing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0039	9.5-10	Soil	Dicyclopentadiene	LT 1.1 +00	ug/g	CDN010
			Vapona	LT 3.0 +00	ug/g	CDN010
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CDN010
			Fluthiane	LT 3.6 -01	ug/g	CDN010
			Dieldrin	LT 2.5 -01	ug/g	CDN010
			Dimethyldisulfide	LT 2.0 +01	ug/g	CDZ002
			Endrin	LT 4.6 -01	ug/g	CDN010
			Triethylbenzene	LT 3.8 -01	ug/g	CDZ002
			Mercury	LT 5.00 +02	ug/g	CDH017
			Isodrin	LT 2.9 -01	ug/g	CDN010
			Toluene	LT 2.5 -01	ug/g	CDZ002
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CDZ002
			Malathion	LT 2.1 -01	ug/g	CDN010
			1,4 Oxathiane	LT 2.5 -01	ug/g	CDN010
			Lead	LT 8.38 +00	ug/g	CDN005
			Bichlorodiphenylethane	LT 5.7 -01	ug/g	CDN010
			Bichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CDN010
0039	14-15	Soil	Ethane	LT 8.5 -01	ug/g	CDN010
			Parathion	LT 6.1 -01	ug/g	CDN010
			2-chloro-1(2,4-dichlorophenyl) Vinylidethyl Phosphates	LT 2.5 -01	ug/g	CDZ002
			Tetrachloroethene	LT 5.4 -01	ug/g	CDZ002
			Trichloroethene	LT 4.9 +00	ug/g	CDZ002
			Ortho- & Para-Xylene	4.54 +01	ug/g	CDN005
			Zinc	LT 4.3 -01	ug/g	CDM002
			1,1,1 Trichloroethane	LT 3.9 -01	ug/g	CDM002
			1,1,2 Trichloroethane	LT 1.7 +00	ug/g	CDM002
			1,1 Dichloroethane	LT 1.7 +00	ug/g	CDM002
			1,2 Dichloroethane	LT 5.6 -01	ug/g	CDM002
			m Xylene	LT 2.4 -01	ug/g	CDM002
			Aldrin	LT 2.5 -01	ug/g	CDM009
			Arsenic	LT 5.0 +00	ug/g	CDM008
			Alcathine	LT 2.5 -01	ug/g	CDM009

Note: Results for some parameters may appear in more than one analytical fraction

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Rocky Mountain Arsenal Program

Plaster Services Incorporated

Task 24 Spill Sites

Summary of Analytical Results

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0039	14-15	Soil	Bicycloheptadiene	LT 3.6 -01	ug/g	CDM002
			Benzene	LT 2.5 -01	ug/g	CDM002
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CDM002
			Cadmium	LT 7.36-01	ug/g	CDG020
			Methylene Chloride	LT 1.5 +00	ug/g	CDM002
			Chloroform	LT 2.9 -01	ug/g	CDM002
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CDM009
			Chlorobenzene	LT 1.5 +00	ug/g	CDM002
			Chlordane	LT 1.7 +00	ug/g	CDM009
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CDM009
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CDM009
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CDM009
			Chromium	2.08+01	ug/g	CDG020
			Copper	1.53+01	ug/g	CDG020
			Dibromochloropropane	LT 2.4 +00	ug/g	CDM002
			Dibromochloropropane	LT 2.8 -01	ug/g	CDM009
			Dicyclopentadiene	LT 6.4 -01	ug/g	CDM002
			Dicyclopentadiene	LT 1.1 +00	ug/g	CDM009
			Vapona	LT 3.0 +00	ug/g	CDM009
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CDM009
			Dithiane	LT 3.6 -01	ug/g	CDM009
			Dieldrin	LT 2.5 -01	ug/g	CDM009
			Dimethyldisulfide	LT 2.0 +01	ug/g	CDM002
			Indrin	LT 4.6 -01	ug/g	CDM009
			Ethylbenzene	LT 3.8 -01	ug/g	CDM002
			Mercury	LT 5.00-02	ug/g	CDM016
			Isodrin	LT 2.5 -01	ug/g	CDM009
			Toluene	LT 2.5 -01	ug/g	CDM002
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CDM002
			Malathion	LT 7.1 -01	ug/g	CDM009
			1,4-Oxathiane	LT 2.5 -01	ug/g	CDM009
			Lead	LT 8.38+00	ug/g	CDG020
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CDM009
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CDM009

Note: Results for some parameters may appear in more than one analytical fraction.

08/06/88

Rocky Mountain Arsenal Program

Phase 2: Site Specific Investigation

Spill Sites

Task 24

Summary of Analytical Results

Sampling Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0019	14-15	Soil	Parathion	11 8.5 -01	ug/g	CDN009
			2-chloro-1(2,4-dichlorophenyl)	11 6.1 -01	ug/g	CDN009
			Vinylidene Phosphates			
			Tetrachloroethene	11 2.5 -01	ug/g	CDN002
			Trichloroethene	11 5.4 -01	ug/g	CDN002
			Ortho- & Para-xylene	11 4.9 -00	ug/g	CDN002
			Zinc	6.63x01	ug/g	CDN020
			Aldrin	11 2.5 -01	ug/g	CDN002
			Arsenic	11 2.50x00	ug/g	CDN024
			Atrazine	11 2.5 -01	ug/g	CDN002
0020	14-15	Soil	Cadmium	11 7.36x01	ug/g	CDN011
			Hexachlorocyclopentadiene	11 5.7 -01	ug/g	CDN002
			Chloroacetic Acid	11 3.55x01	ug/g	CDN005
			Chloroform	11 1.7 -00	ug/g	CDN002
			p-Chlorophenylmethyl Sulfide	11 9.1 -01	ug/g	CDN002
			p-Chlorophenylmethyl Sulfonide	11 2.5 -01	ug/g	CDN002
			p-Chlorophenylmethyl Sulfone	11 2.5 -01	ug/g	CDN002
			Chromitum	1.19x02	ug/g	CDN011
			Cyclohexane	2.01x01	ug/g	CDN011
			Diethylmethoxyacetone	11 2.8 -01	ug/g	CDN002
0021	14-15	Soil	Diethylmethoxyacetone	11 1.1 -00	ug/g	CDN002
			Vaporizer	11 3.0 -00	ug/g	CDN002
			Diethylmethoxyacetone	11 1.1 -00	ug/g	CDN002
			Diethylmethoxyacetone	11 3.6 -01	ug/g	CDN002
			Diethylmethoxyacetone	11 2.5 -01	ug/g	CDN002
			Diethylmethoxyacetone	11 4.6 -01	ug/g	CDN002
			Diethylmethoxyacetone	11 4.8 -01	ug/g	CDN008
			Diethylmethoxyacetone	11 1.1 -00	ug/g	CDN002
			Diethylmethoxyacetone	11 3.6 -01	ug/g	CDN002
			Diethylmethoxyacetone	11 2.5 -01	ug/g	CDN002
0022	14-15	Soil	Diethylmethoxyacetone	11 2.5 -01	ug/g	CDN002
			Diethylmethoxyacetone	11 2.5 -01	ug/g	CDN002
			Diethylmethoxyacetone	11 2.5 -01	ug/g	CDN002
			Diethylmethoxyacetone	11 2.5 -01	ug/g	CDN002
			Diethylmethoxyacetone	11 2.5 -01	ug/g	CDN002
			Diethylmethoxyacetone	11 2.5 -01	ug/g	CDN002
			Diethylmethoxyacetone	11 2.5 -01	ug/g	CDN002
			Diethylmethoxyacetone	11 2.5 -01	ug/g	CDN002
			Diethylmethoxyacetone	11 2.5 -01	ug/g	CDN002
			Diethylmethoxyacetone	11 2.5 -01	ug/g	CDN002

Note: Results are for samples from the 14-15 ft depth interval. The results for the 0-14 ft interval are shown in parentheses.

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Ref No	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0040	0.1	Soil	Parathion	LT 8.5 -01	ug/g	C00002
			2-Chloro-1(2,4-dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	C00002
			Thiodiglycol	LT 4.20+00	ug/g	C00005
			Zinc	1.59+02	ug/g	C00011
0040	4.5	Soil	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	C01002
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	C01002
			1,1-Dichloroethane	LT 1.7 +00	ug/g	C01002
			1,2-Dichloroethane	LT 1.7 +00	ug/g	C01002
			1,2-Dichloroethane	LT 5.6 -01	ug/g	C01002
			m-xylene	LT 7.4 -01	ug/g	C01002
			Aldrin	LT 2.5 -01	ug/g	C00003
			Arsenic	LT 2.50+00	ug/g	C00005
			Atrazine	LT 2.5 -01	ug/g	C00003
			Bicycloheptadiene	LT 3.6 -01	ug/g	C01002
			Benzene	LT 2.5 -01	ug/g	C01002
			Carbon Tetrachloride	LT 2.5 -01	ug/g	C01002
			Cadmium	LT 7.36-01	ug/g	C00012
			Methylene Chloride	LT 1.5 +00	ug/g	C01002
			Chloroform	LT 2.9 -01	ug/g	C01002
			Hexachlorocyclopentadiene	LT 5.7 01	ug/g	C00003
			Chloroacetic Acid	LT 3.55+01	ug/g	C00006
			Chlorobenzene	LT 1.5 +00	ug/g	C01002
			Chloroethane	LT 1.7 +00	ug/g	C00003
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	C00003
			p-Chlorophenylmethyl Sulfonate	LT 2.5 -01	ug/g	C00003
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	C00003
			Chromium	1.85+01	ug/g	C00012
			Copper	1.10+01	ug/g	C00012
			Dibromochloropropane	LT 2.4 +00	ug/g	C01002
			Dibromochloropropane	LT 2.8 01	ug/g	C00003
			Dibromochloropropane	LT 1.1 +00	ug/g	C00003
			Dibromochloropropane	LT 6.4 01	ug/g	C01002
			Valerone	LT 5.0 +00	ug/g	C00003

Note: Results for some parameters may appear as more than one attached page.

Bar Line Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
01001	4.5	Soil	Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CD0003
			Malathion	LT 5.6 -01	ug/g	CD0003
			Isodrin	LT 2.5 -01	ug/g	CD0003
			Dimethylsulfide	LT 2.0 +01	ug/g	CD1002
			Endrin	LT 4.6 -01	ug/g	CD0003
			Ethylbenzene	LT 3.8 -01	ug/g	CD1002
			Mercury	LT 5.00-02	ug/g	CD0009
			Isodrin	LT 2.9 -01	ug/g	CD0003
			Toluene	LT 2.5 -01	ug/g	CD1002
			Methylisobutyl Ketone	LT 2.3 -01	ug/g	CD1002
01002	4.5	Soil	Malathion	LT 2.1 -01	ug/g	CD0003
			1,4 Oxathiane	LT 2.5 -01	ug/g	CD0003
			Lead	1.22+01	ug/g	CD0012
			p,p'-dichlorodiphenylethane	LT 5.7 -01	ug/g	CD0003
			p,p'-dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CD0003
			Parathion	LT 8.5 -01	ug/g	CD0003
			2-Chloro-1(2,4-dichlorophenyl) Vinyl diethyl Phosphates	LT 6.1 -01	ug/g	CD0003
			Tetrachloroethene	LT 2.5 -01	ug/g	CD1002
			Thiodiglycol	LT 4.20+00	ug/g	CD0006
			Trichloroethene	LT 5.4 -01	ug/g	CD1002
01003	4.5	Soil	Ortho & Para Xylene	LT 4.9 +00	ug/g	CD1002
			Zinc	5.18+01	ug/g	CD0012
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CD1003
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CD1003
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CD1003
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CD1003
			1,2-Dichloroethane	LT 9.6 -01	ug/g	CD1003
			m Xylene	LT 2.4 -01	ug/g	CD1003
			Acetone	LT 2.5 -01	ug/g	CD0004
			Acetone	LT 2.5 +00	ug/g	CD0006
01004	4.5	Soil	Acetone	LT 2.5 -01	ug/g	CD0004
			Acetone	LT 4.6 -01	ug/g	CD1003

Note: Results for some parameters may appear in more than one analytical location.

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Rocky Mountain Arsenal Program

Spill Sites

Laboratory Test Results

Task 24

Summary of Analytical Results

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0040	9.10	Soil	Benzene	LT 2.5 -01	ug/g	CD1003
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CD1003
			Cadmium	LT 7.36-01	ug/g	CDG013
			Methylene Chloride	LT 1.5 +00	ug/g	CD1003
			Chloroform	LT 2.9 -01	ug/g	CD1003
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CD0004
			Chloroacetic Acid	LT 3.55+01	ug/g	CDK007
			Chlorobenzene	LT 1.5 +00	ug/g	CD1003
			Chlordane	LT 1.7 +00	ug/g	CD0004
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CD0004
			p-Chlorophenylmethyl Sulfonide	LT 2.5 -01	ug/g	CD0004
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CD0004
			Chromium	1.61+01	ug/g	CDG013
			Copper	7.75+00	ug/g	CDG013
			Dibromochloropropane	LT 2.8 -01	ug/g	CD0004
			Dibromochloropropane	LT 2.4 +00	ug/g	CD1003
			Dicyclopentadiene	LT 6.4 -01	ug/g	CD1003
			Dicyclopentadiene	LT 1.1 +00	ug/g	CD0004
			Vapor	LT 3.0 +00	ug/g	CD0004
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CD0004
			Diethane	LT 3.6 -01	ug/g	CD0004
			Diethrin	LT 2.5 -01	ug/g	CD0004
			Dimethyldisulfide	LT 2.0 +01	ug/g	CD1003
			Endrin	LT 4.6 -01	ug/g	CD0004
			Ethylbenzene	LT 3.8 -01	ug/g	CD1003
			Mercury	LT 5.00-02	ug/g	CD0010
			Isodrin	LT 2.9 -01	ug/g	CD0004
			Toluene	LT 2.5 -01	ug/g	CD1003
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CD1003
			Malathion	LT 7.1 -01	ug/g	CD0004
			1,4-Oxathiane	LT 2.5 -01	ug/g	CD0004
			Lead	LT 8.38+00	ug/g	CDG013
			Trichlorodiphenylethane	LT 5.2 -01	ug/g	CD0004
			Trichlorodiphenylethane ethane	LT 4.7 -01	ug/g	CD0004

Note: Results for some parameters may appear in more than one analytical fraction.

Summary of Analytical Results

Task 24

Spill Sites

Dwelling Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0040	9-10	Soil	Parathion	LT 8.5 -01	ug/g	CD0004
			2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CD0004
			Tetrachloroethene	LT 2.5 -01	ug/g	CD0003
			Thiodiglycol	LT 4.20+00	ug/g	CD0007
			Trichloroethene	LT 5.4 -01	ug/g	CD0003
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CD0003
0040	14-15	Soil	Zinc	4.35+01	ug/g	CD0013
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CD0004
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CD0004
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CD0004
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CD0004
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CD0004
			m-Xylene	LT 7.4 -01	ug/g	CD0004
			Aldrin	LT 2.5 -01	ug/g	CD0005
			Arsenic	3.00+00	ug/g	CD0007
			Atrazine	LT 2.5 -01	ug/g	CD0005
			Bicycloheptadiene	LT 3.6 -01	ug/g	CD0004
			Benzene	LT 2.5 -01	ug/g	CD0004
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CD0004
			Cadmium	LT 2.36-01	ug/g	CD0014
			Methylene Chloride	LT 1.5 +00	ug/g	CD0004
			Chloroform	LT 2.9 -01	ug/g	CD0004
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CD0005
			Chloroacetic Acid	LT 3.55+01	ug/g	CD0008
			Chlorobenzene	LT 1.5 +00	ug/g	CD0004
			Chloroform	LT 1.7 +00	ug/g	CD0005
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CD0005
			p-Chlorophenylmethyl Sulfonide	LT 2.5 -01	ug/g	CD0005
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CD0005
			Chromium	1.38+01	ug/g	CD0014
			Copper	9.97+00	ug/g	CD0014
			Dibromochloropropane	LT 2.8 -01	ug/g	CD0005

Note: Results for some parameters may appear to more than one analytical fraction.

Rocky Mountain Arsenal Program

Phase Services Incorporated

Task 24 Spill Sites

Summary of Analytical Results

Running Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0040	14-15	Soil	Dibromochloropropane	LT 2.4 +00	ug/g	CD1004
			Dibromocyclopentadiene	LT 1.1 +00	ug/g	CD0005
			Dibromocyclopentadiene	LT 6.4 -01	ug/g	CD1004
			Vapona	LT 3.0 +00	ug/g	CD0005
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CD0005
			Dithiane	LT 3.6 -01	ug/g	CD0005
			Dieldrin	LT 2.5 -01	ug/g	CD0005
			Dimethyldisulfide	LT 2.0 +01	ug/g	CD1004
			Endrin	LT 4.6 -01	ug/g	CD0005
			Ethylbenzene	LT 3.8 -01	ug/g	CD1004
			Mercury	LT 5.00 -02	ug/g	CD0011
			Isodrin	LT 2.9 -01	ug/g	CD0005
			Toluene	LT 2.5 -01	ug/g	CD1004
			Methylisobutyl ketone	LT 7.3 -01	ug/g	CD1004
			Malathion	LT 7.1 -01	ug/g	CD0005
			1,4-Oxathiane	LT 2.5 -01	ug/g	CD0005
			Lead	LT 8.38 +00	ug/g	CD0014
			Bichlorodiphenylethane	LT 5.7 -01	ug/g	CD0005
			Bichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CD0005
			Parathion	LT 8.5 -01	ug/g	CD0005
0040	19-20	Soil	2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.1 -01	ug/g	CD0005
			Tetrachloroethene	LT 2.5 -01	ug/g	CD1004
			Phiodiglycol	LT 4.20 +00	ug/g	CDK008
			Trichloroethene	LT 5.4 -01	ug/g	CD1004
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CD1004
			Zinc	4.10 +01	ug/g	CD0014
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CD1005
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CD1005
			1,1-Trichloroethane	LT 1.7 +00	ug/g	CD1005
			1,2-Trichloroethane	LT 1.7 +00	ug/g	CD1005
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CD1005

Note: Results for some parameters may appear in more than one analytical fraction.

Summary of Analytical Results

Task 24

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0040	19-20	Soil	m-Xylene	LT 7.4 -01	ug/g	CD1005
			Aldrin	LT 2.5 -01	ug/g	CD0006
			Arsenic	LT 2.50+00	ug/g	CD0008
			Atrazine	LT 2.5 -01	ug/g	CD0006
			Bicycloheptadiene	LT 3.6 -01	ug/g	CD1005
			Benzene	LT 2.5 -01	ug/g	CD1005
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CD1005
			Cadmium	LT 7.36-01	ug/g	CD0015
			Methylene Chloride	LT 1.5 +00	ug/g	CD1005
			Chloroform	LT 2.9 -01	ug/g	CD1005
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CD0006
			Chloroacetic Acid	LT 3.54+01	ug/g	CHK009
			Chlorobenzene	LT 1.5 +00	ug/g	CD1005
			Chlordane	LT 1.7 +00	ug/g	CD0006
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CD0006
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CD0006
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CD0006
			Chromium	1.26+01	ug/g	CD0015
			Copper	4.25+01	ug/g	CD0015
			Dibromochloropropane	LT 2.8 -01	ug/g	CD0006
			Dibromochloropropane	LT 2.4 +00	ug/g	CD1005
			Dibromochloropropane	LT 1.1 +00	ug/g	CD0006
			Dicyclopentadiene	LT 6.4 -01	ug/g	CD1005
			Dicyclopentadiene	LT 3.0 +00	ug/g	CD0006
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CD0006
			Dithiane	LT 3.6 -01	ug/g	CD0006
			Diethyltin	LT 2.5 -01	ug/g	CD0006
			Dimethyldisulfide	LT 2.0 +01	ug/g	CD1005
			Endrin	LT 4.6 -01	ug/g	CD0006
			Ethylbenzene	LT 3.8 -01	ug/g	CD1005
			Mercury	LT 5.00 02	ug/g	CD0012
			Isodrin	LT 2.9 01	ug/g	CD0006
			Toluene	LT 2.5 -01	ug/g	CD1005
			Methylisobutyl Ketone	LT 7.7 -01	ug/g	CD1005

Note: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Hansen Laboratory Incorporated

Summary of Analytical Results

Task #4

Spill Sites

Reporting Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0040	19-20	Soil	Malathion	LT 7.1 -01	ug/g	CD0006
			1,4-Oxathiane	LT 2.5 -01	ug/g	CD0006
			Lead	LT 8.38+00	ug/g	CDG015
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CD0006
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CD0006
0040	21.5-22.5	Soil	Parathion	LT 8.5 -01	ug/g	CD0006
			2-Chloro-1(2,4-Dichlorophenyl)	LT 6.1 -01	ug/g	CD0006
			Vinylidene Phosphates			
			Tetrachloroethene	LT 2.5 -01	ug/g	CD1005
			Thiodiglycol	LT 4.20+00	ug/g	CDK009
			Trichloroethene	LT 5.4 -01	ug/g	CD1005
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CD1005
			Zinc	9.86+01	ug/g	CDG015
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CD1006
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CD1006
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CD1006
			1,2-Dichloroethene	LT 1.7 +00	ug/g	CD1006
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CD1006
			m-Xylene	LT 7.4 -01	ug/g	CD1006
			Aldrin	LT 2.5 -01	ug/g	CD0007
			Arsenic	LT 2.50+00	ug/g	CD0007
			Atrazine	LT 2.5 -01	ug/g	CD0007
			Bicycloheptadiene	LT 3.6 -01	ug/g	CD1006
			Benzene	LT 2.5 -01	ug/g	CD1006
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CD1006
			Cadmium	LT 7.36+01	ug/g	CDG016
			Methylene Chloride	LT 1.5 +00	ug/g	CD1006
			Chloroform	LT 2.9 -01	ug/g	CD1006
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CD0007
			Chloroacetic Acid	LT 3.65+01	ug/g	CDK010
			Chlorobenzene	LT 1.5 +00	ug/g	CD1006
			Chloroethane	LT 1.7 +01	ug/g	CD0007
			p-Chloroethenylmethyl Sulfide	LT 9.1 -01	ug/g	CD0007

Note: Results for some parameters may appear in more than one analytical fraction.

Chasco Services Incorporated
Summary of Analytical Results

Task 24

Rocky Mountain Arsenal Program
Spill Sites

08/06/88

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0040	21.5-22.5	Soil	p-Chlorophenylmethyl Sulfide	LT 2.5 -01	ug/g	CD0007
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CD0007
			Chromium	LT 6.5+00	ug/g	CD0016
			Copper	LT 1.76+01	ug/g	CD0016
			Dibromochloropropane	LT 2.8 -01	ug/g	CD0007
			Dibromochloropropane	LT 2.4 +00	ug/g	CD1006
			Dichloropentadiene	LT 6.4 -01	ug/g	CD1006
			Dicyclopentadiene	LT 1.1 +00	ug/g	CD0007
			Varona	LT 3.0 +00	ug/g	CD0007
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CD0007
			Dithiane	LT 3.6 -01	ug/g	CD0007
			Dieldrin	LT 2.5 -01	ug/g	CD0007
			Dimethyldisulfide	LT 2.0 +01	ug/g	CD1006
			Endrin	LT 4.6 -01	ug/g	CD0007
			Ethylbenzene	LT 3.8 -01	ug/g	CD1006
			Mercury	LT 5.00-02	ug/g	CD0013
			Isodrin	LT 2.9 -01	ug/g	CD0007
			Toluene	LT 2.5 -01	ug/g	CD1006
			Methyl isobutyl Ketone	LT 7.3 -01	ug/g	CD1006
			Malathion	LT 7.1 -01	ug/g	CD0007
			1,4-Oxathiane	LT 2.5 -01	ug/g	CD0007
			Lead	LT 8.38+00	ug/g	CD0016
			Trichlorodiphenylethane	LT 5.7 -01	ug/g	CD0007
			Trichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CD0007
			Parathion	LT 8.5 -01	ug/g	CD0007
			2-Chloro-1-(2,4-dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CD0007
			Tetrachloroethene	LT 2.5 -01	ug/g	CD1006
			Thiodiglycol	LT 4.20+00	ug/g	CD0010
			Trichloroethene	LT 5.4 -01	ug/g	CD1006
			m- and p-Para-xylene	LT 4.9 +00	ug/g	CD1006
			Zinc	5.74+01	ug/g	CD0016
0041	0.5-1.5	Soil	Aldrin	LT 2.5 -01	ug/g	CD0002

Note: Results for some parameters may appear in more than one analytical fraction.

Summary of Analytical Results

Task 24

Spill Sites

Porting Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0001	0.5-1.5	Soil	Arsenic	1.86+00	ug/g	CD0020
			Atrazine	LT 2.5 -01	ug/g	CDN002
			Cadmium	LT 7.36-01	ug/g	CDN007
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CDN002
			Chloroacetic Acid	LT 3.55+01	ug/g	CD0005
			Chlordane	LT 1.7 +00	ug/g	CDN002
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CDN002
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CDN002
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CDN002
			Chromium	LT 6.53+00	ug/g	CD0007
			Copper	8.66+00	ug/g	CD0007
			Dibromochloropropane	LT 2.8 -01	ug/g	CDN002
			Dicyclopentadiene	LT 1.1 +00	ug/g	CDN002
			Vanona	LT 3.0 +00	ug/g	CDN002
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CDN002
0001	4-5	Soil	Dithiane	LT 3.6 -01	ug/g	CDN002
			Dieldrin	1.1 +00	ug/g	CDN002
			Endrin	LT 4.6 -01	ug/g	CDN002
			Mercury	5.06-01	ug/g	CDH008
			Isodrin	LT 2.9 -01	ug/g	CDN002
			Malathion	LT 7.1 -01	ug/g	CDN002
			1,4-Oxathiane	LT 2.5 -01	ug/g	CDN002
			Lead	1.25+01	ug/g	CD0007
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CDN002
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CDN002
			Parathion	LT 8.5 -01	ug/g	CDN002
			2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CDN002
			Thiodiglycol	LT 4.20+00	ug/g	CD0005
			Zinc	4.64+01	ug/g	CD0007
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CDM003
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CDM003
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CDM003

Note: Results for some parameters may appear in more than one analytical fraction.

08/06/88

Rudy Mountain Arsenal Program

Fluorocarbon Incorporated

Soil Sites

Task 24

Summary of Analytical Results

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0041	4-5	Soil	1,2-Dichloroethene	LT 1.7 +00	ug/g	CDM003
			1,2-trichloroethene	LT 5.6 -01	ug/g	CDM003
			m-Xylene	LT 7.4 -01	ug/g	CDM003
			Aldrin	LT 2.5 -01	ug/g	CDM003
			Arsenic	LT 2.50+00	ug/g	CDM021
			Atrazine	LT 2.5 -01	ug/g	CDM003
			Bicycloheptadiene	LT 3.6 -01	ug/g	CDM003
			Benzene	LT 2.5 -01	ug/g	CDM003
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CDM003
			Cadmium	LT 7.36 -01	ug/g	CDM008
			Methylene Chloride	LT 1.5 +00	ug/g	CDM003
			Chloroform	LT 2.9 -01	ug/g	CDM003
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CDM003
			Chloroacetic Acid	LT 3.55+01	ug/g	CDM006
			Chlorobenzene	LT 1.5 +00	ug/g	CDM003
			Chloroethane	LT 1.7 +00	ug/g	CDM003
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CDM003
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CDM003
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CDM003
			Chromium	2.64+01	ug/g	CDM008
			Copper	1.32+01	ug/g	CDM008
			Dibromochloropropane	LT 2.4 +00	ug/g	CDM003
			Dibromochloropropane	LT 2.8 -01	ug/g	CDM003
			Dicyclopentadiene	LT 6.4 -01	ug/g	CDM003
			Dicyclopentadiene	LT 1.1 +00	ug/g	CDM003
			Varona	LT 3.0 +00	ug/g	CDM003
			n-Isopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CDM003
			Triethane	LT 3.6 -01	ug/g	CDM003
			Triethane	LT 2.6 -01	ug/g	CDM003
			Dimethyldisulfide	LT 2.0 +01	ug/g	CDM003
			Endrin	LT 4.6 -01	ug/g	CDM003
			1-Hydrobenzene	LT 3.8 -01	ug/g	CDM003
			Mercury	LT 5.06-02	ug/g	CDM009
			Lead in	LT 2.9 -01	ug/g	CDM003

Note: Results for some parameters may appear in more than one analytical fraction.

08/06/88

Rocky Mountain Arsenal Program

Task 24

Summary of Analytical Results

Spill Sites

Ring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0041	4-5	Soil	Toluene	LT 2.5 -01	ug/g	CDMD03
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CDMD03
			Malathion	LT 7.1 -01	ug/g	CDMD03
			1,4-Oxathiane	LT 2.5 -01	ug/g	CDMD03
			Lead	LT 8.38+00	ug/g	CDMD08
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CDMD03
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CDMD03
			Parathion	LT 8.5 -01	ug/g	CDMD03
			2-Chloro-1(2,4-Dichlorophenyl) Vinylidylethyl Phosphates	LT 6.1 -01	ug/g	CDMD03
			Tetrachloroethene	LT 2.5 -01	ug/g	CDMD03
0041	9-10	Soil	Thiodiglycol	LT 4.20+00	ug/g	CDMD06
			Trichloroethene	LT 5.4 -01	ug/g	CDMD03
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CDMD03
			Zinc	6.46+01	ug/g	CDMD08
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CDMD04
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CDMD04
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CDMD04
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CDMD04
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CDMD04
			m-Xylene	LT 7.4 -01	ug/g	CDMD04
			Aldrin	LT 2.9 -01	ug/g	CDMD04
			Arsenic	LT 2.50+00	ug/g	CDMD04
			Atrazine	LT 2.5 -01	ug/g	CDMD04
			Bicycloheptadiene	LT 3.6 -01	ug/g	CDMD04
			Benzene	LT 2.5 -01	ug/g	CDMD04
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CDMD04
			Cadmium	LT 2.36-01	ug/g	CDMD09
			Methylene Chloride	LT 1.5 +00	ug/g	CDMD04
			Chloroform	LT 2.9 -01	ug/g	CDMD04
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CDMD04
			Chloroacetic Acid	LT 3.5+01	ug/g	CDMD07
			Chlorobenzene	LT 1.5 +00	ug/g	CDMD04

Note: Results for some parameters may appear to more than one analytical fraction.

Fluoro Services Incorporated

Rocky Mountain Arsenal Program

08/06/88

Summary of Analytical Results

Task 24

Spill Sites

Runing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
004	9-10	Soil	Chlordane	LT 1.7 +00	ug/g	CDN004
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CDN004
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CDN004
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CDN004
			Chromium	9.98+00	ug/g	CDN009
			Copper	1.26+01	ug/g	CDN009
			Dibromochloropropane	LT 2.4 +00	ug/g	CDN004
			Dibromochloropropane	LT 2.8 -01	ug/g	CDN004
			Dicyclopentadiene	LT 6.4 -01	ug/g	CDN004
			Dicyclopentadiene	LT 1.1 +00	ug/g	CDN004
			Vapona	LT 3.0 +00	ug/g	CDN004
			Difluorophenylmethyl Phosphonate	LT 1.1 +00	ug/g	CDN004
			Dithiane	LT 3.6 -01	ug/g	CDN004
			Dieldrin	LT 2.5 -01	ug/g	CDN004
			Dimethyldisulfide	LT 2.0 +01	ug/g	CDN004
			Endrin	LT 4.6 -01	ug/g	CDN004
			Ethylbenzene	LT 3.8 -01	ug/g	CDN004
			Mercury	LT 5.06-02	ug/g	CDN010
			Isodrin	LT 2.9 -01	ug/g	CDN004
			Toluene	LT 2.5 -01	ug/g	CDN004
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CDN004
			Malathion	LT 7.1 -01	ug/g	CDN004
			1,4-Oxathiane	LT 2.5 -01	ug/g	CDN004
			Lead	LT 8.38+00	ug/g	CDN009
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CDN004
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CDN004
			Parathion	LT 8.5 -01	ug/g	CDN004
			2-Chloro-1-(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 01	ug/g	CDN004
			Tetrachloroethane	LT 2.5 -01	ug/g	CDN004
			Triiodoglycol	LT 4.20+00	ug/g	CDN007
			Trichloroethene	LT 5.4 01	ug/g	CDN004
			Ortho & Para Xylene	LT 4.9 +00	ug/g	CDN004

Note: Results for some parameters may appear in more than one analytical fraction.

08/06/88

Rocky Mountain Arsenal Program

Phase Services Incorporated

Spill Sites

Jack #4

Summary of Analytical Results

Ring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0041	9-10	Soil	Zinc	5.85+01	ug/g	CD00009
0041	14-15	Soil	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CD00005
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CD00005
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CD00005
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CD00005
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CD00005
			m-Xylene	LT 7.4 -01	ug/g	CD00005
			Aldrin	LT 2.5 -01	ug/g	CD00005
			Arsenic	LT 2.50+00	ug/g	CD00023
			Atrazine	LT 2.5 -01	ug/g	CD00005
			Bicycloheptadiene	LT 3.6 -01	ug/g	CD00005
			Benzene	LT 2.5 -01	ug/g	CD00005
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CD00005
			Cadmium	LT 7.36-01	ug/g	CD00010
			Methylene Chloride	LT 1.5 +00	ug/g	CD00005
			Chloroform	LT 2.9 -01	ug/g	CD00005
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CD00005
			Chloroacetic Acid	LT 3.55+01	ug/g	CD00008
			Chlorobenzene	LT 1.5 +00	ug/g	CD00005
			Chloroethane	LT 1.7 +00	ug/g	CD00005
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CD00005
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CD00005
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CD00005
			Chromium	1.24+01	ug/g	CD00010
			Copper	3.41+01	ug/g	CD00010
			Dibromochloropropane	LT 2.4 +00	ug/g	CD00005
			Dibromochloropropane	LT 2.8 -01	ug/g	CD00005
			Dichloropentadiene	LT 6.4 -01	ug/g	CD00005
			Dichloropentadiene	LT 1.1 +00	ug/g	CD00005
			Vapona	LT 3.0 +00	ug/g	CD00005
			Dilsepropylmethyl Phosphonate	LT 1.1 +00	ug/g	CD00005
			Diethane	LT 3.6 -01	ug/g	CD00005
			Dieldrin	LT 2.5 -01	ug/g	CD00005

Note: Results for some parameters may appear in more than one analytical fraction.

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0041	14-15	Soil	Dimethyldisulfide	LT 2.0 +01	ug/g	CDM005
			Endrin	LT 4.6 -01	ug/g	CDM005
			Ethylbenzene	LT 3.8 -01	ug/g	CDM005
			Mercury	LT 5.06-02	ug/g	CH011
			Isodrin	LT 2.4 -01	ug/g	CDM005
			Toluene	LT 2.5 -01	ug/g	CDM005
			Methylisobutyl ketone	LT 2.3 -01	ug/g	CDM005
			Malathion	LT 2.1 -01	ug/g	CDM005
			1,4-Oxathiane	LT 2.5 -01	ug/g	CDM005
			Lead	LT 8.38+00	ug/g	CDM010
0042	0-1	Soil	Dichlorodiphenylethane	LT 5.2 -01	ug/g	CDM005
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CDM005
			Parathion	LT 8.5 -01	ug/g	CDM005
			2-Chloro-1(2,4-Dichlorophenyl) Vinyltolyl Phosphates	LT 6.1 -01	ug/g	CDM005
			Tetrachloroethene	LT 2.5 -01	ug/g	CDM005
			Trifluoroglycol	LT 4.2 +00	ug/g	CDM008
			Trichloroethene	LT 5.4 -01	ug/g	CDM005
			ortho- & Para Xylene	LT 4.9 +00	ug/g	CDM005
			Zinc	9.63+01	ug/g	CDM010
			Aldrin	LT 3. -01	ug/g	CE0002
			Arsenic	7.13+00	ug/g	CE0012
			Atrazine	LT 3. -01	ug/g	CE0002
			Calcium	2.54+00	ug/g	CE0007
			Hexachlorocyclopentadiene	LT 3. -01	ug/g	CE0002
			Chloroacetic Acid	LT 3.55+01	ug/g	CE1009
			Chloroform	LT 6. -01	ug/g	CE0002
			p-Chlorophenylmethyl Sulfide	LT 4. +00	ug/g	CE0002
			p-Chlorophenylmethyl Sulfonate	LT 7. +00	ug/g	CE0002
			p-Chlorophenylmethyl Sulfonate	LT 6. -01	ug/g	CE0002
			Chromium	3.66+01	ug/g	CE1007
			Copper	1.06+01	ug/g	CE1007
			Trichloroethylene	LT 3. -01	ug/g	CE0002

Note: Results for some parameters may appear in more than one analytical location.

Summary of Analytical Results

Task 24

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0042	0-1	Soil	Dicyclopentadiene	LT 4. -01	ug/g	CE0002
			Vapona	LT 3. -01	ug/g	CE0002
			Diisopropylmethyl Phosphonate	LT 3. -01	ug/g	CE0002
			Dithiane	LT 7. +00	ug/g	CE0002
			Dieldrin	5. +00	ug/g	CE0002
			Endrin	LT 3. -01	ug/g	CE0002
			Mercury	3.16+00	ug/g	CE0017
			Isodrin	LT 3. -01	ug/g	CE0002
			Malathion	LT 3. -01	ug/g	CF0002
			1,4-Oxathiane	LT 6. +00	ug/g	CE0002
			Lead	1.18+02	ug/g	CF0007
			Dichlorodiphenylethane	LT 3. -01	ug/g	CF0002
			Dichlorodiphenyltrichloroethane	LT 6. -01	ug/g	CE0002
			Parathion	LT 4. -01	ug/g	CE0002
			2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 3. -01	ug/g	CE0002
			Triiodoglycol	LT 4.20+00	ug/g	CE1009
			Zinc	2.61+02	ug/g	CE1007
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CEL002
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CEL002
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CEL002
0042	4-5	Soil	1,2-Dichloroethane	LT 1.7 +00	ug/g	CEL002
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CEL002
			m-Xylene	LT 7.4 -01	ug/g	CEL002
			Aldrin	LT 3. -01	ug/g	CE0003
			Arsenic	3.76+00	ug/g	CEU013
			Atrazine	LT 3. -01	ug/g	CE0003
			Ricicloheptadiene	LT 3.6 -01	ug/g	CEL002
			Benzene	LT 2.5 -01	ug/g	CEL002
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CEL002
			Cadmium	LT 7.36-01	ug/g	CE1008
			Methylene Chloride	LT 1.5 +00	ug/g	CEL002
			Chloroform	LT 2.9 -01	ug/g	CEL002

Note: Results for some parameters may appear in more than one analytical fraction.

Revised Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0042	4-5	Soil	Hexachlorocyclopentadiene	LT 3.55+01	ug/g	CE0003
			Chloroacetic Acid	LT 3.55+01	ug/g	CE1010
			Chlorobenzene	LT 1.5 +00	ug/g	CE1002
			Chloroethane	LT 6. -01	ug/g	CE0003
			p-Chlorophenylmethyl Sulfide	LT 4. +00	ug/g	CE0003
			p-Chlorophenylmethyl Sulfoxide	LT 7. +00	ug/g	CE0003
			p-Chlorophenylmethyl Sulfone	LT 6. -01	ug/g	CE0003
			Chromium	2.16+01	ug/g	CE1008
			Copper	1.04+01	ug/g	CE1008
			Dibromochloropropane	LT 2.4 +00	ug/g	CE1002
			Dibromochloropropane	LT 3. -01	ug/g	CE0003
			Dibromopentadiene	LT 6.4 01	ug/g	CE1002
			Dibromopentadiene	LT 4. -01	ug/g	CE0003
			Vapor	LT 3. -01	ug/g	CE0003
			Diisopropylmethyl Phosphonate	LT 3. -01	ug/g	CE0003
			Dithiane	LT 7. +00	ug/g	CE0003
			Dieldrin	LT 3. 01	ug/g	CE0003
			Dimethyldisulfide	LT 2.0 +01	ug/g	CE1002
			Dieldrin	LT 3. -01	ug/g	CE0003
			Ethylbenzene	LT 3.8 -01	ug/g	CE1002
			Mercury	6.78-02	ug/g	CE0018
			Isodrin	LT 3. -01	ug/g	CE0003
			Toluene	LT 2.5 -01	ug/g	CE1002
			Methylisobutyl Ketone	1.4 +00	ug/g	CE1002
			Malathion	LT 3. -01	ug/g	CE0003
			1,4-Dioxathiane	LT 6. +00	ug/g	CE0003
			Lead	LT 8.38+00	ug/g	CE1008
			Trichlorodiphenylmethane	LT 3. -01	ug/g	CE0003
			Trichlorodiphenylmethane	LT 6. -01	ug/g	CE0003
			Ethane	LT 4. 01	ug/g	CE0003
			Parathion	LT 3. 01	ug/g	CE0003
			1,1,2,4-Tetrachlorobenzene	LT 3. 01	ug/g	CE0003
			Vinylmethyl Phosphonate	LT 2.5 01	ug/g	CE1002
			Tetrachloroethane			

Notes: Results for some parameters may appear in more than one analytical table.

08/04/88

Rocky Mountain Arsenal Program

Phase Services Incorporated

Task 24

Summary of Analytical Results

Spill Sites

Reporting Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0042	4-5	Soil	Thiodiglycol Trichloroethene Ortho- & Para-xylene Zinc	LT 4.20+00 LT 5.4 -01 LT 4.9 +00 LT 4.82+01	ug/g ug/g ug/g ug/g	CE1010 CE1002 CE1002 CE1008
0043	2-3	Soil	Aldrin Arsenic Atrazine Cadmium Hexachlorocyclopentadiene	1.7 +01 9.37+01 LT 2.5 -01 4.44+00 LT 5.7 -01	ug/g ug/g ug/g ug/g ug/g	CFL002 CFS015 CFL002 CFG005 CFL002
			Chloroacetic Acid Chlordane p-Chlorophenylmethyl Sulfide p-Chlorophenylmethyl Sulfoxide p-Chlorophenylmethyl Sulfone	LT 3.55+01 LT 1.7 +00 LT 9.1 -01 LT 2.5 -01 LT 2.5 -01	ug/g ug/g ug/g ug/g ug/g	CFM014 CFL002 CFL002 CFL002 CFL002
			Chromium Copper Dibromochloropropane Dicyclopentadiene Vapona	2.39+01 5.13+01 LT 2.8 -01 LT 1.1 +00 LT 3.0 +00	ug/g ug/g ug/g ug/g ug/g	CFG005 CFG005 CFL002 CFL002 CFL002
			Diisopropylmethyl Phosphonate Dithiane Dieldrin Endrin Mercury	LT 1.1 +00 LT 3.6 -01 LT 1.2 +01 LT 4.6 -01 6.35-01	ug/g ug/g ug/g ug/g ug/g	CFL002 CFL002 CFL002 CFL002 CFC012
			Isodrin Malathion 1,4-Oxathiane Lead Dichlorodiphenylethane	LT 2.9 -01 LT 7.1 -01 LT 2.5 -01 1.75+02 LT 5.7 01	ug/g ug/g ug/g ug/g ug/g	CFL002 CFL002 CFL002 CFG005 CFL002
			Dichlorodiphenyltrichloroethane Forathion 2-Chloro-1(2,4-dichlorophenyl) Vinylidene 1 Phosphates	LT 4.7 -01 LT 8.5 -01 LT 6.1 -01	ug/g ug/g ug/g	CFL002 CFL002 CFL002

Note: Results for some parameters may appear in more than one analytical fraction.

08/06/88

Early Mountain Arsenal Program

Phase 1: Groundwater Investigation

Task 2/4

Summary of Analytical Results

Well Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0043	2.3	Soil	Triiodoethyl Zinc	LT 4.20+00 2.25+02	ug/g ug/g	CFM014 CFG005
0063	4.5	Soil	1,1,1-Trichloroethane 1,1,2-Trichloroethane 1,1 Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane	LT 4.3 -01 LT 3.9 -01 LT 1.7 +00 LT 1.7 +00 LT 5.6 -01	ug/g ug/g ug/g ug/g ug/g	CFH002 CFH002 CFH002 CFH002 CFH002
			m-Xylene Aldrin Arsenic Atrazine Bicycloheptadiene	LT 7.4 -01 LT 2.5 -01 1.74+01 LT 2.5 -01 LT 3.6 -01	ug/g ug/g ug/g ug/g ug/g	CFH002 CFL003 CFS016 CFL003 CFH002
			Benzene Carbon Tetrachloride Cadmium Methylene Chloride Chloroform	LT 2.5 -01 LT 2.5 -01 LT 7.76-01 LT 1.5 +00 LT 2.9 -01	ug/g ug/g ug/g ug/g ug/g	CFH002 CFH002 CFG006 CFH002 CFH002
			Hexachlorocyclopentadiene Chloroacetic Acid Chlorobenzene Chloroethane n-Chlorophenylmethyl Sulfide	LT 5.7 -01 LT 3.56+01 LT 1.5 +00 LT 1.7 +00 LT 9.1 -01	ug/g ug/g ug/g ug/g ug/g	CFL003 CFM015 CFH002 CFL003 CFL003
			p-Chlorophenylmethyl Sulfonate n-Chlorophenylmethyl Sulfone Chromium Copper Bis(2-chlorophenyl)propane	LT 2.5 -01 LT 2.5 -01 1.11+01 3.58+01 LT 2.8 -01	ug/g ug/g ug/g ug/g ug/g	CFL003 CFL003 CFG006 CFG006 CFL003
			Bis(2-chlorophenyl)propane Bis(2-chlorophenyl)propane Bis(2-chlorophenyl)propane Vapor Bis(2-chlorophenyl)methyl Phosphonate Lithium	LT 2.4 +00 LT 1.1 +00 LT 6.4 -01 LT 3.0 +00 LT 1.1 +00 LT 3.6 -01	ug/g ug/g ug/g ug/g ug/g ug/g	CFH002 CFL003 CFH002 CFL003 CFL003 CFL003

Note: Results for some parameters may appear in more than one analytical fraction.

Summary of Analytical Results

Task 24

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0043	4.5	Soil	Dieldrin	LT 2.5 -01	ug/g	CFL003
			Dimethyldisulfide	LT 2.0 +01	ug/g	CFH002
			Endrin	LT 4.6 -01	ug/g	CFL003
			Ethylbenzene	LT 3.8 -01	ug/g	CFH002
			Mercury	LT 5.00-02	ug/g	CFC013
			Isodrin	LT 2.9 -01	ug/g	CFL003
			Toluene	LT 2.5 -01	ug/g	CFH002
			Methylisobutyl ketone	LT 7.3 -01	ug/g	CFH002
			Malathion	LT 7.1 -01	ug/g	CFL003
			1,4-Oxathiane	LT 2.5 -01	ug/g	CFL003
			Lead	LT 8.38+00	ug/g	CFG006
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CFL003
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CFL003
			Parathion	LT 8.5 -01	ug/g	CFL003
0043	9.10	Soil	2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CFL003
			Tetrachloroethene	LT 2.5 -01	ug/g	CFH002
			Tridiglycol	LT 4.20+00	ug/g	CFH015
			Trichloroethene	LT 5.4 -01	ug/g	CFH002
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CFH002
			Zinc	1.01+02	ug/g	CFG006
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CFH003
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CFH003
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CFH003
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CFH003
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CFH003
			m Xylene	LT 7.4 -01	ug/g	CFH003
			Aldrin	LT 2.5 -01	ug/g	CFL004
			Arsenic	1.62+01	ug/g	CFS017
0043	9.10	Soil	Atrazine	LT 2.5 -01	ug/g	CFL004
			Bicycloheptadiene	LT 3.6 -01	ug/g	CFH003
			Benzene	LT 2.5 -01	ug/g	CFH003

Note: Results for some parameters may appear in more than one analytical fraction.

08/06/88

Rocky Mountain Arsenal Program

Hazardous Waste Investigation

Spill Sites

Task 24

Summary of Analytical Results

Boxing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0043	9-10	Soil	Carbon Tetrachloride	LT 2.5 -01	ug/g	CFH003
			Cadmium	LT 7.36 -01	ug/g	CFG007
			Methylene Chloride	LT 1.5 +00	ug/g	CFH003
			Chloroform	LT 2.9 -01	ug/g	CFH003
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFL004
			Chloroacetic Acid	LT 3.55 +01	ug/g	CFM016
			Chlorobenzene	LT 1.5 +00	ug/g	CFH003
			Dieldrin	LT 1.7 +00	ug/g	CFL004
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CFL004
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CFL004
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFL004
			Chromium	9.85 +00	ug/g	CFG007
			Copper	4.05 +01	ug/g	CFG007
			Dibromochloropropane	LT 2.8 -01	ug/g	CFL004
			Dibromochloropropane	LT 2.4 +00	ug/g	CFH003
			Dicyclopentadiene	LT 1.1 +00	ug/g	CFL004
			Dicyclopentadiene	LT 6.4 -01	ug/g	CFH003
			Valone	LT 3.0 +00	ug/g	CFL004
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CFL004
			Dithiane	LT 3.6 -01	ug/g	CFL004
			Dieldrin	LT 2.5 -01	ug/g	CFL004
			Dimethylsulfide	LT 2.0 +01	ug/g	CFH003
			Fidrin	LT 4.6 -01	ug/g	CFL004
			Ethylbenzene	LT 3.8 -01	ug/g	CFH003
			Mercury	LT 5.00 -02	ug/g	CFC014
			Isodrin	LT 2.9 -01	ug/g	CFL004
			Toluene	LT 2.5 -01	ug/g	CFH003
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CFH003
			Malathion	LT 7.1 -01	ug/g	CFL004
			1,4-Dioxane	LT 2.5 -01	ug/g	CFL004
			Lead	LT 8.38 +00	ug/g	CFG007
			1,2-Dichloroethylbenzene	LT 5.7 -01	ug/g	CFL004
			1,2-Dichloroethylbenzene	LT 4.7 -01	ug/g	CFL004
			ethane			

Note: Results for some parameters may appear in more than one analytical location.

Spill Sites

Task 24

Summary of Analytical Results

Analytical Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0043	9-10	Soil	Parathion	LT 8.5 -01	ug/g	CFL004
			2 Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CFL004
			Tetrachloroethene	LT 2.5 -01	ug/g	CFH003
			Thiodiglycol	LT 4.20+00	ug/g	CFH016
			Trichloroethene	LT 5.4 -01	ug/g	CFH003
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CFH003
			Zinc	1.06+02	ug/g	CFG007
			1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CFH004
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CFH004
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CFH004
0043	14-15	Soil	1,2-Dichloroethane	LT 1.7 +00	ug/g	CFH004
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CFH004
			m-Xylene	LT 7.4 -01	ug/g	CFH004
			Aldrin	LT 2.5 -01	ug/g	CFL005
			Arsenic	3.91+00	ug/g	CFH018
			Atrazine	LT 2.5 -01	ug/g	CFL005
			Bicycloheptadiene	LT 3.6 -01	ug/g	CFH004
			Benzene	LT 2.5 -01	ug/g	CFH004
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CFH004
			Cadmium	LT 7.36-01	ug/g	CFG008
			Methylene Chloride	LT 1.5 +00	ug/g	CFH004
			Chloroform	LT 2.9 -01	ug/g	CFH004
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFL005
			Chloroacetic Acid	LT 3.55+01	ug/g	CFH017
			Chlorobenzene	LT 1.5 +00	ug/g	CFH004
			Chloroethane	LT 1.7 +00	ug/g	CFL005
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CFL005
			p-Chlorophenylmethyl Sulfonate	LT 2.5 -01	ug/g	CFL005
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFL005
			Chromium	1.03+01	ug/g	CFG008
			Copper	3.26+01	ug/g	CFG008
			Dibenzodioxin epoxide	LT 2.8 -01	ug/g	CFL005

Note: Results for some parameters may appear in more than one analytical fraction.

Flavor Compounds Incorporated

Rocky Mountain Arsenal Program

08/06/88

Summary of Analytical Results

Task 24

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0042	14-15	Soil	Dibromochloropropane	LT 2.4 +00	ug/g	CFH004
			Dibromopentadiene	LT 1.1 +00	ug/g	CFH005
			Dibromopentadiene	LT 6.4 -01	ug/g	CFH004
			Vapona	LT 3.0 +00	ug/g	CFH005
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CFH005
			Dithiane	LT 3.6 -01	ug/g	CFH005
			Dieldrin	LT 2.5 -01	ug/g	CFH005
			Dimethyldisulfide	LT 2.0 +01	ug/g	CFH004
			Endrin	LT 4.6 -01	ug/g	CFH005
			Ethylbenzene	LT 3.8 -01	ug/g	CFH004
			Mercury	LT 5.00-02	ug/g	CFC015
			Isodrin	LT 2.9 -01	ug/g	CFH005
			Toluene	LT 2.5 -01	ug/g	CFH004
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CFH004
			Malathion	LT 7.1 -01	ug/g	CFH005
			1,4-Oxathiane	LT 2.5 -01	ug/g	CFH005
			Lead	LT 8.38+00	ug/g	CFG008
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CFH005
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CFH005
			Parathion	LT 8.5 -01	ug/g	CFH005
0042	14-20	Soil	2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.1 -01	ug/g	CFH005
			Tetrachloroethene	LT 2.5 -01	ug/g	CFH004
			Tridiglycerol	LT 4.20+00	ug/g	CFH017
			Trichloroethene	LT 5.4 -01	ug/g	CFH004
			Ortho & Para Xylene	LT 4.9 +00	ug/g	CFH004
			Zinc	9.80+01	ug/g	CFG008
			1,1,1 Trichloroethane	LT 4.3 -01	ug/g	CFH005
			1,1,2 Trichloroethane	LT 3.9 -01	ug/g	CFH005
			1,1,1-trichloroethane	LT 1.7 +00	ug/g	CFH005
			1,2-trichloroethane	LT 1.7 +00	ug/g	CFH005
			1,2-trichloroethane	LT 5.6 -01	ug/g	CFH005

Note: Results for some parameters may appear in more than one analytical fraction

Hydro Services, Incorporated
Summary of Analytical Results

Task 24 Rocky Mountain Arsenal Program
Spill Sites

08/16/88

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
004.5	19.20	Soil	m-Xylene	LT 7.4 -01	ug/g	CFH005
			Aldrin	LT 2.5 -01	ug/g	CFL006
			Arsenic	LT 2.50+00	ug/g	CFH019
			Atrazine	LT 2.5 -01	ug/g	CFL006
			Bicyclopentadiene	LT 3.6 -01	ug/g	CFH005
			Benzene	LT 2.5 -01	ug/g	CFH005
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CFH005
			Cadmium	LT 7.36-01	ug/g	CFG009
			Methylene Chloride	LT 1.5 +00	ug/g	CFH005
			Chloroform	LT 2.9 -01	ug/g	CFH005
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFL006
			Chloroacetic Acid	LT 3.55+01	ug/g	CFH018
			Chlorobenzene	LT 1.5 +00	ug/g	CFH005
			Chlordane	LT 1.7 +00	ug/g	CFL006
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CFL006
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CFL006
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFL006
			Chromium	1.20+01	ug/g	CFG009
			Copper	3.45+01	ug/g	CFG009
			Dibromochloropropane	LT 2.8 -01	ug/g	CFL006
			Dibromochloropropane	LT 2.4 +00	ug/g	CFH005
			Dicyclopentadiene	LT 1.1 +00	ug/g	CFL006
			Dicyclopentadiene	LT 6.4 -01	ug/g	CFH005
			Vapors	LT 3.0 +00	ug/g	CFL006
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CFL006
			Dithiane	LT 3.6 -01	ug/g	CFL006
			Dieldrin	LT 2.5 -01	ug/g	CFL006
			Dimethyldisulfide	LT 2.0 +01	ug/g	CFH005
			Dudrin	LT 4.6 -01	ug/g	CFL006
			Ethylbenzene	LT 3.8 -01	ug/g	CFH005
			Mercury	LT 5.00-02	ug/g	CFH016
			Isodrin	LT 2.9 -01	ug/g	CFL006
			Toluene	LT 2.5 -01	ug/g	CFH005
			Methylisobutyl ketone	LT 7.3 -01	ug/g	CFH005

Note: Results for some parameters may appear in more than one analytical fraction.

Summary of Analytical Results

Task 24

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
00043	19-20	Soil	Malathion	LT 7.1 -01	ug/g	CFL006
			1,4-Oxathiane	LT 2.5 -01	ug/g	CFL006
			Lead	LT 8.38+00	ug/g	CF6009
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CFL006
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CFL006
			Parathion	LT 8.5 -01	ug/g	CFL006
			2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CFL006
			Tetrachloroethene	LT 2.5 -01	ug/g	CFH005
			Triindiglycol	LT 4.20+00	ug/g	CFM018
			Trichloroethene	LT 5.4 -01	ug/g	CFH005
00044	0.1	Soil	Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CFH005
			Zinc	1.03+02	ug/g	CF6009
			Aldrin	2.8 +01	ug/g	CFL007
			Arsenic	3.68+02	ug/g	CF5011
			Atrazine	LT 2.5 -01	ug/g	CFL007
			Cadmium	1.23+01	ug/g	CF6017
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFL007
			Chloroacetic Acid	LT 3.55+01	ug/g	CF0005
			Chlordane	LT 1.7 +00	ug/g	CFL007
			p-Chlorophenylmethyl sulfide	LT 9.1 -01	ug/g	CFL007
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CFL007
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFL007
			Chromium	4.92+01	ug/g	CF6017
			Copper	3.25+02	ug/g	CF6017
			Dibromochloropropane	LT 2.8 -01	ug/g	CFL007
			Dichloropentadiene	LT 1.1 +00	ug/g	CFL007
			Valone	LT 3.0 +00	ug/g	CFL007
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CFL007
			Dithiane	LT 3.6 +01	ug/g	CFL007
			Dieldrin	6.1 +00	ug/g	CFL007
			Dieldrin	LT 4.6 -01	ug/g	CFL007
			Mercury	3.46+01	ug/g	CFR005

Note: Results for some parameters may appear in more than one analytical fraction

08/06/88

Rocky Mountain Arsenal Program

Fluoro Services Incorporated

Task #4

Summary of Analytical Results

Spill Sites

Runing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0064	0-1	Soil	Isodrin	LT 2.9 -01	ug/g	CFL007
			Malathion	LT 7.1 -01	ug/g	CFL007
			1,4-Oxathiane	LT 2.5 -01	ug/g	CFL007
			Lead	6.01+02	ug/g	CFG017
			Dichlorodiphenylethane	8.2 -01	ug/g	CFL007
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CFL007
			Parathion	LT 8.5 -01	ug/g	CFL007
			2-chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CFL007
			Thiodiglycol	LT 4.20+00	ug/g	CFQ005
			Zinc	9.11+02	ug/g	CFG017
0064	4-5	Soil	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CFE008
			1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CFE008
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CFE008
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CFE008
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CFE008
			m-Xylene	LT 7.4 -01	ug/g	CFE008
			Aldrin	LT 2.5 -01	ug/g	CFL008
			Arsenic	3.22+01	ug/g	CF5012
			Atrazine	LT 2.5 -01	ug/g	CFL008
			Bicycloheptadiene	LT 3.6 -01	ug/g	CFE008
			Benzene	LT 2.5 -01	ug/g	CFE008
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CFE008
			Cadmium	1.12+00	ug/g	CFG018
			Methylene Chloride	LT 1.5 +00	ug/g	CFE008
			Chloroform	LT 2.9 -01	ug/g	CFE008
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFL008
			Chloroacetic Acid	LT 3.55+01	ug/g	CFQ006
			Chlorobenzene	LT 1.5 +00	ug/g	CFE008
			Chlordane	LT 1.7 +00	ug/g	CFL008
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CFL008
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CFL008

Note: Results for some parameters may appear in more than one analytical fraction.

Summary of Analytical Results

Task 24

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0044	4-5	Soil	p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFL008
			Chromium	1.13+01	ug/g	CFG018
			Copper	3.70+01	ug/g	CFG018
			Dibromochloropropane	LT 2.8 -01	ug/g	CFL008
			Dibromochloropropane	LT 2.4 +00	ug/g	CFE008
			Dicyclopentadiene	LT 1.1 +00	ug/g	CFL008
			Dicyclopentadiene	LT 6.4 -01	ug/g	CFE008
			Vapona	LT 3.0 +00	ug/g	CFL008
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CFL008
			Dithiane	LT 3.6 -01	ug/g	CFL008
			Dieldrin	LT 2.5 -01	ug/g	CFL008
			Dimethyldisulfide	LT 2.0 +01	ug/g	CFE003
			Endrin	LT 4.6 -01	ug/g	CFL008
			Ethylbenzene	LT 3.8 -01	ug/g	CFE008
			Mercury	LT 5.00 -02	ug/g	CFR006
			Isodrin	LT 2.9 -01	ug/g	CFL008
			Toluene	LT 2.5 -01	ug/g	CFE008
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CFE008
			Malathion	LT 7.1 -01	ug/g	CFL008
			1,4-Oxathiane	LT 2.5 -01	ug/g	CFL008
			Lead	LT 8.38+00	ug/g	CFG018
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CFL008
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CFL008
			Parathion	LT 8.5 -01	ug/g	CFL008
			2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.1 -01	ug/g	CFL008
			Tetrachloroethene	LT 2.5 -01	ug/g	CFE008
			Triethylglycol	LT 4.20+00	ug/g	CFR006
			Trichloroethene	LT 5.4 -01	ug/g	CFE008
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CFE008
			Zinc	9.66+01	ug/g	CFG018
0044	9-10	Soil	1,1,1 Trichloroethane	LT 4.3 -01	ug/g	CFR006

Note: Results for some parameters may appear in more than one analytical fraction.

08/06/88

Rocky Mountain Arsenal Program

Threat Chemicals Incorporated

Task #4

Summary of Analytical Results

Spill Sites

Ring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0044	9-10	Soil	1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CFN004
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CFN004
			1,2-Dichloroethane	LT 1.7 +00	ug/g	CFN004
			1,2-Trichloroethane	LT 5.6 -01	ug/g	CFN004
			m-Xylene	LT 7.4 -01	ug/g	CFN004
			Aldrin	LT 2.5 -01	ug/g	CFL009
			Arsenic	LT 1.61+01	ug/g	CFS013
			Atrazine	LT 2.5 -01	ug/g	CFL009
			Bicycloheptadiene	LT 3.6 -01	ug/g	CFN004
			Benzene	LT 2.5 -01	ug/g	CFN004
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CFN004
			Cadmium	LT 7.36-01	ug/g	CFG019
			Methylene Chloride	LT 1.5 +00	ug/g	CFN004
			Chloroform	LT 2.9 -01	ug/g	CFN004
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFL009
			Chloroacetic Acid	LT 3.55+01	ug/g	CF0007
			Chlorobenzene	LT 1.5 +00	ug/g	CFN004
			Chlordane	LT 1.7 +00	ug/g	CFL009
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CFL009
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CFL009
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFL009
			Chromium	1.04+01	ug/g	CFG019
			Copper	3.92+01	ug/g	CFG019
			Dibromochloropropane	LT 2.4 +00	ug/g	CFN004
			Dibromochloropropane	LT 2.8 -01	ug/g	CFL009
			Dicyclopentadiene	LT 6.4 -01	ug/g	CFN004
			Dicyclopentadiene	LT 1.1 +00	ug/g	CFL009
			Vapona	LT 3.0 +00	ug/g	CFL009
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CFL009
			Diethane	LT 3.6 -01	ug/g	CFL009
			Dieldrin	LT 2.5 -01	ug/g	CFL009
			Dimethyldisulfide	LT 2.0 +01	ug/g	CFN004
			Endrin	LT 4.6 -01	ug/g	CFL009
			Ethylbenzene	LT 3.8 -01	ug/g	CFN004

Note: Results for some parameters may appear to more than one analytical fraction.

Rocky Mountain Arsenal Program

Pluto Services Incorporated

Task 24

Summary of Analytical Results

Spill Sites

Reporting Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0046	0-10	Soil	Mercury	LT 5.00-02	ug/g	CFR007
			Isodrin	LT 2.9 -01	ug/g	CFR009
			Toluene	LT 2.5 -01	ug/g	CFN004
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CFN004
			Malethion	LT 7.1 -01	ug/g	CFL009
			1,4-Oxathiane	LT 2.5 -01	ug/g	CFL009
			Lead	LT 8.38+00	ug/g	CFG019
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CFL009
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CFL009
			Parathion	LT 8.5 -01	ug/g	CFL009
			2-chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.1 -01	ug/g	CFL009
			Tetrachloroethene	LT 2.5 -01	ug/g	CFN004
			Thiodiglycol	LT 4.20+00	ug/g	CFN007
			Trichloroethene	LT 5.4 -01	ug/g	CFN004
			Ortho- & Para Xylene	LT 4.9 +00	ug/g	CFN004
0046	10-11	Soil	Zinc	9.65+01	ug/g	CFG019
			1,1,1 Trichloroethane	LT 4.3 -01	ug/g	CFN005
			1,1,2 Trichloroethane	LT 5 -01	ug/g	CFN005
			1,1-Dichloroethane	LT 1.7 +00	ug/g	CFN005
			1,2-Dichloroethane	LT 1.2 +00	ug/g	CFN005
			1,2-Dichloroethane	LT 5.6 -01	ug/g	CFN005
			m Xylene	LT 7.4 -01	ug/g	CFN005
			Air in	LT 2.5 -01	ug/g	CFLO10
			Arsenic	1.21+01	ug/g	CFLO14
			Atrazine	LT 2.5 -01	ug/g	CFLO10
			Butyl Chloride	LT 3.6 -01	ug/g	CFN005
			Benzene	LT 2.5 -01	ug/g	CFN005
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CFN005
			Calcium	LT 7.36 -01	ug/g	CFG020
			Methylene Chloride	LT 1.5 +00	ug/g	CFN005
			Chloroform	LT 2.4 -01	ug/g	CFN005

Notes: Results for some parameters may appear in more than one analytical location.

Task 24

Summary of Analytical Results

Spill Sites

Run Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0044	10-11	Soil	Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFL010
			Chloroacetic Acid	LT 3.55+01	ug/g	CFL008
			Chlorobenzene	LT 1.5 +00	ug/g	CFL005
			Chlordane	LT 1.7 +00	ug/g	CFL010
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CFL010
			p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CFL010
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFL010
			Chromium	1.00+01	ug/g	CFG020
			Copper	4.10+01	ug/g	CFG020
			Dibromochloropropane	LT 2.8 -01	ug/g	CFL010
			Dibromochloropropane	LT 2.4 +00	ug/g	CFL005
			Dicyclopentadiene	LT 6.4 -01	ug/g	CFL005
			Dicyclopentadiene	LT 1.1 +00	ug/g	CFL010
			Vapor	LT 3.0 +00	ug/g	CFL010
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CFL010
			Dithiane	LT 3.6 -01	ug/g	CFL010
			Diethyl in	LT 2.5 -01	ug/g	CFL010
			Dimethyldisulfide	LT 2.0 +01	ug/g	CFL005
			Endrin	LT 4.6 -01	ug/g	CFL010
			Ethylbenzene	LT 3.8 -01	ug/g	CFL005
			Mercury	LT 5.00-02	ug/g	CFR00A
			Isodrin	LT 2.9 -01	ug/g	CFL010
			Toluene	LT 2.5 -01	ug/g	CFL005
			Methyl isobutyl Ketone	LT 7.3 -01	ug/g	CFL005
			Malathion	LT 7.1 -01	ug/g	CFL010
			1,4-Oxathiane	LT 2.5 -01	ug/g	CFL010
			Lead	LT 8.38+00	ug/g	CFG020
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CFL010
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CFL010
			Parathion	LT 8.5 -01	ug/g	CFL010
			2-Chloro-1(2,4-dichlorophenyl)	LT 6.1 -01	ug/g	CFL010
			Vinylidene Phosphat	LT 2.5 -01	ug/g	CFL005
			Tetrahydroethene			

Note: Results for some parameters may appear in more than one analytical fraction.

08/06/83

Rocky Mountain Arsenal Program

Environmental Monitoring

Last 24 Spill Sites

Summary of Analytical Results

Dwelling Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0006	10-11	Soil	Tridiglycol	LT 4.20+00	ug/g	CF0008
			Trichloroethene	LT 5.4 -01	ug/g	CFN005
			Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CFN005
			Zinc	LT 1.02+02	ug/g	CFG020
0006	0-1	Soil	Aldrin	LT 2.5 -01	ug/g	CD0008
			Arsenic	LT 2.50+00	ug/g	CDN010
			Atrazine	LT 2.5 -01	ug/g	CDN008
			Cadmium	LT 2.56-01	ug/g	CDG009
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CDN008
			Chloroacetic Acid	LT 3.55+01	ug/g	CDK011
			Chloroethane	LT 1.7 +00	ug/g	CDN008
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CDN008
			p-Chlorophenylmethyl Sulfonate	LT 2.5 -01	ug/g	CDN008
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CDN008
			Chromium	9.41+00	ug/g	CDG009
			Copper	9.53+00	ug/g	CDG009
			Dibromochloropropane	LT 2.8 -01	ug/g	CDN008
			Dicyclopentadiene	LT 1.1 +00	ug/g	CDN008
			Vanone	LT 3.0 +00	ug/g	CDN008
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CDN008
			Diethane	LT 3.6 -01	ug/g	CDN008
			Dieldrin	3.4 -01	ug/g	CDN008
			Endrin	LT 4.6 -01	ug/g	CDN008
			Mercury	LT 5.00-02	ug/g	CDN014
			Endrin	LT 2.9 -01	ug/g	CDN008
			Malathion	LT 2.1 -01	ug/g	CDN008
			1,4-dioxathiane	LT 2.5 -01	ug/g	CDN008
			Lead	2.89+01	ug/g	CDG009
			Trichlorodiphenylethane	LT 5.7 -01	ug/g	CDN008
			Trichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CDN008
			Parathion	LT 8.5 -01	ug/g	CDN008
			2,4-Dichlorophenoxyethyl Vinyl Ether (2,4-Dichlorophenoxyethyl Vinyl Ether) Phosphate	LT 6.1 -01	ug/g	CDN008

Note: Results for some parameters may appear in more than one analytical fraction.

Spill Sites

Note: Results for some parameters may appear in more than one analytical fraction.

08/06/88

Rocky Mountain Arsenal Program

Flammable Liquids Incorporated

Task 24 Spill Sites

Summary of Analytical Results

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
10049	9.10	Soil	1,2-Dichloroethane	LT 3.00 -1	ug/g	COX002
			m-Xylene	LT 7.00 -1	ug/g	COX002
			Aldrin	LT 1.46 2	ug/g	COP005
			Arsenic	LT 5.00 0	ug/g	COX012
			Atrazine	LT 3.00 -1	ug/g	COP005
			Bicycloheptadiene	LT 3.00 -1	ug/g	COX002
			Benzene	LT 3.00 -1	ug/g	COX002
			Carbon Tetrachloride	LT 3.00 -1	ug/g	COX002
			Cadmium	LT 7.40 -1	ug/g	COL020
			Methylene Chloride	LT 7.00 -1	ug/g	COX002
			Chloroform	LT 8.50 4	ug/g	COX002
			Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	COP005
			Chloroacetic Acid	LT 3.40 2	ug/g	COX010
			Chlorobenzene	LT 3.00 -1	ug/g	COX002
			Chloroethane	LT 2.00 0	ug/g	COP005
			p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	COP005
			p-Chlorophenylmethyl Sulfoxide	LT 3.00 -1	ug/g	COP005
			p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	COP005
			Chromium	LT 2.61 1	ug/g	COL020
			Copper	LT 9.11 1	ug/g	COL020
			Dibromochloropropane	LT 3.00 -1	ug/g	COP005
			Dibromochloroethane	LT 4.00 -1	ug/g	COX002
			Dibromopentadiene	LT 1.00 0	ug/g	COP005
			Dibromopentadiene	LT 3.00 -1	ug/g	COX002
			Vapona	LT 3.00 0	ug/g	COP005
			Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	COP005
			Dithiane	LT 4.00 -1	ug/g	COP005
			Dieldrin	LT 7.24 3	ug/g	COP005
			Dimethyldisulfide	LT 8.00 -1	ug/g	COX002
			Endrin	LT 4.85 3	ug/g	COP005
			Ethylbenzene	LT 3.00 -1	ug/g	COX002
			Mercury	LT 1.41 -1	ug/g	COX005
			Isodrin	LT 1.32 2	ug/g	COP005
			Toluene	LT 3.00 -1	ug/g	COX002

Note: Results for some parameters may appear in more than one analytical fraction.

08/06/88

Rocky Mountain Arsenal Program

Task 24

Spill Sites

Summary of Analytical Results

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
00049	9-10	Soil	Methylisobutyl Ketone	LT 3.00 -1	ug/g	C0X002
			Malathion	LT 2.00 -1	ug/g	C0P005
			1,4-Dioxathiane	LT 3.00 -1	ug/g	C0P005
			Lead	1.21 2	ug/g	C0L020
			Dichlorodiphenylethane	LT 6.00 -1	ug/g	C0P005
			Dichlorodiphenyltrichloroethane	LT 5.00 -1	ug/g	C0P005
			Parathion	LT 9.00 -1	ug/g	C0P005
			2 Chloro-1 (2,4-Dichlorophenyl)	LT 6.00 -1	ug/g	C0P005
			Vinylidethyl Phosphates	LT 3.00 -1	ug/g	C0X002
			Tetrachloroethene	LT 4.20 0	ug/g	C00010
00049	0.1	Soil	Triiodoglycerol	LT 3.00 -1	ug/g	C0X002
			Trichloroethene	LT 3.00 -1	ug/g	C0X002
			Ortho- & Para-Xylene	5.37 1	ug/g	C0L020
			1,1,1-Trichloroethane	LT 4.30 -1	ug/g	C0F004
			1,1,2-Trichloroethane	LT 3.90 -1	ug/g	C0F004
			1,1-Dichloroethane	LT 1.70 0	ug/g	C0F004
			1,2-Dichloroethane	LT 1.70 0	ug/g	C0F004
			1,2-Dichloroethane	LT 5.60 -1	ug/g	C0F004
			m-Xylene	LT 2.40 -1	ug/g	C0F004
			Aldrin	LT 3.00 1	ug/g	C0F004
00049	0.1	Soil	Arsenic	3.44 0	ug/g	C0P005
			Atrazine	LT 3.00 -1	ug/g	C0F004
			Bicycloheptadiene	LT 3.60 -1	ug/g	C0F004
			Benzene	LT 2.50 -1	ug/g	C0F004
			Carbon Tetrachloride	LT 2.50 -1	ug/g	C0F004
			Cadmium	LT 2.40 -1	ug/g	C0A012
			Methylene Chloride	LT 1.50 0	ug/g	C0F004
			Chloroform	LT 2.90 -1	ug/g	C0F004
			Hexachlorocyclopentadiene	LT 6.00 1	ug/g	C0L002
			Chlorobenzene	LT 1.50 0	ug/g	C0F004
00049	0.1	Soil	Chloroform	LT 2.00 0	ug/g	C0L002
			p-Chlorophenylmethyl Sulfide	LT 9.00 1	ug/g	C0L002

Notes: Results for some parameters may appear in more than one analytical fraction.

08/06/88

Rocky Mountain Arsenal Program

Chemical Services Incorporated

Spill Sites

Task 24

Summary of Analytical Results

Reporting Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0000	0-1	Soil	p-Chlorophenylmethyl Sulfide	LT 3.00 -1	ug/g	CUL002
			p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	CUL002
			Chromium	1.66 1	ug/g	CUA012
			Copper	8.20 0	ug/g	CUA012
			Dibromochloropropane	LT 2.40 0	ug/g	CUF004
			Dibromochloropropane	LT 3.00 -1	ug/g	CUL002
			Dicyclopentadiene	LT 6.40 -1	ug/g	CUF004
			Dicyclopentadiene	LT 1.00 0	ug/g	CUL002
			Vapona	LT 3.00 0	ug/g	CUL002
			Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	CUL002
			Nitriane	LT 4.00 -1	ug/g	CUL002
			Nitrofurin	1.15 0	ug/g	CUL002
			Dimethyldisulfide	LT 2.00 1	ug/g	CUF004
			Endrin	LT 5.00 -1	ug/g	CUL002
			Ethylbenzene	LT 3.80 -1	ug/g	CUF004
			Mercury	LT 5.00 -2	ug/g	CUE020
			Isodrin	LT 3.00 -1	ug/g	CUL002
			Toluene	LT 2.50 -1	ug/g	CUF004
			Methylisobutyl Ketone	LT 7.30 -1	ug/g	CUF004
			Malathion	LT 7.00 -1	ug/g	CUL002
0000	4-5	Soil	1,4-Oxathiane	LT 3.00 -1	ug/g	CUL002
			Lead	LT 8.40 0	ug/g	CUA012
			Dichlorodiphenylethane	LT 6.00 -1	ug/g	CUL002
			Dichlorodiphenyltrichloro-ethane	LT 5.00 -1	ug/g	CUL002
			Parathion	LT 9.00 -1	ug/g	CUL002
			2-Chloro-1(2,4-Dichlorophenyl)	LT 6.00 -1	ug/g	CUL002
			Vinylidene Phosphates	LT 2.50 -1	ug/g	CUF004
			Tetrachloroethene	LT 5.40 -1	ug/g	CUF004
			Trichloroethene	LT 4.90 0	ug/g	CUF004
			Ortho- & Para Xylene	4.52 1	ug/g	CUA012
			Zinc			
			1,1,1-Trichloroethane	LT 4.30 -1	ug/g	CUF005

Note: Results for some parameters may appear in more than one analytical fraction.

Summary of Analytical Results

Task 24

Spill Sites

Ring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
N050	4-5	Soil	1,1,2-Trichloroethane	LT 3.90 -1	ug/g	CUF005
			1,1-Dichloroethane	LT 1.70 0	ug/g	CUF005
			1,2-Dichloroethane	LT 1.70 0	ug/g	CUF005
			1,2-Dichloroethane	LT 5.60 -1	ug/g	CUF005
			m-Xylene	LT 7.40 -1	ug/g	CUF005
			Aldrin	LT 3.00 -1	ug/g	CUL003
			Arsenic	LT 2.50 0	ug/g	CUF006
			Atrazine	LT 3.00 -1	ug/g	CUL003
			Bicycloheptadiene	LT 3.60 -1	ug/g	CUF005
			Benzene	LT 2.50 -1	ug/g	CUF005
			Carbon Tetrachloride	LT 2.50 -1	ug/g	CUF005
			Cadmium	LT 7.40 -1	ug/g	CUA013
			Methylene Chloride	LT 1.50 0	ug/g	CUF005
			Chloroform	LT 2.90 -1	ug/g	CUF005
			Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	CUL003
			Chlorobenzene	LT 1.50 0	ug/g	CUF005
			Chloroethane	LT 2.00 0	ug/g	CUL003
			p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	CUL003
			p-Chlorophenylmethyl Sulfoxide	LT 3.00 -1	ug/g	CUL003
			p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	CUL003
			Chromium	LT 1.20 1	ug/g	CUA013
			Copper	LT 4.70 0	ug/g	CUA013
			Dibromochloropropane	LT 2.40 0	ug/g	CUF005
			Dibromochloropropane	LT 3.00 -1	ug/g	CUL003
			Dicyclopentadiene	LT 6.40 -1	ug/g	CUF005
			Dicyclopentadiene	LT 1.00 0	ug/g	CUL003
			Vapona	LT 3.00 0	ug/g	CUL003
			Disopropylmethyl Phosphonate	LT 1.00 0	ug/g	CUL003
			Pythian	LT 4.00 -1	ug/g	CUL003
			Dieldrin	LT 3.00 -1	ug/g	CUL003
			Dimethyldisulfide	LT 2.00 1	ug/g	CUF005
			Endrin	LT 5.00 1	ug/g	CUL003
			Ethylbenzene	LT 3.80 -1	ug/g	CUF005
			Mercury	LT 5.00 -2	ug/g	CUL005

Note: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Fluoro Services, Incorporated

Spill Sites

Task 24

Summary of Analytical Results

Rolling Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0050	4-5	Soil	Isodrin	LT 3.00 -1	ug/g	CUL003
			Toluene	LT 2.50 -1	ug/g	CUF005
			Methylisobutyl Ketone	LT 7.30 -1	ug/g	CUF005
			Malathion	LT 7.00 -1	ug/g	CUL003
			1,4-Oxathiane	LT 3.00 -1	ug/g	CUL003
			Lead	LT 8.40 0	ug/g	CUA013
			Dichlorodiphenylethane	LT 6.00 -1	ug/g	CUL003
			Dichlorodiphenyltrichloroethane	LT 5.00 -1	ug/g	CUL003
			Parathion	LT 9.00 -1	ug/g	CUL003
			2-Chloro-1(2,4-Dichlorophenyl) Vinyllethyl Phosphates	LT 6.00 -1	ug/g	CUL003
			Tetrachloroethene	LT 2.50 -1	ug/g	CUF005
			Trichloroethene	LT 5.40 -1	ug/g	CUF005
			Ortho- & Para-Xylene	LT 4.90 0	ug/g	CUF005
			Zinc	3.40 1	ug/g	CUA013
0050	9-10	Soil	1,1,1-Trichloroethane	LT 4.30 -1	ug/g	CUF006
			1,1,2-Trichloroethane	LT 3.90 -1	ug/g	CUF006
			1,1-Dichloroethane	LT 1.70 0	ug/g	CUF006
			1,2-Dichloroethane	LT 1.70 0	ug/g	CUF006
			1,2-Dichloroethane	LT 5.60 -1	ug/g	CUF006
			m-Xylene	LT 7.40 -1	ug/g	CUF006
			Aldrin	LT 3.00 -1	ug/g	CUL004
			Arsenic	LT 2.50 0	ug/g	CUF007
			Atrazine	LT 3.00 -1	ug/g	CUL004
			Bicycloheptadiene	LT 3.60 -1	ug/g	CUF006
			Benzene	LT 2.50 -1	ug/g	CUF006
			Carbon Tetrachloride	LT 2.50 -1	ug/g	CUF006
			Cadmium	LT 7.40 -1	ug/g	CUA014
			Methylene Chloride	LT 1.50 0	ug/g	CUF006
			Chloroform	LT 2.90 -1	ug/g	CUF006
			Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	CUL004
			Chlorobenzene	LT 1.50 0	ug/g	CUF006
			Chloroform	LT 2.00 0	ug/g	CUL004

Note: Results for some parameters may appear in more than one analytical fraction.

08/06/88

Rocky Mountain Arsenal Program

Flavor Service Incorporated

Spill Sites

Task 24

Summary of Analytical Results

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0050	9-10	Soil	p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	CUL004
			p-Chlorophenylmethyl Sulfoxide	LT 3.00 -1	ug/g	CUL004
			p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	CUL004
			Chromium	LT 1.05 1	ug/g	CUA014
			Copper	LT 4.70 0	ug/g	CUA014
			Dibromochloropropane	LT 2.40 0	ug/g	CUF006
			Dibromochloropropane	LT 3.00 -1	ug/g	CUL004
			Dibromochloropropane	LT 6.40 -1	ug/g	CUF006
			Dibromochloropropane	LT 1.00 0	ug/g	CUL004
			Vapona	LT 3.00 0	ug/g	CUL004
			Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	CUL004
			Dithiane	LT 4.00 -1	ug/g	CUL004
			Dieldrin	LT 3.00 -1	ug/g	CUL004
			Nimethyldisulfide	LT 2.00 1	ug/g	CUF006
			Endrin	LT 5.00 -1	ug/g	CUL004
			Ethylbenzene	LT 3.80 -1	ug/g	CUF006
			Mercury	LT 5.00 -2	ug/g	CU0006
			Isodrin	LT 3.00 -1	ug/g	CUL004
			Toluene	LT 2.50 -1	ug/g	CUF006
			Methylisobutyl ketone	LT 7.30 -1	ug/g	CUF006
0050	14-15	Soil	Malathion	LT 7.00 -1	ug/g	CUL004
			1,4-Oxathiane	LT 3.00 -1	ug/g	CUL004
			Lead	LT 8.40 0	ug/g	CUA014
			Dichlorodiphenylethane	LT 6.00 -1	ug/g	CUL004
			Dichlorodiphenyltrichloroethane	LT 5.00 -1	ug/g	CUL004
			Parathion	LT 9.00 -1	ug/g	CUL004
			2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.00 -1	ug/g	CUL004
			Tetrachloroethene	LT 2.50 -1	ug/g	CUF006
			Trichloroethene	LT 5.40 -1	ug/g	CUF006
			Ortho & Para-Xylene	LT 4.90 0	ug/g	CUF006
			Zinc	3.53 1	ug/g	CUA014
			1,1,1 Trichloroethane	LT 4.90 1	ug/g	CUF007

Note: Results for some parameters may appear to more than one analytical fraction.

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Rocky Mountain Arsenal Program

Spill Sites

Fluorocarbon Incorporated

Summary of Analytical Results

Tab. 24

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0050	14-15	Soil	1,1,2-Trichloroethane	LT 3.90 -1	ug/g	CUF007
			1,1-Dichloroethane	LT 1.70 0	ug/g	CUF007
			1,2-Dichloroethane	LT 1.70 0	ug/g	CUF007
			1,2-Dichloroethane	LT 5.60 -1	ug/g	CUF007
			m-Xylene	LT 7.40 -1	ug/g	CUF007
			Aldrin	LT 3.00 -1	ug/g	CUL005
			Arsenic	LT 2.50 0	ug/g	CUP008
			Atrazine	LT 3.00 -1	ug/g	CUL005
			Bicycloheptadiene	LT 3.60 -1	ug/g	CUF007
			Benzene	LT 2.50 -1	ug/g	CUF007
			Carbon Tetrachloride	LT 2.50 -1	ug/g	CUF007
			Cadmium	LT 7.40 -1	ug/g	CUA015
			Methylene Chloride	LT 1.50 0	ug/g	CUF007
			Chloroform	LT 2.90 -1	ug/g	CUF007
			Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	CUL005
			Chlorobenzene	LT 1.50 0	ug/g	CUF007
			Chlordane	LT 2.00 0	ug/g	CUL005
			p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	CUL005
			p-Chlorophenylmethyl Sulfoxide	LT 3.00 -1	ug/g	CUL005
			p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	CUL005
			Chromium	1.47 1	ug/g	CUA015
			Copper	9.65 0	ug/g	CUA015
			Dibromochloropropane	LT 2.40 0	ug/g	CUF007
			Dibromochloropropane	LT 3.00 -1	ug/g	CUL005
			Dicyclopentadiene	LT 6.40 -1	ug/g	CUF007
			Dicyclopentadiene	LT 1.00 0	ug/g	CUL005
			Vaporia	LT 3.00 0	ug/g	CUL005
			Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	CUL005
			Dithiane	LT 4.00 -1	ug/g	CUL005
			Fieldrin	LT 3.00 -1	ug/g	CUL005
			Dimethyldisulfide	LT 2.00 1	ug/g	CUF007
			Endrin	LT 5.00 -1	ug/g	CUL005
			Ethylbenzene	LT 3.80 -1	ug/g	CUF007
			Mercury	LT 5.00 -2	ug/g	CU0007

Note: Results for some parameters may appear in more than one analytical fraction.

08/16/88

Rocky Mountain Arsenal Program

Phase 1 Survey Data Incorporated

Task 24

Summary of Analytical Results

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0050	14-15	Soil	Isodrin	LT 3.00 -1	ug/g	CUL005
			Toluene	LT 2.50 -1	ug/g	CUF007
			Methylisobutyl Ketone	LT 7.30 -1	ug/g	CUF007
			Malathion	LT 7.00 -1	ug/g	CUL005
			1,4-dioxathiane	LT 3.00 -1	ug/g	CUL005
			Lead	LT 8.40 0	ug/g	CUA015
			Trichlorodiphenylethane	LT 6.00 -1	ug/g	CUL005
			Trichlorodiphenyltrichloroethane	LT 5.00 -1	ug/g	CUL005
			Parathion	LT 9.00 -1	ug/g	CUL005
			2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.00 -1	ug/g	CUL005
0051	18-19	Soil	Tetrachloroethene	LT 2.50 -1	ug/g	CUF007
			Trichloroethene	LT 5.40 -1	ug/g	CUF007
			Ortho- & Para-Xylene	LT 4.90 0	ug/g	CUF007
			Zinc	4.31 1	ug/g	CUA015
			1,1,1-Trichloroethane	LT 4.30 -1	ug/g	CUF008
			1,1,2-Trichloroethane	LT 3.90 -1	ug/g	CUF008
			1,1-Dichloroethane	LT 1.70 0	ug/g	CUF008
			1,2-Dichloroethane	LT 1.70 0	ug/g	CUF008
			1,2-Dichloroethane	LT 5.60 -1	ug/g	CUF008
			m-Xylene	LT 7.40 -1	ug/g	CUF008
			Aldrin	LT 3.00 -1	ug/g	CUL006
			Arsenic	LT 2.50 0	ug/g	CUP009
			Atrazine	LT 3.00 -1	ug/g	CUL006
			Bicycloheptadiene	1.08 0	ug/g	CUF008
			Benzene	8.90 -1	ug/g	CUF008
			Carbon Tetrachloride	LT 2.50 -1	ug/g	CUF008
			Calcium	LT 7.40 -1	ug/g	CUA016
			Methylene Chloride	LT 1.50 0	ug/g	CUF008
			Chloroform	2.07 0	ug/g	CUF008
			Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	CUL006
			Chlorobenzene	LT 1.50 0	ug/g	CUF008
			Chloroethane	LT 2.00 0	ug/g	CUL006

Note: Results for some parameters may appear in more than one analytical location

Summary of Analytical Results

Task #

Spill Sites

Core Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0050	18-19	Soil	p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	CUL006
			p-Chlorophenylmethyl Sulfoxide	LT 3.00 -1	ug/g	CUL006
			p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	CUL006
			Chromium	9.87 0	ug/g	CUA016
			Copper	1.58 1	ug/g	CUA016
			Dibromochloropropane	LT 2.40 0	ug/g	CUF008
			Dibromochloropropane	LT 3.00 -1	ug/g	CUL006
			Dibromochloropropane	LT 6.40 -1	ug/g	CUF008
			Dibromochloropropane	LT 1.00 0	ug/g	CUL006
			Vapona	LT 3.00 0	ug/g	CUL006
			Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	CUL006
			Dithiane	LT 4.00 -1	ug/g	CUL006
			Dieldrin	LT 3.00 -1	ug/g	CUL006
			Dimethyldisulfide	LT 2.00 1	ug/g	CUF008
			Endrin	LT 5.00 -1	ug/g	CUL006
			Ethylbenzene	LT 3.80 -1	ug/g	CUF008
			Mercury	LT 5.00 -2	ug/g	CU0008
			Isodrin	LT 3.00 -1	ug/g	CUL006
			Toluene	LT 2.50 -1	ug/g	CUF008
			Methylisobutyl Ketone	LT 7.30 -1	ug/g	CUF008
			Malathion	LT 7.00 -1	ug/g	CUL006
			1,4-Oxathiane	LT 3.00 -1	ug/g	CUL006
			Lead	LT 8.40 0	ug/g	CUA016
			Dichlorodiphenylethane	LT 6.00 -1	ug/g	CUL006
			Dichlorodiphenyltrichloroethane	LT 5.00 -1	ug/g	CUL006
			Parathion	LT 9.00 -1	ug/g	CUL006
			2-Chloro-1-(2,4-Dichlorophenyl) Vinyl Diethyl Phosphates	LT 6.00 -1	ug/g	CUL006
			Tetrachloroethene	3.89 -1	ug/g	CUF008
			Trichloroethene	LT 5.40 -1	ug/g	CUF008
			Ortho- & Para-Xylene	LT 4.90 0	ug/g	CUF008
			Zinc	4.93 1	ug/g	CUA016
0051	0-1	Soil	Aldrin	LT 3.00 1	ug/g	CUL007

Note: Results for some parameters may appear in more than one analytical fraction.

Summary of Analytical Results

Task 24

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0051	0-1	Soil	Atrazine	LT 3.00 -1	ug/g	CUL007
			Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	CUL007
			Chlordane	LT 2.00 0	ug/g	CUL007
			p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	CUL007
			p-Chlorophenylmethyl Sulfonide	LT 3.00 -1	ug/g	CUL007
			p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	CUL007
			Dibromochloropropane	LT 3.00 -1	ug/g	CUL007
			Dicyclopentadiene	LT 1.00 0	ug/g	CUL007
			Vapona	LT 3.00 0	ug/g	CUL007
			Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	CUL007
			Dithiane	LT 4.00 -1	ug/g	CUL007
			Dieldrin	LT 3.00 -1	ug/g	CUL007
			Endrin	LT 5.00 -1	ug/g	CUL007
			Isodrin	LT 3.00 -1	ug/g	CUL007
			Melathion	LT 7.00 -1	ug/g	CUL007
			1,4-Oxathiane	LT 3.00 -1	ug/g	CUL007
			Dichlorodiphenylethane	LT 6.00 -1	ug/g	CUL007
			Dichlorodiphenyltrichloroethane	LT 5.00 -1	ug/g	CUL007
			Parathion	LT 9.00 -1	ug/g	CUL007
0051	4-5	Soil	2-Chloro-1-(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.00 -1	ug/g	CUL007
			1,1,1-Trichloroethane	LT 4.30 -1	ug/g	CUM005
			1,1,2-Trichloroethane	LT 3.90 -1	ug/g	CUM005
			1,1-Dichloroethane	LT 1.70 0	ug/g	CUM005
			1,2-Dichloroethane	LT 1.70 0	ug/g	CUM005
			1,2-Dichloroethane	LT 5.60 -1	ug/g	CUM005
			m-Xylene	LT 2.40 -1	ug/g	CUM005
			Aldrin	LT 3.00 -1	ug/g	CUL008
			Atrazine	LT 3.00 1	ug/g	CUL008
			Bicyclopentadiene	LT 3.60 -1	ug/g	CUM005
			Benzene	LT 2.50 1	ug/g	CUM005
			Carbon Tetrachloride	LT 2.50 -1	ug/g	CUM005

Note: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Task 24

Summary of Analytical Results

Soil Sites

Revised Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0051	4-5	Soil	Methylene Chloride	LT 1.50 0	ug/g	CUM005
			Chloroform	LT 2.90 -1	ug/g	CUM005
			Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	CUL008
			Chlorobenzene	LT 1.50 0	ug/g	CUM005
			Chloroethane	LT 2.00 0	ug/g	CUL008
			p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	CUL008
			p-Chlorophenylmethyl Sulfonide	LT 3.00 -1	ug/g	CUL008
			p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	CUL008
			Dibromochloropropane	LT 3.00 -1	ug/g	CUL008
			Dibromochloropropane	LT 2.40 0	ug/g	CUM005
			Dicyclopentadiene	LT 1.00 -	ug/g	CUL008
			Dicyclopentadiene	LT 6.40 -1	ug/g	CUM005
			Varona	LT 3.00 0	ug/g	CUL008
			Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	CUL008
			Dithiane	LT 4.00 -1	ug/g	CUL008
			Dieldrin	LT 3.00 -1	ug/g	CUL008
			Dimethyldisulfide	LT 2.00 1	ug/g	CUM005
			Endrin	LT 5.00 -1	ug/g	CUL008
			Ethylbenzene	LT 3.80 -1	ug/g	CUM005
			Isodrin	LT 3.00 -1	ug/g	CUL008
			Toluene	LT 2.50 -1	ug/g	CUM005
			Methylisobutyl Ketone	LT 7.30 -1	ug/g	CUM005
			Malathion	LT 7.00 -1	ug/g	CUL008
			1,4-Oxathiane	LT 3.00 -1	ug/g	CUL008
			Trichlorodiphenylethane	LT 6.00 -1	ug/g	CUL008
			Trichlorodiphenyltrichloroethane	LT 5.00 -1	ug/g	CUL008
			Parathion	LT 9.00 -1	ug/g	CUL008
			2-Chloro-1(2,4-dichlorophenyl)	LT 6.00 -1	ug/g	CUL008
			Vinylidethyl Phosphates	LT 2.50 -1	ug/g	CUM005
			Tetrachloroethene	LT 5.40 -1	ug/g	CUM005
			Trichloroethene	LT 4.90 0	ug/g	CUM005
			Ortho- & Para-Xylene	LT 4.20 1	ug/g	CUM006
0051	9-10	Soil	1,1,1-Trichloroethane	LT 4.20 1	ug/g	CUM006

Note: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Environmental Data Incorporated

Last 24 Spill Sites

Summary of Analytical Results

Refined Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0051	9-10	Soil	Dichlorodiphenylethane	LT 6.00 -1	ug/g	CUL009
			Dichlorodiphenyltrichloroethane	LT 5.00 -1	ug/g	CUL009
			Parathion	LT 9.00 -1	ug/g	CUL009
			2-Chloro-1-(2,4-dichlorophenyl) Vinyl diethyl Phosphates	LT 6.00 -1	ug/g	CUL009
			Tetrachloroethene	LT 2.50 -1	ug/g	CUM006
			Trichloroethene	LT 5.40 -1	ug/g	CUM006
			Ortho- & Para-Xylene	LT 4.90 0	ug/g	CUM006
			1,1,1-Trichloroethane	LT 4.30 -1	ug/g	CUM007
			1,1,2-Trichloroethane	LT 3.90 -1	ug/g	CUM007
			1,1-Dichloroethane	LT 1.70 0	ug/g	CUM007
0051	14-15	Soil	1,2-Dichloroethane	LT 1.70 0	ug/g	CUM007
			1,2-Dichloroethane	LT 5.60 -1	ug/g	CUM007
			m Xylene	LT 7.40 -1	ug/g	CUM007
			Aldrin	LT 3.00 -1	ug/g	CUL010
			Atrazine	LT 3.00 -1	ug/g	CUL010
			Bicycloheptadiene	LT 3.60 -1	ug/g	CUM007
			Benzene	LT 2.50 -1	ug/g	CUM007
			Carbon Tetrachloride	LT 2.50 -1	ug/g	CUM007
			Methylene Chloride	LT 1.50 0	ug/g	CUM007
			Chloroform	LT 2.90 -1	ug/g	CUM007
			Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	CUL010
			Chlorobenzene	LT 1.50 0	ug/g	CUM007
			Chlordane	LT 2.00 0	ug/g	CUL010
			p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	CUL010
			p-Chlorophenylmethyl Sulfonide	LT 3.00 -1	ug/g	CUL010
			p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	CUL010
			Dibromochloropropane	LT 3.00 -1	ug/g	CUL010
			Dibromochloropropane	LT 2.40 0	ug/g	CUM007
			Dicyclopentadiene	LT 1.00 0	ug/g	CUL010
			Dicyclopentadiene	LT 6.40 -1	ug/g	CUM007
			Valerol	LT 3.00 0	ug/g	CUL010
			Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	CUL010

Note: Results for some parameters may appear in more than one analytical fraction.

0A/06/88

Rocky Mountain Arsenal Program

Summary of Analytical Results

Task #4

Spill Sites

Reporting Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0051	14.15	Soil	Dithiane	LT 4.00 -1	ug/g	CUL010
			Dieldrin	LT 3.00 -1	ug/g	CUL010
			Dimethyldisulfide	LT 2.00 -1	ug/g	CUM007
			Endrin	LT 5.00 -1	ug/g	CUL010
			Ethylbenzene	LT 3.80 -1	ug/g	CUM007
			Isodrin	LT 3.00 -1	ug/g	CUL010
			Toluene	LT 2.50 -1	ug/g	CUM007
			Methylisobutyl ketone	LT 7.30 -1	ug/g	CUM007
			Malathion	LT 7.00 -1	ug/g	CUL010
			1,4-Oxathiane	LT 3.00 -1	ug/g	CUL010
0051	20.21	Soil	Dichlorodiphenylethane	LT 6.00 -1	ug/g	CUL010
			Dichlorodiphenyltrichloroethane	LT 5.00 -1	ug/g	CUL010
			Parathion	LT 9.00 -1	ug/g	CUL010
			2-Chloro-1(2,4-dichlorophenyl) Vinylidethyl Phosphates	LT 6.00 -1	ug/g	CUL010
			Tetrachloroethene	LT 2.50 -1	ug/g	CUM007
			Trichloroethene	LT 5.40 -1	ug/g	CUM007
			Ortho & Para-Xylene	LT 4.90 0	ug/g	CUM007
			1,1,1-Trichloroethane	LT 4.30 -1	ug/g	CUM008
			1,1,2-Trichloroethane	LT 3.90 -1	ug/g	CUM008
			1,1-Trichloroethane	LT 1.70 0	ug/g	CUM008
0051	20.21	Soil	1,2-Dichloroethane	LT 1.70 0	ug/g	CUM008
			1,2-Dichloroethane	LT 5.60 -1	ug/g	CUM008
			m-Xylene	LT 7.40 -1	ug/g	CUM008
			Aldrin	LT 3.00 -1	ug/g	CUM002
			Atrazine	LT 3.00 -1	ug/g	CUM002
			Bicycloheptadiene	LT 3.60 -1	ug/g	CUM008
			Benzene	LT 2.50 -1	ug/g	CUM008
			Carbon Tetrachloride	LT 2.50 -1	ug/g	CUM008
			Methylene Chloride	LT 1.50 0	ug/g	CUM008
			Chloroform	LT 2.90 -1	ug/g	CUM008
0051	20.21	Soil	Hexachlorocyclopentadiene	LT 3.00 -1	ug/g	CUM002
			Chlorobenzene	LT 1.50 0	ug/g	CUM008

Note: Results for some parameters may appear in more than one analytical fraction

Summary of Analytical Results

Task 24

Spill Sites

Porting Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0051	20-21	Soil	Chlordane	LT 6.00 -1	ug/g	CUN002
			p-Chlorophenylmethyl Sulfide	LT 4.00 0	ug/g	CUN002
			p-Chlorophenylmethyl Sulfoxide	LT 7.00 0	ug/g	CUN002
			p-Chlorophenylmethyl Sulfone	LT 6.00 -1	ug/g	CUN002
			Dibromochloropropane	LT 2.40 0	ug/g	CUM008
			Dibromochloropropane	LT 3.00 -1	ug/g	CUN002
			Dicyclopentadiene	LT 6.40 -1	ug/g	CUM008
			Dicyclopentadiene	LT 4.00 -1	ug/g	CUN002
			Vapona	LT 3.00 -1	ug/g	CUN002
			Diisopropylmethyl Phosphonate	LT 3.00 -1	ug/g	CUN002
			Dithiane	LT 7.00 0	ug/g	CUN002
			Bieldrin	LT 3.00 -1	ug/g	CUN002
			Dimethyldisulfide	LT 2.00 1	ug/g	CUM008
			Endrin	LT 3.00 -1	ug/g	CUN002
			Ethylbenzene	LT 3.80 -1	ug/g	CUM008
			Isodrin	LT 3.00 -1	ug/g	CUN002
			Toluene	LT 2.50 -1	ug/g	CUM008
			Methylisobutyl Ketone	LT 7.30 -1	ug/g	CUM008
			Malathion	LT 3.00 -1	ug/g	CUN002
			1,4-Oxathiane	LT 6.00 0	ug/g	CUN002
0052	0-1	Soil	Dichlorodiphenylethane	LT 3.00 -1	ug/g	CUN002
			Dichlorodiphenyltrichloroethane	LT 6.00 -1	ug/g	CUN002
			Parathion	LT 4.00 -1	ug/g	CUN002
			2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 3.00 -1	ug/g	CUN002
			Tetrachloroethene	LT 2.50 -1	ug/g	CUM008
			Trichloroethene	LT 5.40 -1	ug/g	CUM008
			Ortho- & Para-Xylene	LT 4.90 0	ug/g	CUM008
			Aldrin	LT 3.00 -1	ug/g	CUN003
			Atrazine	LT 3.00 -1	ug/g	CUN003
			Hexachlorocyclopentadiene	LT 3.00 -1	ug/g	CUN003
			Chlordane	LT 6.00 -1	ug/g	CUN003
			p-Chlorophenylmethyl Sulfide	LT 4.00 0	ug/g	CUN003

Note: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Plasma Services Incorporated

Summary of Analytical Results Task 24 Spill Sites

Baring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0052	0-1	Soil	p-Chlorophenylmethyl Sulfoxide	LT 7.00 0	ug/g	CUN003
			p-Chlorophenylmethyl Sulfone	LT 6.00 -1	ug/g	CUN003
			Dibromochloropropane	LT 3.00 -1	ug/g	CUN003
			Dicyclopentadiene	LT 4.00 -1	ug/g	CUN003
			Vapona	LT 3.00 -1	ug/g	CUN003
			Diisopropylmethyl Phosphonate	LT 3.00 -1	ug/g	CUN003
			Dithiane	LT 7.00 0	ug/g	CUN003
			Dieldrin	LT 3.00 -1	ug/g	CUN003
			Endrin	LT 3.00 -1	ug/g	CUN003
			Isodrin	LT 3.00 -1	ug/g	CUN003
0052	4-5	Soil	Malathion	LT 3.00 -1	ug/g	CUN003
			1,4-Oxathiane	LT 6.00 0	ug/g	CUN003
			Dichlorodiphenylethane	LT 3.00 -1	ug/g	CUN003
			Dichlorodiphenyltrichloroethane	LT 6.00 -1	ug/g	CUN003
			Parathion	LT 4.00 -1	ug/g	CUN003
			2-Chloro 1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 3.00 -1	ug/g	CUN003
			1,1,1-Trichloroethane	LT 3.00 -1	ug/g	CUQ002
			1,1,2-Trichloroethane	LT 3.00 -1	ug/g	CUQ002
			1,1-Dichloroethane	LT 9.00 -1	ug/g	CUQ002
			1,2-Dichloroethane	LT 3.00 -1	ug/g	CUQ002
0052	4-5	Soil	m Xylene	LT 7.00 -1	ug/g	CUQ002
			Aldrin	LT 3.00 -1	ug/g	CUN004
			Arazine	LT 3.00 -1	ug/g	CUN004
			Bicycloheptadiene	LT 3.00 -1	ug/g	CUQ002
			Benzene	LT 3.00 -1	ug/g	CUQ002
			Carbon Tetrachloride	LT 3.00 -1	ug/g	CUQ002
			Methylene Chloride	LT 7.00 -1	ug/g	CUQ002
			Chloroform	LT 3.00 -1	ug/g	CUQ002
			Hexachlorocyclopentadiene	LT 3.00 1	ug/g	CUN004
			Chlorobenzene	LT 3.00 -1	ug/g	CUQ002

Note: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Fluorocarbon Inventory Worksheet

Spill Sites

Last 24

Summary of Analytical Results

Location Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0052	4-5	Soil	Chlordane	LT 6.00 -1	ug/g	CUN004
			p-Chlorophenylmethyl Sulfide	LT 4.00 0	ug/g	CUN004
			p-Chlorophenylmethyl Sulfide	LT 7.00 0	ug/g	CUN004
			p-Chlorophenylmethyl Sulfone	LT 6.00 -1	ug/g	CUN004
			Dibromochloropropane	LT 3.00 -1	ug/g	CUN004
			Dibromochloropropane	LT 4.00 -1	ug/g	CUN002
			Dicyclopentadiene	LT 4.00 -1	ug/g	CUN004
			Dicyclopentadiene	6.21 0	ug/g	CUN002
			Vapona	LT 3.00 -1	ug/g	CUN004
			Diisopropylmethyl Phosphonate	LT 3.00 -1	ug/g	CUN004
			Diethane	LT 7.00 0	ug/g	CUN004
			Diethylin	LT 3.00 -1	ug/g	CUN004
			Dimethyldisulfide	LT 8.00 -1	ug/g	CUN002
			Endrin	LT 3.00 -1	ug/g	CUN004
			Ethylbenzene	LT 3.00 -1	ug/g	CUN002
			Iodolin	LT 3.00 -1	ug/g	CUN004
			Toluene	LT 3.00 -1	ug/g	CUN002
			Methylisobutyl Ketone	LT 3.00 -1	ug/g	CUN002
			Malathion	LT 3.00 -1	ug/g	CUN004
			1,4-Oxathiane	LT 6.00 0	ug/g	CUN004
0052	9-10	Soil	Dichlorodiphenylethane	LT 3.00 -1	ug/g	CUN004
			Dichlorodiphenyltrichloroethane	LT 6.00 -1	ug/g	CUN004
			Parathion	LT 4.00 -1	ug/g	CUN004
			? Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 3.00 -1	ug/g	CUN004
			Tetrachloroethene	LT 3.00 -1	ug/g	CUN002
			Trichloroethene	LT 3.00 -1	ug/g	CUN002
			Ortho- & Para Xylene	LT 3.00 -1	ug/g	CUN002
			1,1,1-Trichloroethane	LT 3.00 -1	ug/g	CUN003
			1,1,2-Trichloroethane	LT 3.00 1	ug/g	CUN003
			1,1-Dichloroethane	LT 9.00 1	ug/g	CUN003
			1,2-Dichloroethane	LT 3.00 -1	ug/g	CUN003
			1,2-Dichloroethane	LT 3.00 1	ug/g	CUN003

Note: Results for some parameters may appear in more than one analytical fraction.

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Rocky Mountain Arsenal Program

Spill Sites

Phase 2 Analytical Results

Task 24

Portion Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0002	0-10	Soil	m Xylene	LT 7.00 -1	ug/g	CUN003
			Aldrin	LT 3.00 -1	ug/g	CUN005
			Atrazine	LT 3.00 -1	ug/g	CUN005
			Bicyclopentadiene	LT 3.00 -1	ug/g	CUN003
			Benzene	LT 3.00 -1	ug/g	CUN003
			Carbon Tetrachloride	LT 3.00 -1	ug/g	CUN003
			Methylene Chloride	LT 7.00 -1	ug/g	CUN003
			Chloroform	LT 3.00 -1	ug/g	CUN003
			Hexachlorocyclopentadiene	LT 3.00 -1	ug/g	CUN005
			Chlorobenzene	LT 3.00 -1	ug/g	CUN003
			Chlordane	LT 6.00 -1	ug/g	CUN005
			p-Chlorophenylmethyl Sulfide	LT 4.00 0	ug/g	CUN005
			p-Chlorophenylmethyl Sulfoxide	LT 7.00 0	ug/g	CUN005
			p-Chlorophenylmethyl Sulfone	LT 6.00 -1	ug/g	CUN005
			Dibromochloropropane	LT 3.00 -1	ug/g	CUN005
			Dibromochloropropane	LT 4.00 -1	ug/g	CUN003
			Dicyclopentadiene	LT 4.00 -1	ug/g	CUN005
			Dicyclopentadiene	6.67 0	ug/g	CUN003
			Valonia	LT 3.00 -1	ug/g	CUN005
			Diisopropylmethyl Phosphonate	LT 3.00 -1	ug/g	CUN005
			Dithiane	LT 7.00 0	ug/g	CUN005
			Dieldrin	LT 3.00 -1	ug/g	CUN005
			Dimethyldisulfide	LT 8.00 -1	ug/g	CUN003
			Endrin	LT 5.00 -1	ug/g	CUN005
			Ethylbenzene	8.96 -1	ug/g	CUN003
			Endrin	LT 3.00 -1	ug/g	CUN005
			Toluene	LT 3.00 -1	ug/g	CUN003
			Methoxydisobutyl Ketone	LT 5.00 -1	ug/g	CUN003
			Malathion	LT 3.00 -1	ug/g	CUN005
			1,4-Dioxane	LT 6.00 0	ug/g	CUN005
			Dichlorodiphenylethane	LT 3.00 -1	ug/g	CUN005
			Dichlorodiphenyltrichloroethane	LT 6.00 -1	ug/g	CUN005
			Parathion	LT 4.00 -1	ug/g	CUN005

Note: Results for some parameters may appear to more than one analytical site.

Flaschke, Inc., Incorporated
Summary of Analytical Results

Rocky Mountain Arsenal Program

08/06/88

Task 4/6 Soil Sites

Ring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0052	9-10	Soil	2-Chloro-1(2,4-Dichlorophenyl) Vinylidene Phosphates	LT 3.00 -1	ug/g	CUN005
			Tetrachloroethene	LT 3.00 -1	ug/g	CUN003
			Trichloroethene	LT 4.46 -1	ug/g	CUN003
			Ortho- & Para-Xylene	LT 3.00 -1	ug/g	CUN003
0057	12.5-13.5	Soil	1,1,1-Trichloroethane	LT 3.00 -1	ug/g	CUN005
			1,1,2-Trichloroethane	LT 3.00 -1	ug/g	CUN005
			1,1-Dichloroethane	LT 9.00 -1	ug/g	CUN005
			1,2-Dichloroethane	LT 3.00 -1	ug/g	CUN005
			1,2-Dichloroethane	LT 3.00 -1	ug/g	CUN005
			m-Xylene	LT 7.00 -1	ug/g	CUN005
			Aldrin	LT 3.00 -1	ug/g	CUN007
			Atrazine	LT 3.00 -1	ug/g	CUN007
			Hexachlorocyclopentadiene	LT 3.00 -1	ug/g	CUN005
			Benzene	LT 3.00 -1	ug/g	CUN005
			Carbon Tetrachloride	LT 3.00 -1	ug/g	CUN005
			Methylene Chloride	LT 7.00 -1	ug/g	CUN005
			Chloroform	LT 3.00 -1	ug/g	CUN005
			Hexachlorocyclopentadiene	LT 3.00 -1	ug/g	CUN007
			Chlorobenzene	LT 3.00 -1	ug/g	CUN005
			Chloroethane	LT 6.00 -1	ug/g	CUN007
			p-Chlorophenylmethyl Sulfide	LT 4.00 0	ug/g	CUN007
			p-Chlorophenylmethyl Sulfide	LT 7.00 0	ug/g	CUN007
			p-Chlorophenylmethyl Sulfone	LT 6.00 -1	ug/g	CUN007
			Dibromochloropropane	LT 3.00 -1	ug/g	CUN007
			Dibromochloropropane	LT 4.00 -1	ug/g	CUN005
			Dicyclopentadiene	LT 4.00 -1	ug/g	CUN007
			Dicyclopentadiene	LT 3.00 -1	ug/g	CUN005
			Vapors	LT 3.00 -1	ug/g	CUN007
			Dibromophenylmethyl Phosphonate	LT 3.00 -1	ug/g	CUN007
			Dithiane	LT 7.00 0	ug/g	CUN007
			Dieldrin	LT 3.00 -1	ug/g	CUN007
			Dimethyl Disulfide	LT 8.00 -1	ug/g	CUN005
			Endrin	LT 3.00 -1	ug/g	CUN007

Note: Results for some parameters may appear to more than one analytical fraction.

08/06/88

Rocky Mountain Arsenal Program

Soil Sites

Task 74

Summary of Analytical Results

Run/Vol Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0002	12.5-13.5	Soil	Ethylbenzene	LT 3.00 -1	ug/g	CU0005
			Isodrin	LT 3.00 -1	ug/g	CUN007
			Toluene	LT 6.11 -1	ug/g	CU0005
			Methylisobutyl ketone	LT 3.00 -1	ug/g	CU0005
			Malathion	LT 3.00 -1	ug/g	CUN007
			1,4-Oxathiane	LT 6.00 0	ug/g	CUN007
			Dichlorodiphenylethane	LT 3.00 -1	ug/g	CUN007
			Dichlorodiphenyltrichloro- ethane	LT 6.00 -1	ug/g	CUN007
			Parathion	LT 4.00 -1	ug/g	CUN007
			2-Chloro-1(2,4-Dichlorophenyl) vinyl diethyl phosphates	LT 3.00 -1	ug/g	CUN007
0002	14.05	Soil	Tetrachloroethene	LT 3.00 -1	ug/g	CU0005
			Trichloroethene	LT 3.00 -1	ug/g	CU0005
			Ortho- & Para-Xylene	LT 3.00 -1	ug/g	CU0004
			1,1,1-Trichloroethane	LT 3.00 -1	ug/g	CU0004
			1,1,2-Trichloroethane	LT 3.00 -1	ug/g	CU0004
			1,1-Dichloroethane	LT 9.00 -1	ug/g	CU0004
			1,2-Dichloroethane	LT 3.00 -1	ug/g	CU0004
			1,2-Dichloroethane	LT 3.00 -1	ug/g	CU0004
			m-Xylene	LT 2.00 -1	ug/g	CU0004
			Aldrin	LT 3.00 -1	ug/g	CUN006
0002	14.05	Soil	Aldrin	LT 3.00 -1	ug/g	CUN006
			Winyl chlorofluorene	LT 3.00 -1	ug/g	CU0004
			Benzene	LT 3.00 -1	ug/g	CU0004
			Carbon Tetrachloride	LT 3.00 -1	ug/g	CU0004
			Methylcyclopentadiene	LT 2.00 -1	ug/g	CU0004
			Chloroform	LT 3.00 -1	ug/g	CU0004
			Hexachlorocyclopentadiene	LT 3.00 -1	ug/g	CUN006
			Chlorobenzene	LT 3.00 -1	ug/g	CU0004
			Chloroethane	LT 6.00 -1	ug/g	CUN006
			1,1-Dichloroethane	LT 4.00 -1	ug/g	CUN006
0002	14.05	Soil	1,1-Dichloroethane	LT 7.00 -1	ug/g	CUN006
			1,2-Dichloroethane	LT 6.00 -1	ug/g	CUN006
			1,1,1-Trichloroethane	LT 3.00 -1	ug/g	CUN006
			1,1,2-Trichloroethane	LT 3.00 -1	ug/g	CUN006
			1,2-Dichloroethane	LT 3.00 -1	ug/g	CUN006
			1,1-Dichloroethane	LT 3.00 -1	ug/g	CUN006
			1,2-Dichloroethane	LT 3.00 -1	ug/g	CUN006
			1,1,1-Trichloroethane	LT 3.00 -1	ug/g	CUN006
			1,1,2-Trichloroethane	LT 3.00 -1	ug/g	CUN006
			1,2-Dichloroethane	LT 3.00 -1	ug/g	CUN006

Notes: Results for some parameters may differ from those shown in the table due to analytical differences.

08/06/88

Rocky Mountain Arsenal Program

Task 24

Summary of Analytical Results

Spill Sites

Boiling Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0052	14.15	Soil	Dibromochloropropane	LT 3.00	1 ug/g	CUN006
			Dibromochloropropane	LT 4.00	-1 ug/g	CUN006
			Dicyclopentadiene	LT 4.00	-1 ug/g	CUN006
			Dicyclopentadiene	LT 3.00	-1 ug/g	CUN004
			Vapone	LT 3.00	-1 ug/g	CUN006
			Diisopropylmethyl Phosphonate	LT 3.00	-1 ug/g	CUN006
			Dithiane	LT 7.00	0 ug/g	CUN006
			Dieldrin	LT 3.00	-1 ug/g	CUN006
			Dimethyldisulfide	LT 8.00	-1 ug/g	CUN004
			Endrin	LT 3.00	-1 ug/g	CUN006
			Ethylbenzene	LT 3.00	-1 ug/g	CUN004
			Isodrin	LT 3.00	-1 ug/g	CUN006
			Toluene	LT 3.00	-1 ug/g	CUN004
			Methylisobutyl Ketone	LT 3.00	-1 ug/g	CUN004
			Malathion	LT 3.00	-1 ug/g	CUN006
			1,4-Dioxathiane	LT 6.00	0 ug/g	CUN006
			Dichlorodiphenylethane	LT 3.00	-1 ug/g	CUN006
			Dichlorodiphenyltrichloroethane	LT 6.00	-1 ug/g	CUN006
			Parathion	LT 4.00	-1 ug/g	CUN006
			2-Chloro-1(2,4-dichlorophenyl) Vinylidethyl Phosphates	LT 3.00	-1 ug/g	CUN006
007A	0.0.5	Soil	Tetrachloroethene	LT 3.00	-1 ug/g	CUN004
			Trichloroethene	LT 3.00	-1 ug/g	CUN004
			Ortho- & Para-Xylene	LT 3.00	-1 ug/g	CUN004
			Aldrin	8.99	1 ug/g	CP0003
			Arsenic	LT 5.00	0 ug/g	CG0010
			Atrazine	LT 3.00	-1 ug/g	CP0003
			Cadmium	LT 7.40	-1 ug/g	COL018
			Hexachlorocyclopentadiene	LT 6.00	-1 ug/g	CP0003
			Chloroacetic Acid	LT 3.55	1 ug/g	CG0008
			Chloroethane	LT 2.00	0 ug/g	CP0003
			p-Chlorophenylmethyl Sulfide	LT 9.00	-1 ug/g	CP0003
			p-Chlorophenylmethyl Sulfoxide	LT 3.00	-1 ug/g	CP0003

Notes: Results for some parameters may appear in more than one analytical fraction.

Fluorocarbons Incorporated

Rail / Mountain Arsenal Program

08/06/88

Summary of Analytical Results

Task 24

Spill Sites

Runing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
003A	0.0.5	Soil	p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	COP003
			Chromium	1.86 1	ug/g	COL018
			Copper	9.88 1	ug/g	COL018
			Dibromochloropropane	LT 3.00 -1	ug/g	COP003
			Dicyclopentadiene	LT 1.00 0	ug/g	COP003
			Vapona	LT 3.00 0	ug/g	COP003
			Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	COP003
			Disulfane	LT 4.00 -1	ug/g	COP003
			Dieldrin	4.14 2	ug/g	COP003
			Endrin	5.37 1	ug/g	COP003
			Mercury	9.37 1	ug/g	COP019
			Isodrin	LT 3.00 -1	ug/g	COP003
			Malathion	LT 7.00 -1	ug/g	COP003
			1,4-dioxathiane	LT 3.00 -1	ug/g	COP003
			Lead	3.97 1	ug/g	COL018
			Dichlorodiphenylethane	LT 6.00 -1	ug/g	COP003
0033	2.0.8.6	Soil	Dichlorodiphenyltrichloroethane	LT 5.00 -1	ug/g	COP003
			Parathion	LT 9.00 1	ug/g	COP003
			2-Chloro-1-(2,4-dichlorophenyl) Vinylidethyl Phosphates	LT 6.00 -1	ug/g	COP003
			Thiodiglycol	LT 4.20 0	ug/g	COP008
			Zinc	5.73 1	ug/g	COL018
			1,1,1-Trichloroethane	LT 3.00 -1	ug/g	COP007
			1,1,2-Trichloroethane	LT 3.00 -1	ug/g	COP007
			1,1-Dichloroethane	LT 9.00 1	ug/g	COP007
			1,2-Dichloroethane	LT 3.00 -1	ug/g	COP007
			1,2-Dichloroethane	LT 3.00 -1	ug/g	COP007
			m-Xylene	LT 2.00 1	ug/g	COP007
			Alkyls	LT 3.00 1	ug/g	COP007
			Acetone	3.40 1	ug/g	COP019
			Alkyls	LT 3.00 1	ug/g	COP007
			1,2-Dichloroethane	LT 3.00 1	ug/g	COP007

Note: Results for some parameters may appear to have been reported in the past.

08/04/88

Rocky Mountain Arsenal Program

Flammable Vapor Incorporated

Task # Spill Sites

Summary of Analytical Results

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
DATA	7.6-8.6	Soil	Benzene	LT 3.00 -1	ug/g	CQED07
			Carbon Tetrachloride	LT 3.00 -1	ug/g	CQED07
			Cadmium	LT 1.69 0	ug/g	CPT017
			Methylene Chloride	LT 7.00 -1	ug/g	CQED07
			Chloroform	LT 3.00 -1	ug/g	CQED07
			Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	CQC007
			Chloroacetic Acid	LT 3.55 1	ug/g	CQI010
			Chlorobenzene	LT 3.00 -1	ug/g	CQED07
			Chloroform	LT 2.00 0	ug/g	CQC007
			p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	CQC007
			p-Chlorophenylmethyl Sulfoxide	LT 3.00 -1	ug/g	CQC007
			p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	CQC007
			Chromium	LT 1.70 1	ug/g	CPT017
			Copper	LT 3.67 1	ug/g	CPT017
			Dibromochloropropane	LT 3.00 -1	ug/g	CQC007
			Dibromochloropropane	LT 4.00 -1	ug/g	CQED07
			Dicyclopentadiene	LT 1.00 0	ug/g	CQC007
			Dicyclopentadiene	LT 3.00 -1	ug/g	CQED07
			Vapor	LT 3.00 0	ug/g	CQC007
			Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	CQC007
			Dithiane	LT 4.00 -1	ug/g	CQC007
			Dieldrin	LT 3.00 -1	ug/g	CQC007
			Dimethyldisulfide	LT 8.00 -1	ug/g	CQED07
			Endrin	LT 5.00 -1	ug/g	CQC007
			Ethylbenzene	LT 3.00 -1	ug/g	CQED07
			Mercury	LT 5.00 -2	ug/g	CQAD13
			Isodrin	LT 3.00 -1	ug/g	CQC007
			Toluene	LT 3.00 -1	ug/g	CQED07
			Methylisobutyl Ketone	LT 3.00 -1	ug/g	CQED07
			Malathion	LT 7.00 -1	ug/g	CQC007
			1,4-Dioxathiane	LT 3.00 -1	ug/g	CQC007
			Lead	LT 2.26 1	ug/g	CPT017
			Trichlorodicyclopentadiene	LT 6.00 -1	ug/g	CQC007
			Trichlorodiphenylmethane	LT 5.00 -1	ug/g	CQC007
			ethylene			

Note: Results for some parameters may appear in more than one analytical fraction.

08/06/88

Rocky Mountain Arsenal Program

Flavor Services Incorporated

Summary of Analytical Results

Task 24

Spill Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0433	2.6-8.6	Soil	Parathion	LT 9.00 -1	ug/g	CQC007
			2-Chloro-1(2,4-Dichlorophenyl)	LT 6.00 -1	ug/g	CQC007
			Vinylidene Phosphates			
			Tetrachloroethene	LT 3.00 -1	ug/g	COE007
			Trichloroethylene	LT 4.20 0	ug/g	CQI010
			Trichloroethene	LT 3.00 -1	ug/g	COE007
			Ortho- & Para-Xylene	LT 3.00 -1	ug/g	COE007
0433	9.5-10.5	Soil	Zinc	8.08 1	ug/g	CPT017
			1,1,1-Trichloroethane	LT 3.00 -1	ug/g	COE008
			1,1,2-Trichloroethane	LT 3.00 -1	ug/g	COE008
			1,1-Dichloroethane	LT 9.00 -1	ug/g	COE008
			1,2-Dichloroethane	LT 3.00 -1	ug/g	COE008
			1,2-Dichloroethane	LT 3.00 -1	ug/g	COE008
			m-Xylene	LT 7.00 -1	ug/g	COE008
			Aldrin	LT 3.00 -1	ug/g	CQC008
			Arsenic	1.30 2	ug/g	CPJ020
			Atrazine	LT 3.00 -1	ug/g	CQC008
			Bicyclopentadiene	LT 3.00 1	ug/g	COE008
			Benzene	LT 3.00 -1	ug/g	COE008
			Carbon Tetrachloride	LT 3.00 1	ug/g	COE008
			Cadmium	5.12 0	ug/g	CPT018
			Methylene Chloride	LT 7.00 1	ug/g	COE008
			Chloroform	LT 3.00 -1	ug/g	COE008
			Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	CQC008
			Chloroacetic Acid	LT 3.55 1	ug/g	CQI011
			Chlorobenzene	LT 3.00 -1	ug/g	COE008
			Chloroform	LT 2.00 0	ug/g	CQC008
			p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	CQC008
			p-Chlorophenylmethyl Sulfonate	LT 3.00 1	ug/g	CQC008
			p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	CQC008
			Chromium	1.54 1	ug/g	CPT018
			Copper	3.90 1	ug/g	CPT018
			Trichloroethylene	LT 3.00 -1	ug/g	CQC008

Note: Results for some parameters may appear in more than one analytical fraction.

08/06/88

Rocky Mountain Arsenal Program

Flashed Services Incorporated

Jack 24 Spill Sites

Summary of Analytical Results

Boxing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
DA33	9.5-10.5	Soil	Dibromochloropropane	LT 4.00 -1	ug/g	COC008
			Dicyclopentadiene	LT 1.00 0	ug/g	COC008
			Dicyclopentadiene	LT 3.00 -1	ug/g	COC008
			Vapona	LT 3.00 0	ug/g	COC008
			Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	COC008
			Dithiane	LT 4.00 -1	ug/g	COC008
			Diethrin	LT 3.00 -1	ug/g	COC008
			Dimethyldisulfide	LT 8.00 -1	ug/g	COC008
			Endrin	LT 5.00 -1	ug/g	COC008
			Ethylbenzene	LT 3.00 -1	ug/g	COC008
			Mercury	LT 5.00 -2	ug/g	CGA014
			Isodrin	LT 3.00 -1	ug/g	COC008
			Toluene	LT 3.00 -1	ug/g	COC008
			Methylisobutyl Ketone	LT 3.00 -1	ug/g	COC008
			Malathion	LT 7.00 -1	ug/g	COC008
			1,4-Oxathiane	LT 3.00 -1	ug/g	COC008
			Lead	LT 1.39 1	ug/g	CPT018
			Dichlorodiphenylethane	LT 6.00 -1	ug/g	COC008
			Dichlorodiphenyltrichloro-ethane	LT 5.00 -1	ug/g	COC008
			Parathion	LT 9.00 -1	ug/g	COC008
			2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.00 -1	ug/g	COC008
			Tetrachloroethene	LT 3.00 -1	ug/g	COC008
			Triiodoglycol	LT 4.20 0	ug/g	CQI011
			Trichloroethene	LT 3.00 -1	ug/g	COC008
			Ortho- & Para-Xylene	LT 3.00 -1	ug/g	COC008
			Zinc	1.02 2	ug/g	CPT018
DA35	12-13	Soil	Aldrin	LT 3.00 -1	ug/g	COC009
			Arsenic	9.55 0	ug/g	CPT021
			Atrazine	LT 3.00 -1	ug/g	COC009
			Calcium	LT 7.40 -1	ug/g	CPT019
			Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	COC009

Note: Results for some parameters may appear in more than one analytical fraction.

08/06/88

Rocky Mountain Arsenal Program

Task 24

Spill Sites

Summary of Analytical Results

Incorporated

Run/Job Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
DAT	12-13	Soil	Chloroacetic Acid	LT 3.55	1 ug/g	CQ1012
			Chlorobenzene	LT 2.00	0 ug/g	CQC009
			m-Chlorophenylmethyl Sulfide	LT 9.00	-1 ug/g	CQC009
			p-Chlorophenylmethyl Sulfonide	LT 3.00	-1 ug/g	CQC009
			p-Chlorophenylmethyl Sulfone	LT 3.00	-1 ug/g	CQC009
			Chromium			CPT019
			Copper	3.76	1 ug/g	CPT019
			1,1-Dibromochloropropane	LT 3.00	-1 ug/g	CQC009
			Bicyclopentadiene	LT 1.00	0 ug/g	CQC009
			Varona	LT 3.00	0 ug/g	CQC009
			Diisopropylmethyl Phosphonate	LT 1.00	0 ug/g	CQC009
			Dithiane	LT 4.00	-1 ug/g	CQC009
			Dieldrin	LT 3.00	-1 ug/g	CQC009
			Endrin	LT 5.00	-1 ug/g	CQC009
			Mercury	LT 5.00	-2 ug/g	COA015
			Isodrin	LT 3.00	-1 ug/g	CQC009
			Malathion	LT 7.00	-1 ug/g	CQC009
			1,4-Oxathiane	LT 3.00	-1 ug/g	CQC009
			Lead	2.65	1 ug/g	CPT019
			1,1-Dichlorodiphenylethane	LT 6.00	-1 ug/g	CQC009
			1,1-Dichlorodiphenyl-1,1-dichloroethane	LT 5.00	-1 ug/g	CQC009
			Parathion	LT 9.00	-1 ug/g	CQC009
			p-Chloro 1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.00	1 ug/g	CQC009
			Thiodiglycol	LT 4.20	0 ug/g	CQ1012
			Zinc	1.08	2 ug/g	CPT019
DPST	6	Soil	Aldrin	LT 2.5	-01 ug/g	CXY006
			Arsenic	5.12	+03 ug/g	CHR005
			Atrazine	LT 2.5	-01 ug/g	CXY006
			Cadmium	LT 2.5	-01 ug/g	CXY019
			Hexachlorocyclopentadiene	LT 5.2	-01 ug/g	CXY006
			Chloroacetic Acid	LT 3.55	-01 ug/g	CGZ1009

Note: Results for some parameters may appear in more than one analytical fraction

203

Summary of Analytical Results

Jack 24

Spill Sites

Point Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
GPX	3-6	Soil	Chlordane	LT 1.7 +00	ug/g	CGY006
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CGY006
			p-Chlorophenylmethyl Sulfonate	LT 2.5 -01	ug/g	CGY006
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CGY006
			Chromium	2.82+02	ug/g	CGV019
			Copper	8.10+01	ug/g	CGV019
			Dibromochloropropane	LT 2.8 -01	ug/g	CGY006
			Dicyclopentadiene	LT 1.1 +00	ug/g	CGY006
			Vapona	LT 3.0 +00	ug/g	CGY006
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CGY006
			Dithiane	LT 3.6 -01	ug/g	CGY006
			Dieldrin	8.9 -01	ug/g	CGY006
			Endrin	LT 4.6 -01	ug/g	CGY006
			Mercury	1.71+04	ug/g	CHA013
			Isodrin	LT 2.9 -01	ug/g	CGY006
			Malathion	LT 7.1 -01	ug/g	CGY006
			1,4 Oxathiane	LT 2.5 -01	ug/g	CGY006
			Lead	3.82+02	ug/g	CGV019
			Bichlorodiphenylethane	LT 5.7 -01	ug/g	CGY006
			Bichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CGY006
			Parathion	LT 8.5 -01	ug/g	CGY006
			2-Chloro 1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 01	ug/g	CGY006
			Triiodoglycol	LT 4.20+00	ug/g	CGZ009
			Zinc	7.62+01	ug/g	CGV019

Note: Results for some parameters may appear in more than one analytical fraction.

08/10/93

Field - Ground Air - Ground Water

Spill Site

Field - Ground Air - Ground Water

Summary of Analytical Results

Field Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0001	0-1	Soil	Aldrin	11 2.5 01	ug/g	CDT009
			Atrazine	11 5.0 +00	ug/g	CDT010
			Carbaryl	11 2.5 01	ug/g	CDT009
			Hexachlorocyclopentadiene	11 2.5 01	ug/g	CDT009
			Chloroform	11 1.2 +00	ug/g	CDT009
			p-Chlorophenylmethyl Sulfonate	11 9.1 01	ug/g	CDT009
			p-Chlorophenylmethyl Sulfonate	11 2.5 01	ug/g	CDT009
			p-Chlorophenylmethyl Sulfonate	11 2.5 01	ug/g	CDT009
			Chloroform	11 2.4 01	ug/g	CDT011
			Chloroform	11 1.8 01	ug/g	CDT011
			Dichloromethane	11 2.8 01	ug/g	CDT009
			Diethyltoluene	11 1.1 +00	ug/g	CDT009
			Diethyltoluene	11 3.0 +00	ug/g	CDT009
			Diethyltoluene	11 1.1 +00	ug/g	CDT009
			Diethyltoluene	11 3.6 01	ug/g	CDT009
			Diethyltoluene	11 6.3 01	ug/g	CDT009
			Diethyltoluene	11 4.6 01	ug/g	CDT009
			Diethyltoluene	11 5.0 02	ug/g	CDT018
			Diethyltoluene	11 2.9 01	ug/g	CDT009
			Diethyltoluene	11 2.1 01	ug/g	CDT009
			Diethyltoluene	11 2.5 01	ug/g	CDT009
			Diethyltoluene	11 2.1 02	ug/g	CDT011
			Diethyltoluene	11 5.7 01	ug/g	CDT009
			Diethyltoluene	11 4.7 01	ug/g	CDT009
			Diethyltoluene	11 8.5 01	ug/g	CDT009
			Diethyltoluene	11 6.1 01	ug/g	CDT009
			Diethyltoluene	11 6.2 01	ug/g	CDT011
			Diethyltoluene	11 4.3 01	ug/g	CDT009
			Diethyltoluene	11 3.9 01	ug/g	CDT009
			Diethyltoluene	11 1.1 01	ug/g	CDT009
			Diethyltoluene	11 1.2 01	ug/g	CDT009

Notes: Results for some parameters may differ from those reported in the field notebook.

08/06/88

Rocky Mountain Arsenal Program

Fluoro Services Incorporated

Task 24

Summary of Analytical Results

Spill Sites

Refring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0021	4-5	Soil	1,2-Dichloroethane	LT 5.6 -01	ug/g	CDM006
			m Xylene	LT 7.4 -01	ug/g	CDM006
			Aldrin	LT 2.5 -01	ug/g	CDT010
			Arsenic	LT 5.0 +00	ug/g	CDP011
			Atrazine	LT 2.5 -01	ug/g	CDT010
			Bicycloheptadiene	LT 3.6 -01	ug/g	CDM006
			Benzene	LT 2.5 -01	ug/g	CDM006
			Carbon Tetrachloride	LT 2.5 -01	ug/g	CDM006
			Calcium	LT 7.36 -01	ug/g	CD0012
			Methylene Chloride	LT 1.5 +00	ug/g	CDM006
			Chloroform	LT 2.9 -01	ug/g	CDM006
			Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CDT010
			Chlorobenzene	LT 1.5 +00	ug/g	CDM006
			Chloroethane	LT 1.7 +00	ug/g	CDT010
			p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CDT010
			p-Chlorophenylmethyl Sulfonide	LT 2.5 -01	ug/g	CDT010
			p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CDT010
			Chromium	LT 3.26 +01	ug/g	CD0012
			Copper	LT 2.30 +01	ug/g	CD0012
			Dibromochloropropane	LT 3.4 +00	ug/g	CDM006
			Dibromochloropropane	LT 2.8 -01	ug/g	CDT010
			Dicyclopentadiene	LT 3.4 -01	ug/g	CDM006
			Dicyclopentadiene	LT 1.1 +00	ug/g	CDT010
			Varona	LT 3.0 +00	ug/g	CDT010
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CDT010
			Dithiane	LT 2.6 -01	ug/g	CDT010
			Dieldrin	LT 2.5 -01	ug/g	CDT010
			Dimethylidi-sulfide	LT 2.0 +01	ug/g	CDM006
			Endrin	LT 4.6 -01	ug/g	CDT010
			Ethylbenzene	LT 3.8 -01	ug/g	CDM006
			Mercury	LT 5.00 -02	ug/g	CDH019
			Isodrin	LT 2.9 -01	ug/g	CDT010
			Toluene	LT 2.5 -01	ug/g	CDM006
			Methylisobutyl Ketone	LT 2.3 -01	ug/g	CDM006

Note: Results for some parameters may appear in more than one analytical fraction

Run Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0001	4.5	Soil	Malathion	11 7.1 -01	ug/g	CDT010
			1,4-Oxathiane	11 2.5 -01	ug/g	CDT010
			Lead	11 8.38+00	ug/g	CD0012
			Dichlorodiphenylethane	11 5.7 -01	ug/g	CDT010
			Dichlorodiphenyltrichloroethane	11 4.7 -01	ug/g	CDT010
			Parathion	11 8.5 -01	ug/g	CDT010
			2-Chloro-1(2,4-Dichlorophenyl)	11 6.1 -01	ug/g	CDT010
			Vinylideneethyl Phosphates	11 2.5 -01	ug/g	CDM006
			Trichloroethene	11 5.4 -01	ug/g	CDM006
			ortho- & Para Xylene	11 4.9 +00	ug/g	CDM006
0001	9.10	Soil	Zinc	9.76+01	ug/g	CD0012
			1,1,1-Trichloroethane	11 4.3 -01	ug/g	CDM007
			1,1,2-Trichloroethane	11 3.9 -01	ug/g	CDM007
			1,1-Dichloroethane	11 1.7 +00	ug/g	CDM007
			1,2-Dichloroethane	11 1.7 +00	ug/g	CDM007
			1,2-Dichloroethane	11 5.6 -01	ug/g	CDM007
			m-Xylene	11 2.4 -01	ug/g	CDM007
			Aldrin	11 2.5 -01	ug/g	CD0010
			Arsenic	11 5.0 +00	ug/g	CDP012
			Atrazine	11 2.5 -01	ug/g	CD0010
0001	9.10	Soil	Bicycloheptadiene	11 3.6 -01	ug/g	CDM007
			Benzene	11 2.5 -01	ug/g	CDM007
			Carbon Tetrachloride	11 2.5 -01	ug/g	CDM007
			Cadmium	11 2.36 +01	ug/g	CD0013
			Methylenes Chloride	11 1.5 +00	ug/g	CDM007
			Chloroform	11 2.9 -01	ug/g	CDM007
			Hexachlorocyclopentadiene	11 5.7 -01	ug/g	CD0010
			Chlorobenzene	11 1.5 +00	ug/g	CDM007
			Chloroethane	11 1.7 +00	ug/g	CD0010
			p-Chlorophenylmethyl Sulfide	11 9.1 -01	ug/g	CD0010
0001	9.10	Soil	p-Chlorophenylmethyl Sulfonate	11 2.5 -01	ug/g	CD0010

Note: Results for some parameters may appear in more than one analytical report.

Base Analyses Incorporated

Rocky Mountain Arsenal Program

08/16/AR

Summary of Analytical Results

Task #

Well Sites

Boring Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0021	9-10	Soil	p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CDE010
			Chromium	1.15+01	ug/g	CD0013
			Copper	1.52+01	ug/g	CD0013
			Dibromochloropropane	LT 2.4 +00	ug/g	CDM007
			Dibromochloropropane	LT 2.8 -01	ug/g	CDE010
			Dicyclopentadiene	LT 1.1 +00	ug/g	CDE010
			Dicyclopentadiene	LT 6.4 -01	ug/g	CDM007
			Vapona	LT 3.0 +00	ug/g	CDE010
			Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CDE010
			Dithiane	LT 3.6 -01	ug/g	CDE010
			Dieldrin	LT 2.5 -01	ug/g	CDE010
			Dimethyldisulfide	LT 2.0 +01	ug/g	CDM007
			Endrin	LT 4.6 -01	ug/g	CDE010
			Ethylbenzene	LT 3.8 -01	ug/g	CDM007
			Mercury	LT 5.00-02	ug/g	CDH020
			Isodrin	LT 2.9 -01	ug/g	CDE010
			Toluene	LT 2.5 -01	ug/g	CDM007
			Methylisobutyl Ketone	LT 7.3 -01	ug/g	CDM007
			Malathion	LT 7.1 -01	ug/g	CDF010
			1,4-Oxathiane	LT 2.5 -01	ug/g	CDE010
0021	14-15	Soil	Lead	LT 8.38+00	ug/g	CD0013
			Dichlorodiphenylethane	LT 5.7 -01	ug/g	CDE010
			Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CDE010
			Parathion	LT 8.5 -01	ug/g	CDE010
			2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.1 -01	ug/g	CDE010
			Tetrachloroethene	LT 2.5 -01	ug/g	CDM007
			Trichloroethene	LT 5.4 -01	ug/g	CDM007
			Ortho- & Para Xylene	LT 4.9 +00	ug/g	CDM007
			Zinc	4.41+01	ug/g	CD0013
			1,1,1-Trichloroethane	LT 3. -01	ug/g	CDY003
			1,1,2-Trichloroethane	LT 3. -01	ug/g	CDY003
			1,1 Dichloroethane	LT 9. -01	ug/g	CDY003

Note: Results for some parameters may appear to more than one analytical fraction.

103/10/88

Rocky Mountain Arsenal Program

Task 24 Spill Sites

Summary of Analytical Results

Ref No	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
00121	14-15	Soil	1,2-Dichloroethane	LT 3. -01	ug/g	CDY003
			1,2-Dichloroethane	LT 3. -01	ug/g	CDY003
			m-Xylene	LT 7. -01	ug/g	CDY003
			Alkyls	LT 3. -01	ug/g	CDX009
			Arsenic	LT 2.50+00	ug/g	CEC007
			Atrazine	LT 3. -01	ug/g	CDX009
			Ricobolopentadiene	LT 3. -01	ug/g	CDY003
			Benzene	LT 3. -01	ug/g	CDY003
			Carbon tetrachloride	LT 3. -01	ug/g	CDY003
			Cadmium	LT 7.36-01	ug/g	CEK012
			Methylene Chloride	LT 7. -01	ug/g	CDY003
			Chloroform	LT 3. -01	ug/g	CDY003
			Hexachlorocyclopentadiene	LT 3. -01	ug/g	CDX009
			Chlorobenzene	LT 3. -01	ug/g	CDY003
			Chloroethane	LT 6. -01	ug/g	CDX009
			p-Chlorophenylmethyl Sulfide	LT 4. +00	ug/g	CDX009
			p-Chlorophenylmethyl Sulfonide	LT 7. +00	ug/g	CDX009
			p-Chlorophenylmethyl Sulfone	LT 6. -01	ug/g	CDX009
			Chromium	1.08+01	ug/g	CEK012
			Copper	3.66+01	ug/g	CEK012
			Dibromochloroethane	LT 4. -01	ug/g	CDY003
			Dibromochloroethane	LT 3. -01	ug/g	CDX009
			Dibromocyclopentadiene	LT 3. -01	ug/g	CDY003
			Dibromocyclopentadiene	LT 4. -01	ug/g	CDX009
			Vapors	LT 3. -01	ug/g	CDX009
			Dibromophenylmethyl Phosphonate	LT 3. -01	ug/g	CDX009
			Dibromide	LT 7. +00	ug/g	CDX009
			Dibromide	LT 3. -01	ug/g	CDX009
			Dibromide	LT 8. -01	ug/g	CDY003
			Dibromide	LT 3. -01	ug/g	CDX009
			Ethylbenzene	LT 3. -01	ug/g	CDY003
			Mercury	LT 5.00+02	ug/g	CEG005
			Isobutyl	LT 3. -01	ug/g	CDX009
			Isobutyl	LT 3. -01	ug/g	CDY003

Note: Results for some parameters may differ from those Analytical from 103/10/88

08/11/88

Rocky Mountain Arsenal Program

Soil Sites

Field Sample Incorporated

Summary of Analytical Results

Last 1/2

Location Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0021	14-15	Soil	Methylisobutyl Ketone	LT 3. -01	ug/g	CDY003
			Malathion	LT 3. -01	ug/g	CDX009
			1,4-Oxathiane	LT 6. +00	ug/g	CDX009
			Lead	LT 4. 38+00	ug/g	CFK012
			Dichlorodiphenylethane	LT 3. -01	ug/g	CDX009
			Dichlorodiphenyltrichloroethane	LT 6. -01	ug/g	CDX009
			Parathion	LT 4. -01	ug/g	CDX009
			2-Chloro-1(2,4-Dichlorophenyl)	LT 3. -01	ug/g	CDX009
			Vinylidene Phosphates	LT 3. -01	ug/g	CDY003
			Tetrachloroethene	LT 3. -01	ug/g	CDY003
0021	19-20	Soil	Trichloroethene	LT 3. -01	ug/g	CDY003
			Ortho- & Para-Xylene	LT 3. -01	ug/g	CDY003
			Zinc	LT 1.05+02	ug/g	CFK012
			1,1,1-Trichloroethane	LT 3. -01	ug/g	CDY004
			1,1,2-Trichloroethane	LT 3. -01	ug/g	CDY004
			1,1-Dichloroethane	LT 9. -01	ug/g	CDY004
			1,2-Dichloroethane	LT 3. -01	ug/g	CDY004
			1,2-Dichloroethane	LT 3. -01	ug/g	CDY004
			m-Xylene	LT 7. -01	ug/g	CDY004
			Aldrin	LT 3. -01	ug/g	CDX010
0021	19-20	Soil	Arsenic	LT 2.50+00	ug/g	CFK008
			Atrazine	LT 3. -01	ug/g	CDX010
			Bicycloheptadiene	LT 3. -01	ug/g	CDY004
			Benzene	LT 3. -01	ug/g	CDY004
			Carbon Tetrachloride	LT 3. -01	ug/g	CDY004
			Cadmium	LT 7. 38+01	ug/g	CFK013
			Methylene Chloride	LT 7. -01	ug/g	CDY004
			Chloroform	LT 3. 01	ug/g	CDY004
			Hexachlorocyclopentadiene	LT 3. 01	ug/g	CDX010
			Chlorobenzene	LT 3. 01	ug/g	CDY004
0021	19-20	Soil	Chloroform	LT 6. -01	ug/g	CDX010
			p-Chlorophenylmethyl Sulfonate	LT 4. +00	ug/g	CDX010
			p-Chlorophenylmethyl Sulfonate	LT 7. +00	ug/g	CDX010
			p-Chlorophenylmethyl Sulfonate	LT 7. +00	ug/g	CDX010

Notes: Results for some parameters may appear to more than one analytical fraction.

02/06/88

Rocks Mountain Arsenal Program

Spill Sites

Summary of Analytical Results

Task 24

Por. No.	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0021	19-20	Soil	p-Chlorophenylmethyl Sulfone	11 6.5 -01	ug/g	CDX010
			Chromium	11 1.59+01	ug/g	CFK013
			Copper	11 4.68+01	ug/g	CFK013
			Dibromochloropropane	11 4.5 -01	ug/g	CDY004
			Dibromochloropropane	11 5.5 -01	ug/g	CDX010
			Dicyclopentadiene	11 3.5 -01	ug/g	CDY004
			Dicyclopentadiene	11 4.5 -01	ug/g	CDX010
			Varona	11 3.5 -01	ug/g	CDX010
			Trisopropylmethyl Phosphonate	11 3.5 -01	ug/g	CDX010
			Pyridine	11 7.5 +00	ug/g	CDX010
			Diethylthiophosphorothioic acid	11 3.5 -01	ug/g	CDX010
			Diethylthiophosphorothioic acid	11 8.5 -01	ug/g	CDY004
			Diethylthiophosphorothioic acid	11 3.5 -01	ug/g	CDX010
			Diethylthiophosphorothioic acid	11 3.5 -01	ug/g	CDY004
			Methanol	11 3.5 -01	ug/g	CDX010
			Methanol	11 3.5 -01	ug/g	CDY004
			1,4-Dioxane	11 6.5 +00	ug/g	CDX010
			Lead	11 8.58+00	ug/g	CFK013
			Bis(4-chlorophenyl)methane	11 3.5 -01	ug/g	CDX010
			Bis(4-chlorophenyl)methane	11 6.5 -01	ug/g	CDX010
			Parathion	11 4.5 -01	ug/g	CDX010
			2-Achloro-1,2,4-trichlorobenzene	11 3.5 -01	ug/g	CDX010
			Vinyl Methyl Phosphonate	11 3.5 -01	ug/g	CDY004
			Tetrahydrofuran	11 3.5 -01	ug/g	CDY004
			Trichloroethylene	11 3.5 -01	ug/g	CDY004
			Methoxy-B-Para-Xylene	11 3.5 -01	ug/g	CFK004
			Zinc	11 1.10+02	ug/g	CFK013
0021	29-30	Soil	1,1,1-Trichloroethane	11 3.5 -01	ug/g	CDY005
			1,1,2-Trichloroethane	11 3.5 -01	ug/g	CDY005
			1,1,1-Trichloroethane	11 3.5 -01	ug/g	CDY005

Notes: Results for some parameters may differ from those reported in previous reports.

Report Summary Incorporated
Summary of Analytical Results

Rocky Mountain Arsenal Program
Task #4
Spill Sites

08/10/88

Runing Number	Depth (ft)	Sample Type	Analytical Parameters	Results	Units	Sample Number
0021	29 to	Soil	1,2-Dichloroethene	LT 3, -01	ug/g	CDY005
			1,2-Dichloroethane	LT 3, -01	ug/g	CDY005
			m-Xylene	LT 7, -01	ug/g	CDY005
			Aldrin	LT 7, -01	ug/g	CDX011
			Arsenic	LT 2, 50+00	ug/g	CEC009
			Alazine	LT 3, -01	ug/g	CDX011
			Bicycloheptadiene	LT 3, -01	ug/g	CDY005
			Benzenes	LT 3, -01	ug/g	CDY005
			Carbon Tetrachloride	LT 3, -01	ug/g	CDY005
			Cadmium	LT 7, 30,-01	ug/g	CFK014
			Methylene Chloride	LT 7, -01	ug/g	CDY005
			Chloroform	LT 3, -01	ug/g	CDY005
			Hexachlorocyclopentadiene	LT 3, -01	ug/g	CDX011
			Chlorobenzene	LT 3, -01	ug/g	CDY005
			Chloroethene	LT 6, 01	ug/g	CDX011
			p-Chlorophenylmethyl Sulfide	LT 4, +00	ug/g	CDX011
			p-Chlorophenylmethyl Sulfone	LT 7, +00	ug/g	CDX011
			Chromium	LT 6, -01	ug/g	CDX011
			Copper	1, 18+01	ug/g	CFK014
				5, 28+01	ug/g	CEK014
			Dibromochloropropane	LT 4, -01	ug/g	CDY005
			Dibromochloropropane	LT 3, -01	ug/g	CDX011
			Dicyclopentadiene	LT 4, -01	ug/g	CDX011
			Dicyclopentadiene	LT 3, -01	ug/g	CDY005
			Vapors	LT 3, 01	ug/g	CDX011
			Diisopropylmethyl Phosphonate	LT 3, -01	ug/g	CDX011
			Dithiane	LT 7, +00	ug/g	CDX011
			Dichlorin	LT 3, 01	ug/g	CDX011
			Dimethyl Disulfide	LT 8, 01	ug/g	CDY005
			Endrin	LT 3, 01	ug/g	CDX011
			Ethylbenzene	LT 3, 01	ug/g	CDY005
			Mercury	LT 5, 00 02	ug/g	CEK007
			Endrin	LT 3, 01	ug/g	CDX011
			Toluene	LT 7, 01	ug/g	CDY005

Note: Results for some parameters may differ from those reported in the field.

Product Number	Designation	Material	Dimensions	Weight	Notes
1001	Steel	Steel	10" x 10" x 10"	100 lbs	Standard
1002	Aluminum	Aluminum	10" x 10" x 10"	50 lbs	Lightweight
1003	Copper	Copper	10" x 10" x 10"	150 lbs	Corrosion resistant
1004	Brass	Brass	10" x 10" x 10"	120 lbs	Decorative
1005	Stainless Steel	Stainless Steel	10" x 10" x 10"	110 lbs	Hygienic
1006	Carbon Steel	Carbon Steel	10" x 10" x 10"	100 lbs	Standard
1007	Galvanized Steel	Galvanized Steel	10" x 10" x 10"	100 lbs	Corrosion resistant
1008	Cast Iron	Cast Iron	10" x 10" x 10"	200 lbs	Durable
1009	Cast Steel	Cast Steel	10" x 10" x 10"	180 lbs	Strong
1010	Forged Steel	Forged Steel	10" x 10" x 10"	180 lbs	High strength
1011	Wrought Iron	Wrought Iron	10" x 10" x 10"	180 lbs	Traditional
1012	Tool Steel	Tool Steel	10" x 10" x 10"	180 lbs	Hard
1013	High Speed Steel	High Speed Steel	10" x 10" x 10"	180 lbs	High speed
1014	Maraging Steel	Maraging Steel	10" x 10" x 10"	180 lbs	High strength
1015	Aluminum Alloy	Aluminum Alloy	10" x 10" x 10"	50 lbs	Lightweight
1016	Copper Alloy	Copper Alloy	10" x 10" x 10"	150 lbs	Corrosion resistant
1017	Brass Alloy	Brass Alloy	10" x 10" x 10"	120 lbs	Decorative
1018	Stainless Steel Alloy	Stainless Steel Alloy	10" x 10" x 10"	110 lbs	Hygienic
1019	Carbon Steel Alloy	Carbon Steel Alloy	10" x 10" x 10"	100 lbs	Standard
1020	Galvanized Steel Alloy	Galvanized Steel Alloy	10" x 10" x 10"	100 lbs	Corrosion resistant
1021	Cast Iron Alloy	Cast Iron Alloy	10" x 10" x 10"	200 lbs	Durable
1022	Cast Steel Alloy	Cast Steel Alloy	10" x 10" x 10"	180 lbs	Strong
1023	Forged Steel Alloy	Forged Steel Alloy	10" x 10" x 10"	180 lbs	High strength
1024	Wrought Iron Alloy	Wrought Iron Alloy	10" x 10" x 10"	180 lbs	Traditional
1025	Tool Steel Alloy	Tool Steel Alloy	10" x 10" x 10"	180 lbs	Hard
1026	High Speed Steel Alloy	High Speed Steel Alloy	10" x 10" x 10"	180 lbs	High speed
1027	Maraging Steel Alloy	Maraging Steel Alloy	10" x 10" x 10"	180 lbs	High strength
1028	Aluminum Alloy	Aluminum Alloy	10" x 10" x 10"	50 lbs	Lightweight
1029	Copper Alloy	Copper Alloy	10" x 10" x 10"	150 lbs	Corrosion resistant
1030	Brass Alloy	Brass Alloy	10" x 10" x 10"	120 lbs	Decorative
1031	Stainless Steel Alloy	Stainless Steel Alloy	10" x 10" x 10"	110 lbs	Hygienic
1032	Carbon Steel Alloy	Carbon Steel Alloy	10" x 10" x 10"	100 lbs	Standard
1033	Galvanized Steel Alloy	Galvanized Steel Alloy	10" x 10" x 10"	100 lbs	Corrosion resistant
1034	Cast Iron Alloy	Cast Iron Alloy	10" x 10" x 10"	200 lbs	Durable
1035	Cast Steel Alloy	Cast Steel Alloy	10" x 10" x 10"	180 lbs	Strong
1036	Forged Steel Alloy	Forged Steel Alloy	10" x 10" x 10"	180 lbs	High strength
1037	Wrought Iron Alloy	Wrought Iron Alloy	10" x 10" x 10"	180 lbs	Traditional
1038	Tool Steel Alloy	Tool Steel Alloy	10" x 10" x 10"	180 lbs	Hard
1039	High Speed Steel Alloy	High Speed Steel Alloy	10" x 10" x 10"	180 lbs	High speed
1040	Maraging Steel Alloy	Maraging Steel Alloy	10" x 10" x 10"	180 lbs	High strength
1041	Aluminum Alloy	Aluminum Alloy	10" x 10" x 10"	50 lbs	Lightweight
1042	Copper Alloy	Copper Alloy	10" x 10" x 10"	150 lbs	Corrosion resistant
1043	Brass Alloy	Brass Alloy	10" x 10" x 10"	120 lbs	Decorative
1044	Stainless Steel Alloy	Stainless Steel Alloy	10" x 10" x 10"	110 lbs	Hygienic
1045	Carbon Steel Alloy	Carbon Steel Alloy	10" x 10" x 10"	100 lbs	Standard
1046	Galvanized Steel Alloy	Galvanized Steel Alloy	10" x 10" x 10"	100 lbs	Corrosion resistant
1047	Cast Iron Alloy	Cast Iron Alloy	10" x 10" x 10"	200 lbs	Durable
1048	Cast Steel Alloy	Cast Steel Alloy	10" x 10" x 10"	180 lbs	Strong
1049	Forged Steel Alloy	Forged Steel Alloy	10" x 10" x 10"	180 lbs	High strength
1050	Wrought Iron Alloy	Wrought Iron Alloy	10" x 10" x 10"	180 lbs	Traditional

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Arsenic	LT 2.50+00	ug/g	CC4001
Blank	Chromium	LT 1.35+01	ug/g	CCX001
Blank	Copper	LT 7.15+00	ug/g	CCX001
Blank	Lead	LT 1.67+01	ug/g	CCX001
Blank	Zinc	LT 5.76+01	ug/g	CCX001
Blank	Cadmium	LT 7.36-01	ug/g	CCX001
Blank	Mercury	LT 5.02-02	ug/g	CD8001
Blank	Vapona	LT 3.0 +00	ug/g	CD0001
Blank	Aldrin	LT 2.5 -01	ug/g	CD0001
Blank	Atrazine	LT 2.5 -01	ug/g	CD0001
Blank	Chlordane	LT 1.7 +00	ug/g	CD0001
Blank	Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CD0001
Blank	p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CD0001
Blank	p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CD0001
Blank	p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CD0001
Blank	Dibromochloropropane	LT 2.8 -01	ug/g	CD0001
Blank	Dicyclopentadiene	LT 1.1 +00	ug/g	CD0001
Blank	Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CD0001
Blank	Dithiane	LT 3.6 -01	ug/g	CD0001
Blank	Dieldrin	LT 2.5 -01	ug/g	CD0001
Blank	Endrin	LT 4.6 -01	ug/g	CD0001
Blank	Isodrin	LT 2.9 -01	ug/g	CD0001
Blank	Malathion	LT 7.1 -01	ug/g	CD0001
Blank	Dichlorodiphenylethane	LT 5.7 -01	ug/g	CD0001
Blank	Dichlorodiphenyltrichloro-ethane	LT 4.7 -01	ug/g	CD0001
Blank	Parathion	LT 9.5 -01	ug/g	CD0001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CD0001
Blank	1,4-Oxathiane	LT 2.5 -01	ug/g	CD0001
Blank	Vapona	LT 3.0 +00	ug/g	CD0001
Blank	Aldrin	LT 2.5 -01	ug/g	CD0001
Blank	Atrazine	LT 2.5 -01	ug/g	CD0001
Blank	Chlordane	LT 1.7 +00	ug/g	CD0001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Ebasco Services Incorporated
Summary of Analytical Results

Rocky Mountain Arsenal Program

08/07/88

Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CDE001
Blank	p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CDE001
Blank	p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CDE001
Blank	p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CDE001
Blank	Dibromochloropropane	LT 2.8 -01	ug/g	CDE001
Blank	Dicyclopentadiene	LT 1.1 +00	ug/g	CDE001
Blank	Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CDE001
Blank	Dithiane	LT 3.6 -01	ug/g	CDE001
Blank	Dieldrin	LT 2.5 -01	ug/g	CDE001
Blank	Endrin	LT 4.6 -01	ug/g	CDE001
Blank	Isodrin	LT 2.9 -01	ug/g	CDE001
Blank	Malathion	LT 7.1 -01	ug/g	CDE001
Blank	1,4-Oxathiane	LT 2.5 -01	ug/g	CDE001
Blank	Dichlorodiphenylethane	LT 5.7 -01	ug/g	CDE001
Blank	Dichlorodiphenyltrichloro-ethane	LT 4.7 -01	ug/g	CDE001
Blank	Parathion	LT 8.5 -01	ug/g	CDE001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinyl-diethyl Phosphates	LT 6.1 -01	ug/g	CDE001
Blank	Arsenic	2.89+00	ug/g	CDF001
Blank	Chromium	1.27+01	ug/g	CDG001
Blank	Copper	8.28+00	ug/g	CDG001
Blank	Lead	1.10+01	ug/g	CDG001
Blank	Zinc	3.62+01	ug/g	CDG001
Blank	Cadmium	LT 7.36-01	ug/g	CDG001
Blank	Mercury	5.39-02	ug/g	CDH001
Blank	Dimethyldisulfide	LT 2.0 +01	ug/g	CDI001
Blank	Bicycloheptadiene	LT 3.6 -01	ug/g	CDI001
Blank	Carbon Tetrachloride	LT 2.5 -01	ug/g	CDI001
Blank	Chloroform	LT 2.9 -01	ug/g	CDI001
Blank	Methylene Chloride	LT 1.5 +00	ug/g	CDI001
Blank	Chlorobenzene	LT 1.5 +00	ug/g	CDI001
Blank	Benzene	LT 2.5 -01	ug/g	CDI001
Blank	Dibromochloropropane	LT 2.4 +00	ug/g	CDI001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Summary of Analytical Results

Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Dicyclopentadiene	LT 6.4 -01	ug/g	CDI001
Blank	Ethylbenzene	LT 3.8 -01	ug/g	CDI001
Blank	Toluene	LT 2.5 -01	ug/g	CDI001
Blank	Methylisobutyl Ketone	LT 7.3 -01	ug/g	CDI001
Blank	Tetrachloroethene	LT 2.5 -01	ug/g	CDI001
Blank	Trichloroethene	LT 5.4 -01	ug/g	CDI001
Blank	Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CDI001
Blank	1,1-Dichloroethane	LT 1.7 +00	ug/g	CDI001
Blank	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CDI001
Blank	1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CDI001
Blank	1,2-Dichloroethane	LT 1.7 +00	ug/g	CDI001
Blank	1,2-Dichloroethane	LT 5.6 -01	ug/g	CDI001
Blank	m-Xylene	LT 7.4 -01	ug/g	CDI001
Blank	Dimethyldisulfide	LT 2.0 +01	ug/g	CDJ001
Blank	Bicycloheptadiene	LT 3.6 -01	ug/g	CDJ001
Blank	Carbon Tetrachloride	LT 2.5 -01	ug/g	CDJ001
Blank	Chloroform	LT 2.9 -01	ug/g	CDJ001
Blank	Methylene Chloride	2.8 +00	ug/g	CDJ001
Blank	Chlorobenzene	LT 1.5 +00	ug/g	CDJ001
Blank	Benzene	LT 2.5 -01	ug/g	CDJ001
Blank	Dibromochloropropane	LT 2.4 +00	ug/g	CDJ001
Blank	Dicyclopentadiene	LT 6.4 -01	ug/g	CDJ001
Blank	Ethylbenzene	LT 3.8 -01	ug/g	CDJ001
Blank	Toluene	LT 2.5 -01	ug/g	CDJ001
Blank	Methylisobutyl Ketone	LT 7.3 -01	ug/g	CDJ001
Blank	Tetrachloroethene	LT 2.5 -01	ug/g	CDJ001
Blank	Trichloroethene	LT 5.4 -01	ug/g	CDJ001
Blank	Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CDJ001
Blank	1,1-Dichloroethane	LT 1.7 +00	ug/g	CDJ001
Blank	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CDJ001
Blank	1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CDJ001
Blank	1,2-Dichloroethane	LT 1.7 +00	ug/g	CDJ001
Blank	1,2-Dichloroethane	LT 5.6 -01	ug/g	CDJ001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Summary of Analytical Results

Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	m-Xylene	LT 7.4 -01	ug/g	CDJ001
Blank	Chloroacetic Acid	LT 3.55+01	ug/g	CDK001
Blank	Thiodiglycol	LT 4.20+00	ug/g	CDK001
Blank	Dimethyldisulfide	LT 2.0 +01	ug/g	CDH001
Blank	Toluene	LT 3.0 -01	ug/g	CDH001
Blank	Ethylbenzene	LT 3.8 -01	ug/g	CDH001
Blank	Bicycloheptadiene	LT 3.6 -01	ug/g	CDH001
Blank	Carbon Tetrachloride	LT 2.5 -01	ug/g	CDH001
Blank	Chloroform	LT 2.9 -01	ug/g	CDH001
Blank	Methylene Chloride	LT 1.5 +00	ug/g	CDH001
Blank	Chlorobenzene	LT 1.5 +00	ug/g	CDH001
Blank	Benzene	LT 2.5 -01	ug/g	CDH001
Blank	Dibromochloropropane	LT 2.4 +00	ug/g	CDH001
Blank	Dicyclopentadiene	LT 6.4 -01	ug/g	CDH001
Blank	Methylisobutyl Ketone	LT 7.3 -01	ug/g	CDH001
Blank	Tetrachloroethene	LT 2.5 -01	ug/g	CDH001
Blank	Trichloroethene	LT 5.4 -01	ug/g	CDH001
Blank	Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CDH001
Blank	1,1-Dichloroethane	LT 1.7 +00	ug/g	CDH001
Blank	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CDH001
Blank	1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CDH001
Blank	1,2-Dichloroethane	LT 1.7 +00	ug/g	CDH001
Blank	1,2-Dichloroethane	LT 5.6 -01	ug/g	CDH001
Blank	m-Xylene	LT 7.4 -01	ug/g	CDH001
Blank	Ethyl Benzene - D10	LT 9.86+00	ug/g	CDH001
Blank	Vapona	LT 3.0 +00	ug/g	CDH001
Blank	Aldrin	LT 2.5 -01	ug/g	CDH001
Blank	Atrazine	LT 2.5 -01	ug/g	CDH001
Blank	Chlordane	LT 1.7 +00	ug/g	CDH001
Blank	Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CDH001
Blank	p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CDH001
Blank	p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CDH001
Blank	p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CDH001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Esasco Services Incorporated
Summary of Analytical Results

Rocky Mountain Arsenal Program

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Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Dibromochloropropane	LT 2.8 -01	ug/g	CDN001
Blank	Dicyclopentadiene	LT 1.1 +00	ug/g	CDN001
Blank	Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CDN001
Blank	Dithiane	LT 3.6 -01	ug/g	CDN001
Blank	Dieldrin	LT 2.5 -01	ug/g	CDN001
Blank	Endrin	LT 4.6 -01	ug/g	CDN001
Blank	Isodrin	LT 2.9 -01	ug/g	CDN001
Blank	Malathion	LT 7.1 -01	ug/g	CDN001
Blank	1,4-Oxathiane	LT 2.5 -01	ug/g	CDN001
Blank	Dichlorodiphenylethane	LT 5.7 -01	ug/g	CDN001
Blank	Dichlorodiphenyltrichloro-ethane	LT 4.7 -01	ug/g	CDN001
Blank	Parathion	LT 8.5 -01	ug/g	CDN001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CDN001
Blank	Chromium	1.7 +01	ug/g	CD0001
Blank	Copper	9.00+00	ug/g	CD0001
Blank	Zinc	4.17+01	ug/g	CD0001
Blank	Cadmium	LT 7.36-01	ug/g	CD0001
Blank	Lead	LT 8.38+00	ug/g	CD0001
Blank	Arsenic	LT 5.0 +00	ug/g	CD0001
Blank	Thiodiglycol	LT 4.2 +00	ug/g	CD0001
Blank	Chloroacetic Acid	LT 3.55+01	ug/g	CD0001
Blank	Thiodiglycol	LT 4.2 +00	ug/g	CD0001
Blank	Chloroacetic Acid	LT 3.55+01	ug/g	CD0001
Blank	Mercury	6.94-02	ug/g	CD0001
Blank	Thiodiglycol	LT 4.20+00	ug/g	CD0001
Blank	Chloroacetic Acid	LT 3.55+01	ug/g	CD0001
Blank	Bicycloheptadiene	LT 3. -01	ug/g	CD0001
Blank	Carbon Tetrachloride	LT 3. -01	ug/g	CD0001
Blank	Chloroform	LT 3. -01	ug/g	CD0001
Blank	Methylene Chloride	LT 7. -01	ug/g	CD0001
Blank	Chlorobenzene	LT 3. -01	ug/g	CD0001
Blank	Benzene	LT 3. -01	ug/g	CD0001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Dibromochloropropane	LT 4. -01	ug/g	CDY001
Blank	Dicyclopentadiene	LT 3. -01	ug/g	CDY001
Blank	Dimethyldisulfide	LT 8. -01	ug/g	CDY001
Blank	Ethylbenzene	LT 3. -01	ug/g	CDY001
Blank	Toluene	LT 3. -01	ug/g	CDY001
Blank	Methylisobutyl Ketone	LT 3. -01	ug/g	CDY001
Blank	Tetrachloroethene	LT 3. -01	ug/g	CDY001
Blank	Trichloroethene	LT 3. -01	ug/g	CDY001
Blank	Ortho- & Para-Xylene	LT 3. -01	ug/g	CDY001
Blank	1,1-Dichloroethane	LT 9. -01	ug/g	CDY001
Blank	1,1,1-Trichloroethane	LT 3. -01	ug/g	CDY001
Blank	1,1,2-Trichloroethane	LT 3. -01	ug/g	CDY001
Blank	1,2-Dichloroethane	LT 3. -01	ug/g	CDY001
Blank	1,2-Dichloroethane	LT 3. -01	ug/g	CDY001
Blank	m-Xylene	LT 7. -01	ug/g	CDY001
Blank	Dimethyldisulfide	LT 2.0 +01	ug/g	CDZ001
Blank	Chlorobenzene	LT 1.5 +00	ug/g	CDZ001
Blank	Dibromochloropropane	LT 2.4 +00	ug/g	CDZ001
Blank	Methylisobutyl Ketone	LT 7.3 -01	ug/g	CDZ001
Blank	Trichloroethene	LT 5.4 -01	ug/g	CDZ001
Blank	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CDZ001
Blank	Bicycloheptadiene	LT 3.6 -01	ug/g	CDZ001
Blank	Carbon Tetrachloride	LT 2.5 -01	ug/g	CDZ001
Blank	Chloroform	LT 2.9 -01	ug/g	CDZ001
Blank	Methylene Chloride	LT 1.5 +00	ug/g	CDZ001
Blank	Benzene	LT 2.5 -01	ug/g	CDZ001
Blank	Dicyclopentadiene	LT 6.4 -01	ug/g	CDZ001
Blank	Ethylbenzene	LT 3.8 -01	ug/g	CDZ001
Blank	Toluene	LT 2.5 -01	ug/g	CDZ001
Blank	Tetrachloroethene	LT 2.5 -01	ug/g	CDZ001
Blank	Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CDZ001
Blank	1,1-Dichloroethane	LT 1.7 +00	ug/g	CDZ001
Blank	1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CDZ001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Ebasco Services Incorporated
Summary of Analytical Results

Rocky Mountain Arsenal Program
Blanks Associated with Task 24,
Spill Sites

06/07/88

Type	Analytical Parameters	Results	Units	Sample Number
Blank	1,2-Dichloroethene	LT 1.7 +00	ug/g	CDZ001
Blank	1,2-Dichloroethane	LT 5.6 -01	ug/g	CDZ001
Blank	m-Xylene	LT 7.4 -01	ug/g	CDZ001
Blank	Vapona	LT 3.0 +00	ug/g	CEA001
Blank	Aldrin	LT 2.5 -01	ug/g	CEA001
Blank	Atrazine	LT 2.5 -01	ug/g	CEA001
Blank	Chlordane	LT 1.7 +00	ug/g	CEA001
Blank	Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CEA001
Blank	p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CEA001
Blank	p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CEA001
Blank	p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CEA001
Blank	Dibromochloropropane	LT 2.8 -01	ug/g	CEA001
Blank	Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CEA001
Blank	Dithiane	LT 3.6 -01	ug/g	CEA001
Blank	Dieldrin	LT 2.5 -01	ug/g	CEA001
Blank	Endrin	LT 4.6 -01	ug/g	CEA001
Blank	Isodrin	LT 2.9 -01	ug/g	CEA001
Blank	Malathion	LT 7.1 -01	ug/g	CEA001
Blank	1,4-Oxathiane	LT 2.5 -01	ug/g	CEA001
Blank	Dichlorodiphenylethane	LT 5.7 -01	ug/g	CEA001
Blank	Dichlorodiphenyltrichloro-ethane	LT 4.7 -01	ug/g	CEA001
Blank	Parathion	LT 8.5 -01	ug/g	CEA001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.1 -01	ug/g	CEA001
Blank	Dicyclopentadiene	LT 1.1 +00	ug/g	CEA001
Blank	Arsenic	2.91+00	ug/g	CEC001
Blank	Thiodiglycol	LT 4.2 +00	ug/g	CEI001
Blank	Chloroacetic Acid	LT 3.55+01	ug/g	CEI001
Blank	Cadmium	LT 7.40 -1	ug/g	CEJ001
Blank	Chromium	1.83 1	ug/g	CEJ001
Blank	Copper	1.06 1	ug/g	CEJ001
Blank	Lead	1.80 1	ug/g	CEJ001
Blank	Zinc	4.87 1	ug/g	CEJ001

Note: Blanks are matched to analytical ints by the first three characters in the Sample Number.

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Type	Analytical Parameters	Results	Units	Sample Number
Blank	Chromium	1.61+01	ug/g	CEK001
Blank	Copper	8.35+00	ug/g	CEK001
Blank	Lead	1.17+01	ug/g	CEK001
Blank	Zinc	4.02+01	ug/g	CEK001
Blank	Cadmium	LT 7.36-01	ug/g	CEK001
Blank	Dimethyldisulfide	LT 2.0 +01	ug/g	CEK001
Blank	Chlorobenzene	LT 1.5 +00	ug/g	CEK001
Blank	Dibromochloropropane	LT 2.4 +00	ug/g	CEK001
Blank	Methylisobutyl Ketone	LT 7.3 -01	ug/g	CEK001
Blank	Trichloroethene	LT 5.4 -01	ug/g	CEK001
Blank	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CEK001
Blank	Bicycloheptadiene	LT 3.6 -01	ug/g	CEK001
Blank	Carbon Tetrachloride	LT 2.5 -01	ug/g	CEK001
Blank	Chloroform	LT 2.9 -01	ug/g	CEK001
Blank	Methylene Chloride	LT 1.5 +00	ug/g	CEK001
Blank	Benzene	LT 2.5 -01	ug/g	CEK001
Blank	Dicyclopentadiene	LT 6.4 -01	ug/g	CEK001
Blank	Ethylbenzene	LT 3.8 -01	ug/g	CEK001
Blank	Toluene	LT 2.5 -01	ug/g	CEK001
Blank	Tetrachloroethene	LT 2.5 -01	ug/g	CEK001
Blank	Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CEK001
Blank	1,1-Dichloroethane	LT 1.7 +00	ug/g	CEK001
Blank	1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CEK001
Blank	1,2-Dichloroethene	LT 1.7 +00	ug/g	CEK001
Blank	1,2-Dichloroethane	LT 5.6 -01	ug/g	CEK001
Blank	m-Xylene	LT 7.4 -01	ug/g	CEK001
Blank	Vapona	LT 3.0 +00	ug/g	CEN001
Blank	Aldrin	LT 2.5 -01	ug/g	CEN001
Blank	Atrazine	LT 2.5 -01	ug/g	CEN001
Blank	Chlordane	LT 1.7 +00	ug/g	CEN001
Blank	Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CEN001
Blank	p-Chlorophenylmethyl Sulfonide	LT 2.5 -01	ug/g	CEN001
Blank	p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CEN001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Ebasco Services Incorporated
Summary of Analytical Results

Rocky Mountain Arsenal Program
Blanks Associated with Task 24,
Spill Sites

08/07/88

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Dibromochloropropane	LT 2.8 -01	ug/g	CEN001
Blank	Dithiane	LT 3.6 -01	ug/g	CEN001
Blank	Dieldrin	LT 2.5 -01	ug/g	CEN001
Blank	Endrin	LT 4.6 -01	ug/g	CEN001
Blank	Isodrin	LT 2.9 -01	ug/g	CEN001
Blank	1,4-Oxathiane	LT 2.5 -01	ug/g	CEN001
Blank	Ochlorodiphenylethane	LT 5.7 -01	ug/g	CEN001
Blank	Dichlorodiphenyltrichloro-ethane	LT 4.7 -01	ug/g	CEN001
Blank	Parathion	LT 8.5 -01	ug/g	CEN001
Blank	p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CEN001
Blank	Dicyclopentadiene	LT 1.1 +00	ug/g	CEN001
Blank	Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CEN001
Blank	Malathion	LT 7.1 -01	ug/g	CEN001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CEN001
Blank	Dicyclopentadiene	LT 4. -01	ug/g	CE0001
Blank	Diisopropylmethyl Phosphonate	LT 3. -01	ug/g	CE0001
Blank	1,4-Oxathiane	LT 6. +00	ug/g	CE0001
Blank	Aldrin	LT 3. -01	ug/g	CE0001
Blank	Chlordane	LT 6. -01	ug/g	CE0001
Blank	Hexachlorocyclopentadiene	LT 3. -01	ug/g	CE0001
Blank	p-Chlorophenylmethyl Sulfide	LT 4. +00	ug/g	CE0001
Blank	p-Chlorophenylmethyl Sulfoxide	LT 7. +00	ug/g	CE0001
Blank	p-Chlorophenylmethyl Sulfone	LT 6. -01	ug/g	CE0001
Blank	Dibromochloropropane	LT 3. -01	ug/g	CE0001
Blank	Vapona	LT 3. -01	ug/g	CE0001
Blank	Dithiane	LT 7. +00	ug/g	CE0001
Blank	Dieldrin	LT 3. -01	ug/g	CE0001
Blank	Endrin	LT 3. -01	ug/g	CE0001
Blank	Isodrin	LT 3. -01	ug/g	CE0001
Blank	Malathion	LT 3. -01	ug/g	CE0001
Blank	Dichlorodiphenylethane	LT 3. -01	ug/g	CE0001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

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Type	Analytical Parameters	Results	Units	Sample Number
Blank	Dichlorodiphenyltrichloro-ethane	LT 6. -01	ug/g	CE0001
Blank	Parathion	LT 4. -01	ug/g	CE0001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 3. -01	ug/g	CE0001
Blank	Mercury	5.77-02	ug/g	CE0001
Blank	Mercury	5.19-02	ug/g	CE0001
Blank	Chromium	1.64+01	ug/g	CET001
Blank	Copper	7.86+00	ug/g	CET001
Blank	Zinc	4.19+01	ug/g	CET001
Blank	Cadmium	7.36-01	ug/g	CET001
Blank	Lead	8.38-00	ug/g	CET001
Blank	Arsenic	3.17+00	ug/g	CEU001
Blank	Thiodiglycol	LT 4.20+00	ug/g	CEX001
Blank	Chloroacetic Acid	LT 3.55+01	ug/g	CEX001
Blank	Cadmium	LT 7.40 -1	ug/g	CEY001
Blank	Chromium	1.82 1	ug/g	CEY001
Blank	Copper	1.11 1	ug/g	CEY001
Blank	Lead	9.86 0	ug/g	CEY001
Blank	Zinc	5.08 1	ug/g	CEY001
Blank	Aldrin	LT 3. -01	ug/g	CFAD01
Blank	Atrazine	LT 3. -01	ug/g	CFAD01
Blank	Chlordane	LT 6. -01	ug/g	CFAD01
Blank	Hexachlorocyclopentadiene	LT 3. -01	ug/g	CFAD01
Blank	p-Chlorophenylmethyl Sulfide	LT 4. +00	ug/g	CFAD01
Blank	p-Chlorophenylmethyl Sulfoxide	LT 7. +00	ug/g	CFAD01
Blank	p-Chlorophenylmethyl Sulfone	LT 6. -01	ug/g	CFAD01
Blank	Dibromochloropropane	LT 3. -01	ug/g	CFAD01
Blank	Dicyclopentadiene	LT 4. -01	ug/g	CFAD01
Blank	Vapone	LT 3. -01	ug/g	CFAD01
Blank	Diisopropylmethyl Phosphonate	LT 3. -01	ug/g	CFAD01
Blank	Dithiane	LT 7. +00	ug/g	CFAD01
Blank	Dieldrin	LT 3. -01	ug/g	CFAD01
Blank	Endrin	LT 3. -01	ug/g	CFAD01

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Isodrin	LT 3. -01	ug/g	CFAD001
Blank	Melathion	LT 3. -01	ug/g	CFAD001
Blank	1,4-Oxathiane	LT 6. +00	ug/g	CFAD001
Blank	Dichlorodiphenylethane	LT 3. -01	ug/g	CFAD001
Blank	Dichlorodiphenyltrichloroethane	LT 6. -01	ug/g	CFAD001
Blank	Parathion	LT 4. -01	ug/g	CFAD001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 3. -01	ug/g	CFAD001
Blank	Dimethyldisulfide	LT 2.0 +01	ug/g	CFB001
Blank	Bicycloheptadiene	LT 3.6 -01	ug/g	CFB001
Blank	Carbon Tetrachloride	LT 2.5 -01	ug/g	CFB001
Blank	Chloroform	LT 2.9 -01	ug/g	CFB001
Blank	Methylene Chloride	LT 1.5 +00	ug/g	CFB001
Blank	Chlorobenzene	LT 1.5 +00	ug/g	CFB001
Blank	Benzene	LT 2.5 -01	ug/g	CFB001
Blank	Dibromochloropropane	LT 2.4 +00	ug/g	CFB001
Blank	Dicyclopentadiene	LT 6.4 -01	ug/g	CFB001
Blank	Ethylbenzene	LT 3.8 -01	ug/g	CFB001
Blank	Toluene	LT 2.5 -01	ug/g	CFB001
Blank	Methylisobutyl Ketone	LT 7.3 -01	ug/g	CFB001
Blank	Tetrachloroethene	LT 2.5 -01	ug/g	CFB001
Blank	Trichloroethene	LT 5.4 -01	ug/g	CFB001
Blank	Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CFB001
Blank	1,1-Dichloroethane	LT 1.7 +00	ug/g	CFB001
Blank	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CFB001
Blank	1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CFB001
Blank	1,2-Dichloroethane	LT 1.7 +00	ug/g	CFB001
Blank	1,2-Dichloroethane	LT 5.6 -01	ug/g	CFB001
Blank	m-Xylene	LT 7.4 -01	ug/g	CFB001
Blank	Mercury	6.65-02	ug/g	CFC001
Blank	Arsenic	LT 5.0 +00	ug/g	CFD001
Blank	Dimethyldisulfide	LT 2.0 +01	ug/g	CFE001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Bicycloheptadiene	LT 3.6 -01	ug/g	CFE001
Blank	Carbon Tetrachloride	LT 2.5 -01	ug/g	CFE001
Blank	Chloroform	LT 2.9 -01	ug/g	CFE001
Blank	Methylene Chloride	LT 1.5 +00	ug/g	CFE001
Blank	Benzene	LT 2.5 -01	ug/g	CFE001
Blank	Dicyclopentadiene	LT 6.4 -01	ug/g	CFE001
Blank	Ethylbenzene	LT 3.8 -01	ug/g	CFE001
Blank	Toluene	LT 2.5 -01	ug/g	CFE001
Blank	Tetrachloroethene	LT 2.5 -01	ug/g	CFE001
Blank	Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CFE001
Blank	1,1-Dichloroethane	LT 1.7 +00	ug/g	CFE001
Blank	1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CFE001
Blank	1,2-Dichloroethene	LT 1.7 +00	ug/g	CFE001
Blank	1,2-Dichloroethane	LT 5.6 -01	ug/g	CFE001
Blank	m-Xylene	LT 7.4 -01	ug/g	CFE001
Blank	Chlorobenzene	LT 1.5 +00	ug/g	CFE001
Blank	Dibromochloropropane	LT 2.4 +00	ug/g	CFE001
Blank	Methylisobutyl Ketone	LT 7.3 -01	ug/g	CFE001
Blank	Trichloroethene	LT 5.4 -01	ug/g	CFE001
Blank	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CFE001
Blank	Cadmium	LT 7.36-01	ug/g	CFG001
Blank	Chromium	1.44+01	ug/g	CFG001
Blank	Copper	8.79+00	ug/g	CFG001
Blank	Lead	8.38+00	ug/g	CFG001
Blank	Zinc	3.87+01	ug/g	CFG001
Blank	Cadmium	LT 7.3 -01	ug/g	CFG001
Blank	Chromium	1.4 +01	ug/g	CFG001
Blank	Copper	8.7 +00	ug/g	CFG001
Blank	Lead	LT 8.3 +00	ug/g	CFG001
Blank	Zinc	3.8 +01	ug/g	CFG001
Blank	Dimethyldisulfide	LT 2.0 +01	ug/g	CFH001
Blank	Bicycloheptadiene	LT 3.6 -01	ug/g	CFH001
Blank	Carbon Tetrachloride	LT 2.5 -01	ug/g	CFH001
Blank	Chloroform	LT 2.9 -01	ug/g	CFH001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Esasco Services Incorporated
Summary of Analytical Results

Rocky Mountain Arsenal Program
Blanks Associated with Task 24,
Spill Sites

08/07/88

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Methylene Chloride	LT 1.5 +00	ug/g	CFH001
Blank	Benzene	LT 2.5 -01	ug/g	CFH001
Blank	Dicyclopentadiene	LT 6.4 -01	ug/g	CFH001
Blank	Ethylbenzene	LT 3.8 -01	ug/g	CFH001
Blank	Toluene	LT 2.5 -01	ug/g	CFH001
Blank	Tetrachloroethene	LT 2.5 -01	ug/g	CFH001
Blank	Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CFH001
Blank	1,1-Dichloroethane	LT 1.7 +00	ug/g	CFH001
Blank	1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CFH001
Blank	1,2-Dichloroethene	LT 1.7 +00	ug/g	CFH001
Blank	1,2-Dichloroethane	LT 5.6 -01	ug/g	CFH001
Blank	m-Xylene	LT 7.4 -01	ug/g	CFH001
Blank	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CFH001
Blank	Trichloroethene	LT 5.4 -01	ug/g	CFH001
Blank	Methylisobutyl Ketone	LT 7.3 -01	ug/g	CFH001
Blank	Dibromochloropropane	LT 2.4 +00	ug/g	CFH001
Blank	Chlorobenzene	LT 1.5 +00	ug/g	CFH001
Blank	Bicycloheptadiene	LT 3. -01	ug/g	CF1001
Blank	Carbon Tetrachloride	LT 3. -01	ug/g	CF1001
Blank	Chloroform	LT 3. -01	ug/g	CF1001
Blank	Methylene Chloride	LT 7. -01	ug/g	CF1001
Blank	Chlorobenzene	LT 3. -01	ug/g	CF1001
Blank	Benzene	LT 3. -01	ug/g	CF1001
Blank	Dibromochloropropane	LT 4. -01	ug/g	CF1001
Blank	Dicyclopentadiene	LT 3. -01	ug/g	CF1001
Blank	Dimethyldisulfide	LT 8. -01	ug/g	CF1001
Blank	Ethylbenzene	LT 3. -01	ug/g	CF1001
Blank	Toluene	LT 3. -01	ug/g	CF1001
Blank	Methylisobutyl Ketone	LT 3. -01	ug/g	CF1001
Blank	Tetrachloroethene	LT 3. -01	ug/g	CF1001
Blank	Trichloroethene	LT 3. -01	ug/g	CF1001
Blank	Ortho- & Para-Xylene	LT 3. -01	ug/g	CF1001
Blank	1,1-Dichloroethane	LT 9. -01	ug/g	CF1001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	1,1,1-Trichloroethane	LT 3. -01	ug/g	CFJ001
Blank	1,1,2-Trichloroethane	LT 3. -01	ug/g	CFJ001
Blank	1,2-Dichloroethane	LT 3. -01	ug/g	CFJ001
Blank	1,2-Dichloroethane	LT 3. -01	ug/g	CFJ001
Blank	m-Xylene	LT 7. -01	ug/g	CFJ001
Blank	Vapona	LT 3.0 +00	ug/g	CFJ001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CFJ001
Blank	Parathion	LT 8.5 -01	ug/g	CFJ001
Blank	Dichlorodiphenyltrichloro- ethane	LT 4.7 -01	ug/g	CFJ001
Blank	Dichlorodiphenylethane	LT 5.7 -01	ug/g	CFJ001
Blank	1,4-Oxathiane	LT 2.5 -01	ug/g	CFJ001
Blank	Malathion	LT 7.1 -01	ug/g	CFJ001
Blank	Isodrin	LT 2.9 -01	ug/g	CFJ001
Blank	Endrin	LT 4.6 -01	ug/g	CFJ001
Blank	Dieldrin	LT 2.5 -01	ug/g	CFJ001
Blank	Dithiane	LT 3.6 -01	ug/g	CFJ001
Blank	Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CFJ001
Blank	Dicyclopentadiene	LT 1.1 +00	ug/g	CFJ001
Blank	Dibromochloropropane	LT 2.8 -01	ug/g	CFJ001
Blank	p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFJ001
Blank	p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CFJ001
Blank	p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CFJ001
Blank	Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFJ001
Blank	Chlordane	LT 1.7 +00	ug/g	CFJ001
Blank	Atrazine	LT 2.5 -01	ug/g	CFJ001
Blank	Aldrin	LT 2.5 -01	ug/g	CFJ001
Blank	Aldrin	LT 3. -01	ug/g	CFK001
Blank	Atrazine	LT 3. -01	ug/g	CFK001
Blank	Chlordane	LT 6. -01	ug/g	CFK001
Blank	Hexachlorocyclopentadiene	LT 3. -01	ug/g	CFK001
Blank	p-Chlorophenylmethyl Sulfide	LT 4. +00	ug/g	CFK001
Blank	p-Chlorophenylmethyl Sulfoxide	LT 7. +00	ug/g	CFK001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Summary of Analytical Results

Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	p-Chlorophenylmethyl Sulfone	LT 6. -01	ug/g	CFK001
Blank	Dibromochloropropane	LT 3. -01	ug/g	CFK001
Blank	Dicyclopentadiene	LT 4. -01	ug/g	CFK001
Blank	Vapona	LT 3. -01	ug/g	CFK001
Blank	Diisopropylmethyl Phosphonate	LT 3. -01	ug/g	CFK001
Blank	Dithiane	LT 7. +00	ug/g	CFK001
Blank	Dieldrin	LT 3. -01	ug/g	CFK001
Blank	Endrin	LT 3. -01	ug/g	CFK001
Blank	Isodrin	LT 3. -01	ug/g	CFK001
Blank	Malathion	LT 3. -01	ug/g	CFK001
Blank	1,4-Oxathiane	LT 6. +00	ug/g	CFK001
Blank	Dichlorodiphenylethane	LT 3. -01	ug/g	CFK001
Blank	Dichlorodiphenyltrichloro-ethane	LT 6. -01	ug/g	CFK001
Blank	Parathion	LT 4. -01	ug/g	CFK001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 3. -01	ug/g	CFK001
Blank	2-Chlorophenol - D4	7.9 +00	ug/g	CFK002
Blank	1,3-Dichlorobenzene - D4	6.8 +00	ug/g	CFK002
Blank	Di-N-Octyl Phthalate - D4	9.2 +00	ug/g	CFK002
Blank	Diethyl Phthalate - D4	8.9 +00	ug/g	CFK002
Blank	Vapona	LT 3.0 +00	ug/g	CFL001
Blank	Aldrin	LT 2.5 -01	ug/g	CFL001
Blank	Atrazine	LT 2.5 -01	ug/g	CFL001
Blank	Chlordane	LT 1.7 +00	ug/g	CFL001
Blank	Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFL001
Blank	p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CFL001
Blank	p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFL001
Blank	Dibromochloropropane	LT 2.8 -01	ug/g	CFL001
Blank	Dithiane	LT 3.6 -01	ug/g	CFL001
Blank	Dieldrin	LT 2.5 -01	ug/g	CFL001
Blank	Endrin	LT 4.6 -01	ug/g	CFL001
Blank	Isodrin	LT 2.9 -01	ug/g	CFL001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	1,4-Oxathiane	LT 2.5 -01	ug/g	CFLO001
Blank	Dichlorodiphenylethane	LT 5.7 -01	ug/g	CFLO001
Blank	Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CFLO001
Blank	Parathion	LT 8.5 -01	ug/g	CFLO001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CFLO001
Blank	Malathion	LT 7.1 -01	ug/g	CFLO001
Blank	Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CFLO001
Blank	Dicyclopentadiene	LT 1.1 +00	ug/g	CFLO001
Blank	p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CFLO001
Blank	Thiodiglycol	LT 4.20+00	ug/g	CFNO001
Blank	Chloroacetic Acid	LT 3.55+01	ug/g	CFNO001
Blank	Dimethyldisulfide	LT 2.0 +01	ug/g	CFNO001
Blank	m-Xylene	LT 7.4 -01	ug/g	CFNO001
Blank	1,2-Dichloroethane	LT 5.6 -01	ug/g	CFNO001
Blank	1,2-Dichloroethene	LT 1.7 +00	ug/g	CFNO001
Blank	1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CFNO001
Blank	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CFNO001
Blank	1,1-Dichloroethane	LT 1.7 +00	ug/g	CFNO001
Blank	Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CFNO001
Blank	Trichloroethene	LT 5.4 -01	ug/g	CFNO001
Blank	Tetrachloroethene	LT 2.5 -01	ug/g	CFNO001
Blank	Methylisobutyl Ketone	LT 7.3 -01	ug/g	CFNO001
Blank	Toluene	LT 2.5 -01	ug/g	CFNO001
Blank	Ethylbenzene	LT 3.8 -01	ug/g	CFNO001
Blank	Dicyclopentadiene	LT 6.4 -01	ug/g	CFNO001
Blank	Dibromochloropropane	LT 2.4 +00	ug/g	CFNO001
Blank	Benzene	LT 2.5 -01	ug/g	CFNO001
Blank	Chlorobenzene	LT 1.5 +00	ug/g	CFNO001
Blank	Methylene Chloride	LT 1.5 +00	ug/g	CFNO001
Blank	Chloroform	LT 2.9 -01	ug/g	CFNO001
Blank	Carbon Tetrachloride	LT 2.5 -01	ug/g	CFNO001
Blank	Bicycloheptadiene	LT 3.6 -01	ug/g	CFNO001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Ebasco Services Incorporated
Summary of Analytical Results

Rocky Mountain Arsenal Program
Blanks Associated with Task 24,
Spill Sites

08/07/88

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Vapona	LT 3.0 +00	ug/g	CF0001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.1 -01	ug/g	CF0001
Blank	Parathion	LT 8.5 -01	ug/g	CF0001
Blank	Dichlorodiphenyltrichloro- ethane	LT 4.7 -01	ug/g	CF0001
Blank	Dichlorodiphenylethane	LT 5.7 -01	ug/g	CF0001
Blank	1,4-Oxathiane	LT 2.5 -01	ug/g	CF0001
Blank	Malathion	LT 7.1 -01	ug/g	CF0001
Blank	Isodrin	LT 2.9 -01	ug/g	CF0001
Blank	Endrin	LT 4.6 -01	ug/g	CF0001
Blank	Dieldrin	LT 2.5 -01	ug/g	CF0001
Blank	Dithiane	LT 3.6 -01	ug/g	CF0001
Blank	Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CF0001
Blank	Dicyclopentadiene	LT 1.1 +00	ug/g	CF0001
Blank	Dibromochloropropane	LT 2.8 -01	ug/g	CF0001
Blank	p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CF0001
Blank	p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CF0001
Blank	p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CF0001
Blank	Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CF0001
Blank	Chlordane	LT 1.7 +00	ug/g	CF0001
Blank	Atrazine	LT 2.5 -01	ug/g	CF0001
Blank	Aldrin	LT 2.5 -01	ug/g	CF0001
Blank	Chromium	1.65+01	ug/g	CFP001
Blank	Copper	1.02+01	ug/g	CFP001
Blank	Zinc	4.28+01	ug/g	CFP001
Blank	Cadmium	LT 7.36-01	ug/g	CFP001
Blank	Lead	LT 8.38+00	ug/g	CFP001
Blank	Thiodiglycol	LT 4.20+00	ug/g	CFQ001
Blank	Chloro stic Acid	LT 3.55+01	ug/g	CFQ001
Blank	Mercury	5.84-02	ug/g	CFR001
Blank	Arsenic	2.82+00	ug/g	CFS001
Blank	Vapona	LT 3.0 +00	ug/g	CFI001
Blank	p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CFI001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Dicyclopentadiene	LT 1.1 +00	ug/g	CFT001
Blank	Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CFT001
Blank	Malethion	LT 7.1 -01	ug/g	CFT001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CFT001
Blank	Parathion	LT 8.5 -01	ug/g	CFT001
Blank	Dichlorodiphenyltrichloro- ethane	LT 4.7 -01	ug/g	CFT001
Blank	Dichlorodiphenylethane	LT 5.7 -01	ug/g	CFT001
Blank	1,4-Oxathiane	LT 2.5 -01	ug/g	CFT001
Blank	Isodrin	LT 2.9 -01	ug/g	CFT001
Blank	Endrin	LT 4.6 -01	ug/g	CFT001
Blank	Dieldrin	LT 2.5 -01	ug/g	CFT001
Blank	Dithiane	LT 3.6 -01	ug/g	CFT001
Blank	Dibromochloropropane	LT 2.8 -01	ug/g	CFT001
Blank	p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFT001
Blank	p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CFT001
Blank	Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFT001
Blank	Chlordane	LT 1.7 +00	ug/g	CFT001
Blank	Atrazine	LT 2.5 -01	ug/g	CFT001
Blank	Aldrin	LT 2.5 -01	ug/g	CFT001
Blank	1,3-Dichlorobenzene - D4	9.12+00	ug/g	CFT010
Blank	Vapone	LT 3.0 +00	ug/g	CFU001
Blank	p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CFU001
Blank	Dicyclopentadiene	LT 1.1 +00	ug/g	CFU001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CFU001
Blank	Parathion	LT 8.5 -01	ug/g	CFU001
Blank	Dichlorodiphenyltrichloro- ethane	LT 4.7 -01	ug/g	CFU001
Blank	Dichlorodiphenylethane	LT 5.7 -01	ug/g	CFU001
Blank	1,4-Oxathiane	LT 2.5 -01	ug/g	CFU001
Blank	Malethion	LT 7.1 -01	ug/g	CFU001
Blank	Isodrin	LT 2.9 -01	ug/g	CFU001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Ebasco Services Incorporated
Summary of Analytical Results

Rocky Mountain Arsenal Program

08/07/88

Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Endrin	LT 4.6 -01	ug/g	CFU001
Blank	Dieldrin	LT 2.5 -01	ug/g	CFU001
Blank	Dithiane	LT 3.6 -01	ug/g	CFU001
Blank	Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CFU001
Blank	Dibromochloropropane	LT 2.8 -01	ug/g	CFU001
Blank	p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CFU001
Blank	p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CFU001
Blank	Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CFU001
Blank	Chlordane	LT 1.7 +00	ug/g	CFU001
Blank	Atrazine	LT 2.5 -01	ug/g	CFU001
Blank	Aldrin	LT 2.5 -01	ug/g	CFU001
Blank	Dimethyldisulfide	LT 2.0 +01	ug/g	CFV001
Blank	m-Xylene	LT 7.4 -01	ug/g	CFV001
Blank	1,2-Dichloroethane	LT 5.6 -01	ug/g	CFV001
Blank	1,2-Dichloroethene	LT 1.7 +00	ug/g	CFV001
Blank	1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CFV001
Blank	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CFV001
Blank	1,1-Dichloroethane	LT 1.7 +00	ug/g	CFV001
Blank	Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CFV001
Blank	Trichloroethene	LT 5.4 -01	ug/g	CFV001
Blank	Tetrachloroethene	LT 2.5 -01	ug/g	CFV001
Blank	Methylisobutyl Ketone	LT 7.3 -01	ug/g	CFV001
Blank	Toluene	LT 2.5 -01	ug/g	CFV001
Blank	Ethylbenzene	LT 3.8 -01	ug/g	CFV001
Blank	Dicyclopentadiene	LT 6.4 -01	ug/g	CFV001
Blank	Dibromochloropropane	LT 2.4 +00	ug/g	CFV001
Blank	Benzene	LT 2.5 -01	ug/g	CFV001
Blank	Chlorobenzene	LT 1.5 +00	ug/g	CFV001
Blank	Methylene Chloride	LT 1.5 +00	ug/g	CFV001
Blank	Chloroform	LT 2.9 -01	ug/g	CFV001
Blank	Carbon Tetrachloride	LT 2.5 -01	ug/g	CFV001
Blank	Bicycloheptadiene	LT 3.6 -01	ug/g	CFV001
Blank	Chromium	1.44+01	ug/g	CFW001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Copper	1.08+01	ug/g	CFW001
Blank	Zinc	3.93+01	ug/g	CFW001
Blank	Lead	LT 8.38+00	ug/g	CFW001
Blank	Cadmium	LT 7.36-01	ug/g	CFW001
Blank	Arsenic	3.26+00	ug/g	CFX001
Blank	Mercury	6.17-02	ug/g	CFY001
Blank	Thiodiglycol	LT 4.20+00	ug/g	CFZ001
Blank	Chloroacetic Acid	LT 3.55+01	ug/g	CFZ001
Blank	Vapona	LT 3.0 +00	ug/g	CGH001
Blank	p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CGH001
Blank	Aldrin	LT 2.5 -01	ug/g	CGH001
Blank	Atrazine	LT 2.5 -01	ug/g	CGH001
Blank	Chlordane	LT 1.7 +00	ug/g	CGH001
Blank	Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CGH001
Blank	p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CGH001
Blank	p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CGH001
Blank	Dibromochloropropane	LT 2.8 -01	ug/g	CGH001
Blank	Dicyclopentadiene	LT 1.1 +00	ug/g	CGH001
Blank	Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CGH001
Blank	Dithiane	LT 3.6 -01	ug/g	CGH001
Blank	Dieldrin	LT 2.5 -01	ug/g	CGH001
Blank	Endrin	LT 4.6 -01	ug/g	CGH001
Blank	Isodrin	LT 2.9 -01	ug/g	CGH001
Blank	Malethion	LT 7.1 -01	ug/g	CGH001
Blank	1,4-Oxathiane	LT 2.5 -01	ug/g	CGH001
Blank	Dichlorodiphenylethane	LT 5.7 -01	ug/g	CGH001
Blank	Dichlorodiphenyltrichloro-ethane	LT 4.7 -01	ug/g	CGH001
Blank	Parathion	LT 8.5 -01	ug/g	CGH001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.1 -01	ug/g	CGH001
Blank	Dimethyldisulfide	LT 2.0 +01	ug/g	CGK001
Blank	Bicycloheptadiene	LT 3.6 -01	ug/g	CGK001
Blank	Carbon Tetrachloride	LT 2.5 -01	ug/g	CGK001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

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Ebasco Services Incorporated

Summary of Analytical Results
Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Chloroform	LT 2.9 -01	ug/g	CGK001
Blank	Methylene Chloride	LT 1.5 +00	ug/g	CGK001
Blank	Chlorobenzene	LT 1.5 +00	ug/g	CGK001
Blank	Benzene	LT 2.5 -01	ug/g	CGK001
Blank	Dibromochloropropane	LT 2.4 +00	ug/g	CGK001
Blank	Dicyclopentadiene	LT 6.4 -01	ug/g	CGK001
Blank	Ethylbenzene	LT 3.8 -01	ug/g	CGK001
Blank	Toluene	LT 2.5 -01	ug/g	CGK001
Blank	Methylisobutyl Ketone	LT 7.3 -01	ug/g	CGK001
Blank	Tetrachloroethene	LT 2.5 -01	ug/g	CGK001
Blank	Trichloroethene	LT 5.4 -01	ug/g	CGK001
Blank	Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CGK001
Blank	1,1-Dichloroethane	LT 1.7 +00	ug/g	CGK001
Blank	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CGK001
Blank	1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CGK001
Blank	1,2-Dichloroethane	LT 1.7 +00	ug/g	CGK001
Blank	1,2-Dichloroethane	LT 5.6 -01	ug/g	CGK001
Blank	m-Xylene	LT 7.4 -01	ug/g	CGK001
Blank	Mercury	5.29-02	ug/g	CGL001
Blank	Arsenic	2.71+00	ug/g	CGO001
Blank	Vapona	LT 3.0 +00	ug/g	CGP001
Blank	Parathion	LT 8.5 -01	ug/g	CGP001
Blank	Aldrin	LT 2.5 -01	ug/g	CGP001
Blank	Atrazine	LT 2.5 -01	ug/g	CGP001
Blank	Chlordane	LT 1.7 +00	ug/g	CGP001
Blank	Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CGP001
Blank	p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CGP001
Blank	p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CGP001
Blank	p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CGP001
Blank	Dibromochloropropane	LT 2.8 -01	ug/g	CGP001
Blank	Dicyclopentadiene	LT 1.1 +00	ug/g	CGP001
Blank	Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CGP001
Blank	Dithione	LT 3.6 -01	ug/g	CGP001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Dieldrin	LT 2.5 -01	ug/g	CGP001
Blank	Endrin	LT 4.6 -01	ug/g	CGP001
Blank	Isodrin	LT 2.9 -01	ug/g	CGP001
Blank	Malathion	LT 7.1 -01	ug/g	CGP001
Blank	1,4-Oxathiane	LT 2.5 -01	ug/g	CGP001
Blank	Dichlorodiphenylethane	LT 5.7 -01	ug/g	CGP001
Blank	Dichlorodiphenyltrichloro- ethane	LT 4.7 -01	ug/g	CGP001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CGP001
Blank	Dimethyldisulfide	LT 2.0 +01	ug/g	CGR001
Blank	Bicycloheptadiene	LT 3.6 -01	ug/g	CGR001
Blank	Carbon Tetrachloride	LT 2.5 -01	ug/g	CGR001
Blank	Chloroform	LT 2.9 -01	ug/g	CGR001
Blank	Methylene Chloride	LT 1.5 +00	ug/g	CGR001
Blank	Chlorobenzene	LT 1.5 +00	ug/g	CGR001
Blank	Benzene	LT 2.5 -01	ug/g	CGR001
Blank	Dibromochloropropane	LT 2.4 +00	ug/g	CGR001
Blank	Dicyclopentadiene	LT 6.4 -01	ug/g	CGR001
Blank	Ethylbenzene	LT 3.8 -01	ug/g	CGR001
Blank	Toluene	LT 2.5 -01	ug/g	CGR001
Blank	Methylisobutyl Ketone	LT 7.3 -01	ug/g	CGR001
Blank	Tetrachloroethene	LT 2.5 -01	ug/g	CGR001
Blank	Trichloroethene	LT 5.4 -01	ug/g	CGR001
Blank	Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CGR001
Blank	1,1-Dichloroethane	LT 1.7 +00	ug/g	CGR001
Blank	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CGR001
Blank	1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CGR001
Blank	1,2-Dichloroethene	LT 1.7 +00	ug/g	CGR001
Blank	1,2-Dichloroethane	LT 5.6 -01	ug/g	CGR001
Blank	m-Xylene	LT 7.4 -01	ug/g	CGR001
Blank	Chromium	1.38+01	ug/g	CGV001
Blank	Copper	8.80+00	ug/g	CGV001
Blank	Lead	1.03+01	ug/g	CGV001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Summary of Analytical Results

Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Zinc	4.05+01	ug/g	CGV001
Blank	Thiodiglycol	LT 4.20+00	ug/g	CGW001
Blank	Chloroacetic Acid	LT 3.55+01	ug/g	CGW001
Blank	Vapona	LT 3.0 +00	ug/g	CGY001
Blank	Aldrin	LT 2.5 -01	ug/g	CGY001
Blank	Atrazine	LT 2.5 -01	ug/g	CGY001
Blank	Chlordane	LT 1.7 +00	ug/g	CGY001
Blank	Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CGY001
Blank	p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CGY001
Blank	p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CGY001
Blank	Dibromochloropropane	LT 2.8 -01	ug/g	CGY001
Blank	Dicyclopentadiene	LT 1.1 +00	ug/g	CGY001
Blank	Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CGY001
Blank	Dithiane	LT 3.6 -01	ug/g	CGY001
Blank	Dieldrin	LT 2.5 -01	ug/g	CGY001
Blank	Endrin	LT 4.6 -01	ug/g	CGY001
Blank	Isodrin	LT 8.5 -01	ug/g	CGY001
Blank	Malathion	LT 7.1 -01	ug/g	CGY001
Blank	1,4-Oxathiane	LT 2.5 -01	ug/g	CGY001
Blank	Dichlorodiphenylethane	LT 5.7 -01	ug/g	CGY001
Blank	Dichlorodiphenyltrichloroethane	LT 4.7 -01	ug/g	CGY001
Blank	Parathion	LT 8.5 -01	ug/g	CGY001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CGY001
Blank	Thiodiglycol	LT 4.20+00	ug/g	CGZ001
Blank	Chloroacetic Acid	LT 3.55+01	ug/g	CGZ001
Blank	Mercury	6.93-02	ug/g	CHA001
Blank	Arsenic	3.52+00	ug/g	CHB001
Blank	Dimethyldisulfide	LT 2.0 +01	ug/g	CHD001
Blank	Bicycloheptadiene	LT 3.6 -01	ug/g	CHD001
Blank	Carbon Tetrachloride	LT 2.5 -01	ug/g	CHD001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Ebasco Services Incorporated
Summary of Analytical Results

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Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Chloroform	LT 2.9 -01	ug/g	CHD001
Blank	Methylene Chloride	LT 1.5 +00	ug/g	CHD001
Blank	Chlorobenzene	LT 1.5 +00	ug/g	CHD001
Blank	Benzene	LT 2.5 -01	ug/g	CHD001
Blank	Dibromochloropropane	LT 2.4 +00	ug/g	CHD001
Blank	Dicyclopentadiene	LT 6.4 -01	ug/g	CHD001
Blank	Ethylbenzene	LT 3.8 -01	ug/g	CHD001
Blank	Toluene	LT 2.5 -01	ug/g	CHD001
Blank	Methylisobutyl Ketone	LT 7.3 -01	ug/g	CHD001
Blank	Tetrachloroethene	LT 2.5 -01	ug/g	CHD001
Blank	Trichloroethene	LT 5.4 -01	ug/g	CHD001
Blank	Ortho- & Para-Xylene	LT 4.9 +00	ug/g	CHD001
Blank	1,1-Dichloroethane	LT 1.7 +00	ug/g	CHD001
Blank	1,1,1-Trichloroethane	LT 4.3 -01	ug/g	CHD001
Blank	1,1,2-Trichloroethane	LT 3.9 -01	ug/g	CHD001
Blank	1,2-Dichloroethene	LT 1.7 +00	ug/g	CHD001
Blank	1,2-Dichloroethane	LT 5.6 -01	ug/g	CHD001
Blank	m-Xylene	LT 7.4 -01	ug/g	CHD001
Blank	Chromium	1.72+01	ug/g	CHE001
Blank	Copper	8.50+00	ug/g	CHE001
Blank	Lead	8.63+00	ug/g	CHE001
Blank	Zinc	4.07+01	ug/g	CHE001
Blank	Cadmium	LT 7.36-01	ug/g	CHE001
Blank	Vapona	LT 1.0 +00	ug/g	CHF001
Blank	Parathion	LT 8.5 -01	ug/g	CHF001
Blank	Aldrin	LT 2.5 -01	ug/g	CHF001
Blank	Atrazine	LT 2.5 -01	ug/g	CHF001
Blank	Chlordane	LT 1.7 +00	ug/g	CHF001
Blank	Hexachlorocyclopentadiene	LT 5.7 -01	ug/g	CHF001
Blank	p-Chlorophenylmethyl Sulfide	LT 9.1 -01	ug/g	CHF001
Blank	p-Chlorophenylmethyl Sulfoxide	LT 2.5 -01	ug/g	CHF001
Blank	p-Chlorophenylmethyl Sulfone	LT 2.5 -01	ug/g	CHF001
Blank	Dibromochloropropane	LT 2.8 -01	ug/g	CHF001
Blank	Dicyclopentadiene	LT 1.1 +00	ug/g	CHF001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Ebasco Services Incorporated
Summary of Analytical Results

Rocky Mountain Arsenal Program

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Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Diisopropylmethyl Phosphonate	LT 1.1 +00	ug/g	CHF001
Blank	Dithiane	LT 3.6 -01	ug/g	CHF001
Blank	Dieldrin	LT 2.5 -01	ug/g	CHF001
Blank	Endrin	LT 4.6 -01	ug/g	CHF001
Blank	Isodrin	LT 2.9 -01	ug/g	CHF001
Blank	Malathion	LT 7.1 -01	ug/g	CHF001
Blank	1,4-Oxathiane	LT 2.5 -01	ug/g	CHF001
Blank	Dichlorodiphenylethane	LT 5.7 -01	ug/g	CHF001
Blank	Dichlorodiphenyltrichloro-ethane	LT 4.7 -01	ug/g	CHF001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.1 -01	ug/g	CHF001
Blank	Thiodiethylcol	LT 4.20+00	ug/g	CHG001
Blank	Chloroacetic Acid	LT 3.55+01	ug/g	CHG001
Blank	Arsenic	LT 5.00 0	ug/g	COE001
Blank	Aldrin	LT 3.00 -1	ug/g	COF001
Blank	Atrazine	LT 3.00 -1	ug/g	COF001
Blank	Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	COF001
Blank	Chlordane	LT 2.00 0	ug/g	COF001
Blank	p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	COF001
Blank	p-Chlorophenylmethyl Sulfoxide	LT 3.00 -1	ug/g	COF001
Blank	p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	COF001
Blank	Dibromochloropropane	LT 3.00 -1	ug/g	COF001
Blank	Dicyclopentadiene	LT 1.00 0	ug/g	COF001
Blank	Vapona	LT 3.00 0	ug/g	COF001
Blank	Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	COF001
Blank	Dithiane	LT 4.00 -1	ug/g	COF001
Blank	Dieldrin	LT 3.00 -1	ug/g	COF001
Blank	Endrin	LT 5.00 -1	ug/g	COF001
Blank	Isodrin	LT 3.00 -1	ug/g	COF001
Blank	Malathion	LT 7.00 -1	ug/g	COF001
Blank	1,4-Oxathiane	LT 3.00 -1	ug/g	COF001
Blank	Dichlorodiphenylethane	LT 6.00 -1	ug/g	COF001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Ebasco Services Incorporated
Summary of Analytical Results

Rocky Mountain Arsenal Program

Blanks Associated with Task 24,
Spill Sites

08/07/88

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Dichlorodiphenyltrichloroethane	LT 5.00 -1	ug/g	COF001
Blank	Parathion	LT 9.00 -1	ug/g	COF001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.00 -1	ug/g	COF001
Blank	Cadmium	LT 7.40 -1	ug/g	COG001
Blank	Chromium	1.56 1	ug/g	COG001
Blank	Copper	1.14 1	ug/g	COG001
Blank	Lead	1.24 1	ug/g	COG001
Blank	Zinc	4.82 1	ug/g	COG001
Blank	Chloroacetic Acid	LT 3.55 1	ug/g	COH001
Blank	Thiodiglycol	LT 4.20 0	ug/g	COH001
Blank	Mercury	LT 5.00 -2	ug/g	COI001
Blank	Aldrin	LT 3.00 -1	ug/g	CON001
Blank	Atrazine	LT 3.00 -1	ug/g	CON001
Blank	Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	CON001
Blank	Chlordane	LT 2.00 0	ug/g	CON001
Blank	p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	CON001
Blank	p-Chlorophenylmethyl Sulfoxide	LT 3.00 -1	ug/g	CON001
Blank	p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	CON001
Blank	Dibromochloropropane	LT 3.00 -1	ug/g	CON001
Blank	Dicyclopentadiene	LT 1.00 0	ug/g	CON001
Blank	Vapona	LT 3.00 0	ug/g	CON001
Blank	Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	CON001
Blank	Dithiane	LT 4.00 -1	ug/g	CON001
Blank	Dieldrin	LT 3.00 -1	ug/g	CON001
Blank	Endrin	LT 5.00 -1	ug/g	CON001
Blank	Isodrin	LT 3.00 -1	ug/g	CON001
Blank	Malathion	LT 7.00 -1	ug/g	CON001
Blank	1,4-Oxethiane	LT 3.00 -1	ug/g	CON001
Blank	Dichlorodiphenylethane	LT 6.00 -1	ug/g	CON001
Blank	Dichlorodiphenyltrichloroethane	LT 5.00 -1	ug/g	CON001
Blank	Parathion	LT 9.00 -1	ug/g	CON001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Summary of Analytical Results

Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.00 -1	ug/g	CON001
Blank	Chloroacetic Acid	LT 3.55 1	ug/g	COV001
Blank	Thiodiglycol	LT 4.20 0	ug/g	COV001
Blank	Arsenic	LT 2.50 0	ug/g	COV001
Blank	Mercury	LT 5.00 -2	ug/g	COX001
Blank	Aldrin	LT 3.00 -1	ug/g	CPC001
Blank	Atrazine	LT 3.00 -1	ug/g	CPC001
Blank	Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	CPC001
Blank	Chlordane	LT 2.00 0	ug/g	CPC001
Blank	p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	CPC001
Blank	p-Chlorophenylmethyl Sulfonate	LT 3.00 -1	ug/g	CPC001
Blank	p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	CPC001
Blank	Dibromochloropropane	LT 3.00 -1	ug/g	CPC001
Blank	Dicyclopentadiene	LT 1.00 0	ug/g	CPC001
Blank	Vapona	LT 3.00 0	ug/g	CPC001
Blank	Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	CPC001
Blank	Dithiane	LT 4.00 -1	ug/g	CPC001
Blank	Dieldrin	LT 3.00 -1	ug/g	CPC001
Blank	Endrin	LT 5.00 -1	ug/g	CPC001
Blank	Isodrin	LT 3.00 -1	ug/g	CPC001
Blank	Malathion	LT 7.00 -1	ug/g	CPC001
Blank	1,4-Oxathiane	LT 3.00 -1	ug/g	CPC001
Blank	Dichlorodiphenylethane	LT 6.00 -1	ug/g	CPC001
Blank	Dichlorodiphenyltrichloro- ethane	LT 5.00 -1	ug/g	CPC001
Blank	Parathion	LT 9.00 -1	ug/g	CPC001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.00 -1	ug/g	CPC001
Blank	1,1,1-Trichloroethane	LT 4.30 -1	ug/g	CPE001
Blank	1,1,2-Trichloroethane	LT 3.90 -1	ug/g	CPE001
Blank	1,1-Dichloroethane	LT 1.70 0	ug/g	CPE001
Blank	1,2-Dichloroethane	LT 1.70 0	ug/g	CPE001
Blank	1,2-Dichloroethane	LT 5.60 -1	ug/g	CPE001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Summary of Analytical Results

Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	m-Xylene	LT 7.40 -1	ug/g	CPE001
Blank	Bicycloheptadiene	LT 3.60 -1	ug/g	CPE001
Blank	Benzene	LT 2.50 -1	ug/g	CPE001
Blank	Carbon Tetrachloride	LT 2.50 -1	ug/g	CPE001
Blank	Methylene Chloride	LT 1.50 0	ug/g	CPE001
Blank	Chloroform	LT 2.90 -1	ug/g	CPE001
Blank	Chlorobenzene	LT 1.50 0	ug/g	CPE001
Blank	Dibromochloropropane	LT 2.40 0	ug/g	CPE001
Blank	Dicyclopentadiene	LT 6.40 -1	ug/g	CPE001
Blank	Dimethyldisulfide	LT 2.00 1	ug/g	CPE001
Blank	Ethylbenzene	LT 3.80 -1	ug/g	CPE001
Blank	Toluene	LT 2.50 -1	ug/g	CPE001
Blank	Methylisobutyl Ketone	LT 7.30 -1	ug/g	CPE001
Blank	Tetrachloroethene	LT 2.50 -1	ug/g	CPE001
Blank	Trichloroethene	LT 5.40 -1	ug/g	CPE001
Blank	Ortho- & Para-Xylene	LT 4.90 0	ug/g	CPE001
Blank	Chloroacetic Acid	LT 3.55 1	ug/g	CPH001
Blank	Thiodiglycol	LT 4.20 0	ug/g	CPH001
Blank	Arsenic	LT 2.50 0	ug/g	CPJ001
Blank	Mercury	LT 5.00 -2	ug/g	CPLO01
Blank	Aldrin	LT 3.00 -1	ug/g	CPP001
Blank	Atrazine	LT 3.00 -1	ug/g	CPP001
Blank	Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	CPP001
Blank	Chlordane	LT 2.00 0	ug/g	CPP001
Blank	p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	CPP001
Blank	p-Chlorophenylmethyl Sulfoxide	LT 3.00 -1	ug/g	CPP001
Blank	p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	CPP001
Blank	Dibromochloropropane	LT 3.00 -1	ug/g	CPP001
Blank	Dicyclopentadiene	LT 1.00 0	ug/g	CPP001
Blank	Vapona	LT 3.00 0	ug/g	CPP001
Blank	Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	CPP001
Blank	Dithiane	LT 4.00 -1	ug/g	CPP001
Blank	Dieldrin	LT 3.00 -1	ug/g	CPP001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Summary of Analytical Results

Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Endrin	LT 5.00 -1	ug/g	CP0001
Blank	Isodrin	LT 3.00 -1	ug/g	CP0001
Blank	Malathion	LT 7.00 -1	ug/g	CP0001
Blank	1,4-Oxathiane	LT 3.00 -1	ug/g	CP0001
Blank	Dichlorodiphenylethane	LT 6.00 -1	ug/g	CP0001
Blank	Dichlorodiphenyltrichloro-ethane	LT 5.00 -1	ug/g	CP0001
Blank	Parathion	LT 9.00 -1	ug/g	CP0001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.00 -1	ug/g	CP0001
Blank	Chloroacetic Acid	LT 3.55 1	ug/g	CP0001
Blank	Thiodiglycol	LT 4.20 0	ug/g	CP0001
Blank	Cadmium	LT 7.40 -1	ug/g	CP0001
Blank	Chromium	1.88 1	ug/g	CP0001
Blank	Copper	1.01 1	ug/g	CP0001
Blank	Lead	LT 8.40 0	ug/g	CP0001
Blank	Zinc	5.01 1	ug/g	CP0001
Blank	1,1,1-Trichloroethane	LT 4.30 -1	ug/g	CP0001
Blank	1,1,2-Trichloroethane	LT 3.90 -1	ug/g	CP0001
Blank	1,1-Dichloroethane	LT 1.70 0	ug/g	CP0001
Blank	1,2-Dichloroethane	LT 1.70 0	ug/g	CP0001
Blank	1,2-Dichloroethane	LT 5.60 -1	ug/g	CP0001
Blank	m-Xylene	LT 7.40 -1	ug/g	CP0001
Blank	Bicycloheptadiene	LT 3.60 -1	ug/g	CP0001
Blank	Benzene	LT 2.50 -1	ug/g	CP0001
Blank	Carbon Tetrachloride	LT 2.50 -1	ug/g	CP0001
Blank	Methylene Chloride	LT 1.50 0	ug/g	CP0001
Blank	Chloroform	LT 2.90 -1	ug/g	CP0001
Blank	Chlorobenzene	LT 1.50 0	ug/g	CP0001
Blank	Dibromochloropropane	LT 2.40 0	ug/g	CP0001
Blank	Dicyclopentadiene	LT 6.40 -1	ug/g	CP0001
Blank	Dimethyldisulfide	LT 2.00 1	ug/g	CP0001
Blank	Ethylbenzene	LT 3.80 -1	ug/g	CP0001
Blank	Toluene	LT 2.50 -1	ug/g	CP0001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Ebasco Services Incorporated
 Summary of Analytical Results
 Rocky Mountain Arsenal Program
 Blanks Associated with Task 24,
 Spill Sites
 08/07/88

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Methylisobutyl Ketone	LT 7.30 -1	ug/g	CPV001
Blank	Tetrachloroethene	LT 2.50 -1	ug/g	CPV001
Blank	Trichloroethene	LT 5.40 -1	ug/g	CPV001
Blank	Ortho- & Para-Xylene	LT 4.90 0	ug/g	CPV001
Blank	Mercury	LT 5.00 -2	ug/g	COA001
Blank	Aldrin	LT 3.00 -1	ug/g	COA001
Blank	Atrazine	LT 3.00 -1	ug/g	COA001
Blank	Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	COA001
Blank	Chlordane	LT 2.00 0	ug/g	COA001
Blank	p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	COA001
Blank	p-Chlorophenylmethyl Sulfoxide	LT 3.00 -1	ug/g	COA001
Blank	p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	COA001
Blank	Dibromochloropropane	LT 3.00 -1	ug/g	COA001
Blank	Dicyclopentadiene	LT 1.00 0	ug/g	COA001
Blank	Vapona	LT 3.00 0	ug/g	COA001
Blank	Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	COA001
Blank	Dithiane	LT 4.00 -1	ug/g	COA001
Blank	Dieldrin	LT 3.00 -1	ug/g	COA001
Blank	Endrin	LT 5.00 -1	ug/g	COA001
Blank	Isodrin	LT 3.00 -1	ug/g	COA001
Blank	Malathion	LT 7.00 -1	ug/g	COA001
Blank	1,4-Oxathiane	LT 3.00 -1	ug/g	COA001
Blank	Dichlorodiphenylethane	LT 6.00 -1	ug/g	COA001
Blank	Dichlorodiphenyltrichloro-ethane	LT 5.00 -1	ug/g	COA001
Blank	Parathion	LT 9.00 -1	ug/g	COA001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.00 -1	ug/g	COA001
Blank	Aldrin	LT 3.00 -1	ug/g	COA001
Blank	Atrazine	LT 3.00 -1	ug/g	COA001
Blank	Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	COA001
Blank	Chlordane	LT 2.00 0	ug/g	COA001
Blank	p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	COA001
Blank	p-Chlorophenylmethyl Sulfoxide	LT 3.00 -1	ug/g	COA001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Type	Analytical Parameters	Results	Units	Sample Number
Blank	p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	C00001
Blank	Dibromochloropropane	LT 3.00 -1	ug/g	C00001
Blank	Dicyclopentadiene	LT 1.00 0	ug/g	C00001
Blank	Vapona	LT 3.00 0	ug/g	C00001
Blank	Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	C00001
Blank	Dithiane	LT 4.00 -1	ug/g	C00001
Blank	Dieldrin	LT 3.00 -1	ug/g	C00001
Blank	Endrin	LT 5.00 -1	ug/g	C00001
Blank	Isodrin	LT 3.00 -1	ug/g	C00001
Blank	Malathion	LT 7.00 -1	ug/g	C00001
Blank	1,4-Oxathiane	LT 3.00 -1	ug/g	C00001
Blank	Dichlorodiphenylethane	LT 6.00 -1	ug/g	C00001
Blank	Dichlorodiphenyltrichloro- ethane	LT 5.00 -1	ug/g	C00001
Blank	Parathion	LT 9.00 -1	ug/g	C00001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.00 -1	ug/g	C00001
Blank	1,1,1-Trichloroethane	LT 3.00 -1	ug/g	C0E001
Blank	1,1,2-Trichloroethane	LT 3.00 -1	ug/g	C0E001
Blank	1,1-Dichloroethane	LT 9.00 -1	ug/g	C0E001
Blank	1,2-Dichloroethane	LT 3.00 -1	ug/g	C0E001
Blank	1,2-Dichloroethane	LT 3.00 -1	ug/g	C0E001
Blank	m-Xylene	LT 7.00 -1	ug/g	C0E001
Blank	Bicycloheptadiene	LT 3.00 -1	ug/g	C0E001
Blank	Benzene	LT 3.00 -1	ug/g	C0E001
Blank	Carbon Tetrachloride	LT 3.00 -1	ug/g	C0E001
Blank	Methylene Chloride	LT 7.00 -1	ug/g	C0E001
Blank	Chloroform	LT 3.00 -1	ug/g	C0E001
Blank	Chlorobenzene	LT 3.00 -1	ug/g	C0E001
Blank	Dibromochloropropane	LT 4.00 -1	ug/g	C0E001
Blank	Dicyclopentadiene	LT 3.00 -1	ug/g	C0E001
Blank	Dimethyldisulfide	LT 8.00 -1	ug/g	C0E001
Blank	Ethylbenzene	LT 3.00 -1	ug/g	C0E001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Ebasco Services Incorporated
Summary of Analytical Results

Rocky Mountain Arsenal Program
Blanks Associated with Task 24,
Spill Sites

08/07/88

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Toluene	LT 3.00 -1	ug/g	COE001
Blank	Methylisobutyl Ketone	LT 3.00 -1	ug/g	COE001
Blank	Tetrachloroethene	LT 3.00 -1	ug/g	COE001
Blank	Trichloroethene	LT 3.00 -1	ug/g	COE001
Blank	Ortho- & Para-Xylene	LT 3.00 -1	ug/g	COE001
Blank	1,1,1-Trichloroethane	LT 4.30 -1	ug/g	COF001
Blank	1,1,2-Trichloroethane	LT 3.90 -1	ug/g	COF001
Blank	1,1-Dichloroethane	LT 1.70 0	ug/g	COF001
Blank	1,2-Dichloroethane	LT 1.70 0	ug/g	COF001
Blank	1,2-Dichloroethane	LT 5.60 -1	ug/g	COF001
Blank	m-Xylene	LT 7.40 -1	ug/g	COF001
Blank	Bicycloheptadiene	LT 3.60 -1	ug/g	COF001
Blank	Benzene	LT 2.50 -1	ug/g	COF001
Blank	Carbon Tetrachloride	LT 2.50 -1	ug/g	COF001
Blank	Methylene Chloride	LT 1.50 0	ug/g	COF001
Blank	Chloroform	LT 2.90 -1	ug/g	COF001
Blank	Chlorobenzene	LT 1.50 0	ug/g	COF001
Blank	Dibromochloropropane	LT 2.40 0	ug/g	COF001
Blank	Dicyclopentadiene	LT 6.40 -1	ug/g	COF001
Blank	Dimethyldisulfide	LT 2.00 1	ug/g	COF001
Blank	Ethylbenzene	LT 3.80 -1	ug/g	COF001
Blank	Toluene	LT 2.50 -1	ug/g	COF001
Blank	Methylisobutyl Ketone	LT 7.30 -1	ug/g	COF001
Blank	Tetrachloroethene	LT 2.50 -1	ug/g	COF001
Blank	Trichloroethene	LT 5.40 -1	ug/g	COF001
Blank	Ortho- & Para-Xylene	LT 4.90 0	ug/g	COF001
Blank	Chloroacetic Acid	LT 3.55 1	ug/g	COI001
Blank	Thiodiglycol	LT 4.20 0	ug/g	COI001
Blank	Arsenic	LT 5.00 0	ug/g	COJ001
Blank	Cadmium	LT 7.40 -1	ug/g	COK001
Blank	Chromium	1.76 1	ug/g	COK001
Blank	Copper	9.89 0	ug/g	COK001
Blank	Lead	LT 8.40 0	ug/g	COK001
Blank	Zinc	4.65 1	ug/g	COK001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Cadmium	LT 7.40 -1	ug/g	COL001
Blank	Chromium	1.66 1	ug/g	COL001
Blank	Copper	1.01 1	ug/g	COL001
Blank	Lead	1.80 1	ug/g	COL001
Blank	Zinc	4.54 1	ug/g	COL001
Blank	Mercury	LT 5.00 -2	ug/g	COM001
Blank	Mercury	LT 5.00 -2	ug/g	CON001
Blank	Aldrin	LT 3.00 -1	ug/g	COP001
Blank	Atrazine	LT 3.00 -1	ug/g	COP001
Blank	Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	COP001
Blank	Chlordane	LT 2.00 0	ug/g	COP001
Blank	p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	COP001
Blank	p-Chlorophenylmethyl Sulfoxide	LT 3.00 -1	ug/g	COP001
Blank	p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	COP001
Blank	Dibromochloropropane	LT 3.00 -1	ug/g	COP001
Blank	Dicyclopentadiene	LT 1.00 0	ug/g	COP001
Blank	Vepona	LT 3.00 0	ug/g	COP001
Blank	Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	COP001
Blank	Dieldrin	LT 3.00 -1	ug/g	COP001
Blank	Endrin	LT 5.00 -1	ug/g	COP001
Blank	Isodrin	LT 3.00 -1	ug/g	COP001
Blank	Malathion	LT 7.00 -1	ug/g	COP001
Blank	1,4-Oxathiane	LT 3.00 -1	ug/g	COP001
Blank	Dichlorodiphenylethane	LT 6.00 -1	ug/g	COP001
Blank	Dichlorodiphenyltrichloro-ethane	LT 5.00 -1	ug/g	COP001
Blank	Parathion	LT 9.00 -1	ug/g	COP001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 6.00 -1	ug/g	COP001
Blank	Chloroacetic Acid	LT 3.55 1	ug/g	COO001
Blank	Thiodiglycol	LT 4.20 0	ug/g	COO001
Blank	1,1,1-Trichloroethane	LT 3.00 -1	ug/g	COX001
Blank	1,1,2-Trichloroethane	LT 3.00 -1	ug/g	COX001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Ebasco Services Incorporated
Summary of Analytical Results

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Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	1,1-Dichloroethane	LT 9.00 -1	ug/g	COX001
Blank	1,2-Dichloroethane	LT 3.00 -1	ug/g	COX001
Blank	1,2-Dichloroethane	LT 3.00 -1	ug/g	COX001
Blank	m-Xylene	LT 7.00 -1	ug/g	COX001
Blank	Bicycloheptadiene	LT 3.00 -1	ug/g	COX001
Blank	Benzene	LT 3.00 -1	ug/g	COX001
Blank	Carbon Tetrachloride	LT 3.00 -1	ug/g	COX001
Blank	Methylene Chloride	LT 7.00 -1	ug/g	COX001
Blank	Chloroform	LT 3.00 -1	ug/g	COX001
Blank	Chlorobenzene	LT 3.00 -1	ug/g	COX001
Blank	Dibromochloropropane	LT 4.00 -1	ug/g	COX001
Blank	Dicyclopentadiene	LT 3.00 -1	ug/g	COX001
Blank	Dimethyldisulfide	LT 8.00 -1	ug/g	COX001
Blank	Ethylbenzene	LT 3.00 -1	ug/g	COX001
Blank	Toluene	LT 3.00 -1	ug/g	COX001
Blank	Methylisobutyl Ketone	LT 3.00 -1	ug/g	COX001
Blank	Tetrachloroethene	LT 3.00 -1	ug/g	COX001
Blank	Trichloroethene	LT 3.00 -1	ug/g	COX001
Blank	Ortho- & Para-Xylene	LT 3.00 -1	ug/g	COX001
Blank	Mercury	LT 5.00 -2	ug/g	COY001
Blank	Chloroacetic Acid	LT 3.55 1	ug/g	CRF001
Blank	Thiodiglycol	LT 4.20 0	ug/g	CRF001
Blank	Arsenic	LT 2.50 0	ug/g	CRH001
Blank	Cadmium	LT 7.40 -1	ug/g	CRM001
Blank	Chromium	1.64 1	ug/g	CRM001
Blank	Copper	9.92 0	ug/g	CRM001
Blank	Lead	1.28 1	ug/g	CRM001
Blank	Zinc	4.41 1	ug/g	CRM001
Blank	Mercury	LT 5.00 -2	ug/g	CRM001
Blank	Cadmium	LT 7.40 -1	ug/g	CUA001
Blank	Chromium	1.84 1	ug/g	CUA001
Blank	Copper	1.01 1	ug/g	CUA001
Blank	Lead	1.31 1	ug/g	CUA001
Blank	Zinc	4.70 1	ug/g	CUA001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

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Ebasco Services Incorporated

Summary of Analytical Results
Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Mercury	5.01 -2	ug/g	CUE001
Blank	1,1,1-Trichloroethane	LT 4.30 -1	ug/g	CUF001
Blank	1,1,2-Trichloroethane	LT 3.90 -1	ug/g	CUF001
Blank	1,1-Dichloroethane	LT 1.70 0	ug/g	CUF001
Blank	1,2-Dichloroethane	LT 1.70 0	ug/g	CUF001
Blank	1,2-Dichloroethane	LT 5.60 -1	ug/g	CUF001
Blank	m-Xylene	LT 7.40 -1	ug/g	CUF001
Blank	Bicycloheptadiene	LT 3.60 -1	ug/g	CUF001
Blank	Benzene	LT 2.50 -1	ug/g	CUF001
Blank	Carbon Tetrachloride	LT 2.50 -1	ug/g	CUF001
Blank	Methylene Chloride	LT 1.50 0	ug/g	CUF001
Blank	Chloroform	LT 2.90 -1	ug/g	CUF001
Blank	Chlorobenzene	LT 1.50 0	ug/g	CUF001
Blank	Dibromochloropropane	LT 2.40 0	ug/g	CUF001
Blank	Dicyclopentadiene	LT 6.40 -1	ug/g	CUF001
Blank	Dimethyldisulfide	LT 2.00 1	ug/g	CUF001
Blank	Ethylbenzene	LT 3.80 -1	ug/g	CUF001
Blank	Toluene	LT 2.50 -1	ug/g	CUF001
Blank	Methylisobutyl Ketone	LT 7.30 -1	ug/g	CUF001
Blank	Tetrachloroethene	LT 2.50 -1	ug/g	CUF001
Blank	Trichloroethene	LT 5.40 -1	ug/g	CUF001
Blank	Ortho- & Para-Xylene	LT 4.90 0	ug/g	CUF001
Blank	Aldrin	LT 3.00 -1	ug/g	CUL001
Blank	Atrazine	LT 3.00 -1	ug/g	CUL001
Blank	Hexachlorocyclopentadiene	LT 6.00 -1	ug/g	CUL001
Blank	Chlordane	LT 2.00 0	ug/g	CUL001
Blank	p-Chlorophenylmethyl Sulfide	LT 9.00 -1	ug/g	CUL001
Blank	p-Chlorophenylmethyl Sulfoxide	LT 3.00 -1	ug/g	CUL001
Blank	p-Chlorophenylmethyl Sulfone	LT 3.00 -1	ug/g	CUL001
Blank	Dibromochloropropane	LT 3.00 -1	ug/g	CUL001
Blank	Dicyclopentadiene	LT 1.00 0	ug/g	CUL001
Blank	Vapona	LT 3.00 0	ug/g	CUL001
Blank	Diisopropylmethyl Phosphonate	LT 1.00 0	ug/g	CUL001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Ebasco Services Incorporated
Summary of Analytical Results

Rocky Mountain Arsenal Program
Blanks Associated with Task 24,
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Type	Analytical Parameters	Results	Units	Sample Number
Blank	Dithiane	LT 4.00 -1	ug/g	CUL001
Blank	Dieldrin	LT 3.00 -1	ug/g	CUL001
Blank	Endrin	LT 5.00 -1	ug/g	CUL001
Blank	Isodrin	LT 3.00 -1	ug/g	CUL001
Blank	Malathion	LT 7.00 -1	ug/g	CUL001
Blank	1,4-Oxathiane	LT 3.00 -1	ug/g	CUL001
Blank	Dichlorodiphenylethane	LT 6.00 -1	ug/g	CUL001
Blank	Dichlorodiphenyltrichloro- ethane	LT 5.00 -1	ug/g	CUL001
Blank	Perathion	LT 9.00 -1	ug/g	CUL001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinyl diethyl Phosphates	LT 6.00 -1	ug/g	CUL001
Blank	1,1,1-Trichloroethane	LT 4.30 -1	ug/g	CUM001
Blank	1,1,2-Trichloroethane	LT 3.90 -1	ug/g	CUM001
Blank	1,1-Dichloroethane	LT 1.70 0	ug/g	CUM001
Blank	1,2-Dichloroethene	LT 1.70 0	ug/g	CUM001
Blank	1,2-Dichloroethane	LT 5.60 -1	ug/g	CUM001
Blank	m-Xylene	LT 7.40 -1	ug/g	CUM001
Blank	Bicycloheptadiene	LT 3.60 -1	ug/g	CUM001
Blank	Benzene	LT 2.50 -1	ug/g	CUM001
Blank	Carbon Tetrachloride	LT 2.50 -1	ug/g	CUM001
Blank	Methylene Chloride	LT 1.50 0	ug/g	CUM001
Blank	Chloroform	LT 2.90 -1	ug/g	CUM001
Blank	Chlorobenzene	LT 1.50 0	ug/g	CUM001
Blank	Dibromochloropropane	LT 2.40 0	ug/g	CUM001
Blank	Dicyclopentadiene	LT 6.40 -1	ug/g	CUM001
Blank	Dimethyldisulfide	LT 2.00 1	ug/g	CUM001
Blank	Ethylbenzene	LT 3.80 -1	ug/g	CUM001
Blank	Toluene	LT 2.50 -1	ug/g	CUM001
Blank	Methylisobutyl Ketone	LT 7.30 -1	ug/g	CUM001
Blank	Tetrachloroethene	LT 2.50 -1	ug/g	CUM001
Blank	Trichloroethene	LT 5.40 -1	ug/g	CUM001
Blank	Ortho- & Para-Xylene	LT 4.90 0	ug/g	CUM001
Blank	Aldrin	LT 3.00 -1	ug/g	CUM001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Ebasco Services Incorporated
Summary of Analytical Results

Rocky Mountain Arsenal Program

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Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Atrazine	LT 3.00 -1	ug/g	CUN001
Blank	Hexachlorocyclopentadiene	LT 3.00 -1	ug/g	CUN001
Blank	Chlordane	LT 6.00 -1	ug/g	CUN001
Blank	p-Chlorophenylmethyl Sulfide	LT 4.00 0	ug/g	CUN001
Blank	p-Chlorophenylmethyl Sulfoxide	LT 7.00 0	ug/g	CUN001
Blank	p-Chlorophenylmethyl Sulfone	LT 6.00 -1	ug/g	CUN001
Blank	Dibromochloropropane	LT 3.00 -1	ug/g	CUN001
Blank	Dicyclopentadiene	LT 4.00 -1	ug/g	CUN001
Blank	Vapona	LT 3.00 -1	ug/g	CUN001
Blank	Diisopropylmethyl Phosphonate	LT 3.00 -1	ug/g	CUN001
Blank	Dithiane	LT 7.00 0	ug/g	CUN001
Blank	Dieldrin	LT 3.00 -1	ug/g	CUN001
Blank	Endrin	LT 3.00 -1	ug/g	CUN001
Blank	Isodrin	LT 3.00 -1	ug/g	CUN001
Blank	Malathion	LT 3.00 -1	ug/g	CUN001
Blank	1,4-Oxathiane	LT 6.00 0	ug/g	CUN001
Blank	Dichlorodiphenylethane	LT 3.00 -1	ug/g	CUN001
Blank	Dichlorodiphenyltrichloro-ethane	LT 6.00 -1	ug/g	CUN001
Blank	Parathion	LT 4.00 -1	ug/g	CUN001
Blank	2-Chloro-1(2,4-Dichlorophenyl) Vinylidethyl Phosphates	LT 3.00 -1	ug/g	CUN001
Blank	Mercury	LT 5.00 -2	ug/g	CUN001
Blank	Arsenic	LT 2.50 0	ug/g	CUN001
Blank	1,1,1-Trichloroethane	LT 3.00 -1	ug/g	CUN001
Blank	1,1,2-Trichloroethane	LT 3.00 -1	ug/g	CUN001
Blank	1,1-Dichloroethane	LT 9.00 -1	ug/g	CUN001
Blank	1,2-Dichloroethane	LT 3.00 -1	ug/g	CUN001
Blank	1,2-Dichloroethane	LT 3.00 -1	ug/g	CUN001
Blank	m-Xylene	LT 7.00 -1	ug/g	CUN001
Blank	Bicycloheptadiene	LT 3.00 -1	ug/g	CUN001
Blank	Benzene	LT 3.00 -1	ug/g	CUN001
Blank	Carbon Tetrachloride	LT 3.00 -1	ug/g	CUN001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Ebasco Services Incorporated
Summary of Analytical Results

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Blanks Associated with Task 24,
Spill Sites

Type	Analytical Parameters	Results	Units	Sample Number
Blank	Methylene Chloride	LT 7.00 -1	ug/g	CU0001
Blank	Chloroform	LT 3.00 -1	ug/g	CU0001
Blank	Chlorobenzene	LT 3.00 -1	ug/g	CU0001
Blank	Dibromochloropropane	LT 4.00 -1	ug/g	CU0001
Blank	Dicyclopentadiene	LT 3.00 -1	ug/g	CU0001
Blank	Dimethyldisulfide	LT 8.00 -1	ug/g	CU0001
Blank	Ethylbenzene	LT 3.00 -1	ug/g	CU0001
Blank	Toluene	LT 3.00 -1	ug/g	CU0001
Blank	Methylisobutyl Ketone	LT 3.00 -1	ug/g	CU0001
Blank	Tetrachloroethene	LT 3.00 -1	ug/g	CU0001
Blank	Trichloroethene	LT 3.00 -1	ug/g	CU0001
Blank	Ortho- & Para-Xylene	LT 3.00 -1	ug/g	CU0001

Note: Blanks are matched to analytical lots by the first three characters in the Sample Number.

Appendix 24S-C

Comments and Responses

STATE OF COLORADO

COLORADO DEPARTMENT OF HEALTH

4216 East 11th Avenue
Denver, Colorado 80220
Phone (303) 320-8333



Ray Lerner
Governor

Thomas M. Vetter, M.D.
Executive Director

June 2, 1988

Mr. Donald Campbell
Office of the Program Manager
RMA Contamination Cleanup
AMCOM-EE, Building 24460
Department of the Army
Aberdeen Proving Ground, Maryland 21010-5401

Re: State's Comments on DFR-Army Spill Sites
South Plants Manufacturing Complex

Dear Mr. Campbell:

Attached are the State's general and specific comments for the DFR-Army Spill Sites South Plants Manufacturing Complex. The State's primary concern with the report is that many of the spill sites were not investigated. These sites were dismissed due to historical research. The State would hope that virtually all spills would be investigated by soil borings and monitoring wells rather than placing a heavy reliance on historical information for verification.

If you have any questions regarding these comments, please contact Mr. Jeff Edson with this Division.

Sincerely,

David C. Shelton

David C. Shelton
Director
Hazardous Materials and
Waste Management Division

Jeffrey L. Edson

cc: Michael Kope
Robert Duprey
Connally Meers
Chris Rahn
Edward McGrath
David Anderson

RESPONSE TO COMMENTS OF THE
COLORADO DEPARTMENT OF HEALTH
ON PHASE I DRAFT FINAL DATA PRESENTATION REPORT
ARMY SPILL SITES SOUTH PLANTS MANUFACTURING COMPLEX

GENERAL COMMENTS

Comment 1: It is unclear what the function of a data presentation report is. What distinguishes this type of report from a CAR? At what other RMA sites will data presentation such as this be reported?

Response: A Data Presentation Report (DPR) contains all the report sections and data contained in a CAR except Section 3.25, Phase I Contamination Assessment, and Section 3.4, Quantity of Potentially Contaminated Soil. Both the contamination assessment and the estimate of contaminated soil are being conducted in conjunction with the Task 2 and Shell Spills results and the results of the South Plants Regional Study, as part of the comprehensive analysis for the South Plants Study Area Report (SAR).

One other Data Presentation Report will be published for the South Plants Regional Study. This report has also been reviewed by The State of Colorado.

Comment 2: The report tends to overemphasize historical research that indicated that at six of the sites (i.e., Sites 4, 11, 24, 26, 27 and 28) "there was little likelihood of spills having occurred". Where any doubt exists as to whether or not a spill has occurred, it would appear that investigation of the site by use of soil borings and monitoring wells would be the prudent choice of action.

Response: No additional borings as part of this study were placed at Site 4 because, as stated in the text, five Task 2 borings and one South Plants Regional Study boring were located in the vicinity of this site. Mercury was found in each of the Task 2 borings (I101, I201, I301, I302, and I401 from the Shell spills program) and from the South Plants Regional Study boring (#37) placed on this site. The concentration ranged from 0.058 to 98 ug/g. The location of these borings appear on the map for this site in the Army Spill Sites Program Technical Plan. A monitoring well (01524) is located downgradient of this site.

Six borings were placed in the vicinity of Site 11 as part of the Shell Spills program (Borings G 101, G 401, G 601, G 602, G701, and G801). This information has been added to the text of this report. Locations of these borings appear on the map from Site 11 in the Technical Plan. No chlorobenzene was

discovered in any samples from any of these borings. A monitoring well (H 01518) is also located downgradient of this site.

As stated in the text, five Task 2 borings (Shell spills program) have been drilled in the vicinity of Site 24. Mercury was found in three of the five borings from Task 2 (0102, 0401, and 0601). No mercury was found in Borings H101 or 0502 from Task 2. The location of these borings is shown on the map for Site 24 in the Technical Plan. One monitoring well (01005) is located approximately downgradient of this site.

No borings were placed at Site 26 because phosgene, which was reported to have leaked in this area, is a gas and would not have been retained in the soil.

Historical information not available during the planning stage but included in the report text indicates that mines utilizing lead oxide, the substance reportedly spilled inside Building 365 (Sites 27 and 28), were not manufactured in South Plants but rather in North Plants. Sandwich button bombs containing red phosphorous, magnesium oxide, and potassium chlorate were manufactured in Buildings 362 and 365. A South Plants Regional Study boring was placed next to Building 365. This information has been added to the text. Dieldrin was detected in this boring (#3) (0.4 ug/g of 0-1 ft) and arsenic (3.2 ug/g at 4-5 ft). A monitoring well (02580) is located downgradient of this site.

SPECIFIC COMMENTS

Comment 1: It is unclear what is meant by "(b)ecause these compounds are
Spill Site representative of the class of chemicals typically found in the
No. 1 ground water beneath the South Plants manufacturing complex,
page 7 their presence in the ground water does not imply that the Army
Spill Sites boring locations are contributing to ground water
contamination in this area". Please explain how boring
locations can contribute to ground water contamination.

Response: Borings that were part of this investigation were located in
areas where spills of chemicals or fuel may have occurred. The
borings themselves are not the possible sources of these
compounds but rather the possible spill that was investigated
could potentially be a source of groundwater contamination.
However, the occurrence of a contaminant in the groundwater
beneath the sites does not demonstrate that the site itself is
the contamination. The groundwater contamination could
conceivably originate from other upgradient areas. The purpose
of the groundwater investigation is to determine the extent of
contaminant plumes and thus to attempt to locate the source or
sources of the plumes. The wording of the sentence on Page 7
has been changed in the text for clarity.

Comment 2: The text states that "there is no information on the exact location or on the quantities (of mustard) spilled, therefore no borings were constructed under Task 24 at this site."
Spill Site No. 7
page 13 However, Table 245-3, page 65, indicates that Task 24 Borings 16 and 17 investigated Site 7. Please explain.

Response: The statement on page 13 that no borings were constructed at Site 7 under Task 24 was in error and has been deleted from the text.

Comment 3: The information presented pertaining to Site No. 8 appears to be incomplete. A more complete explanation of the Army's proposed follow up investigation of this site must be included.
Spill Site No. 8
page 13

Response: One boring (#9) was proposed to investigate the sump area where the reported encounter with mustard occurred. In the field the sump was clearly visible; therefore, only one boring, as planned, was drilled into it.

Comment 4: Spill Site No. 28 is one of the sites not investigated because further historical research indicated there was "little likelihood of spills." However, it appears that Site 28 was dismissed because "no evidence of spills was indicated outside Buildings 362 and 365." Hence, the basis for the dismissal of investigation is apparently visual evaluation rather than historical documentation. Borings must be placed outside of the buildings and an investigation must be implemented to determine where the drain outlets discharge.
Spill Site No. 28
page 25

Response: Both Buildings 362 and 365 are structurally sound with no current or historical evidence of structural problems or cracks that would have allowed any spilled material to escape to the ground. A South Plants Regional Study boring (#3) was placed immediately next to Building 365 and an outside sump attached to this building was sampled as part of the Structure Survey investigations done under Task 24. Dieldrin (0.4 ug/g of the 0-1 ft interval) and arsenic (3.2 ug/g at the 4-5 interval) were detected in Boring 3. The liquid samples from the sump outside Building 365 contained chlorophenylmethyl sulfone (10 ug/l), calcium (28,000 ug/l), magnesium (61,000 ug/l), potassium (110,000 ug/l), sodium (61,000 ug/l), and zinc (280 ug/l).

Comment 5: Concerning Spill Site No. 30, the text indicates that the chlorine released consisted of liquid chlorine and chlorine gas not just chlorine gas. Accordingly, it would appear that Site 30 would be amenable to additional investigation by soil borings.
Spill Site No. 30
page 20

Response: Chlorine at ambient temperature is a gas. Therefore, any released liquid chlorine would undergo an immediate phase change resulting in a cloud of chlorine gas that would be dispersed by movement of air. No chlorine would remain in or on the soil.

Comment 6: Concerning Spill Site No. 33, the text does not indicate the amount of mercury spilled, it simply refers to "a small amount." If known, this quantity should be defined in the report.
Spill Site No. 33
page 27

Response: An additional review of the historical database was undertaken which determined that the actual quantity of mercury spilled was 2.65 cubic inches. This new information was added to the text to more accurately quantify the amount of mercury spilled.

Comment 7: Table 24S-1 should include an additional column presenting the disposition of each site. It is difficult to discern if the site was investigated in Task 24, whether other tasks will investigate, or whether the site was dismissed from further investigation by historical documentation.
pages 37-42

Response: Section 2.0 presents more detailed information about each site including whether or not the site was investigated by other tasks and whether a site was defined by too little historical information to warrant investigation.

Comment 8: It is unclear why a volumetric determination of potentially contaminated soils for spill sites in the South Plants manufacturing complex is not included in the report. Will the data generated in the Task 24 investigation be integrated and presented in the South Plants Study Area Report?

Response: As stated in the text, the data generated in the Task 24 investigation will be integrated with the data gathered by other tasks that investigated areas in the South Plants. Volumetric estimates of potentially contaminated soils will be made for the entire area encompassed by the South Plants SAR, including the areas investigated by the Army Spills sites.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2405

Ref: SHWM-SR

MAY 20 1988

Colonel W. N. Quintrell
Program Manager
AMXRM-EE Department of the Army
U.S. Army Toxic and Hazardous Materials Agency
Building 4460
Aberdeen Proving Ground, Maryland 21010-5401

Re: Rocky Mountain Arsenal, (RMA),
Task 24, Data Presentation
Report, Army Spill Sites, South
Plants Manufacturing Complex, Draft
Final Contamination Assessment
Report, April, 1988.

Dear Colonel Quintrell:

We have reviewed the above referenced report and have the
enclosed comments from our contractor. Please call me at (303)
293-1528, if there are questions on this matter.

Sincerely yours,

A handwritten signature in cursive script, reading "Connally Mears", is written over the typed name.

Connally Mears
EPA Coordinator
for Rocky Mountain Arsenal Cleanup

Enclosure

cc: Thomas P. Looby, CDH
David Shelton, CDH
Lt. Col. Scott P. Isaacson
Chris Hahn, Shell Oil Company
R. D. Lundahl, Shell Oil Company
Thomas Bick, Department of Justice
David Anderson, Department of Justice
Preston Chiaro, EBASCO

RESPONSES TO COMMENTS OF
ENVIRONMENTAL PROTECTION AGENCY
ON PHASE I DRAFT FINAL DATA PRESENTATION REPORT
ARMY SPILL SITES SOUTH PLANTS MANUFACTURING COMPLEX

Comment 1: General Comment. The EPA recognizes that data from the Task 2 site, Shell Spills program, and this survey will be integrated in the South Plants Regional Study Area Report. However, review of this document would be facilitated by listing sample locations (on Plate 24S-1, for instance) from other surveys on relevant maps in this document so that sampling coverage could be adequately addressed.

Response: Sampling coverage will be clearly presented in the South Plants Study Area Report (SAR).

Comment 2: The Army Spill #11 is thought to have been confused with spills
Spill Site made by Colorado Fuel and Iron Corporation between 1947 and
No. 11 1948, therefore this site was not investigated with borings.
page 14 The EPA recognizes the need to respect party responsibility.
However, the site should be investigated at some point for
positive or negative verification of a spill. We recommend
that this take place during the feasibility study through a
regular boring.

Response: Six borings were placed in the vicinity of Site 11 as part of
the Shell spills program (Sites 1-13 and 2-18). (Borings
G101, G401, G601, G602, G701 and G801). No chlorobenzene was
discovered in any samples from any of these borings.

Comment 3: A ditch into which wastes from this spill site drained is
Spill Site discussed. It is not clear from Figure 24S-BC whether either
No. 17 boring 11 and 12 associated with this site were located in the
page 17 ditches. They should be sampled during the feasibility study
if they were not sampled during Phase I.

Response: Boring 12 was located close to the building outlet that leads
to this ditch. As mentioned in the text, Boring 11 was located
in the drainage ditch; it was moved further upstream than
originally planned in order to avoid overhead power lines at
the original location.

Comment 4: Field reconnaissance of Spill 19 revealed indoor trenches in
Spill Site Building 751, down which contaminated waste flowed east to the
No. 19 end of the building where a drain exits the building wall.
page 19 There is no mention of whether the floor is made of dirt or
some other substance. The EPA recommends that samples be taken
in the indoor trenches, if they are made of dirt, during the
feasibility study.

Response: The floor of this building is concrete. The trenches are, at present, rectangular cutouts with dirt bottoms in this concrete floor slab. Consideration of sampling this dirt will be made during the planning for the South Plants area feasibility study. Building sampling was beyond the scope of this program.

Comment 5: Plate 24S-1 indicates that Borings 16, 19, and 20 investigate this spill site. Inspection of this map and Figure 24S-8a does not reveal whether any of these borings were placed in the drainage ditch that carried spills at this site. In the event this ditch was not sampled, the EPA recommends that it be investigated during the feasibility study.

Spill Site
No. 20
page 20

Response: Borings 18 and 19 investigated this spill site. Both borings were constructed in the ditch.

Comment 6: Wastes associated with Site 25 were discharged into two drainage ditches located in this spill site. It is not clear from inspection of Figure 24S-8b whether either boring 16 or 44 were located in either of these ditches (inspection of Plate 24S-1 indicates that these borings were associated with Site 25). EPA recommends that these ditches be sampled during the feasibility study if borings 26 and 44 were not placed in the ditches.

Spill Site
No. 25
page 23

Response: Site 25 was investigated by Borings 26, 43, and 44. Borings 43 and 44 were located in the ditch south of Buildings 522 and 523. Boring 26 was located in a flat area that leads to the ditch north of Building 522B.

Comment 7: Leaks of distilled mustard may have occurred between buildings 512 and 514 from transfer lines carrying concrete corrosive acid in finished mustard product. No Phase I borings were placed between these building for this spill site. This area should be sampled during the feasibility study and analyzed for thiodiglycol.

Spill Site
No. 40
page 34

Response: Composite samples from the 0.5 to 1 ft interval were taken at 3 points from the soil underneath the former length of these lines. The actual location of these lines was between Buildings 512 and 516 as determined in discussions between field personnel and a former RMA facilities engineer. The text has been modified to include this information.

Comment 8: Because of the problems encountered with positive identification of lewisite, the EPA does not feel that the lewisite contamination in the Spill Site 2 area has been adequately characterized either vertically or horizontally. The EPA recognizes problems inherent in sampling a lewisite contaminated site, and it also recognizes that the sampled presence of the compound confirms the spill. However, for the feasibility study and for the ultimate remediation of the site, either worst case estimates for potentially contaminated soil over the whole site, or further sampling will be needed to ensure adequate site remediation.

Spill Site
No. 2
page 44

Response:

As stated in the text, the laboratory method used during the investigation did not yield a positive indication of lewisite. The method used was not able to distinguish among compounds, including lewisite, which degrade to acetylene in the presence of caustic. After the development of a new laboratory test that can distinguish between lewisite, lewisite oxide, and other compounds, a new boring was placed directly north of the original boring (Boring 3) where positive field indications for lewisite were originally obtained. The sample from the 4 to 5 ft interval again tested positive in the field for lewisite but the newer, more sensitive and selective laboratory method yielded a negative result. The borings completed at this site that were placed in the pits (4 & 5) yielded samples that contained elevated levels of arsenic, a constituent of lewisite, and mercury, a catalyst used in the manufacture of lewisite, as well as elevated levels of other chemicals not related to lewisite production. The Army believes that this investigation demonstrated that this area was used for disposal of neutralized lewisite. As is the case throughout the RMA RI/FS program, reasonable worst-case estimates will be used whenever data are incomplete.

Comment 9:

It is noted that there was difficulty in determining if chlorinated hydrocarbons were from contamination unique to their location southwest of Building 543, or if they were instead, due to levels present throughout the site. EPA recommends that the South Plants Study Area Report soil gas study be integrated with other data collected from the South Plants area to outline plumes that may extend beyond single site spills.

Response:

The follow-on soil gas work using a portable gas chromatograph as described in pages 46 through 54 was designed to address the issue raised in this comment.

Shell Oil Company



670 - 14th St. & C. W. W.
Suite 1000
1700 Broadway
Denver CO 80202

May 17, 1988

Office of the Program Manager
for Rocky Mountain Arsenal
ATTN: AMXRM-PM: Mr. Donald L. Campbell
Building E-4460
Aberdeen Proving Ground, Maryland 21010-5401

Dear Mr. Campbell:

Enclosed herewith are Shell Oil's comments on Draft Final Phase I
Data Presentation Report, Army Spills Sites, South Plants Manufacturing
Complex, Task No. 24, April, 1988.

Sincerely,

C. K. Hahn

C. K. Hahn
Manager
Denver Site Project

RDL:ajg

Enclosure

cc: (w/enclosure)
Office of the Program Manager for Rocky Mountain Arsenal
ATTN: AMXRM-RP: Mr. Kevin T. Blose, Acting Chief
Aberdeen Proving Ground, Maryland 21010-5401

Office of the Program Manager for Rocky Mountain Arsenal
ATTN: AMXRM-TO: Mr. Brian L. Anderson
Commerce City, Colorado 80022-2180

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RESPONSE TO COMMENTS
OF SHELL OIL COMPANY
ON PHASE I DRAFT FINAL DATA PRESENTATION REPORT
ARMY SPILL SITES SOUTH PLANTS MANUFACTURING COMPLEX

Comment 1: "No Phase II follow-on work is proposed for the Army Spills
Executive program because additional sampling and analysis has been
Summary, conducted under Task 2 site programs, the Shell Spills program
last para. and the South Plants Regional Study."

It is not clear from this statement (or from the discussion in 3.3 Phase II Survey) whether the programs listed will include Phase II follow-on investigations of the Army spill sites at which this Phase I investigation found elevated levels of contaminants. For consistency with all other site investigations, a follow-on Phase II program should be performed on these sites.

Response: Phase II follow-on investigations were conducted at all Task 2 sites where contamination warranting follow-on work was detected. The Shell Spills program, the South Plants Regional Study and the Army Spills program did not include Phase II programs. The Phase I and II investigations for the Task 2 sites, the Shell & Army Spills investigations, and the South Plants Regional Study have yielded sufficient information to characterize the nature and extent of contamination in the South Plants manufacturing complex to a level of detail sufficient to conduct the Feasibility Study.

Comment 2: The text could indicate that borings for other RI programs have
Spill Site been drilled in or around this site.
No. 5
page 11

Response: Two Shell spill program borings were constructed in the area of this site. This information has been added to the text.

Comment 3: Notwithstanding the disturbed conditions at this site, its
Spill Site history warrants placement of some borings.
No. 6
page 12

Response: Two borings were placed in the area of the ton container storage yard, one as part of the investigation of Site 1-3 under Task 2 and one as part of the South Plants Regional Study. This information has been added to the text. As stated in the text, parts of the area north of Buildings 537 and 538 were not only built over but no information is available which would locate storage or spill areas. One boring from the Shell spills program was placed in a location which is north and appears to be downgradient of this former storage area.

Comment 4: The area encompassed by this site is not large, therefore
Spill Site placement of borings is warranted.
No. 8
page 13

Response: Borings 16 and 17 were placed in this area. The text has been
corrected to reflect this.

Comment 5: Monochlorobenzene has been detected in wells downgradient of
Spill Site this site, e.g., 520 ppb in well 01518 (1979). Consequently,
No. 11 borings should be placed at this site.
page 14

Response: The purpose of this program was to investigate potential Army
spill sites. No historical information documents any Army spill
of either chlorobenzene or monochlorobenzene by the Army.
Further, five borings were placed in the vicinity of this site
as part of the Shell spills investigation. This information has
been added to the text. None of these borings detected
chlorobenzene.

Comment 6: A list of pesticides stored in Building 544 should be included in
Spill Site the text to aid in the understanding of sampling results.
No. 19
page 19

Response: This information is published in the Final Technical Plan Task
24 Program for Army Spill Sites, Phase I, v. I.

Comment 7: This listing should be deleted since no spill was identified by
Spill Site this number in Shell's document.
No. 21
page 20

Response: This listing was included by number in the Shell letter of May,
1985 which was the original basis for this investigation. The
numbering sequence was retained to remain in conformance with
this letter so as to avoid any confusion which would be incurred
by renumbering sites or eliminating numbers without explanations.

Comment 8: Same as 7, above.
Spill Site
No. 22
page 21

Response: See Response to Comment 7.

Comment 9: The reference in the first sentence to Building 523 may be an
Spill Site error.
No. 24
page 22, 1st
full para.

Response: The reference should be to Building 534 and has been changed in the text.

Comment 10: In the second sentence, it is not clear what "...this additional information..." refers to.

page 57,
para.

preceding
3.2.2

Is the last sentence intended to mean that no Phase II investigation is necessary? If so, this conclusion seems inconsistent with the last paragraph of the Executive Summary and with 3.3 Phase II Survey. (Also, see comment #1, above).

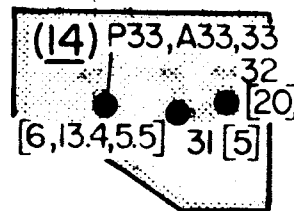
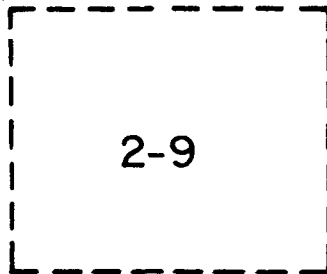
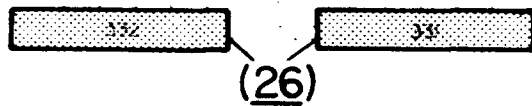
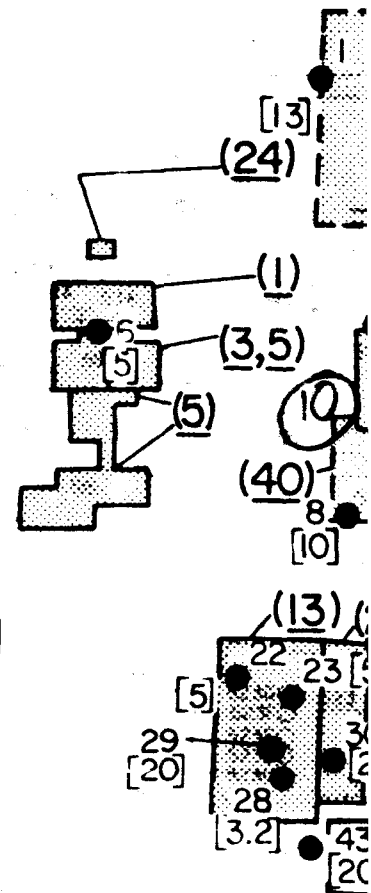
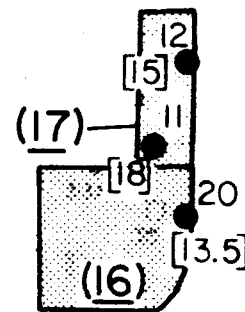
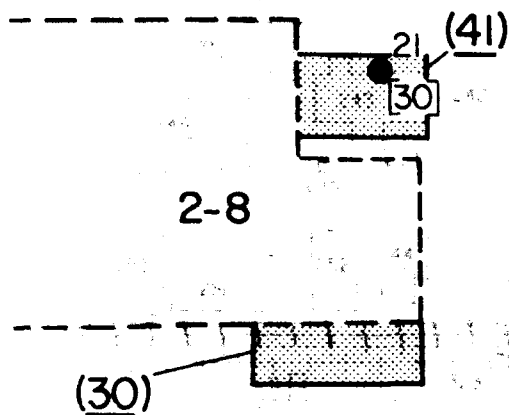
Response: In the second sentence, "this additional information" refers to new historical information obtained after the program was implemented. An addition to this paragraph has been made to make this clear.

Yes, this last sentence is intended to mean that no Phase II investigation is necessary, when the results of the Army spills program are analyzed in conjunction with the results of the Task 2 and Shell spills investigations and the South Plants Regional Study. A phrase has been added to the text clarifying this relationship.

Comment 11:
page 142

See comment #1. The Task 2 site program and South Plants Regional Study program do not reflect plans for follow-on Phase II investigation of Army Spill Sites with elevated levels of contaminants.

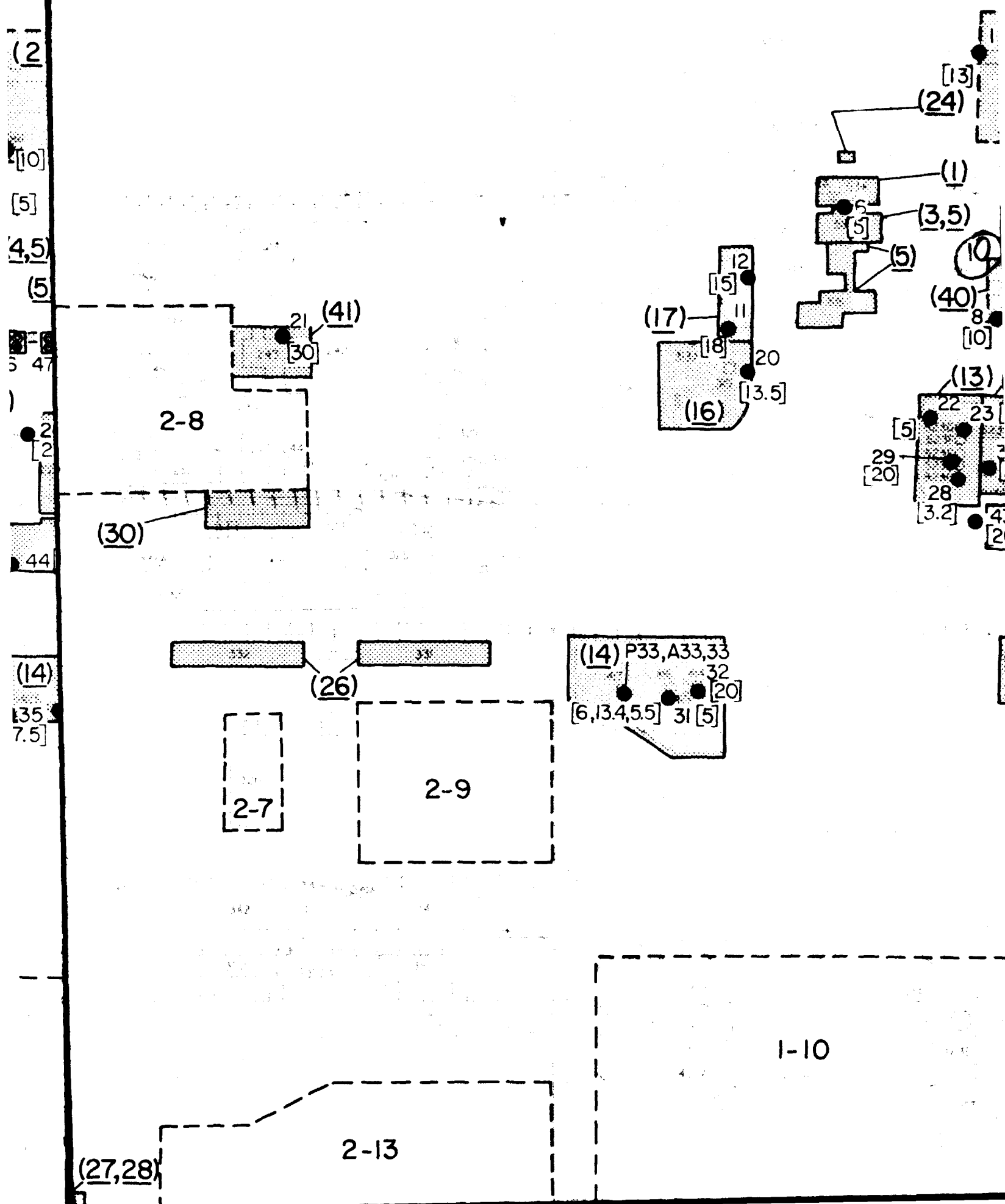
Response: See Response to Comment 1 above.



(27,28)

2-13

1-10



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[10]

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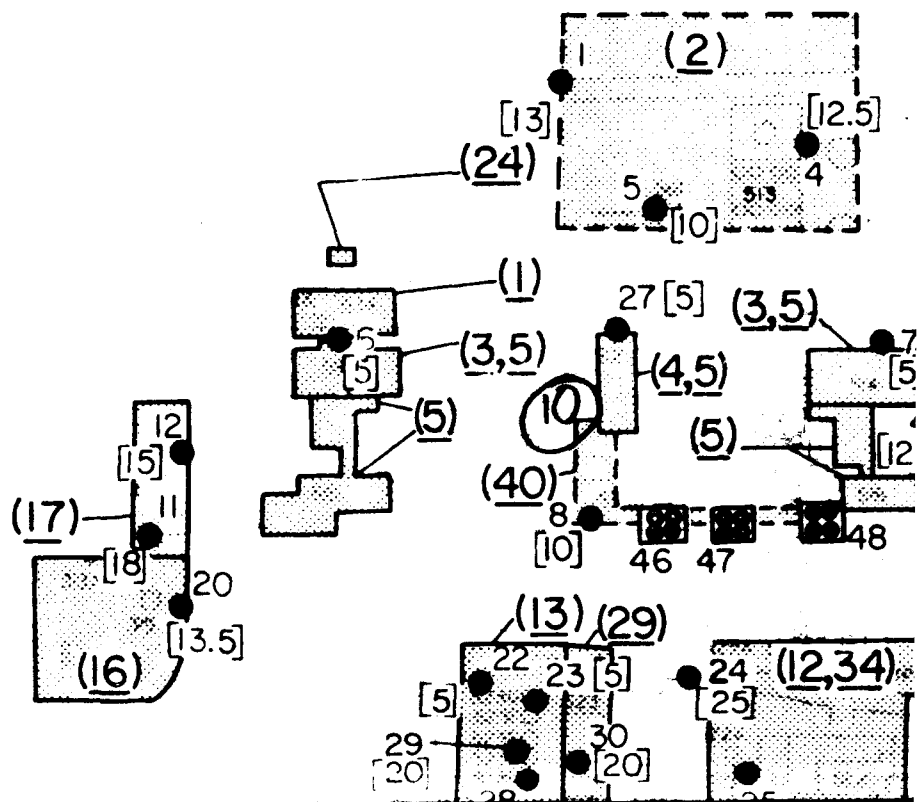
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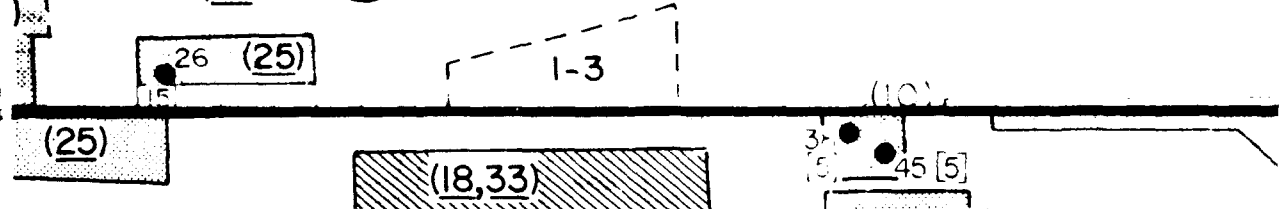
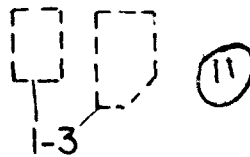
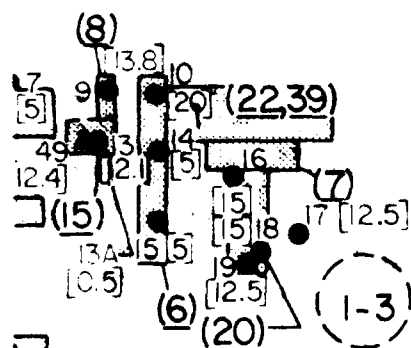
(38) Salt 2-6
Storage

2-8

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30 (41)

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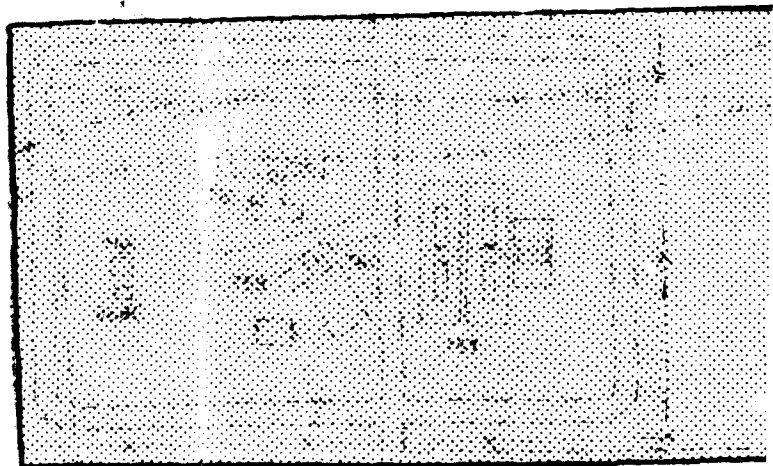


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==== Paved Road



Structure

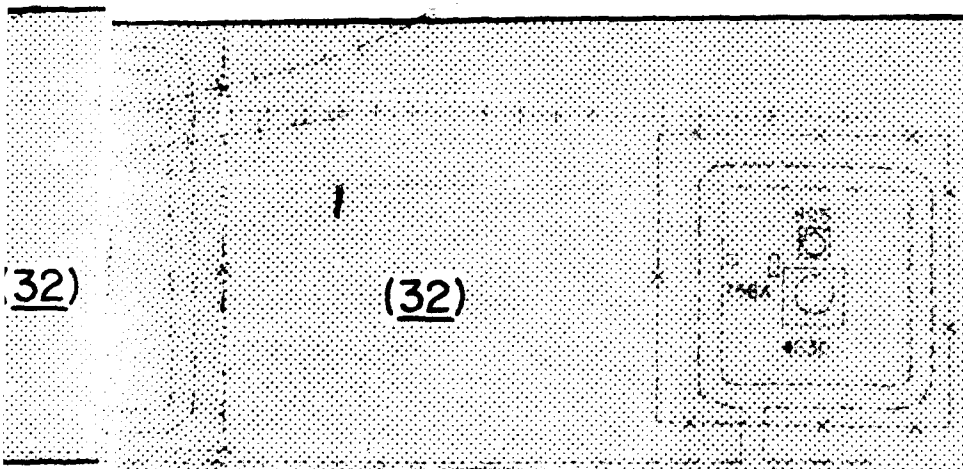
7

Section Number



Shore Line

+ + + + + Railroad Tracks



(32)

(32)

13

180000

● Actual Sample Location Within Surface Tree

49

Grab Composite Sample

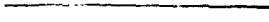
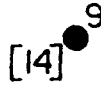
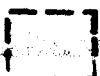


Soil Gas Investigation

7

Le

Legend

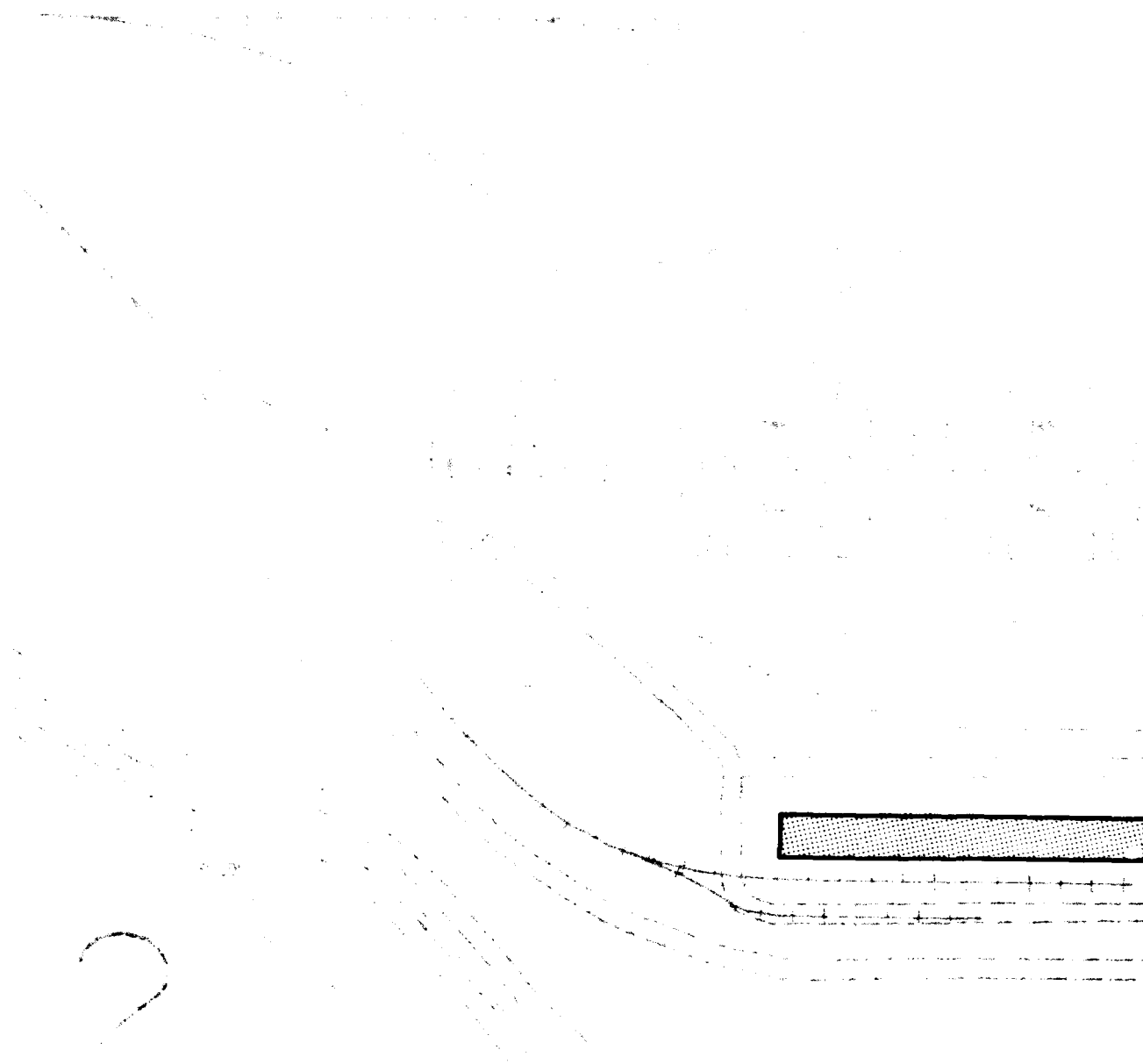
	Paved Road		Unpaved Trail or Road
	Structure		Drainage Ditch or Stream
	Section Number		
	Shore Line		Fence
	Railroad Tracks		Boring Location, Number and Depth (Feet)
	Actual Sample Location / Within Surface Trench		Surface Trench Sample
	Grab Composite Sample		
	Soil Gas Investigation Areas		0.5-1 ft. Composite Sample
			Portions of Sites Examined Under Separate Tasks

⑧

1

180008

180008



2-12

(9)

(38) Salt 2-6
Storage

2-8

(30)

(41)

21

(30)

(26)

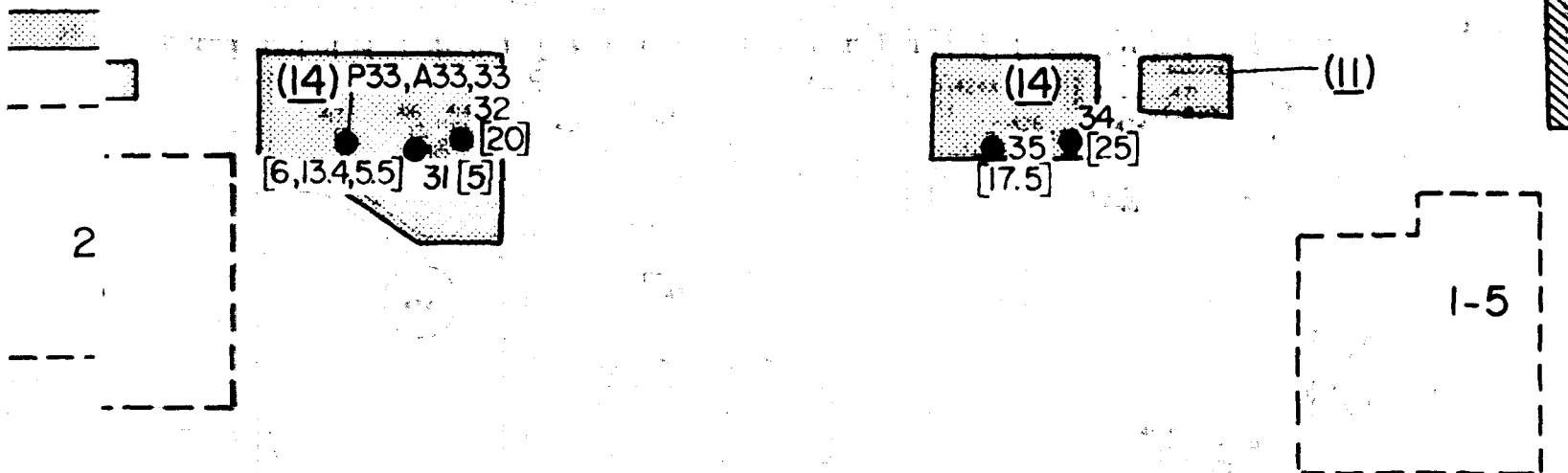
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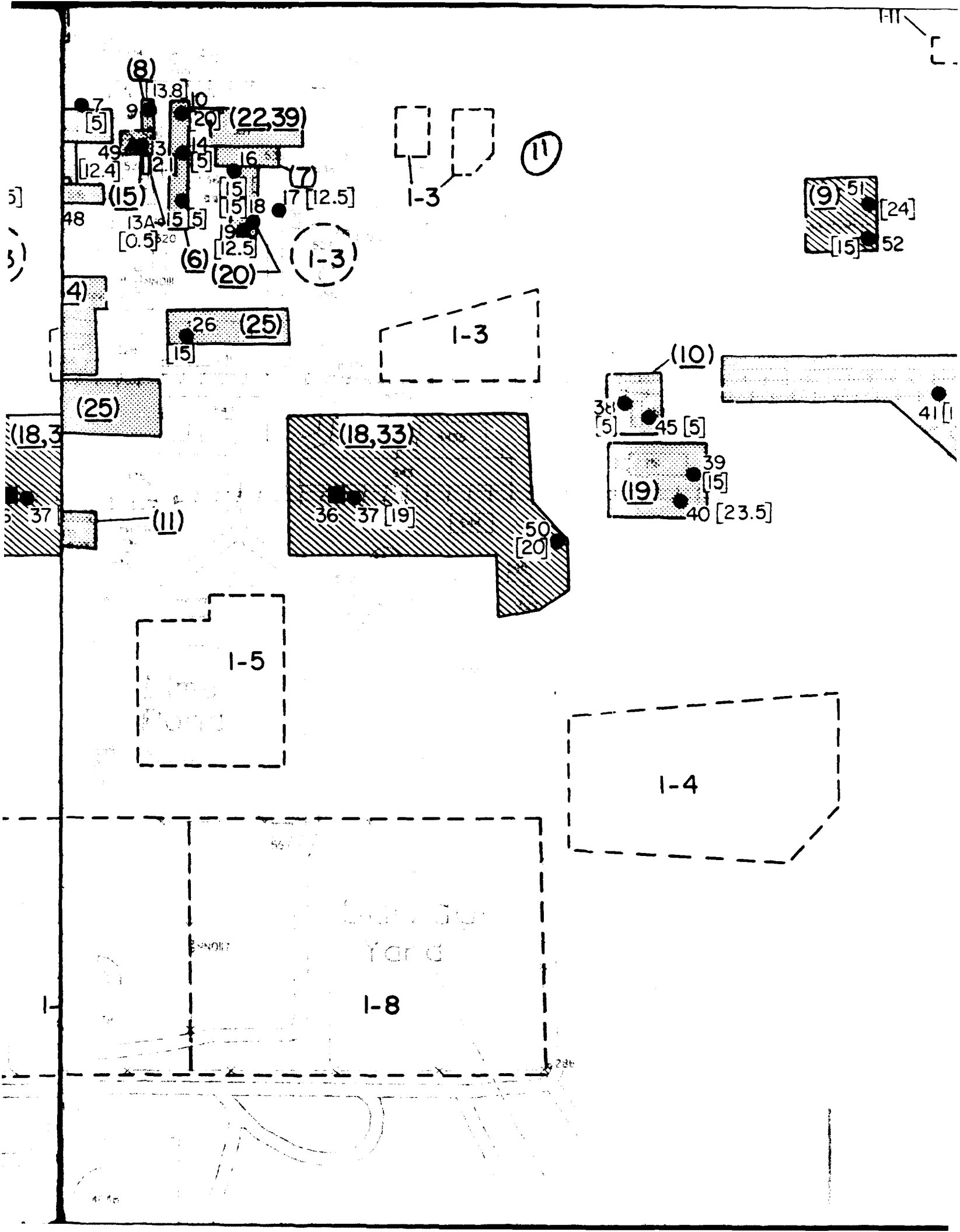
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(27,28)

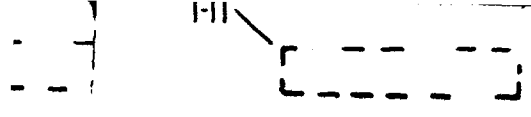
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(27,28)

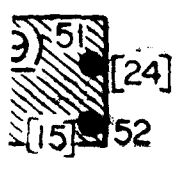




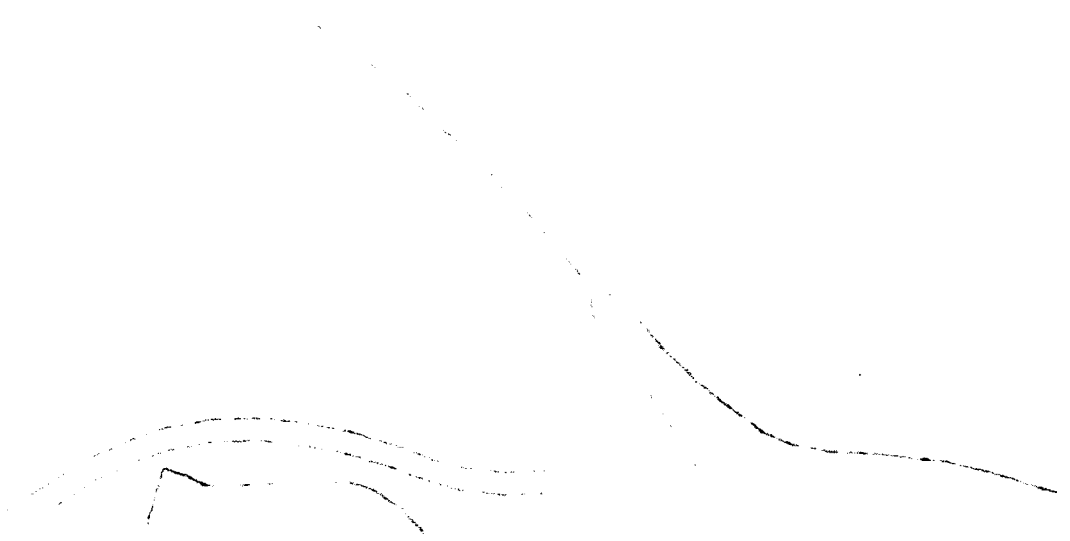
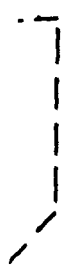
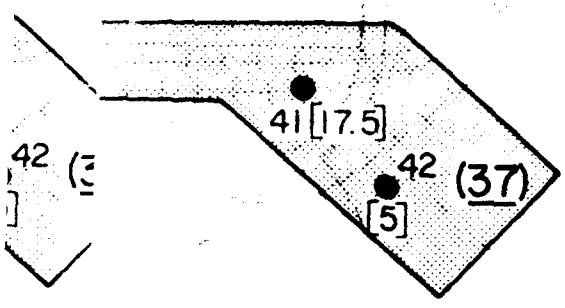
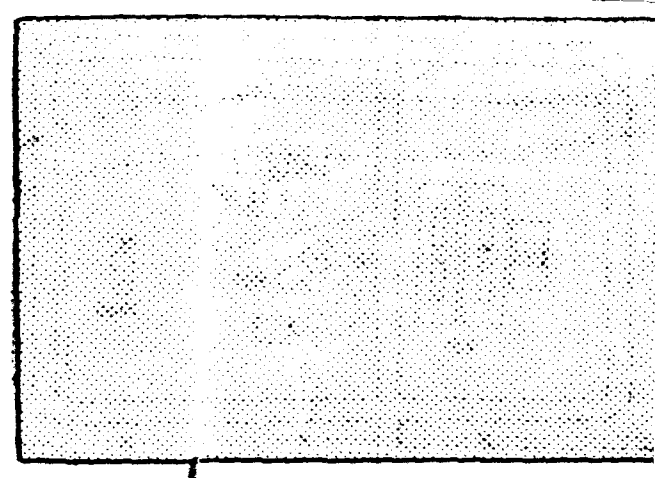
111



1



(12)



(32)

13

● Actual Sample Location
Within Surface Trench

▲
49 Grab Composite Sample



Soil Gas Investigation Area



Portions of Sites
Investigated as Possible
Army Spill Locations

200



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Rocky Mountain
Aberdeen Project
Drafted: 2/29/**

PLATE 24

● Actual Sample Location
Within Surface Trench



Surface Trench Sample

46



Grab Composite Sample



36

0.5-1 ft. Composite
Sample



Soil Gas Investigation Areas



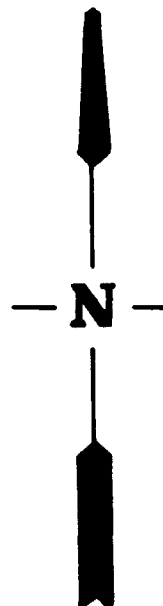
Portions of Sites
Examined Under
Separate Tasks



Portions of Sites
Investigated as Possible
Army Spill Locations

(3)

Possible Army Spill
Site Numbers



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Drafted: 2/29/88



208000

20820

(30)

(26)

2-7

2-

2-13

(27,28)

(27,28)

2-14a

2182000

2183000

34

(26)

2-9

(14) P33, A33, 33
32
[6, 13, 4, 5.5] 31 [5] [20]

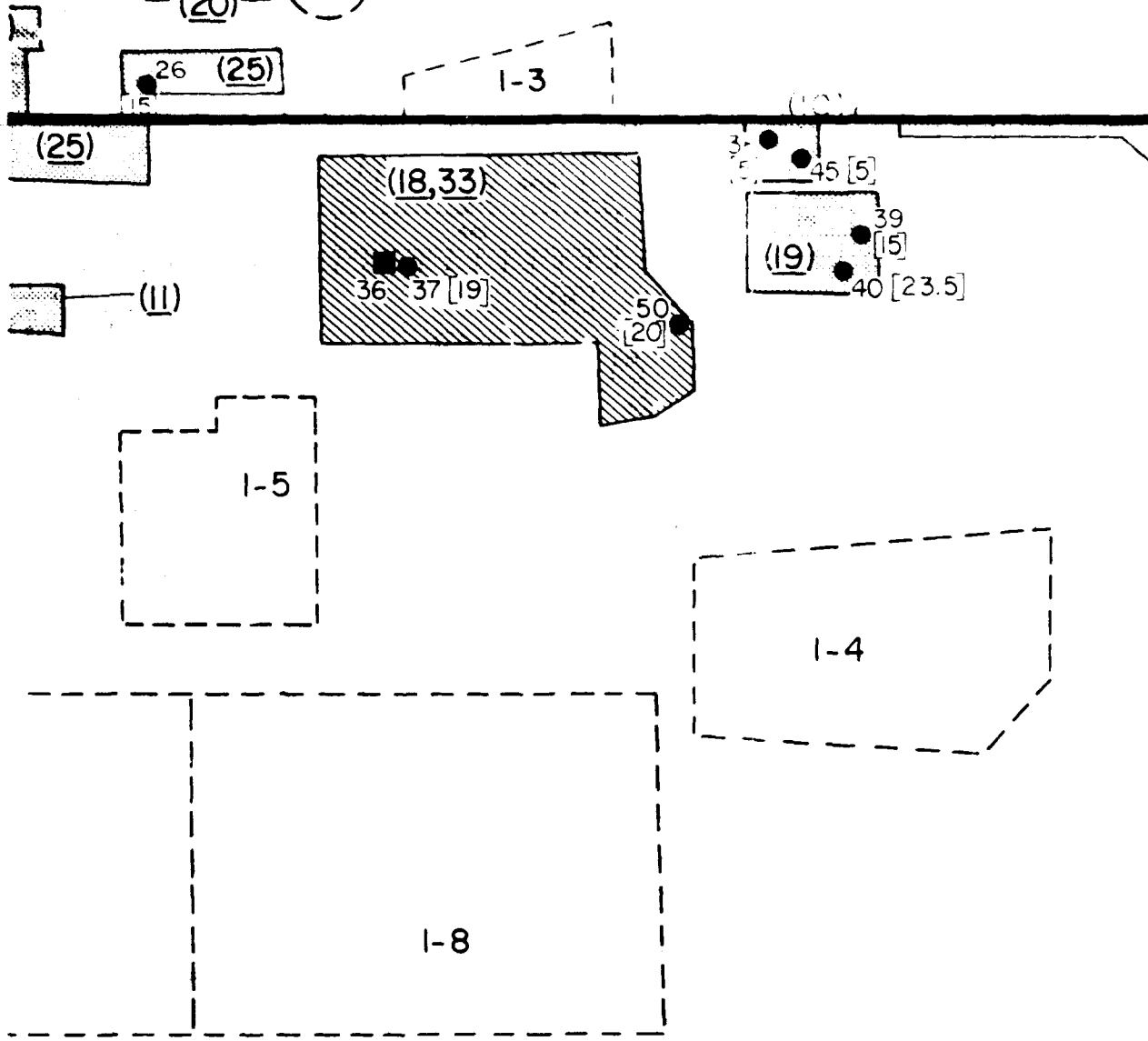
(14)
34
35 [25]
[17.5]

1-10

2-13

(3A) (5) (5) (6) (2.5) (20) (1-3)

(15) 52



7.5]

42

[5]

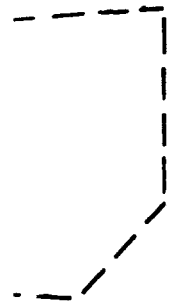
5]

41 [17.5]

42

[5]

(37)



287000

(19)



Por
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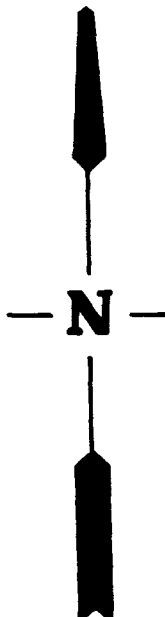
is of S
tigate
Spill



**Portions of Sites
Investigated as Possible
Army Spill Locations**

(3)

**Possible Army Spill
Site Numbers**



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**Program Manager's Office for
Rocky Mountain Arsenal Cleanup
Aberdeen Proving Ground, Maryland
Drafted: 2/29/88**

PL

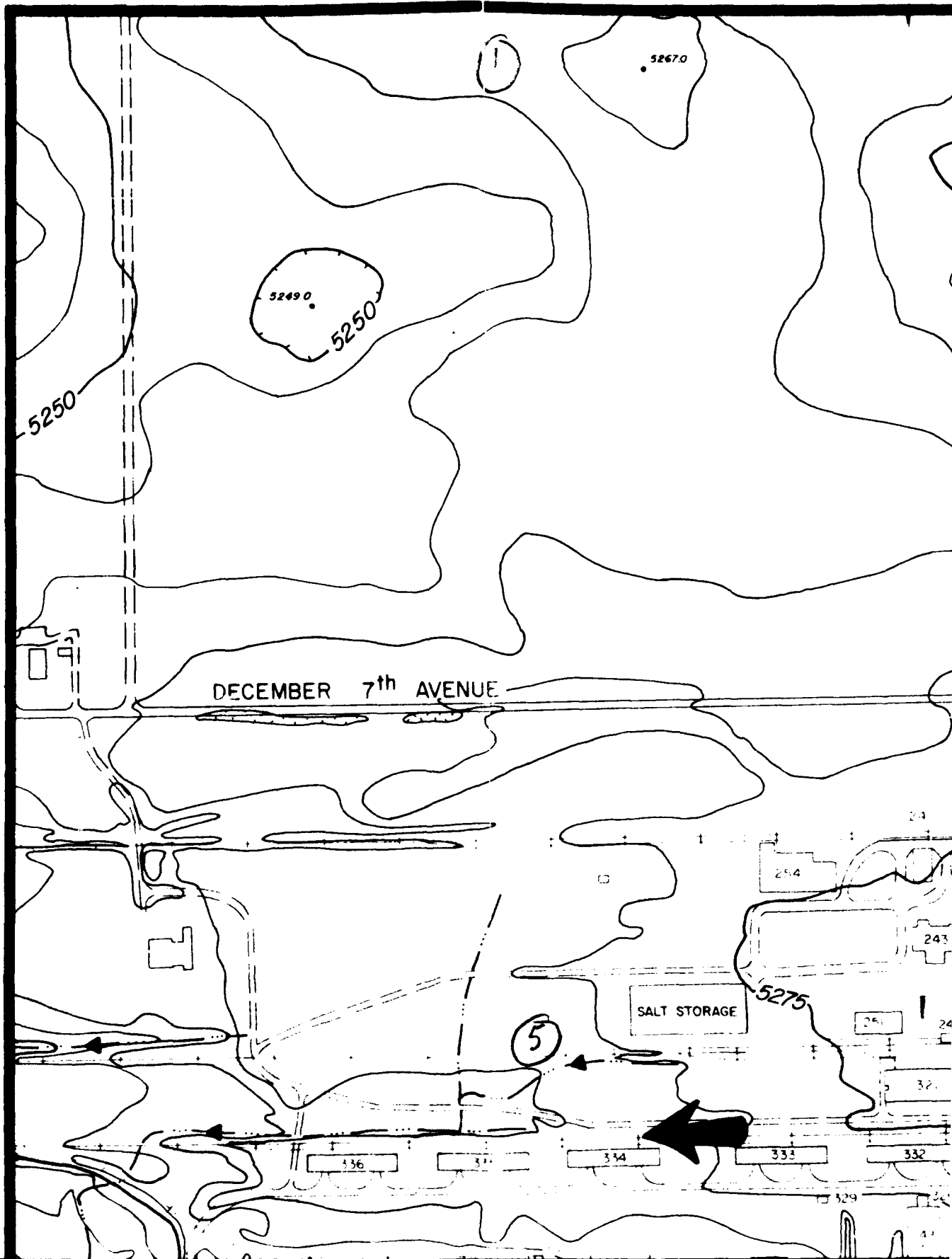
PLATE 24S-1

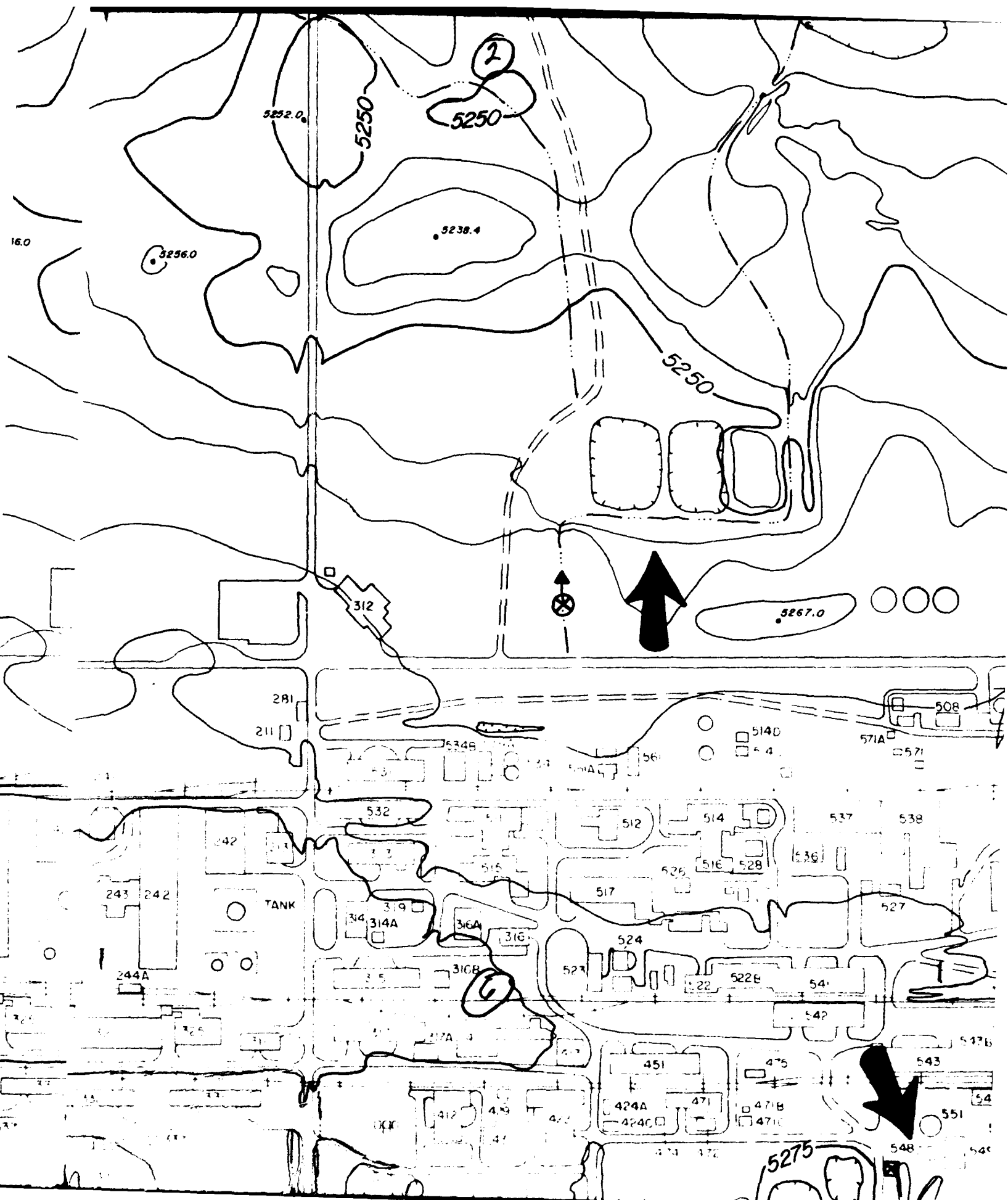
**Vi
Ph**

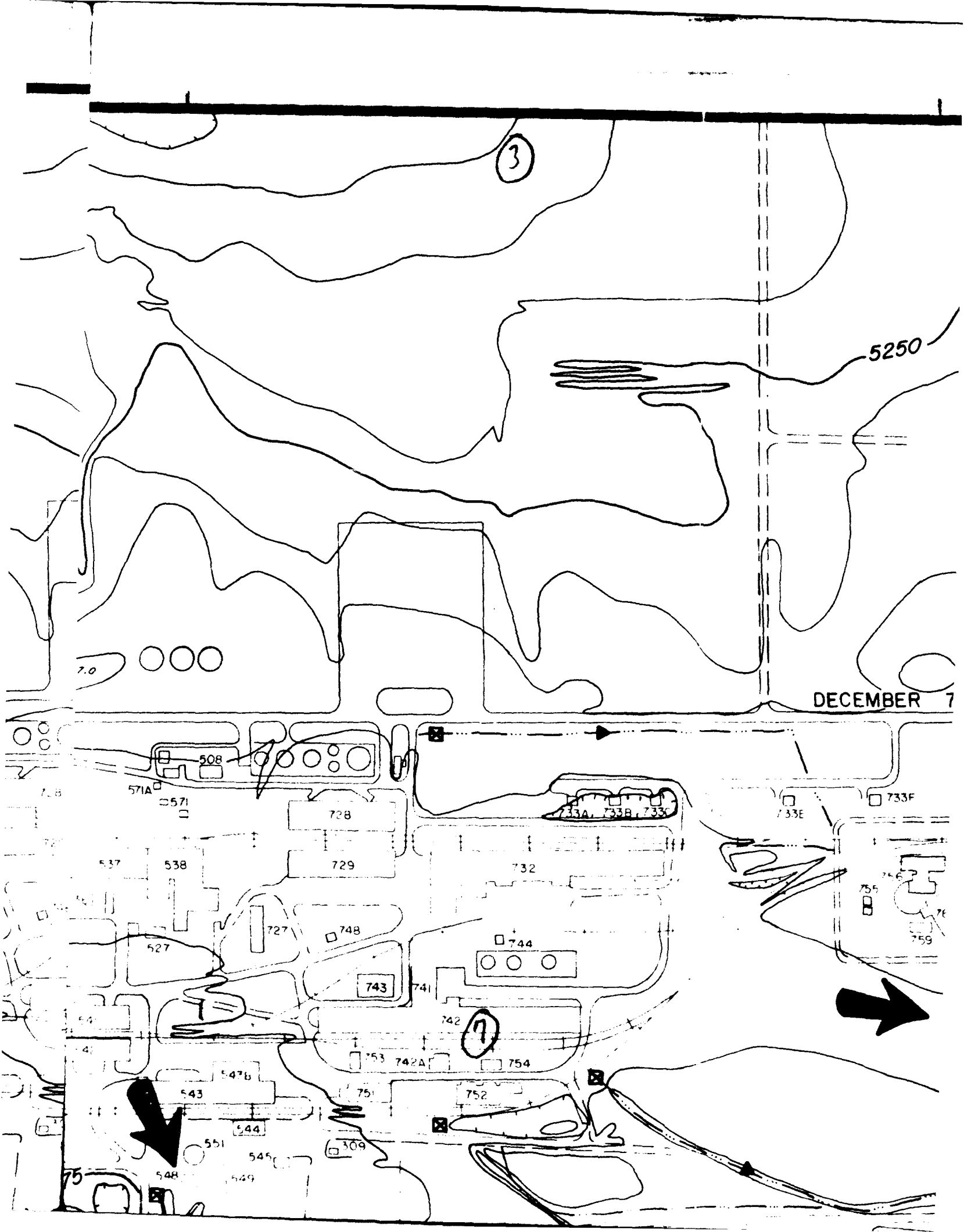
**Vicinity Map Showing
Phase I Boring Locations**

**Ro
Pr**

**Rocky Mountain Arsenal, Task 24
Prepared by: Ebasco Services Incorporated**





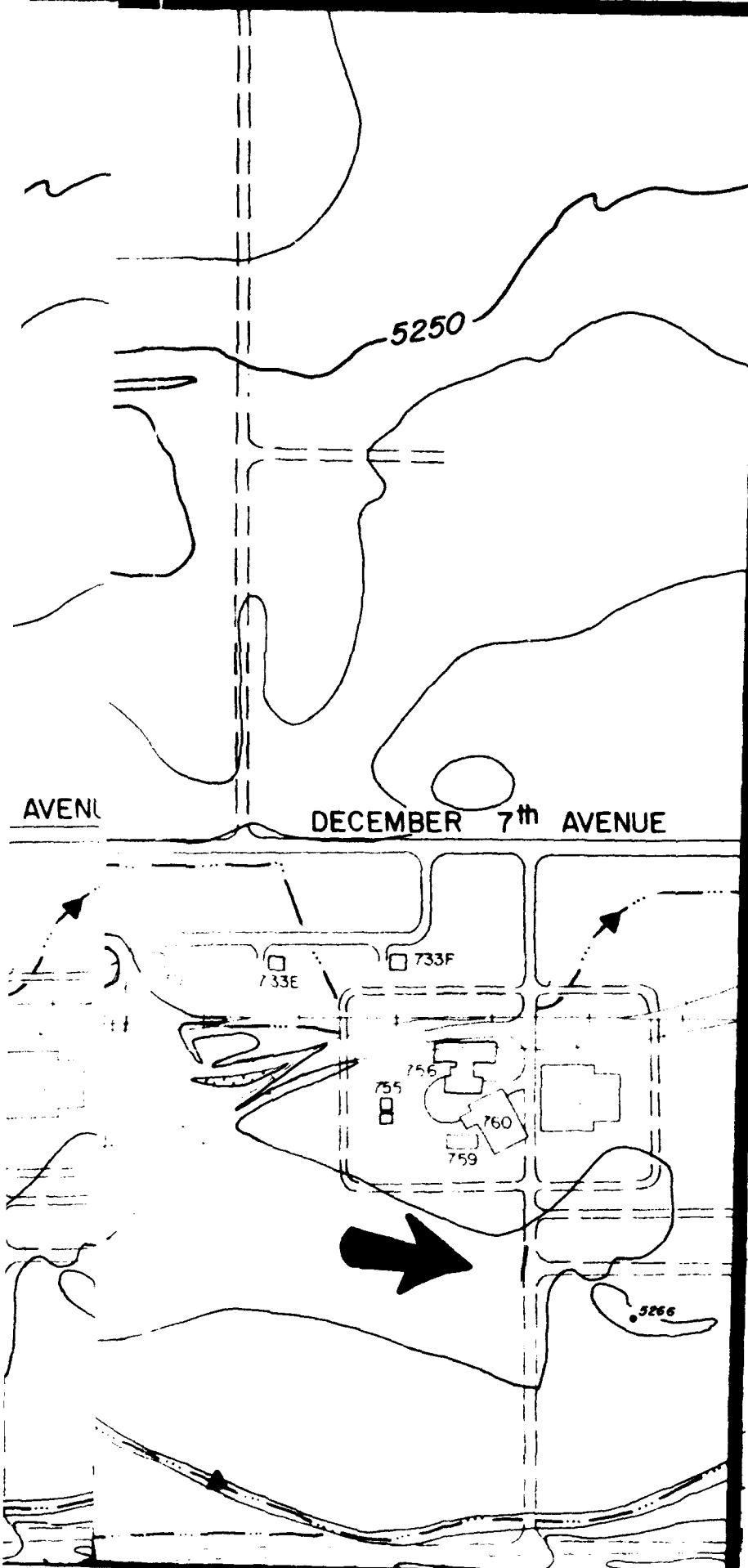


3

5250

DECEMBER 7

7

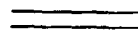


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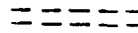
LEGEND



Building, Existing



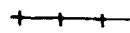
Road, Paved



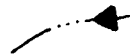
Road, Unpaved

2

Section Number



Railroad



Stream or Ditch and
Direction of Water Flow



Abandoned Ditch



ESE Surface Water Sampling
Point, 1986b/RIC 86317R01



Spain and Gregg Surface
Water Sampling Points,
1983/RIC 83228R01



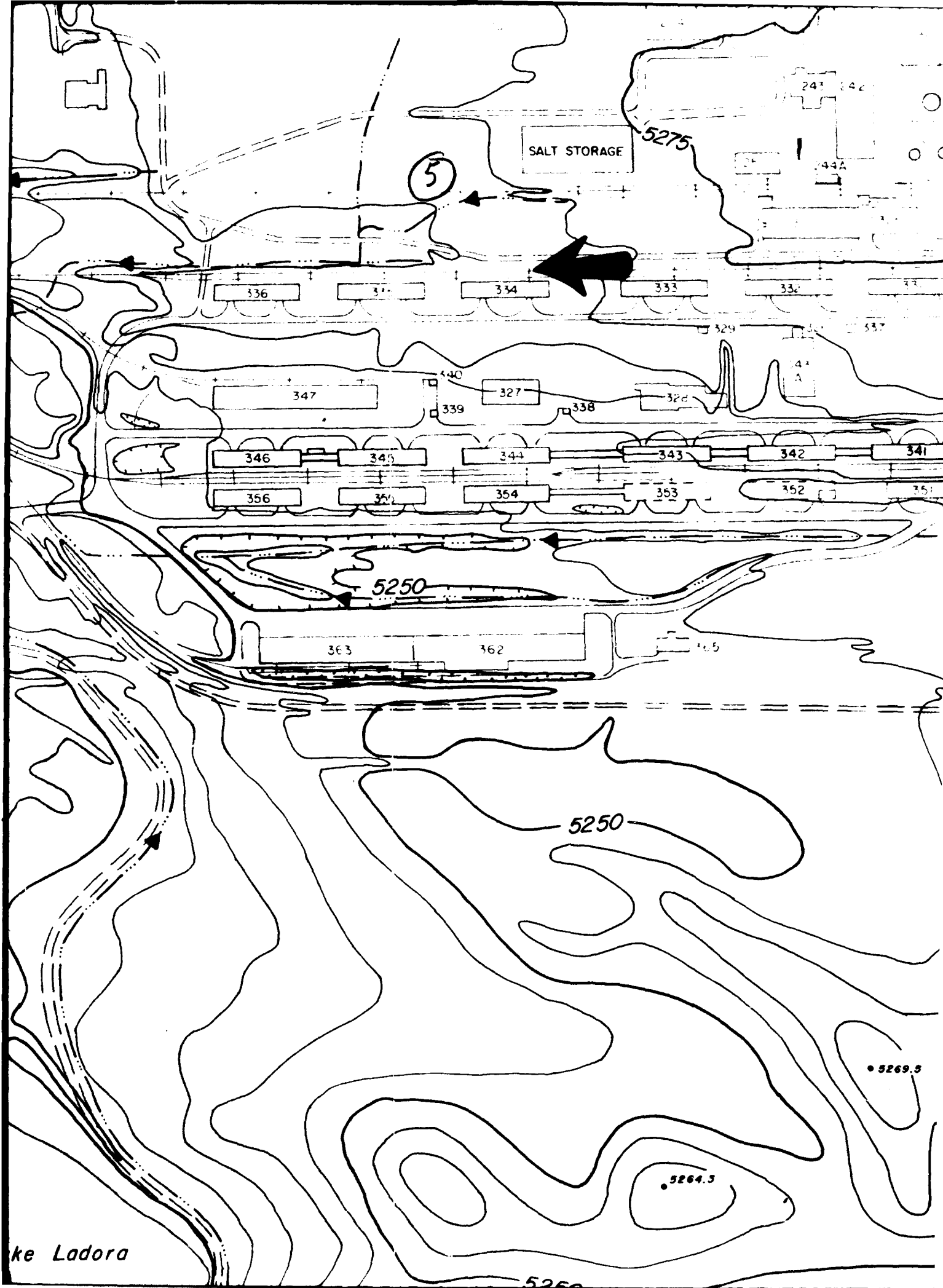
Predominant Direction of
Surface Water Flow

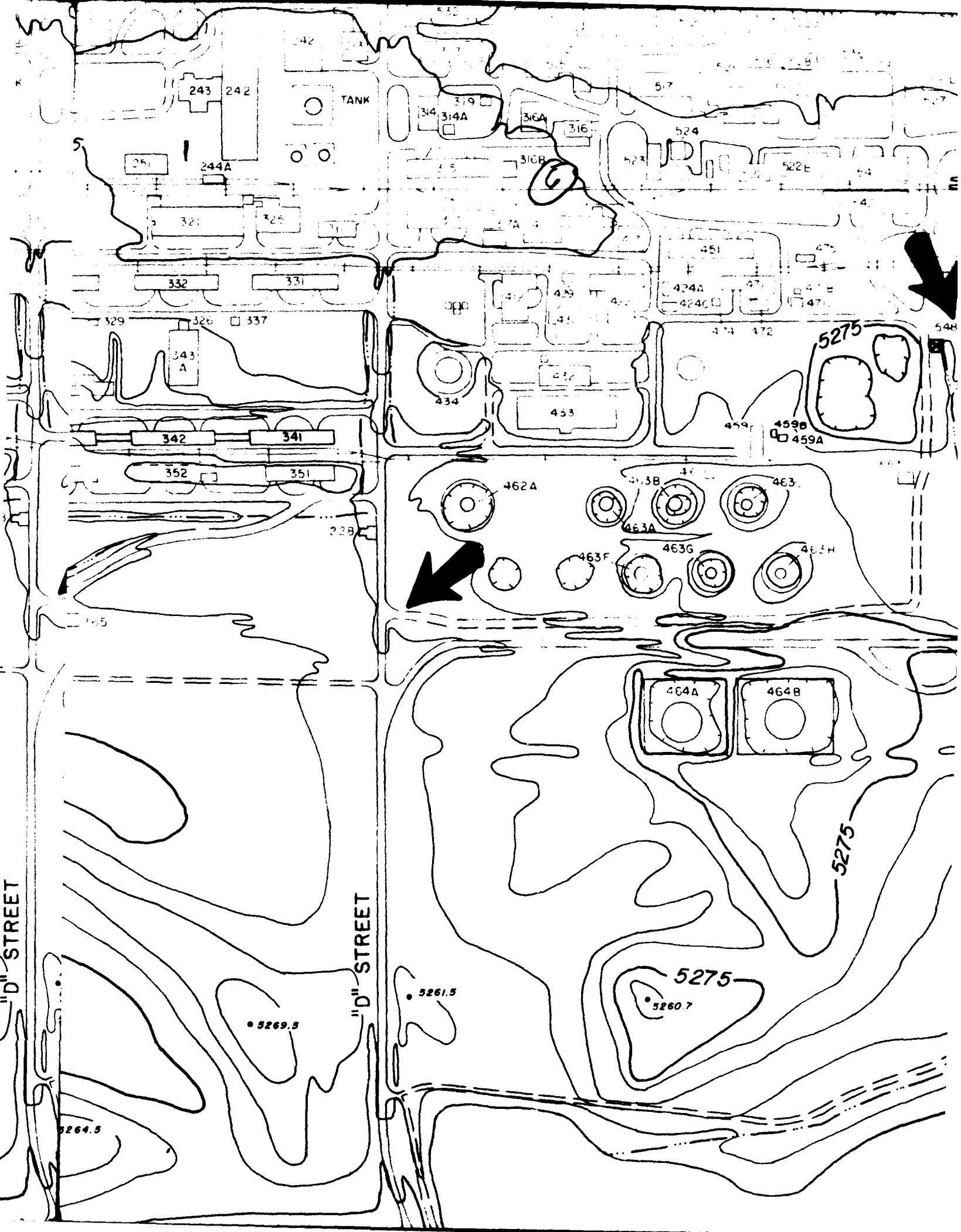
5250-

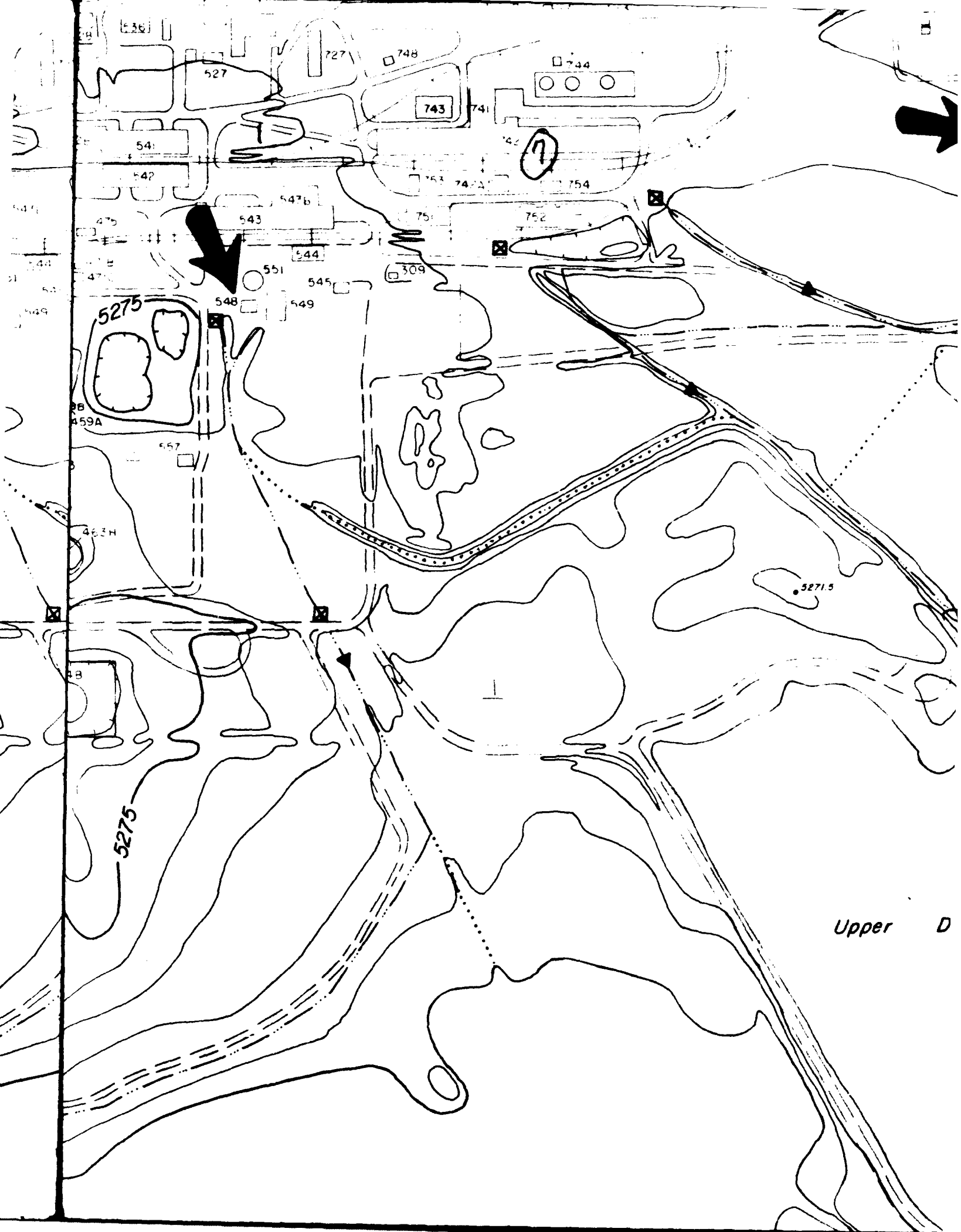
Ground Elevation Above
Mean Sea Level

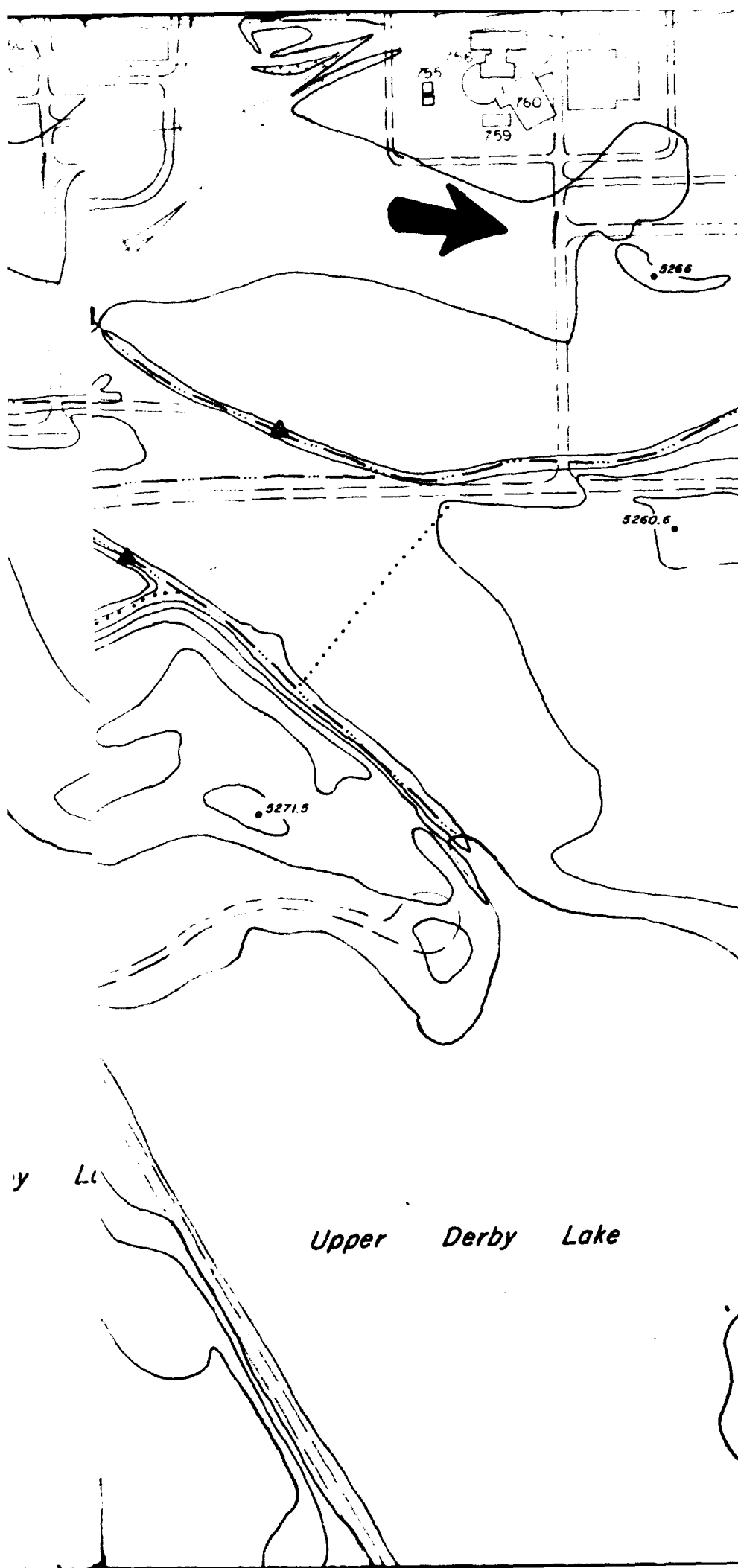
Contour Interval is 5 Feet

(8)

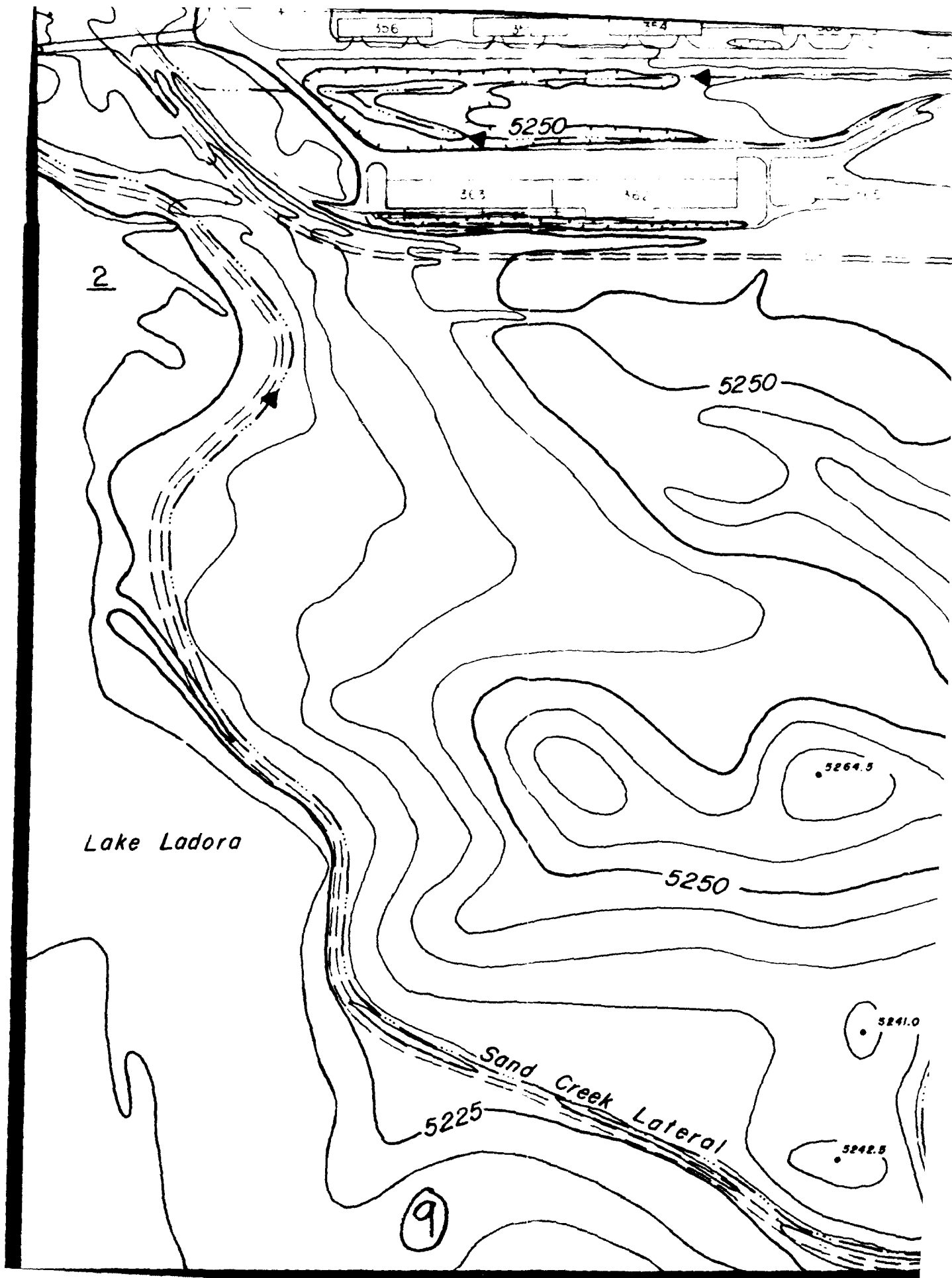


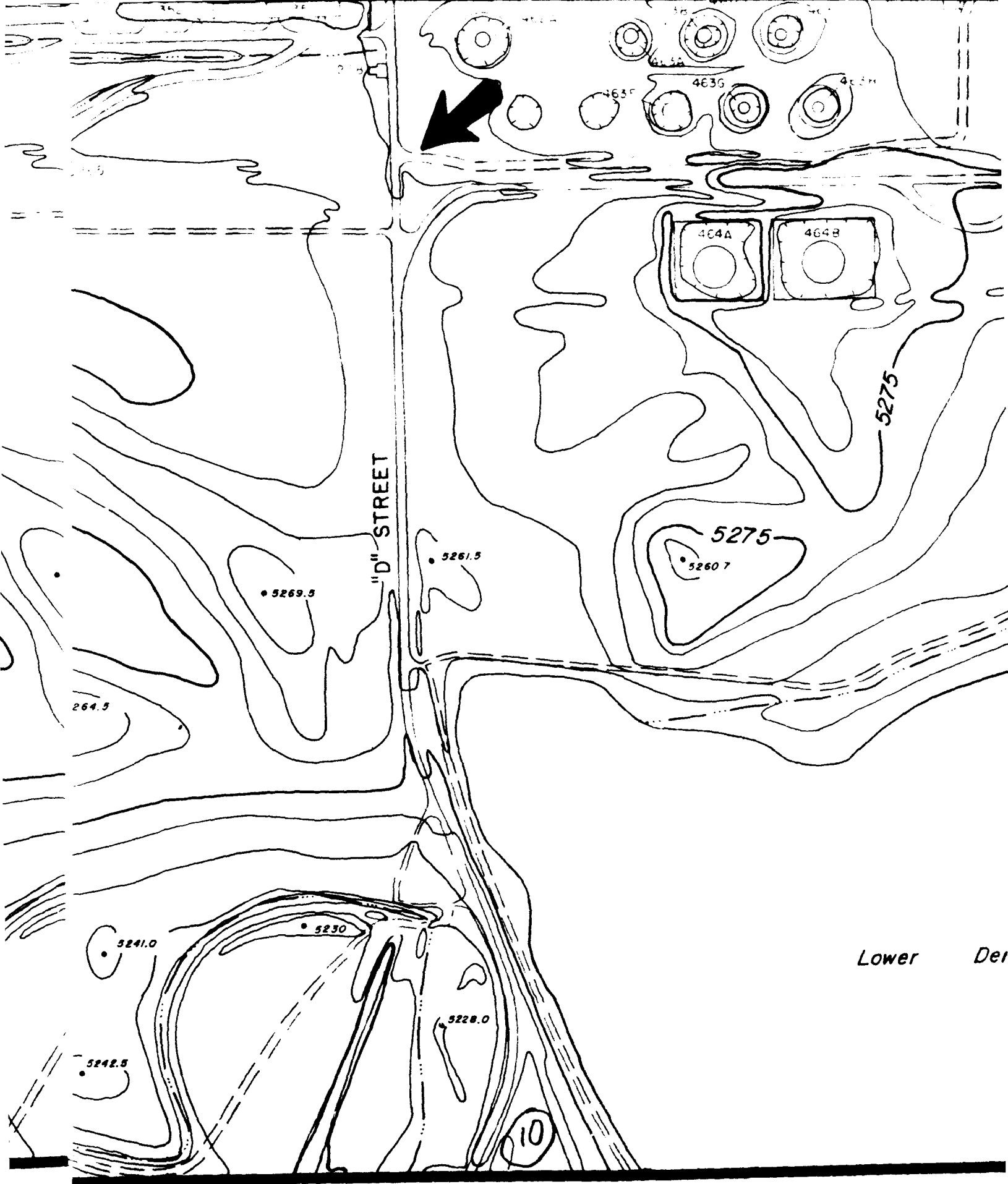




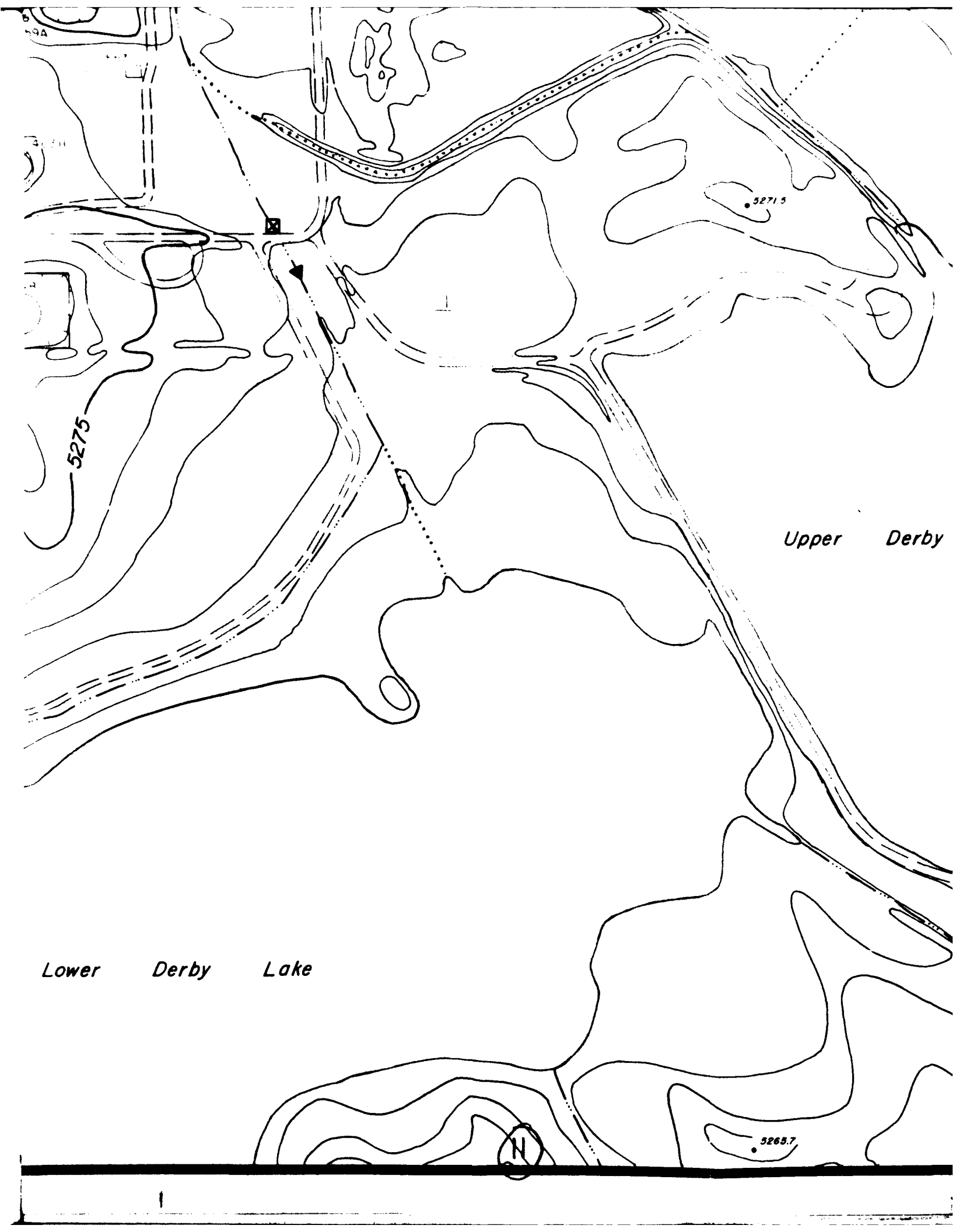


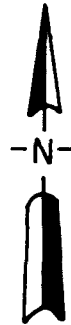
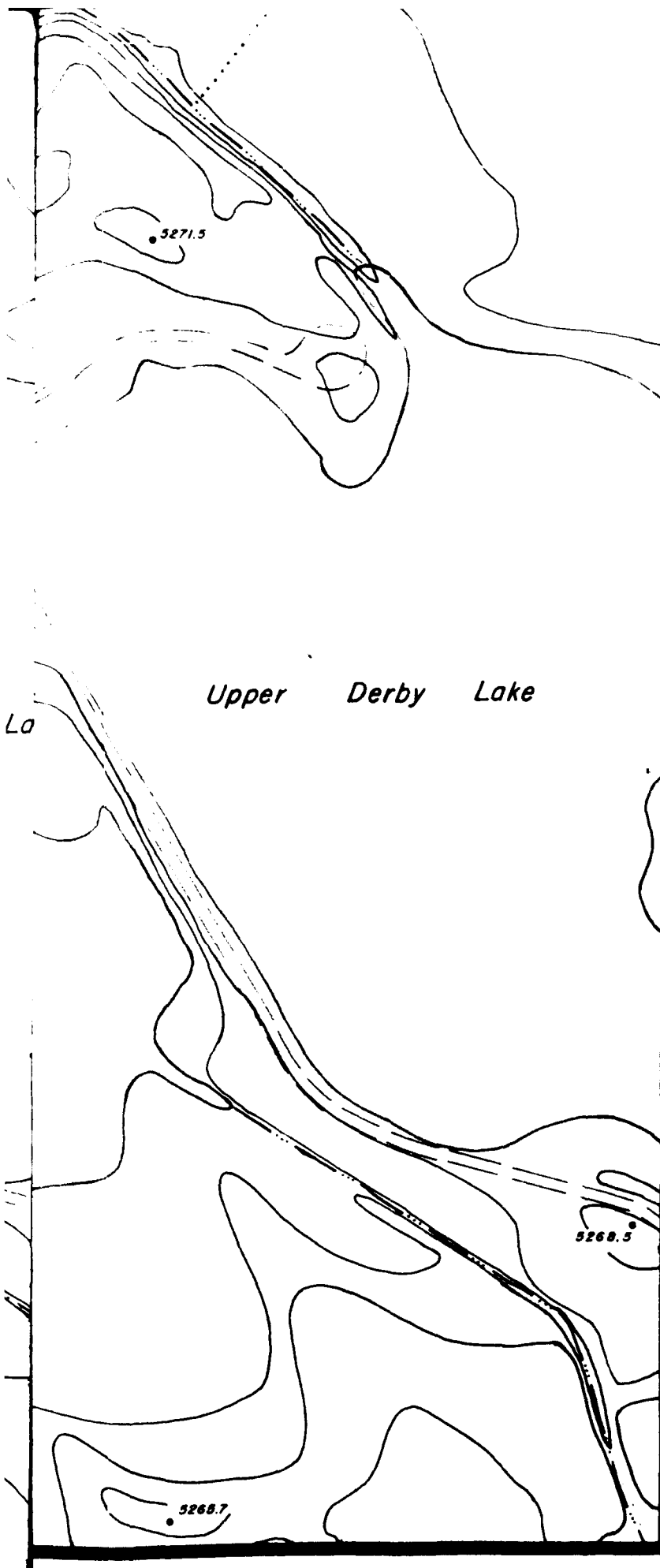
Upper Derby Lake





Lower Der





0 300 600
FEET

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Aberdeen Proving Ground,
Maryland

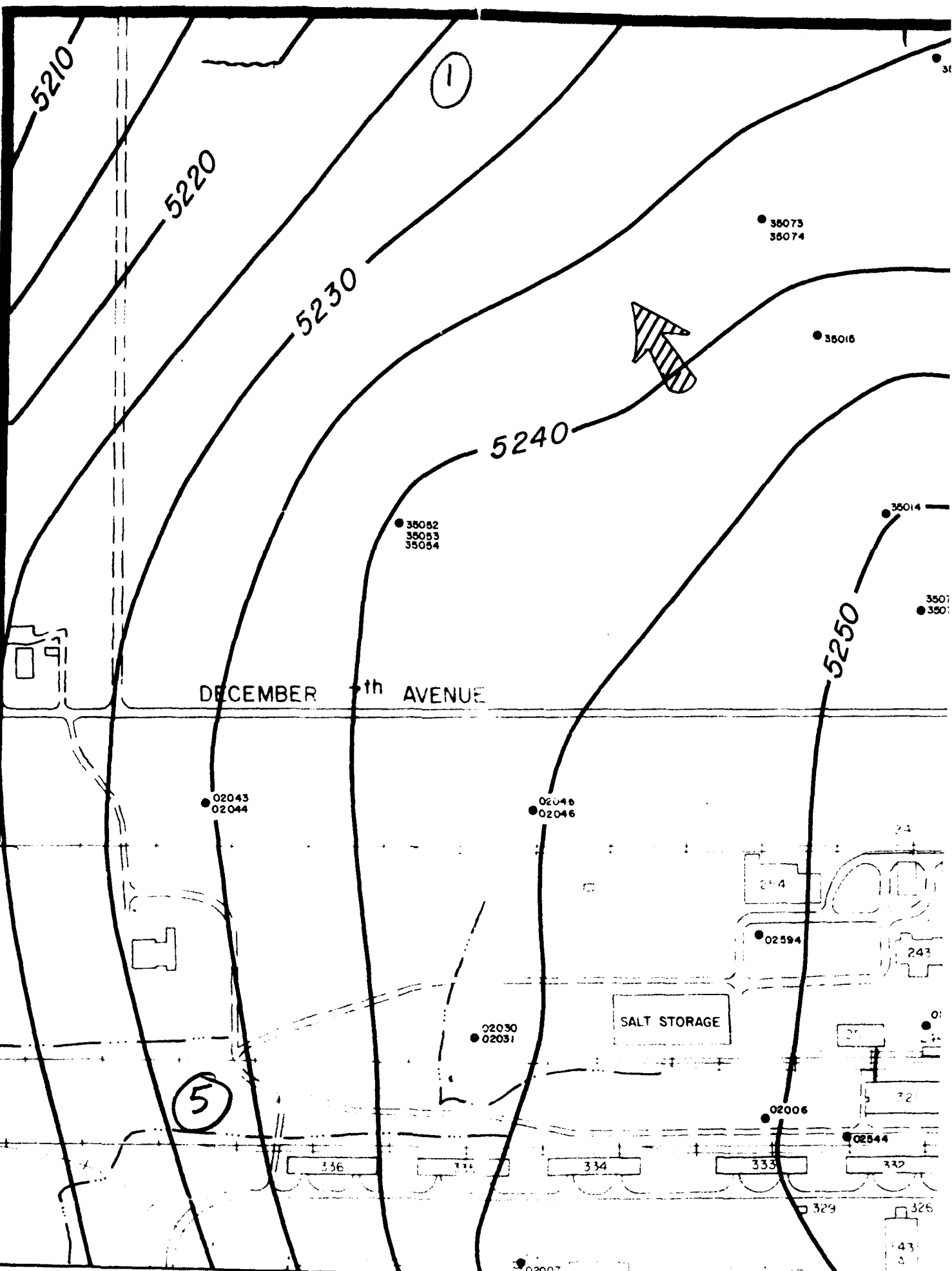
By: Ebasco Services Incorporated
Drafted: 12/28/87

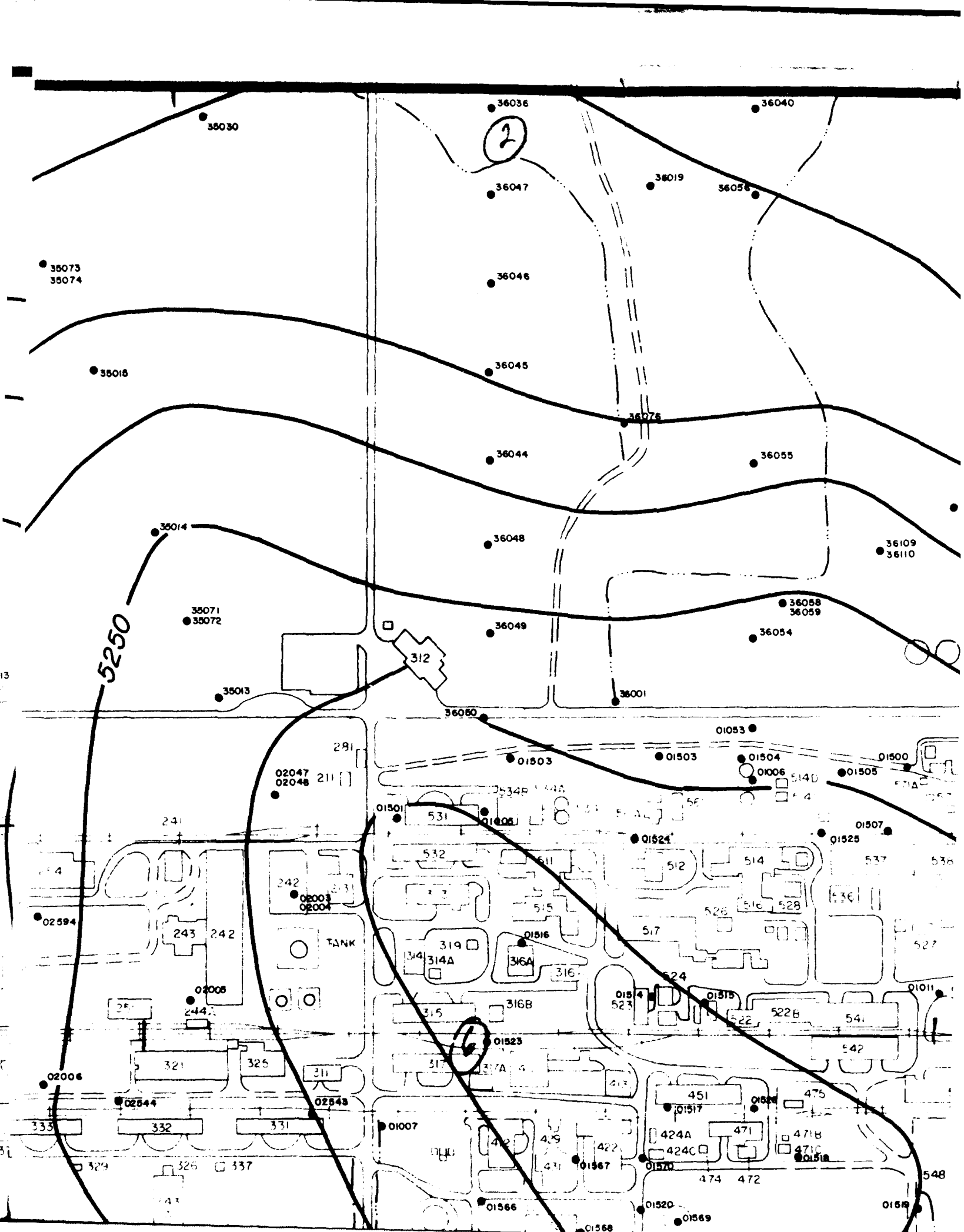
PLATE 24S-2

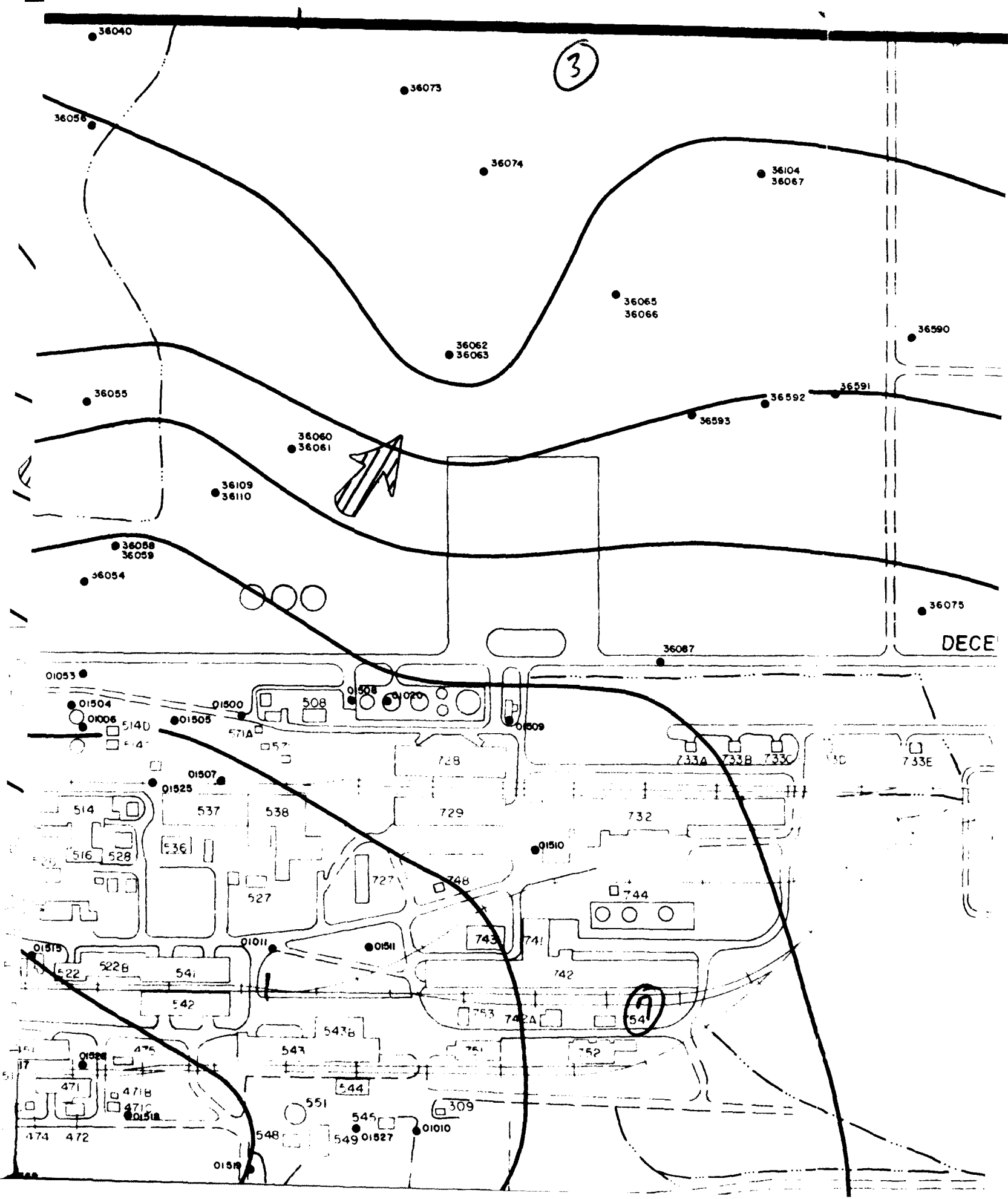
Topography and Surface
Drainage

Rocky Mountain Arsenal, Task 24

12





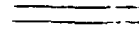


④

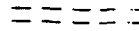
LEGEND



Building, Existing



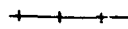
Road, Paved



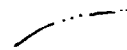
Road, Unpaved

2

Section Number



Railroad



Stream or Ditch



Abandoned Ditch



Monitoring Well, with Number

Water Table Elevation
(From ESE, 1988; Water
Level Elevation Alluvial
Aquifer, Fourth Quarter,
Fiscal Year 1986, Summer
1986)

—5260—



General Direction of Groundwater Flow

Contour Interval is 5 Feet

⑧

● 36104
36067

36590

36591

36592

36075

DECEMBER 7TH AVENUE

01008

733F

7 33E

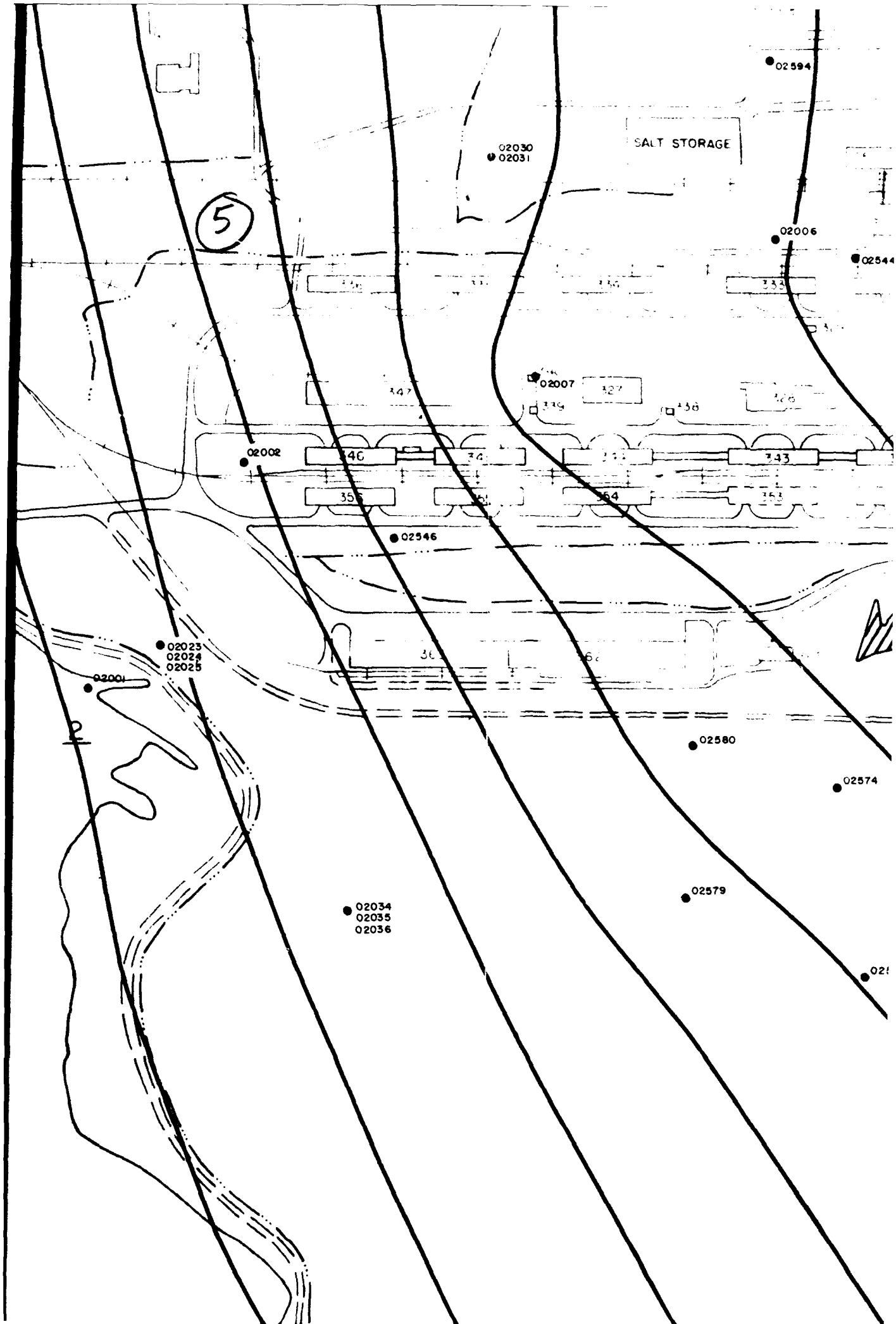
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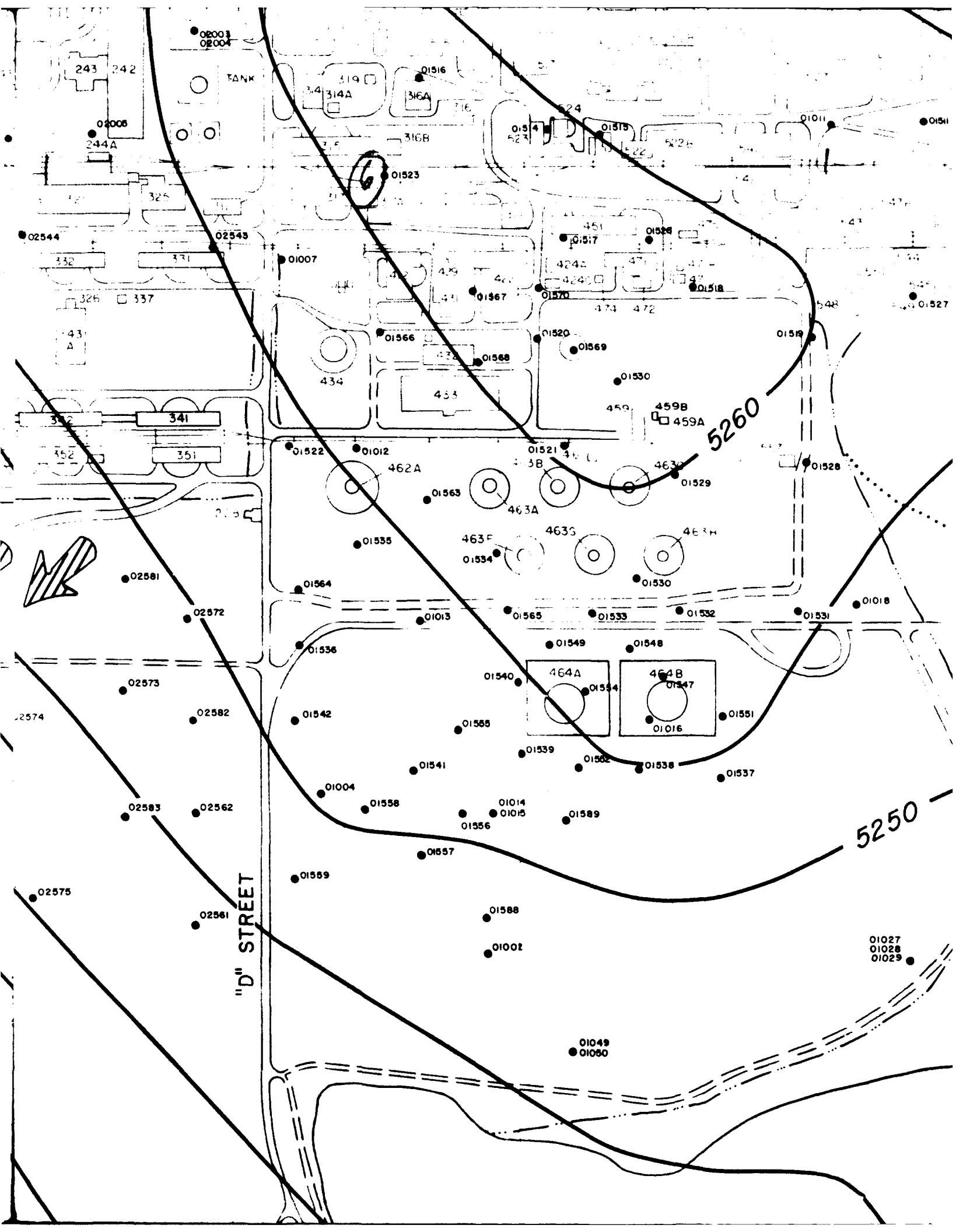
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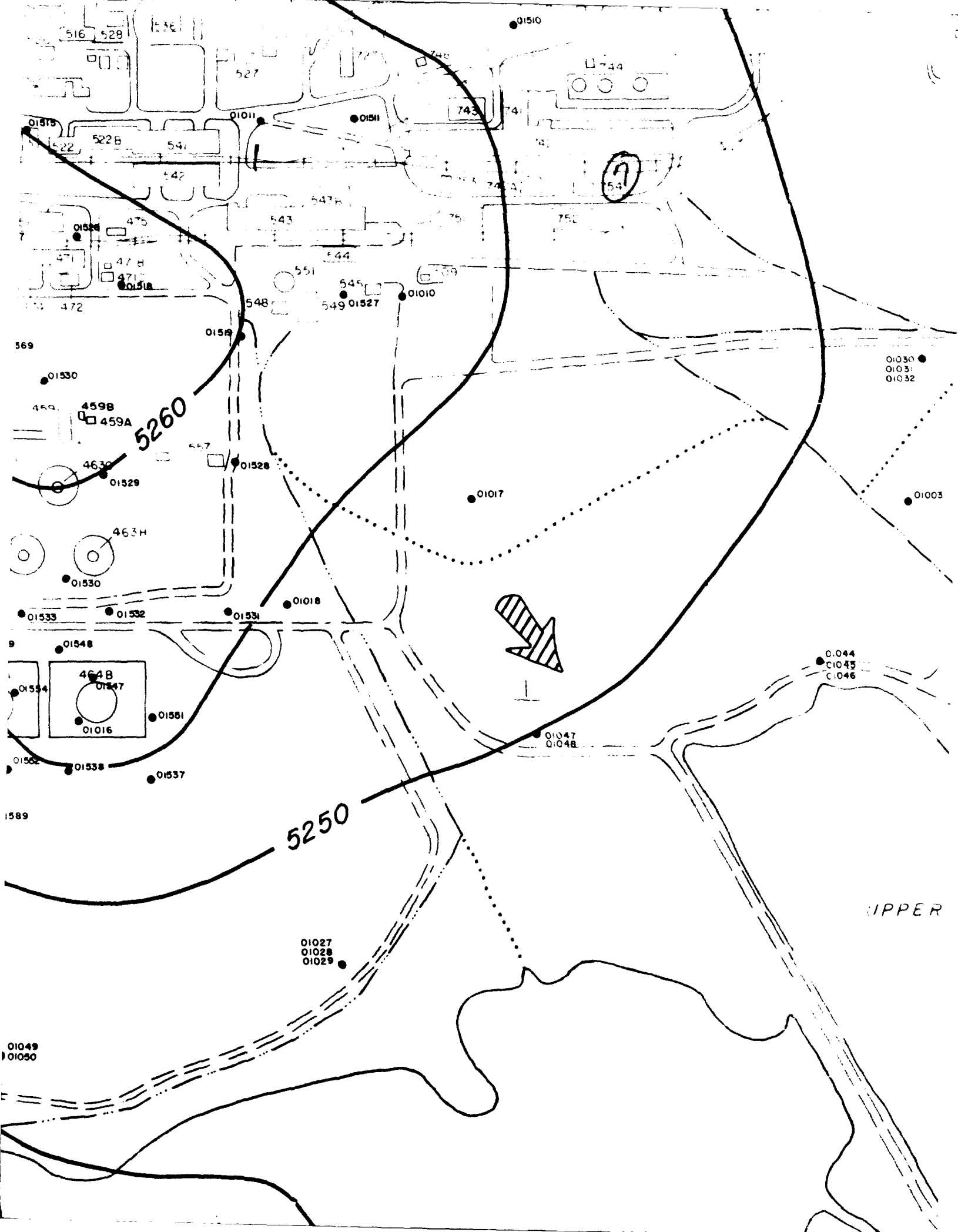
760

59

01030 ●
01031
01032



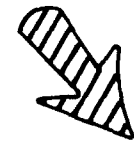




5260

5250

UPPER



01027
01028
01029

01049
01050

01044
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01046

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01003

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01018

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743

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54

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751

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542

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522B

522

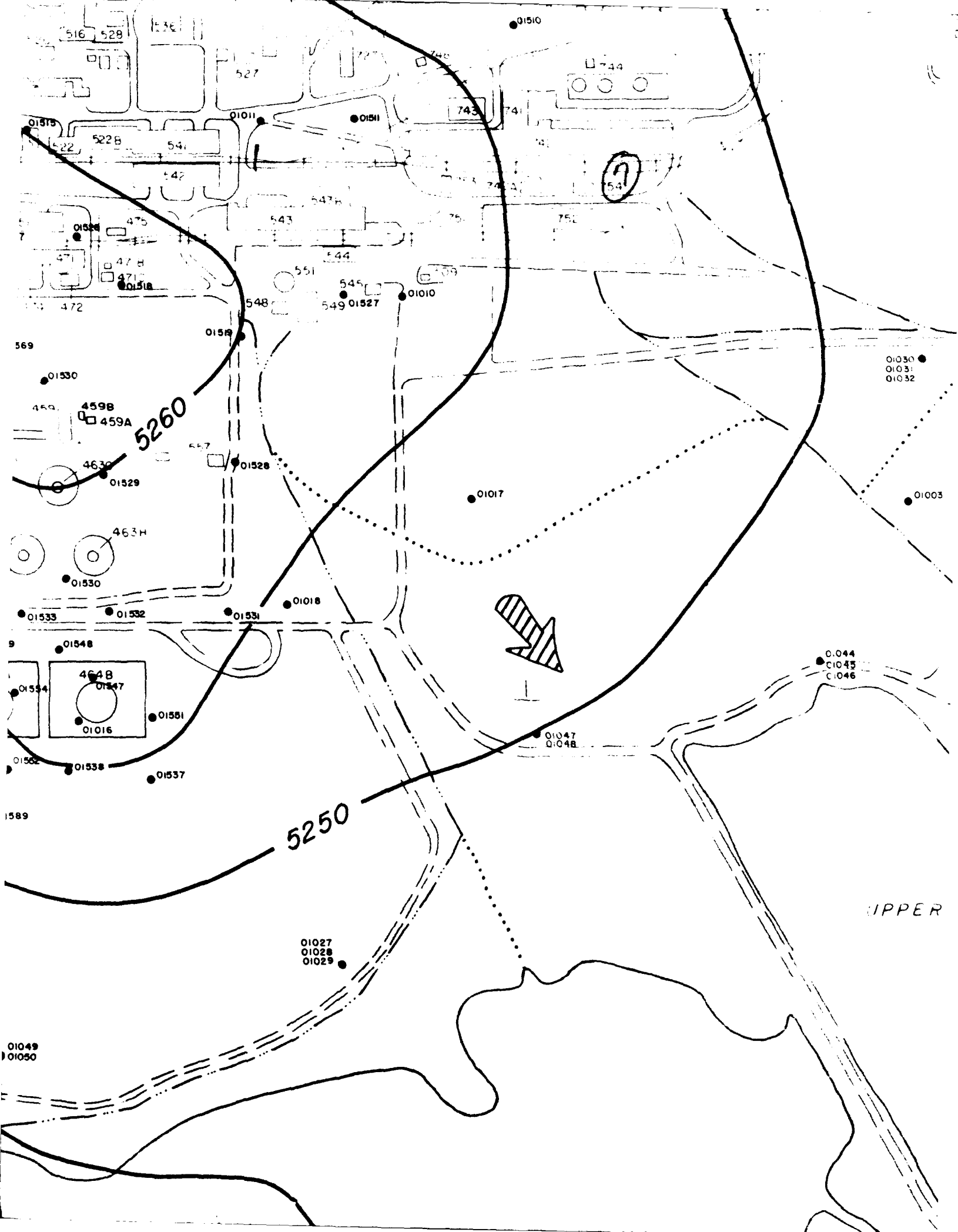
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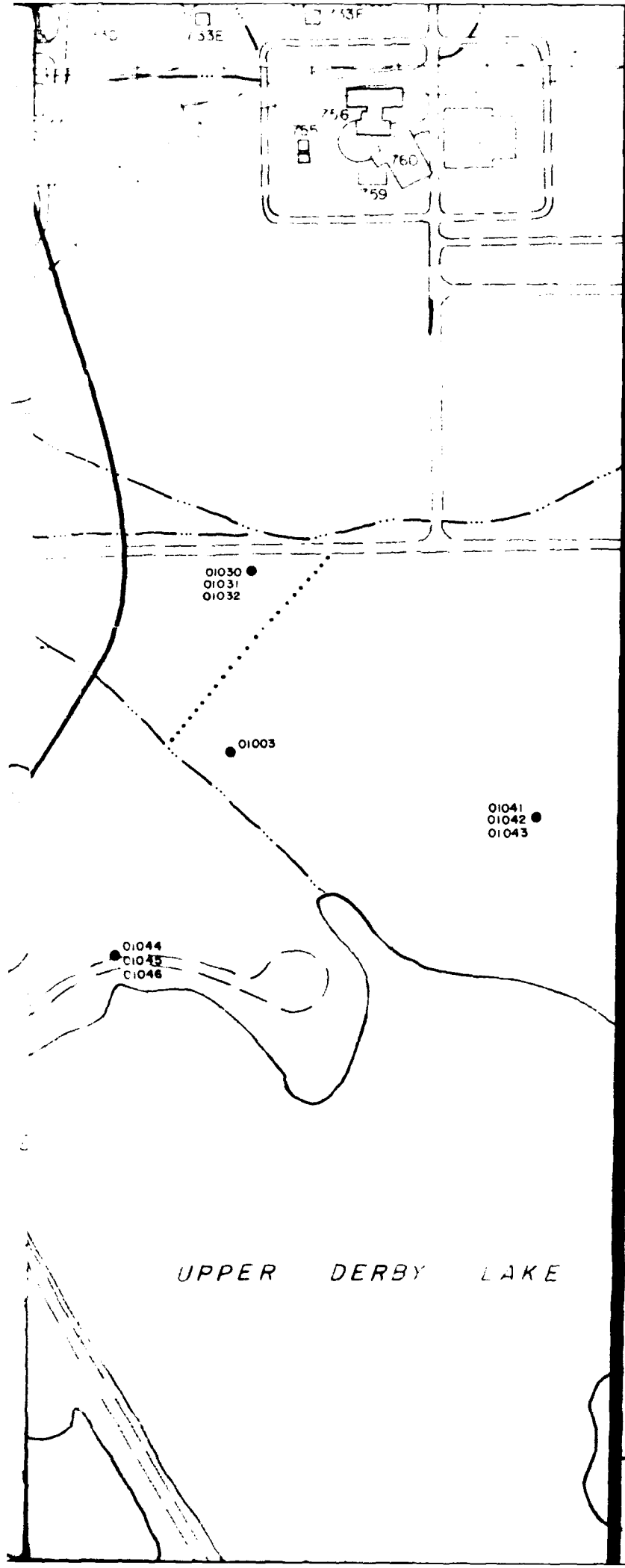
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536

1589

9

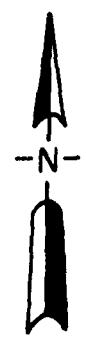




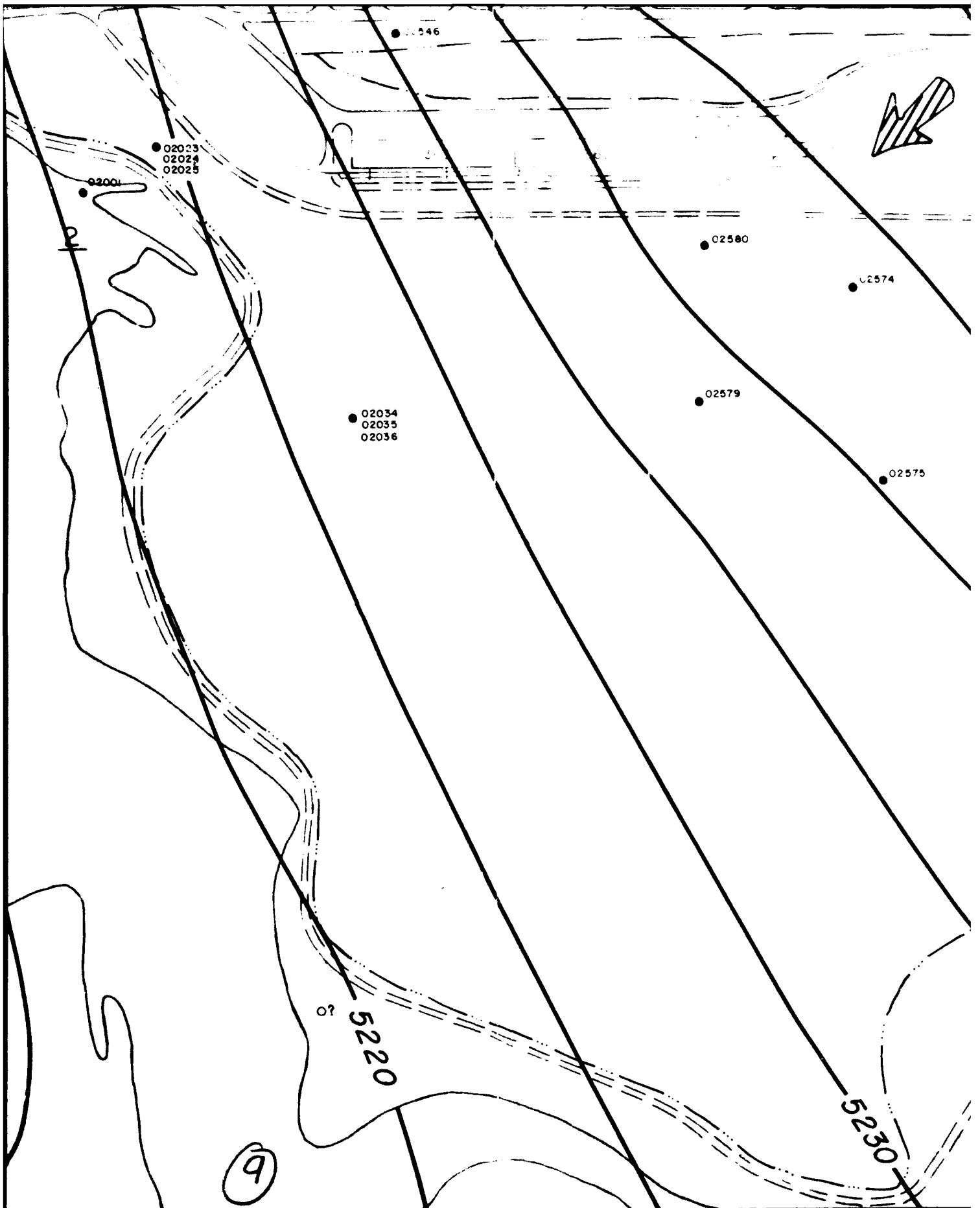
General Direction of
Groundwater Flow

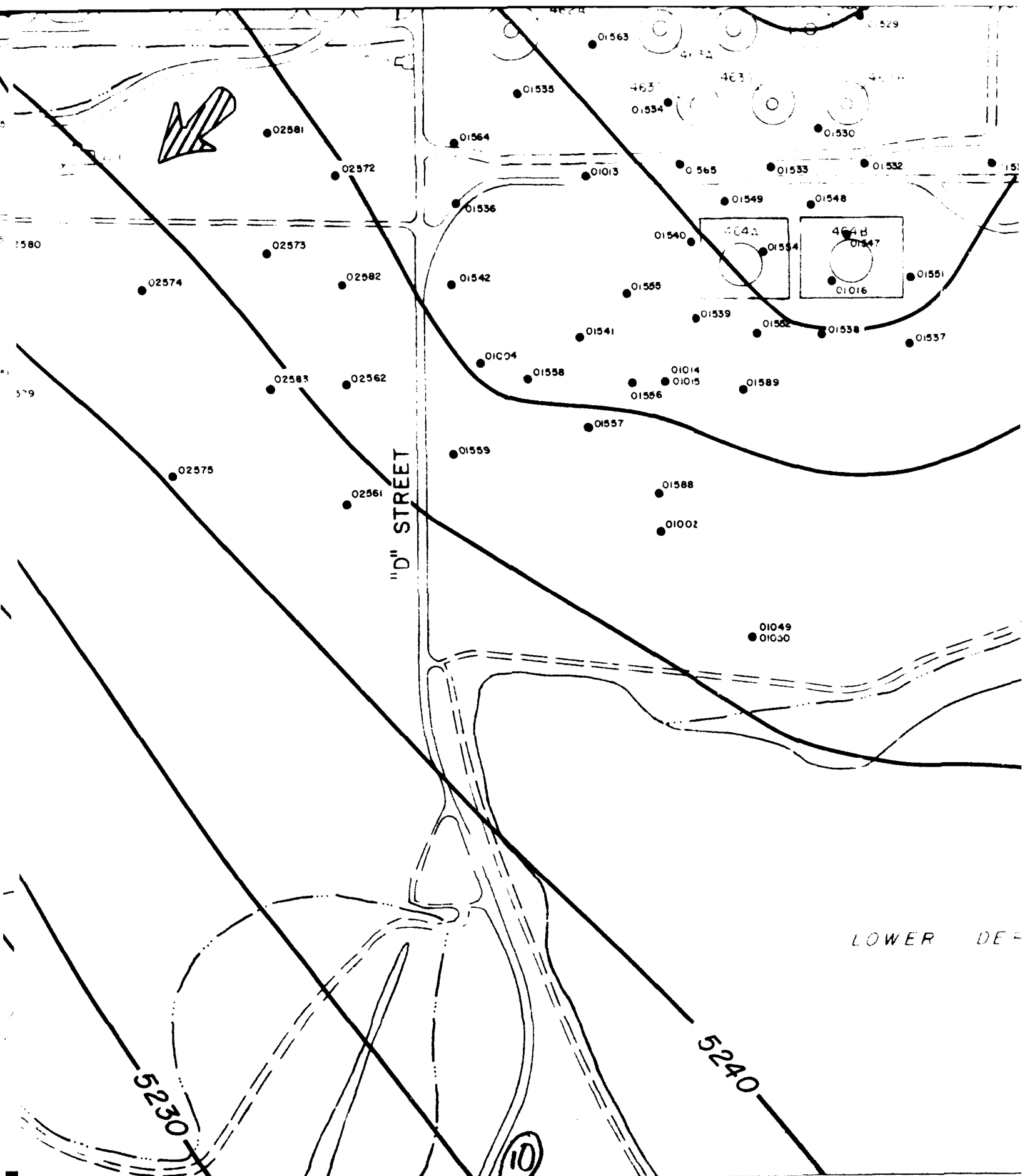
Contour Interval is 5 Feet

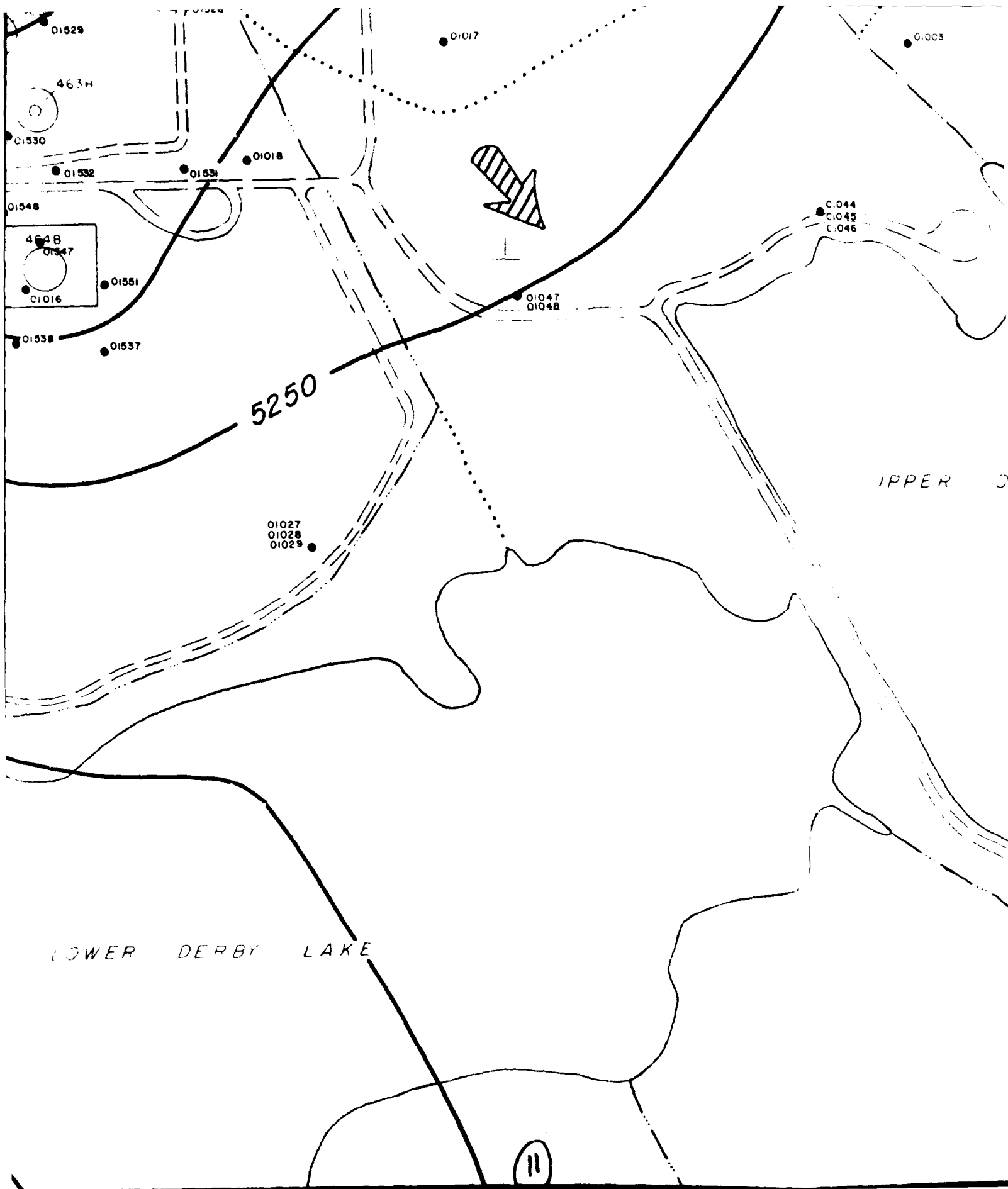
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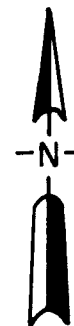


Prepared for:









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Maryland

By: Ebasco Services Incorporated
Drafted: 12/28/87

PLATE 24S-3

Water Table Elevations
and Generalized
Groundwater Flow Direction

Rocky Mountain Arsenal, Task 24

12