HYDROGEOLOGIC, SOIL, AND WATER-QUALITY DATA FOR J-FIELD, ABERDEEN PROVING GROUND, MARYLAND, 1989-94

By Daniel J. Phelan, Elizabeth H. Marchand, Martha L. Cashel, Michael T. Koterba, Lisa D. Olsen, and Peggy R. Nemoff

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HYDROGEOLOGIC, SOIL, AND WATER-QUALITY DATA FOR J-FIELD, ABERDEEN PROVING GROUND, MARYLAND, 1989-94

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ABSTRACT

J-Field is located at the southernmost tip of the Gunpowder Neck Peninsula on the western shore of the Chesapeake Bay in the Edgewood Area of Aberdeen Proving Ground, Maryland. J-Field has been used by the U.S. Army to test munitions filled with chemical-warfare agents and to dispose of toxic chemicals, chemical-warfare agents, and explosives by open-pit burning. This report presents data collected by the U.S. Geological Survey from November 1989 through September 1994 as part of a remedial investigation of J-Field, Aberdeen Proving Ground, Maryland, in response to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). Hydrogeologic data, soil-gas and soil-quality data, and water-quality data are included.

INTRODUCTION

J-Field is located at the southernmost tip of the Gunpowder Neck Peninsula on the western shore of the Chesapeake Bay in the Edgewood Area of Aberdeen Proving Ground, Maryland (fig. 1). J-Field has been used by the U.S. Army to test munitions filled with chemical-warfare agents and to dispose of toxic chemicals, chemical-warfare agents, and explosives by open-pit burning. Testing and disposal began shortly after World War I and continued into the 1970's. Presently (1996), only emergency disposal operations are conducted at J-Field.

In 1986, J-Field was placed under the regulations described by the Resource Conservation and Recovery Act (RCRA) that govern operations at hazardous-waste disposal sites. In 1987, the U.S. Army contracted with the U.S. Geological Survey (USGS) to conduct a Hydrogeologic Assessment (HGA) of J-Field. The USGS began a study to determine the hydrogeologic framework and the extent of ground-water contamination at J-Field. In 1990, all of the Edgewood Area of Aberdeen Proving Ground, including J-Field, was added to the National Priority List (NPL) and therefore was subject to the regulations described by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), also known as Superfund. In order to complete all of the CERCLA requirements, a Remedial Investigation (RI) and Feasibility Study (FS) were required. This report presents results from part of that data-collection effort.

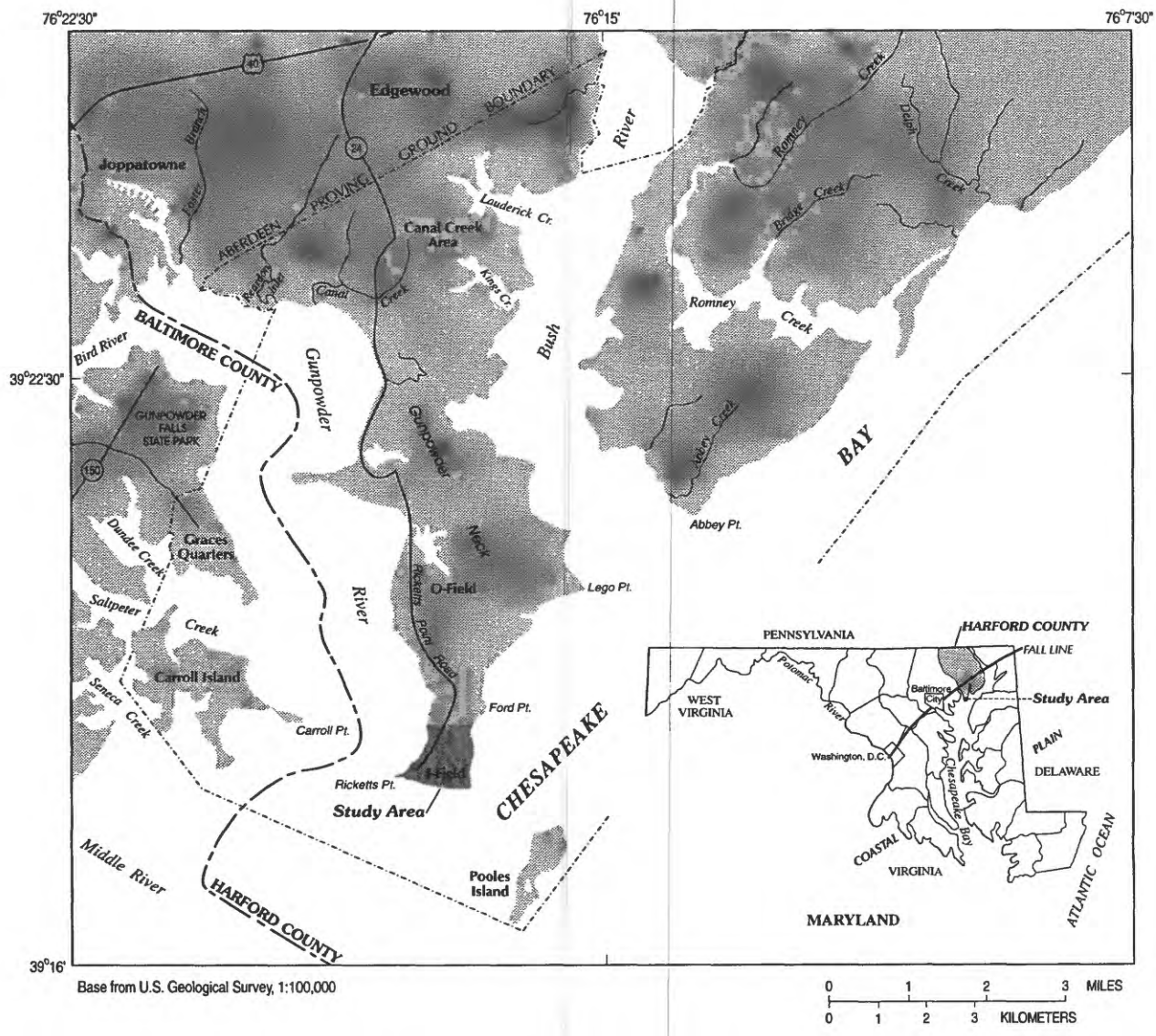

Figure 1.--Location of J-Field study area, Aberdeen Proving Ground, Maryland.

Purpose and Scope

The purpose of this report is to present data collected by the USGS from November 1989 through September 1994 as part of the CERCLA remedial investigation of J-Field, Aberdeen Proving Ground, Maryland. Hydrogeologic data, soil-gas and soil-quality data, and water-quality data are presented. All illustrations (except for figs. 1-5) and tables are located at the back of the report. This report summarizes data used to describe the hydrogeologic framework and soil gas (Hughes, 1993), ground-water flow, and possible effects of remedial actions at J-Field (Hughes, 1995).

Description of Study Area

The topography of J-Field is relatively flat. Uplands located along the western side of the study area are approximately 15 ft above sea level and gently slope either toward shores of the surrounding estuaries or toward marsh areas. Tidal estuaries surround J-Field on three sides: the Gunpowder River is to the west and the Chesapeake Bay is to the south and east. Vegetation at J-Field ranges from open fields and second-growth forest to nontidal marsh.

Four major hydrogeologic units were identified beneath J-Field by Hughes (1993). From land surface downward these are (1) the surficial aquifer [unit A of the Talbot Formation], (2) the confining unit [unit B of the Talbot Formation], (3) the confined aquifer [unit C of the Talbot Formation], and (4) the confining units and confined aquifers in the Patapsco Formation.

Investigations at J-Field by the USGS focused on the three solid waste-management units (SWMU's): the toxic-materials disposal area, the white-phosphorus (WP) disposal area, and the riot-control-agent disposal area (fig. 2). The immediate vicinities of the toxic-materials and WP disposal areas are clear of trees and brush and are usually mowed once a year. At both the toxic and WP disposal areas, there are two parallel disposal pits that are approximately 15 ft apart. Each pit is 10 ft deep and approximately 200 ft long by 15 ft wide. Remnants of older pits extend approximately 100 ft into the marsh southeast of the existing pits at the toxic-materials disposal area. The riot-control-agent disposal area contains a single pit, approximately 500 ft long, and is now in a wooded area. All of the pits were originally designed so that any precipitation that collected in them would drain into the adjacent marsh or river.

The South Beach demolition area was used primarily for the detonation of high-explosive munitions. Because of the high rates of shoreline erosion in this part of J-Field, the area is now offshore in the Chesapeake Bay. Its presence is marked only by the abundant fragments of munitions that can be observed at low tide (Hughes, 1993).

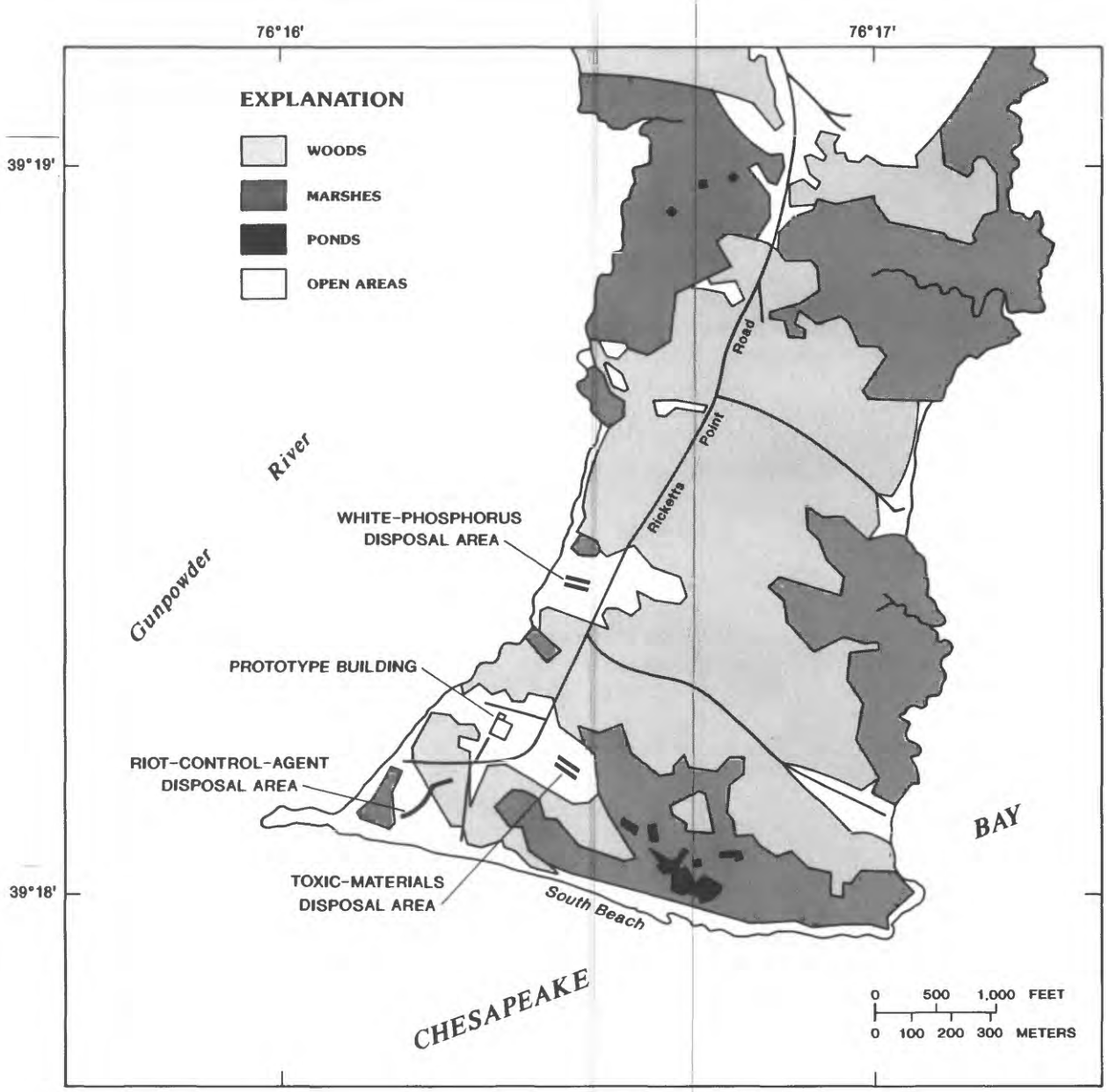

Figure 2.--Location of solid-waste-management units, the Prototype Building, South Beach, and land cover types at J-Field, Aberdeen Proving Ground, Maryland.

The most prominent structure at J-field is the Prototype Building (fig. 2). The building is a three-story, open concrete structure that was probably used to store chemicals, although there are no known records of such use. The building was designed to test the effectiveness of weapons on German building construction during World War II. There are no pits or other obvious signs of disposal activities in the vicinity of the building (Hughes, 1993).

Previous Investigations

The first environmental survey of J-Field was conducted during 1977-78 by the U.S. Army Toxic and Hazardous Materials Agency (USATHAMA) (Nemeth and others, 1983). The study involved conducting a records search; collecting hydrogeologic data; and sampling soil, sediment, ground water, and surface water for chemical analysis. Wells installed for the study were screened from approximately 6 to 20 ft below land surface. Nemeth and others (1983) concluded that deposits of interbedded sand and clay encountered during test-hole drilling belonged to the Cretaceous Potomac Group. Water levels measured in observation wells indicated that lateral ground-water flow was from the upland areas toward the adjacent rivers or marsh, and that the surface of the water table generally followed the configuration of the land surface. Soil, borehole sediment, and surface-water samples collected during the study did not contain any contaminants. Ground-water samples contained low concentrations of volatile organic compounds. On the basis of low or undetectable concentrations, Nemeth and others (1983) concluded that the concentrations of contaminants at J-Field were not a threat to the environment and that future monitoring was not necessary.

Munitions disposal was studied in 1983 by Princeton Aqua Science (1984) to evaluate the environmental effects of the disposal operations at J-Field. The study involved site inspections, interviews with appropriate site-operations personnel, and field investigations. Nine observation wells were installed and screened from 5 to approximately 20 ft below land surface. During drilling, borehole samples were collected and analyzed for chemical constituents. Borehole-sediment samples at the toxic-materials disposal area were found to contain concentrations of arsenic, cadmium, lead, and mercury that were higher than those in adjacent areas. After installation of the wells was completed, ground-water samples were collected and analyzed for chemical constituents. Ground-water samples collected from wells at the toxic-materials disposal area exceeded the 1983 USEPA Maximum Contaminant Levels (MCL's) for nitrates, coliform bacteria, and gross-beta radiation. Secondary Maximum Contaminant Levels (SMCL's) for chloride, iron, manganese, and sulfate also were exceeded. At the WP disposal area, the primary MCL for coliform bacteria was exceeded and the SMCL's for iron and sulfate were exceeded. The study concluded that the burning operations were not adversely affecting ground-water quality, however, and the disposal practices did not need to be substantially altered (Princeton Aqua Science, 1984).

The RCRA Facility Assessment (Nemeth, 1989) contains the most comprehensive information available on the disposal of chemicals in the study area. The report reviews and summarizes previous work at J-Field and recommends continued investigations of the toxic-materials disposal area,

the WP disposal area, the riot-control-agent disposal area, the Prototype Building, and the South Beach area (fig. 2).

Hughes (1991) used marine-seismic profiling to define paleochannels in the surficial deposits at J-Field. Hughes (1993) defined the hydrogeology and the results of soil-gas sampling at J-Field. Several possible remedial actions were simulated using a ground-water-flow model (Hughes, 1995).

Description of Observation-Well Network

In 1989, 38 observation wells were drilled as part of this study and were used in conjunction with 20 existing wells to establish a water-level and ground-water-quality sampling network (fig. 3). Methods used for the drilling and construction of the wells, and the numbering system for the wells, are described in the following sections.

Borehole Drilling and Well Construction

Exploratory boreholes

Seven exploratory boreholes were drilled by the USGS to define the subsurface hydrogeologic framework (fig. 4). The boreholes were drilled with a mud-rotary technique to depths of approximately 300 ft below land surface. Drill cuttings were collected with a sieve from the mud returning at the top of the borehole. Split-spoon samples were collected when formation changes were determined on the basis of well cuttings or when changes occurred in the drill-rig response, such as a change in the penetration rate or bouncing of the drill string. After completion of the drilling, borehole geophysical logs were run in each of the exploratory boreholes (see section entitled "Geophysical Data"). Five of the exploratory boreholes were then filled to land surface with cement grout. Observation wells JF1 and JF2 were constructed in boreholes 6 and 7, respectively.

Observation wells

Thirty-six additional wells were installed in shallow 10-in.-diameter boreholes that were drilled with a hollow-stem auger rig. Undisturbed core samples were collected as each 5-ft section was drilled. Samples of the core were collected at selected intervals to determine the mineralogy and palynology of the geologic sediments. Because the auger flights served as a temporary well casing, drilling mud was not used. Construction records for the USGS wells are shown in table 1.

All wells were constructed using 4-in. polyvinyl chloride (PVC) well casing. Well screens were made of 4-in. wire-wrapped stainless steel, which was used because of concern about the resistance of PVC screen to various organic compounds that might be present in the aquifers. The casing and well screen were threaded so that no glues or solvents were used in the well construction. A filter pack of medium-sized quartz sand was installed by tremie pipe from the bottom of the borehole to 1 ft above the top of the well screen. A 2-ft-thick layer of bentonite clay pellets was added to prevent grout penetration into the filter pack. Cement grout containing

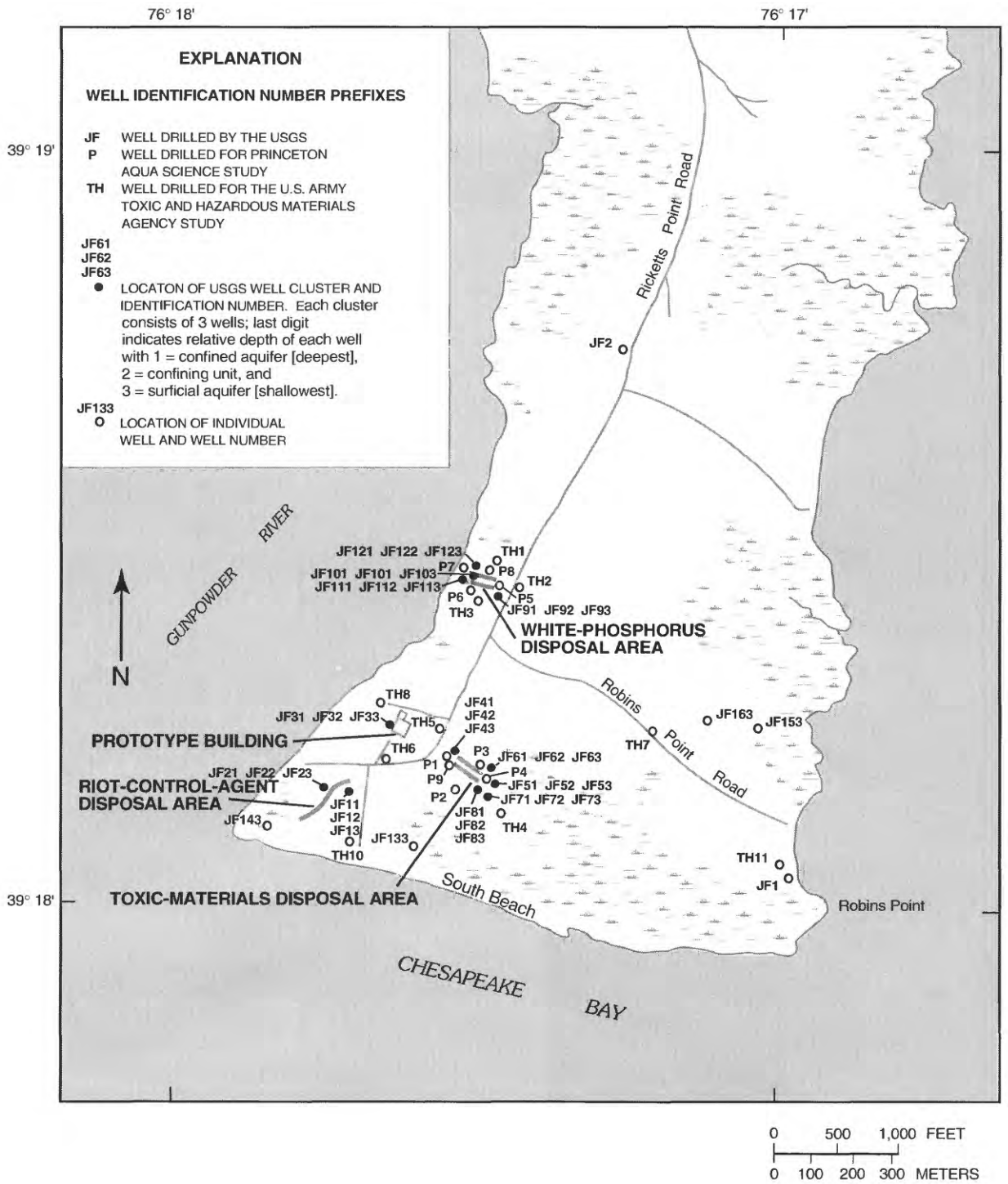

Figure 3.--Location of wells at J-Field, Aberdeen Proving Ground, Maryland.

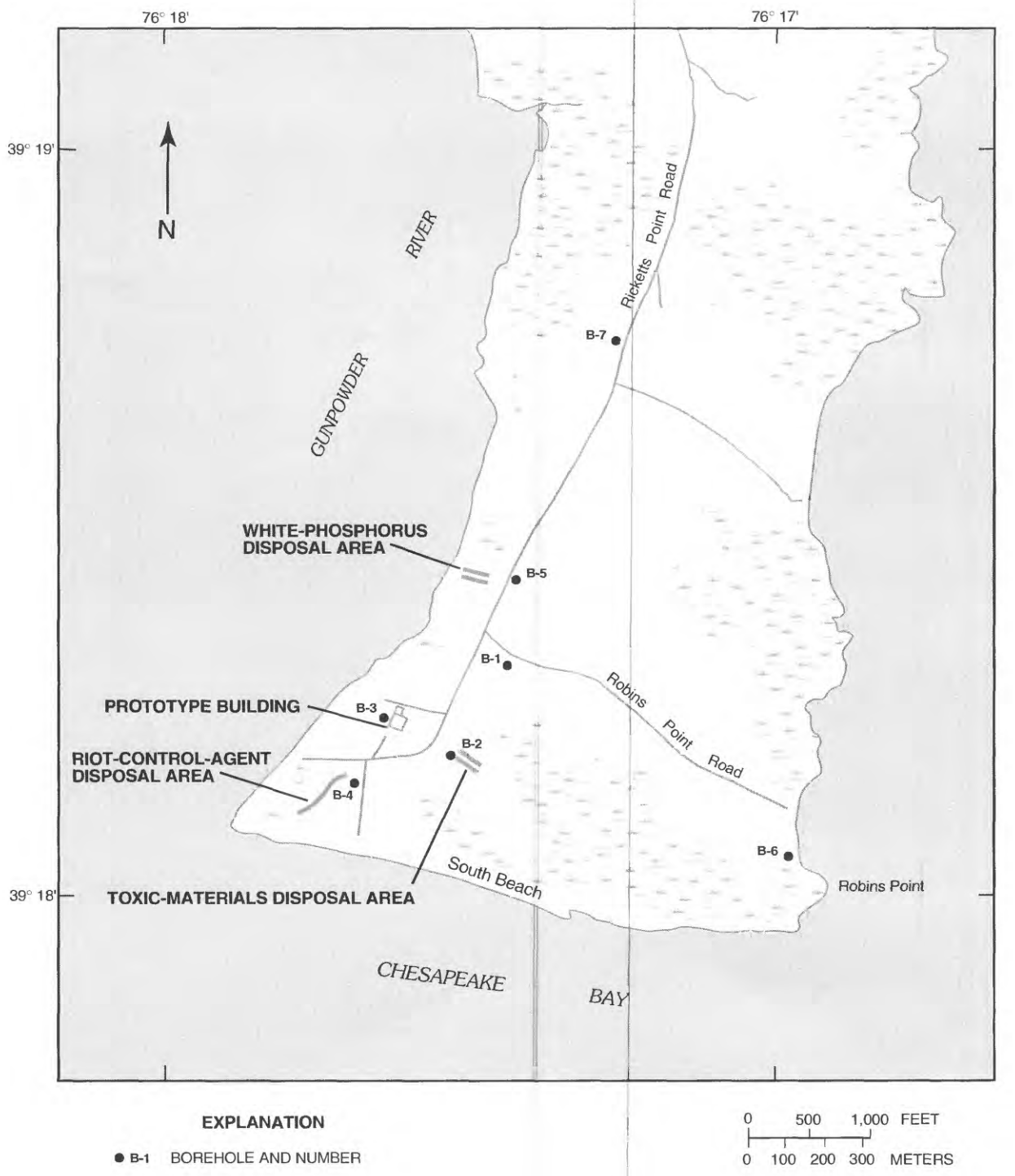

Figure 4.--Location of boreholes where geophysical logging has been performed at J-Field, Aberdeen Proving Ground, Maryland.

5-percent bentonite was then added through a tremie pipe, filling the annular space between the borehole and casing from the bentonite seal to land surface. If the grout subsided more than a few feet below land surface after drying, more of the cement-bentonite mixture was added to bring the grout surface closer to land surface. A 6-in. by 6-in. square steel protective pipe was placed around the well casing and embedded in a bentonite slurry. The bentonite prevents water from leaking around the well casing but is not destroyed by frost heaving. A 4-ft by 4-ft cement pad was placed around all finished wells. Typical construction of an observation well at J-Field is shown in figure 5.

The wells were developed with an airlift system until either clean water was pumped from the well, or, for extremely low-yielding wells, three well volumes of water were removed. Water levels in wells screened in the confining unit were lowered to the screen and pumping was stopped to allow the water levels in the wells to recover. Development of these wells may not have been as complete as in the wells with higher yields. The water pumped from the wells was sampled for volatile organic compounds and then taken to the Edgewood sewage treatment facility for disposal.

Location and Numbering System of Wells

Wells constructed for the Princeton Aqua Science study are numbered P1 to P9, and the wells constructed for the USATHAMA study are numbered TH1 to TH11 (fig. 3). For the USGS work, observation wells numbered JF1 and JF2 were constructed in two exploratory boreholes. Clusters of three observation wells each were constructed at 12 sites in J-Field. These are referred to as USGS well-cluster sites 1 to 12. The numbers for the individual wells at the cluster sites begin with the prefix JF, followed by the cluster-site number and a number that indicates the relative depth of the well. This last number is "1" for the confined aquifer well at each site, "2" for the well screened in the confining unit, and "3" for the shallowest (unconfined aquifer) well. For example, the deepest well at USGS well-cluster site 9 is JF91, the intermediate-depth well is JF92, and the shallowest well is JF93. Observation wells numbered JF133, JF143, JF153, and JF163 are single wells drilled into the surficial aquifer and there are no associated deeper wells.

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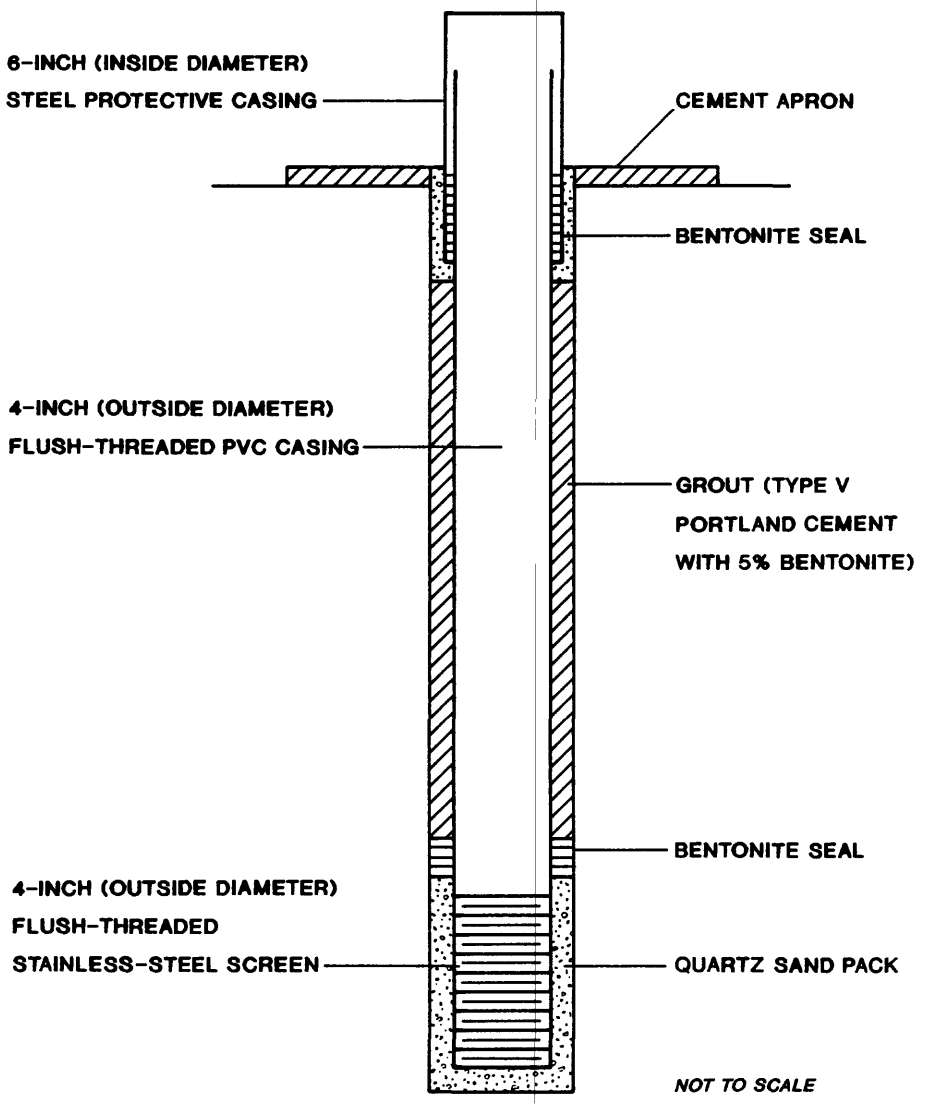

Figure 5.--Construction of typical observation well at J-Field, Aberdeen Proving Ground, Maryland.

HYDROGEOLOGIC DATA

Geologic, geophysical, and hydrologic data collected during the USGS hydrogeologic investigations at J-Field from 1989 through 1994 are presented in this section.

Geologic Data

Geologic data were collected from the borings for the 38 observation wells and the 7 exploratory borings. Thirteen core samples collected during the drilling were analyzed for their mineralogic and elemental compositions, and 16 samples were analyzed for their pollen content. Grain-size distributions were determined for 21 core samples.

Lithologic logs for well clusters 1 to 11 and borehole sites 1 to 7 are given in Hughes (1993). Lithologic logs for well cluster 12 and wells JF133, JF143, JF153, and JF163 are shown in table 2. Percentages of minerals in core samples from wells JF41 and JF91, and borehole B4 are shown in table 3. Percentages of major elements in core samples from wells JF41 and JF91, and borehole B4 are shown in table 4. Concentrations of trace elements in core samples from wells JF41 and JF91, and borehole B4 are shown in table 5. Pollen types in core samples from wells JF61 and JF81, and borehole B3 are shown in table 6.

Geophysical Data

Borehole geophysical logging was performed in each of the seven exploratory borings. The locations of the boreholes are shown in figure 4; the logs are shown in figure 6a-d. Natural gamma logs were run in each of the seven boreholes. Spontaneous potential, resistance, and resistivity logs were run in boreholes B1, B2, and B3.

Surface electromagnetic-induction (EM) surveys were performed between December 1987 and July 1988 using terrain-conductivity equipment (Geonics EM-34[1]) in areas of known or suspected ground-water contamination. Surveys were performed at the toxic-materials, riot-control agent, and the WP disposal areas, and in the vicinity of the Prototype Building. The EM surveys included 10- and 20-meter coil spacings with both vertical and horizontal dipole measurements. The locations of the surveys are shown in figure 7a-d. The electromagnetic-induction values are presented in table 7a-d.

The objectives of the EM survey were to delineate possible conductive contaminant plumes and to search for variations in the stratigraphy of the surficial aquifer. The grids were planned to give an areal coverage of areas of suspected contamination. The sample points on the grids are located at the center point of the coil spacing used.

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[1] Use of brand names in this report is for identification purposes only and does not constitute endorsement by the U.S. Geological Survey.

The EM sampling grid on the northeast side of the toxic-materials disposal area (fig. 7a) was set up along a baseline perpendicular to a line connecting wells P3 and P4, and beginning 43.5 ft from well P4 at site number 72. Sample points were spaced 50 ft apart along the baseline, and at 50-ft intervals along lines perpendicular to the baseline at the sample points.

The EM sampling grid on the south side of the the toxic materials disposal area is aligned parallel with and perpendicular to a line between wells P9 and P2. Sample points started at the midpoint of the line between the wells at sample point number 106, and were 50 ft apart.

The EM sampling grid at the riot-control agent disposal area is oriented perpendicular to a line connecting wells TH10 and TH6 (fig. 7b). The sample points began 60 ft from well TH6 at sample point number 4, along the line to TH10, and continued with 50-ft spacing with a break near well TH10 of 100 ft between the two lines.

The EM sampling grid near the Prototype Building started at a point 50 ft southwest of the south corner of the building, along a line continuous with the southeast face of the building (fig. 7c). A 100-ft square grid began from that point, along lines parallel and perpendicular to the southeast face of the building.

The EM sampling grid at the WP disposal area was oriented along a baseline between wells TH1 and TH3 (fig. 7d). The sampling sites in the area northeast of the disposal area began at well TH1 and continued with 50-ft spacing along the baseline, and along lines perpendicular to sample locations on the baseline. The sample sites southwest of the disposal area started at well TH3, and continued with 50-ft spacing along the baseline, and along lines perpendicular to sample points on the baseline.

Hydrologic Data

Continuous water-level data were collected using analog to digital recorders (ADR's) that were installed on wells TH1, TH3, TH6, TH7, and TH8 in 1987. When the USGS wells were installed in 1989, 18 additional wells were instrumented with ADR's. The ADR's were removed from wells TH1, TH3, and TH7 after the USGS wells were instrumented.

Synoptic water-level measurements were made at least biannually from 1990 through 1994 in 17 wells that were constructed before this study and in the 38 USGS observation wells. Some wells were measured more frequently. In October 1992, four additional observation wells (JF133, JF143, JF153, and JF163) were drilled and were added to the synoptic water-level measurement network.

Hydrographs showing daily mean water-level data in the surficial and confined aquifers at each of the well cluster sites are shown in figure 8a-g. Ground-water-level measurements in each observation well at J-Field are shown in table 8. Daily mean ground-water levels measured between October 1988 and September 1990 in wells with continuous recorders are shown in table 9. Ground-water levels measured in wells after October 1990 have been

published in the annual USGS Water Resources Data reports for 1991-94 (U.S. Geological Survey, 1991-94).

Slug-tests were performed on 11 wells in January 1990 to determine hydraulic conductivity values for the surficial aquifer, the confining unit, the confined aquifer, and the Patapsco Formation. The Hvorslev (1951) and Cooper and others (1967) methods were used to calculate the hydraulic conductivity. Results of the slug tests are shown in table 10.

A tide gage was operated from November 1988 through January 1989 in the Chesapeake Bay adjacent to J-Field at Robins Point. The purpose of the gage was to determine the effects of tides on ground-water levels in observation wells at J-Field. The tidal range in the Chesapeake Bay is shown in figure 9.

SOIL DATA

Soil-gas and soil-quality sampling were performed at J-Field to aid in delineation of areas of surface contamination, and the data were used in conjunction with hydrogeologic data to identify likely areas of surface- and ground-water contamination.

Soil-Gas Data

Soil-gas samples at J-Field were collected by a static technique (Hughes, 1993 p. 13), which yields semi-quantitative results. Open-ended glass tubes that were 6 in. in length and contained a carbon-coated steel wire were buried in the soil at a depth of approximately 10 in., with the open end at the bottom. The tubes were retrieved after several days and sent to a laboratory for analyses of volatile organic components. Concentrations of volatile organics that had adsorbed onto the wires were identified by mass spectrometry and expressed as ion counts or relative-flux values. The results of these analyses can only be used to determine areas of relative soil-gas contamination and not to determine the actual concentration of contaminants in soil or ground water.

Soil-gas samples were obtained in February 1989 (Phase I) from the toxic-materials and the WP disposal areas using 72 collectors (fig. 10a-b). The first phase of sampling was conducted to assist in locating observation wells. An additional 62 soil-gas collectors were deployed in April 1990 (Phase II) at the toxic-materials and the riot-control-agent disposal areas (fig. 11a-b). The second phase of sampling was conducted to (1) determine the extent of contamination identified in the toxic-materials disposal area, (2) search for contamination plumes at the riot-control-agent disposal area, and (3) determine if contaminated ground water is migrating beneath and possibly discharging into the Gunpowder River or Chesapeake Bay. Maps showing the distribution of relative flux rates for trichloroethylene, tetrachloroethylene, alkanes, combined hydrocarbons, and simple aromatics are presented in Hughes (1993). The data that these distribution maps are based on are shown in tables 11 and 12.

Soil-Quality Data

After soil-sampling sites were chosen, they were surveyed and then checked with magnetometers to ensure safety from unexploded ordnance. A shallow (6-in. deep and approximately 1-ft wide) hole was dug at each site with a stainless steel shovel, and surface debris was removed. Soil samples were then taken from the bottom of the hole and placed into three 40-milliliter (mL) amber vials for volatile organic carbon analysis. After the 40-mL vials were filled, the soil in the bottom of the hole was homogenized in place. A 250-mL and a 1-liter (L) bottle were filled with the homogenized soil sample for the remaining analyses. All samples were packed on ice and shipped by overnight express to the laboratory for analyses.

In April 1991, 36 soil samples were collected adjacent to the J-Field disposal areas (fig. 12). Results of the inorganic and organic soil-quality data are shown in tables 13 and 14, respectively.

WATER-QUALITY DATA

Between May 1990 and September 1993, surface- and ground-water samples were collected at J-Field to determine the effects of contamination from the disposal areas on the water quality of the area. The following sections describe the methods used to collect the data, which are summarized in tables.

Surface-Water Samples

Surface-water samples were collected by directly submerging sample bottles into the surface-water body and capping them while still underwater. Field parameters (specific conductance, pH, temperature, dissolved oxygen, and alkalinity) were measured at the sampling site.

During April 1993, 20 surface-water samples were collected from marsh sites within J-Field and analyzed for inorganic and organic constituents. The locations of those sites are shown in figure 13. In September 1993, the same 20 sites were to be sampled, but water was found at only 5 of the sites. Concentrations of inorganic constituents are shown in table 15 and concentrations of organic constituents from the surface-water sampling are shown in table 16. Concentrations of dissolved and total recoverable parameters are also shown in table 16. Samples for dissolved parameters were filtered through a 0.45-micron filter to remove suspended material. Samples for total recoverable parameters were not filtered; therefore, the concentrations include both dissolved and suspended phases.

Ground-Water Samples

Ground-water samples were collected from 55 wells during May-June 1990 (Phase I), and 48 wells were sampled during December 1992 and January 1993 (Phase II). All environmental samples were analyzed for volatile organic compounds, semi-volatile compounds, polychlorinated biphenyls, pesticides, and metals. Selected samples were also analyzed for explosive compounds, chemical-warfare-agent degradation products, cyanide, total organic carbon, total dissolved solids, and total organic halogens. Because the 1990

sampling was not subject to CERCLA regulations and quality-control criteria, and the 1992-93 sampling was, the results are presented in different tables. Tables 17 and 18 present the inorganic and organic constituents from Phase I, respectively. Tables 19 and 20 present the inorganic and organic constituents from Phase II, respectively.

Ground-water samples were collected from wells after they had been purged of at least three well volumes, and field parameters had stabilized. Teflon bailers and/or compressed-air piston pumps (stainless steel and Teflon) that did not introduce air into the well water were used to purge the wells. All purging was done from the top of the water column and the pump was lowered as the water level dropped.

Water-quality samples in Phase I were then collected from the discharge of the low-flow (less than 1 gal/min) stainless-steel and Teflon sampling pumps. Six gallons of tap water, followed by 6 gallons of distilled water were flushed through the pump and hoses between samples from different wells to prevent cross contamination of the samples. During Phase II, the same purging procedures were used, but samples were collected from clean, dedicated Teflon bailers. All samples were packed in ice and shipped in coolers by way of overnight express to the laboratory.

After each well had been purged and sampled, dissolved oxygen (DO) was measured with a DO meter with a 50-ft-long probe cable. A stirrer was attached to the probe to allow proper waterflow past the membrane. In the surficial aquifer wells, DO was measured at the well screen. DO in wells screened deeper than 50 ft could not be measured at the well screen, but was measured as deep as was possible.

EVALUATION OF QUALITY-ASSURANCE DATA

Assessment of the quality of the soil-, surface-water-, and ground-water-quality data is an important step in data interpretation. In this report, data quality is assessed in relation to two types of data measurement error--reproducibility, and bias. The quality of data is considered good when analyte concentrations are reasonably reproducible and unbiased.

Reproducibility of data measurements can be determined using duplicate and field-spiked samples. In this study, duplicate samples were used to estimate the relative percent difference (RPD) between two theoretically similar measurements, and were calculated as follows:

$$\frac{|(C1-C2)|}{(C1+C2)/2} \times 100\% = \text{relative percent difference},$$

where **C1** is the concentration in the first sample, and **C2** is the concentration in the duplicate sample.

Field-spiked samples can also be used to assess reproducibility in relation to an expected concentration. Field-spiked samples are

environmental samples to which known amounts of selected analytes have been added in the field during data collection. The percent recovery, relative to the expected concentration and corrected for background concentration, is calculated as follows:

$$\frac{Cs-Cu}{Ce} \times 100\% = \text{relative percent recovery},$$

where **Cs** is the concentration of the analyte detected in the spiked sample, **Cu** is the concentration of analyte detected in the unspiked sample, and **Ce** is the expected concentration calculated for the spiked sample.

Bias in data measurements can occur as a result of contamination from a variety of sources; for example, during well installation, field sampling, in transit, and while handling samples in the laboratory. If samples are contaminated, a positive bias can be introduced in the measurement of one or more analytes. Contamination bias can be assessed by the incorporation of blank samples into the sample-collection and analysis process.

In this study, the following types of blanks were used to assess contamination bias--trip, field, ambient, and laboratory blanks. Trip blanks measure potential contamination of unopened vials during the field and shipping process. Trip blanks included sample vials for volatile organic compounds (VOC's) and semivolatile organic compounds (SVOC's) that were filled with VOC and SVOC-free water by the contract laboratory, and were sent along with empty VOC or SVOC bottles. These blank vials remained unopened and accompanied the empty sample vials into the field and then accompanied the filled sample vials when shipped back to the laboratory. If the trip blank was not contaminated before it was shipped from the laboratory, then the analysis provided an indication of whether contamination of a closed vial occurred during field activities, during shipment of the sample to the laboratory, or in the laboratory during analysis. Trip blanks were used to assess contamination for VOC's during surface- and ground-water sampling and for SVOC's during ground-water sampling.

Field blanks were used to assess whether ambient or equipment conditions caused sample contamination. Field blanks consisted of VOC and SVOC-free water [either from the USGS National Water Quality Laboratory (NWQL) in Denver, Colo., or from the USGS Quality of Water Service Unit in Ocala, Fla.,] that was passed through previously cleaned sampling equipment in the field, and then into VOC and SVOC sample vials. In this study, field blanks were used during ground-water sampling for VOC's and SVOC's.

Ambient blanks indicate whether a brief exposure of a sample to ambient conditions and handling in the field could have led to sample contamination. Ambient blanks consisted of VOC-grade water poured into VOC or SVOC vials while at selected field sites. The water was supplied by the NWQL. Ambient blanks were used for VOC's and SVOC's during surface-water sampling.

Laboratory blanks were used to evaluate analytical processes. Results of blank analyses were provided in some cases by the laboratory, primarily when it appeared that blank contamination occurred in the laboratory.

Contamination bias also can be determined by comparing the concentrations of selected analytes to those in previous samples. Cross-contamination of samples is likely if samples with high concentrations of one or more analytes are chronologically followed by a series of samples that indicate a progressive decline in concentrations for those same analytes. In this study, checks on chronological analyses (date and time of collection) were used to determine if cross-contamination had occurred.

Quality Assurance of Soil Data

Quality-control samples for soils consisted of duplicate samples collected from homogenized soil samples. The RPD data from these samples were used to estimate measurement variability for inorganic and organic analytes. The quality of the inorganic and organic data for soils are described below for each analyte group on the basis of the duplicate-sample results.

Inorganic Analytes

Four pairs of duplicate samples were analyzed for trace metals (table 13). A summary of the RPD values for nine analytes are presented in the following table.

	Relative percent difference		
Analyte	Median	Minimum	Maximum
Arsenic	--*	7	11
Calcium	11	0	18
Chromium	10	0	18
Copper	19	5	48
Iron	7	7	26
Magnesium	20	6	52
Manganese	5	0	29
Lead	18	8	34
Zinc	33	8	34

* Only two pairs of duplicates had detectable concentrations of arsenic

Median RPD values for duplicate samples for these trace metals ranged from 5 percent (manganese) to 33 percent (zinc). A chronological analysis of soils collected after the most contaminated site (JS29, table 14) indicated no cross-contamination occurred between this site and subsequent sites.

Organic Analytes

There were few detections of VOC and SVOC analytes in soils (table 14). The only analyte detected in duplicate sample pairs was acetone, which was found at low levels in three of the four pairs of duplicate samples, and possibly is an introduced contaminant. There were few spurious detections.

For example, only two SVOC's (benzyl butyl phthalate and benzoic acid) were detected at very low levels in one sample, but were not detected in the corresponding duplicate sample. No RPD data are available for organic analytes in soils because of the lack of meaningful detectable concentrations in duplicate samples.

Overall, the quality of soil data appear good. Measurement reproducibility for inorganic analytes is within reason given the sample media. There is little evidence of contamination bias for organic analytes, and few spurious detections.

Quality Assurance of Surface-Water Data

The quality-control samples shown in the following table were collected for surface water.

Sampling period	Analyte group	Duplicate pairs	VOC blanks Trip	VOC blanks Ambient
1993				
Spring	Organics	3	1	1
	Inorganics	2		
Fall	Organics	0	1	1
	Inorganics	0		

Inorganic Analytes

The quality of surface-water data for inorganic analytes (major ions and trace metals) generally appears to be good. Although only two duplicate pairs of samples were collected for inorganic analytes, the RPD for major ions [total recoverable calcium, magnesium, sodium, and potassium; dissolved sulfate and chloride; and total nitrate (as nitrogen)] ranged from 0 to 10 percent, but the RPD for total iron was 42 percent. The RPD for trace metals (total recoverable aluminum, barium, copper, lead, manganese, and zinc) ranged from 0 to 29 percent.

Organic Analytes

Surface-water analyte measurements were generally reproducible and unbiased for VOC and SVOC concentrations reported as "less than 10 micrograms per liter (μg/L)". Measurements of detectable concentrations often are less reliable because of inconsistencies in measurement reproducibility and possible contamination bias. A clear understanding of the limitations of these measurements is essential for proper interpretation and use of these data.

Estimates of measurement reproducibility for the surface-water VOC and SVOC data are limited because the duplicate sample pairs seldom contained measurable concentrations of VOC's and SVOC's. Of the three pairs of

duplicate samples, only one sample pair (JFSW10, table 16) had measurements above the reporting limit. The three VOC compounds detected in JFSW10 samples are shown in the following table.

Sample No.	Acetone (µg/L)	1,1,2-Trichloroethane (µg/L)	Trichlorethene (µg/L)
JFSW10	32	93	44
JFSW10d	110	97	40
RPD	110%	4%	10%

On the basis of these data, the reproducibility of a VOC measurement in surface water varies by as little as 4 percent up to as much as 110 percent. Spurious detections of VOC's below the reporting level of 10 µg/L also indicate a lack of measurement reproducibility. For example, there were nine cases in which an analyte was detected below the reporting level in one sample of a duplicate pair, but not in the corresponding sample of that duplicate pair. Due to these inconsistencies, calculations of RPD were not performed for analytes below concentrations of 10 µg/L.

Blank data indicate that VOC and SVOC contamination of surface-water samples probably occurred. Four VOC's--acetone, methylene chloride, methyl isobutyl ketone, and methyl ethyl ketone--and one SVOC, N-nitrosodiphenylamine, were detected at low concentrations (less than 10 µg/L) in at least one trip blank, one ambient blank, and several laboratory blanks. The laboratory reported that acetone and methylene chloride are common contaminants in the laboratory methods used for these analyses. No evidence of cross-contamination of surface-water samples was found for VOC's or SVOC's on the basis of a chronological evaluation of the data.

Because of the data-quality problems described for VOC's and SVOC's, two types of data qualifiers are included with the surface-water-quality data (table 16). A "v" next to a concentration value indicates that the analyte was also found in an associated blank. This qualifier infers that the concentration could be biased. A "j" next to a value indicates an estimated value that is less than the reporting limit for that analyte. The analytical values should be considered a detection, perhaps spurious, rather than considered to be actually present in the surface-water sample at the stated concentration.

Quality Assurance of Ground-Water Data

Phase I and II ground-water quality data are described separately in this report. Phase I and II samples were collected with different equipment (see Ground-Water Samples section) and during different years. Samples for Phase I and II were analyzed by different laboratories. Changes in field and laboratory procedures were due to changes in regulatory requirements.

Duplicate and blank samples for inorganic analytes were collected as shown in the following table.

Sampling phase	Hydrologic unit	Duplicate pairs	Blanks	
			Trip	Field
I	Surficial aquifer	5	1	2
	Confining unit	1		
	Confined aquifer	1		
II	Surficial aquifer	3	--	3
	Confining unit	1		
	Confined aquifer	1		

Duplicate, blank, and field-spiked samples for VOC's and SVOC's were collected as shown in the following table.

Sampling phase	Analyte group	Hydrologic unit	Duplicate pairs	Blanks		Spikes	
				Trip	Field	Field	Laboratory
I	VOC/SVOC	Surficial aquifer	5	1	2	--	--
		Confining unit	1				
		Confined aquifer	1				
II	VOC	Surficial aquifer	6	9	3	4	5
		Confining unit	1				
		Confined aquifer	2				
	SVOC	Surficial aquifer	3	--	3	4	5
		Confining unit	1				
		Confined aquifer	1				

The above samples were sufficient to assess the quality of the data in each phase, but were not sufficient to assess the changes in data quality between sampling phases that could have been caused by changes in field procedures or laboratories used. Some general observations, however, about possible differences in data quality between phases are made in the following sections.

Inorganic Analytes

In Phase I data, median RPD values for most major ions [dissolved calcium, magnesium, manganese, sodium, potassium, sulfate, chloride, bromide, and iron; and total nitrogen plus organic and nitrogen-nitrate (as nitrogen), table 17] were below 10 percent. Median RPD values for trace elements also were below 10 percent for dissolved arsenic, barium, and boron. The median RPD values for aluminum and total phosphorus were between 10 and 20 percent, and the highest RPD was for fluoride (29 percent). The measurement variability for inorganic data typically is smaller than the variability in concentrations among sites for most of the analytes.

Reproducibility of measurements for Phase I inorganic data therefore does not appear to be a problem for data interpretation.

Ambient blanks and field blanks were collected for inorganic analytes in Phase I. One field blank shows evidence of possible carryover of inorganic analytes at low levels (field blank 2, table 17). This field blank had low levels (less than or equal to 1.5 mg/L) of calcium, sodium, and nitrogen (ammonia plus organic), and trace amounts (less than 20 µg/L) of phosphorus and barium. With the exception of perhaps phosphorus, sample concentrations for these analytes are often at least an order of magnitude higher than the concentrations found in the field blank. This low-level contamination of one field blank was not considered significant enough to warrant qualifying the data as biased. A chronological check of the data revealed no consistent pattern that would indicate cross-contamination among successively collected samples.

Although the results of the blank analyses did not indicate that significant contamination bias is a problem, certain wells installed in the confining unit and confined aquifer show potential contamination bias as a result of well-installation problems. During well drilling, crews were forced to evacuate the site due to emergency ordnance disposal activities at J-Field. Because sequential-casing techniques had not yet been incorporated in this study, the deep boreholes could have provided a temporary pathway for contaminants in the surficial aquifer to enter the confining unit and the confined aquifer. Boreholes for wells JF51, JF61, JF71, and JF81 in the confined aquifer were open to the surficial aquifer from 1 to 4 days. These well numbers in tables 17 and 19 are qualified with a "v" denoting possible contamination bias.

Median RPD values for Phase II inorganic analytes (major ions or trace metals) were less than 10 percent. These results are similar to the Phase I inorganic results. As in Phase I, field blanks indicated some equipment carryover or laboratory contamination. Total calcium, magnesium, sodium, iron, manganese, and zinc appeared in at least two of the three field blanks. These concentrations of calcium, magnesium, and iron were less than concentrations found in ground-water samples. Manganese and zinc concentrations in blanks, however, sometimes exceeded those found in the ground-water samples. These data have been qualified to reflect possible bias ("v" remark, table 19).

Organic Analytes

Phase I data for VOC's and SVOC's are generally good based on measurement variability from duplicate samples. Six pairs of duplicate samples were analyzed. Four of the six sample pairs had detectable concentrations of at least one analyte in both the sample and the duplicate. Analyte concentrations span five orders of magnitude, and the RPD for each pair is shown in the following table.

Well No.	Analyte	Sample concentration (µg/L)	Duplicate concentration (µg/L)	Relative percent difference
P9	RDX	0.521	0.471	10
JF2	Trichloroethene	10	3	108
JF13	Benzene	1,500	1,100	31
JF13	Methyl isobutyl ketone	640	1,100	53
JF82	Acetone	90	110	20
JF82	Chloroform	6.3	4.9	25
JF82	Cyanide	92	84	9
JF82	1,1-Dichloroethene	35	26	30
JF82	1,2-Dichloroethene	240	150	46
JF82	Tetrachlorethene	54	41	27

These RPD values range from 8 to 108 percent. Most of the RPD's, however, are in the range of 20 to 50 percent. There only were two instances when an analyte was detected in excess of the reporting level (above 10 µg/L) in one of the duplicate samples but not reported in the other. The analyses performed by the laboratory during Phase I generally were reproducible.

Although measurement reproducibility appears to be good for Phase I VOC and SVOC data, some of the measurements might be biased. Although sampling equipment was cleaned between samples, contamination could have occurred at low levels (less than 20 µg/L) in a few samples as a result of carryover from wells with high VOC concentrations. The only apparent instance of such carryover was in the field blank taken after sample JF83. A comparison of analytes in JF83 and the subsequent field blank, and the percent carryover of each analyte are shown in the following table.

Date	Time	Sample	1,1,2,2-Tetrachloroethene (µg/L)	Tetrachloroethene (µg/L)	Trichloroethene (µg/L)
6/12/90	0900	JF83	250	1,000	4,900
6/12/90	0930	Field Blank	17	6.2	21
Percent (%) carryover			6.8%	.06%	.4%

Although no other blanks showed evidence of carryover, it is not possible to determine whether any other samples were affected by this type of bias.

As noted for Phase I inorganic data, there could be an additional bias in VOC and SVOC data for specific wells in the confining unit and confined aquifer near the toxic-materials-disposal area. The quality of water in these wells could be influenced by water introduced from the surficial aquifer and might not represent a contaminant source in either the confining unit or the confined aquifer.

Phase I VOC and SVOC data appear to be good from the standpoint of measurement variability. From the standpoint of data interpretation, however, some of these data appear biased. Where bias is suspected, concentration values or well numbers are qualified with a letter "v" (tables 18 and 20).

Measurement variability for organic analytes in Phase II indicate the data are of fair to good quality. The RPD for Phase II organic duplicate sample data range from 0 to 17 percent, as shown in the following table.

Well No.	Analyte	Sample concentration (µg/L)	Duplicate concentration (µg/L)	Relative percent difference
JF53	1,1,2,2-Tetrachloroethane	4,900	5,000	2
JF53	1,1,2-Trichloroethane	290	300	3
JF53	Trichloroethene	4,200	4,200	0
JF53	Vinyl Chloride	95	110	15
JF61	Carbon Disulfide	6	7	15
JF61	Phenol	26	22	17
JF73	1,2-Dichloroethene	920	820	12
JF73	1,1,2,2-Tetrachloroethane	9,000	8,000	12
JF73	Trichloroethene	5,100	4,800	6

On the basis of RPD values, the reproducibility of Phase II organic measurements appears to be good. Phase II RPD estimates, however, do not reflect the fact that data collected during this period are limited by a higher reporting level than most Phase I data. Measurement variability typically decreases as concentrations increase beyond the lowest reporting level.

Reporting levels for a given Phase II analyte differ from one sample to another because some samples were diluted to accommodate high concentrations of one or more analytes. Phase II RPD values also do not reflect that duplicate sample data contain numerous instances where an analyte was detected in one sample of a duplicate pair but not in the other. A number of analytes were excluded from RPD estimates because of contamination bias.

Recovery data from laboratory or field-spiked samples provide another measure of variability. Laboratory and field-spike data were only available for Phase II ground-water data (table 21). Recoveries for laboratory spikes were generally between 80 and 100 percent. With the exception of trichloroethene in one sample (P7), laboratory recoveries for the analytes listed were within the U.S. Environmental Protection Agency (EPA) guidelines (U.S. Environmental Protection Agency, 1985). The unacceptable recovery for trichloroethene could be due to a high (310 µg/L) background concentration before the sample was spiked.

With the exception of samples with high background concentrations, field-spike recovery data appear to have a high bias in relation to

laboratory recoveries. They also indicate that at least some compounds (for example, vinyl chloride) undergo greater losses than others. Actual ground-water-sample recoveries for Phase II data probably are somewhere in-between recoveries for field spikes and laboratory spikes.

Phase II ground-water data also appear to be biased for certain VOC and SVOC analytes. Analyses of trip, field, and laboratory blank data indicate that at least 50 percent of these blanks were contaminated with one or more of the following eight analytes:

Acetone	Methylene chloride
Methyl ethyl ketone	Methyl isobutyl ketone
Methyl n-butyl ketone	Bis(2-ethyl-hexyl) phthalate
Di-n-octyl phthalate	N-nitrosodiphenylamine.

Analyte concentrations in blanks seldom exceeded 10 to 20 µg/L. Because contamination was frequent, however, Phase II concentration data for these eight analytes have been qualified with a "v" (table 20).

Summary of Data Evaluation

The following major conclusions are based on an examination of the quality of soils, surface-water, and ground-water data collected for this study: (1) Soils data generally are of good quality, and (2) several problems warranted qualifying surface-water and ground-water data. The latter included poor reproducibility in measured values for some analytes, particularly for analyses conducted by one contract laboratory, and potential bias in data for some analytes because of possible contamination during well installation or laboratory analysis. The data that are most suspect have been qualified with remark codes in the corresponding data tables. These codes include a "v" next to a well number or concentration value that denotes that the concentration value(s) for a sample reflect, in whole or in part, contamination bias, and a "j", which denotes that the reported concentration should be considered merely a detection rather than a quantified estimate of concentration.

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Table 1. Well-construction data for observation wells installed by the U.S. Geological Survey at J-Field, Aberdeen Proving Ground, Maryland

[U.S.Geological Survey (USGS) site identification number = latitude and longitude plus a 2-digit sequence number; --, data not available; ft A.S.L. = feet above sea level; ft B.L.S. = feet below land surface; AUG = well installed using hollow-stem auger; MUD = well installed using mud rotary; C = surficial aquifer; B = confining unit; A = confined aquifer; K = aquifers in Patapsco Formation]

Well Number	USGS site identification number	Maryland permit number	Altitude of land surface (ft A.S.L.)	Drilling method	Depth of boring (ft)	Screened interval (ft B.L.S.)	Unit screened
JF1	391806076165301	HA-88-1036	4.95	MUD	190	185 -190	K
JF2	391845076171401	HA-88-1035	--	MUD	300	208 -213	K
JF11	391809076174301	HA-88-1037	7.42	AUG	90	85 - 90	A
JF12	391809076174302	HA-88-1038	7.30	AUG	55	50 - 55	B
JF13	391809076174303	HA-88-1039	7.18	AUG	25.5	20.5- 25.5	C
JF21	391809076174601	HA-88-1040	2.99	AUG	71	68 - 71	A
JF22	391809076174602	HA-88-1041	2.99	AUG	52.5	47.5- 52.5	B
JF23	391809076174603	HA-88-1042	3.10	AUG	19	16 - 19	C
JF31	391814076173801	HA-88-1043	7.67	AUG	81.3	73.8- 78.8	A
JF32	391814076173802	HA-88-1044	7.70	AUG	54.4	49.4- 54.4	B
JF33	391814076173803	HA-88-1045	7.79	AUG	20	15 - 20	C
JF41	391812076173101	HA-88-1046	10.22	AUG	90	85 - 90	A
JF42	391812076173102	HA-88-1047	10.30	AUG	62	57 - 62	B
JF43	391812076173103	HA-88-1048	10.63	AUG	35	30 - 35	C
JF51	391808076172701	HA-88-1050	5.02	AUG	115	110 -115	A
JF52	391808076172702	HA-88-1049	5.27	AUG	65	60 - 65	B
JF53	391808076172703	HA-88-1051	5.10	AUG	19.2	14.2- 19.2	C
JF61	391810076172801	HA-88-1052	4.29	AUG	100	95 -100	A
JF62	391810076172802	HA-88-1053	4.08	AUG	65	60 - 65	B
JF63	391810076172803	HA-88-1054	4.10	AUG	19	16 - 19	C
JF71	391807076172801	HA-88-1055	7.26	AUG	125	120 -125	A
JF72	391807076172802	HA-88.1056	8.28	AUG	81	76 - 81	B
JF73	391807076172803	HA-88-1057	7.48	AUG	18	15 - 18	C
JF81	391808076173001	HA-88-1059	10.01	AUG	123	120 -123	A
JF82	391808076173002	HA-88-1058	10.39	AUG	75	70 - 75	B
JF83	391808076173003	HA-88-1060	10.42	AUG	20	15 - 20	C
JF91	391825076172601	HA-88-1061	10.18	AUG	79	74 - 79	A
JF92	391825076172602	HA-88-1062	10.60	AUG	55.5	50.5- 55.5	B
JF93	391825076172603	HA-88-1063	10.28	AUG	25	20 - 25	C
JF101	391826076173104	HA-88-1064	5.36	AUG	76	73 - 76	A
JF102	391826076173105	HA-88-1065	5.70	AUG	55	52 - 55	B
JF103	391826076173106	HA-88-1066	5.41	AUG	28	25 - 28	C
JF111	391826076173101	HA-88-1067	6.51	AUG	75	69.1- 75	A
JF112	391826076173102	HA-88-1068	6.19	AUG	50	47 - 50	B
JF113	391826076173203	HA-88-1069	6.77	AUG	25	22 - 25	C
JF121	391827076173001	HA-88-1070	4.16	AUG	70	67 - 70	A
JF122	391827076173002	HA-88-1071	4.42	AUG	55	52 - 55	B
JF123	391827076173003	HA-88-1072	4.15	AUG	28	25 - 28	C
JF133	391806076173501	HA-88-1423	3.0	AUG	10	5 - 10	C
JF143	391808076174401	HA-88-1415	4.9	AUG	10	5 - 10	C
JF153	391815076170301	HA-88-1425	5.9	AUG	10	5 - 10	C
JF163	391815076170601	HA-88-1422	8.7	AUG	12	5 - 12	C

Table 2. Lithologic logs for well-cluster 12 and wells JF133, JF143, JF153, and JF163 at J-Field, Aberdeen Proving Ground, Maryland

[vcU = very coarse upper; vcL = very coarse lower; cU = coarse upper; cL = coarse lower; mU = medium upper; mL = medium lower; fU = fine upper; fL = fine lower; vfU = very fine upper; vfL = very fine lower; lower and upper refer to the finest and coarsest grain sizes within each category, respectively; Codes enclosed in parentheses refer to the Munsell Soil Color Charts (Munsell Color, 1975)]

Term	Grain size (microns)	Term	Grain size (microns)
vcU	1,410-2,000	mL	250- 350
vcL	1,000-1,410	fU	177- 250
cU	710-1,000	fL	125- 177
cL	500- 710	vfU	88- 125
mU	350- 500	vfL	62- 88

Relative abundance descriptors	
abundant	>30%
common	>15% and <30%
minor	>1% and <15%
trace	<1%

	Lithology	Depth (ft)	Thickness (ft)
Well cluster site 12			
Soil,	silt loam, predominantly sand, quartz, fine (fU), subrounded, dark brown (10 YR 3/3); silt, common; clay, trace; plant roots, abundant; clear boundary.	0.3	0.3
Sand,	quartz, very fine (vfU), olive brown (2.5 Y 4/4); silt, trace; abrupt boundary.	1.5	1.2
Sand,	quartz, very fine (vfL), mottled brown (10 YR 5/3) and yellowish-brown (10 YR 5/6); clay, common; gradual boundary.	2.4	.9
Sand,	quartz, very fine (vfL), mottled light gray (10 YR 7/2); and yellowish-brown (10 YR 5/8); clear boundary.	3.8	1.4
Sand,	quartz, medium (mL), grayish brown (2.5 Y 5/2); clear boundary.	5.5	1.7
Sand,	quartz, medium (mL), strong brown (7.5 YR 5/6); mica, common; interbedded organic zones.	9.0	3.5
Sand,	quartz, very fine (vfU), light olive gray (5 Y 6/2); silt, common; abrupt boundary	11.3	2.3
Sand,	quartz, very fine (vfU), dark gray (5 Y 4/1); silt, common.	14.0	2.7
Sand,	quartz, fine (fU), subrounded, gray (5 Y 5/1).	19.0	5.0
Sand,	quartz, fine (fL), subrounded, dark gray (5 Y 4/1); mica, minor; gradual boundary.	23.0	4.0
Sand,	quartz, fine (fL), subrounded, olive gray (5 Y 5/2).	24.0	1.0
Sand.	quartz, very fine (vfU), dark gray (5 Y 4/1).	29.0	5.0
Clay,	very dark gray (5 Y 3/1); silt, abundant; wood fragments, minor (1.0-2.0 cm at 33.0'); conchoidal fracture.	34.0	5.0
Clay,	dark gray (5 Y 4/1); silt, minor; massive; abrupt boundary.	38.5	4.5
Clay,	olive gray (5 Y 5/2); shells, whole and fragments, abundant; very hard.	39.0	.5
Clay,	dark gray (5 Y 4/1); silt, common; 40-43.0 highly fractured, sample crumbles into 1.0-2.0 cm fLakes.	44.0	5.0
Clay,	dark gray (5 Y 4/1); silt, common; massive.	49.0	5.0
Clay,	dark gray (5 Y 4/1); silt, common; massive.	54.0	5.0
Clay,	dark gray (5 Y 4/1); silt, abundant; massive.	59.0	5.0
Clay,	dark gray (5 Y 4/1); silt, abundant; massive.	63.5	4.5
Sand,	quartz, medium (mL and mU) to coarse (cL), subangular, dark gray (5 Y 4/1); silt, minor.	64.0	.5

Table 2. Lithologic logs for well-cluster 12 and wells JF133, JF143, JF153, and JF163 at J-Field, Aberdeen Proving Ground, Maryland--Continued

Lithology	Depth (ft)	Thickness (ft)
Well JF133		
Sand, silty, medium, dark brown (10 YR 3/3); abundant roots; organic soil horizon.	1.3	1.3
Sand, clayey, fine, gray (10 YR 6/1) and brownish-yellow (10 YR 6/6).	2.5	1.2
Sand, silty, fine, same color as 1.3′ - 2.5′.	4.0	1.5
Sand, medium, gray (10 YR 6/1) and brownish-yellow (10 YR 6/6).	6.0	2.0
Clay, sandy, light gray (10 YR 7/1) with yellowish-brown (10 YR 5/6) mottles; Recovered .8′.	8.0	2.0
Sand, quartz, medium, gray (10 YR 6/10).	10.0	2.0
Well JF143		
Sand, silty, fine, dark yellowish-brown (10 YR 3/4), organic soil zone.	0.5	0.5
Sand, silty, fine, very pale brown (10 YR 7/40).	2.0	1.5
Lost sample.	2.5	0.5
Sand, quartz, medium, with 0.05′-diameter to 0.2 ft-diameter quartz pebbles, rounded, very pale brown (10 YR 7/3) and brownish-yellow (10 YR 6/6).	3.5	1.0
Sand, fine, very pale brown (10 YR 7/3).	4.0	0.5
Sand, clayey, fine, light gray (10 YR 7/10) with brownish-yellow (10 YR 6/6) mottles.	4.6	0.6
Sand, medium, light brownish-gray (10 YR 6/2) and brownish-yellow (10 YR 6/6).	5.2	0.6
Sand, medium, light yellowish-brown (10 YR 6/4) with yellowish-brown (10 YR 5/6) mottles.	6.0	0.8
Sample not recovered.	7.0	1.0
Sand, quartz, medium, mottled light gray (10 YR 7/1) and very pale brown (10 YR 7/3).	8.0	1.0
Sand, medium, brown (10 YR 4/3).	10.0	2.0
Well JF153		
Sand, silty, fine, (5 Y 5/3); gradual contact.	0.3	0.3
Sand, silty, fine, (10 YR 6/4); gradual contact.	1.0	0.7
Sand, silty, fine, mottled brownish-yellow (10 YR 5/6) and (10 YR 6/3).	2.0	1.0
Sand, silty, fine, brownish-yellow, (10 YR 6/6).	2.7	0.7
Sand, medium, dark yellowish-brown (10 YR 4/6).	4.0	1.3
Sand, silty, fine, interbedded with clayey sand, sand is strong brown (7.5 YR 5/6) and clay zones are gray (7.5 YR 7/0); gradual boundary.	5.3	1.3
Sand, clayey, gray,(7.5 YR 6/0) with mottles of silt, strong brown (7.5 YR 5/8).	6.0	0.7
No sample	8.0	2.0
No sample	9.0	1.0
Sand, interbedded, medium-grained, light gray (10 YR 7/1) and brownish-yellow (10 YR 6/6).	10.0	1.0
Well JF163		
Sand, silty, fine, yellowish-brown (10 YR 5/6) with few mottles of reddish-brown (5 YR 5/6); gradual boundary.	1.4	1.4
Sand, clayey, fine very pale brown (10 YR 7/3).	2.3	0.9
Sand, medium, brownish-yellow (10 YR 6/6); abrupt boundaries above and below 0.15 ft-diameter quartz rounded pebble.	2.7	0.4
Sand, fine, silty and clayey, brownish-yellow (10 YR 6/6), very hard, fractured.	3.9	1.2
Sand, medium and fine-grained to 5′, light yellowish-brown (10 YR 6/4); below 5′ is strong brown (7.5 YR 5/8), color change is gradual.	6.0	2.1
Lost most of sample; recovered medium sand, light brownish-gray (10 YR 6/2) with yellowish-brown (10 YR 5/6) mottles.	8.0	2.0
Sand, fine, interbedded pale brown (10 YR 6/3) and yellowish-brown (10 YR 5/6).	10.0	2.0

Table 3. Relative percentages of minerals in core samples from wells JF41 and JF91, and borehole B4, J-Field, Aberdeen Proving Ground, Maryland

[Values are percentages of total minerals detected; depths are in feet below land surface; -- = not detected; < = less than; C = surficial aquifer; B = confining unit; A = confined aquifer of the Talbot Formation; K = Patapsco Formation]

Well No.	Depth (feet)	Lithologic unit	Quartz	Illite	Kaolinite	Plagioclase	Aragonite	Feldspar	Geothite	Gypsum	Hematite	Pyrite	Marcasite	Montmoril-lonite
JF41	1	C	98	<1	--	1	--	--	--	--	--	--	--	--
JF41	3	C	85	2	2	5	--	3	--	--	--	--	--	1
JF91	4	C	92	2	--	3	--	3	--	--	--	--	--	--
JF41	10	C	95	<1	<1	2	--	--	--	--	--	--	--	--
JF91	11	C	95	<1	<1	2	--	--	--	--	--	--	--	--
JF41	18	C	85	4	4	5	--	2	--	--	--	--	--	--
JF91	45	B	60	4	4	4	20	--	--	1	--	6	--	--
JF41	55	B	65	8	10	6	--	3	--	--	--	6	--	2
JF41	78	A	93	1	1	2	--	--	--	--	--	2	--	<1
JF91	88	A	90	2	2	3	--	2	--	--	--	--	--	--
B4	102	A	95	<1	<1	2	--	1	--	--	--	--	--	--
B4	161	K	70	8	10	<1	--	--	4	--	7	--	--	--
B4	241	K	65	<1	1	--	--	--	--	--	--	20	12	--

Table 4. Percentage of major elements in core samples from wells JF41 and JF91, and borehole B4, J-Field, Aberdeen Proving Ground, Maryland

[Values are reported as percentage of total sample; depths are in feet below land surface]

Lithologic Unit	Elements	
A = confined aquifer	Al = aluminum	Mg = magnesium
B = confining unit	Ca = calcium	Na = sodium
C = surficial aquifer	Fe = iron	P = phosphorus
K = Patapsco Formation	K = potassium	Ti = titanium

Well No.	Depth (feet)	Lithologic unit	Elements							
			Al	Ca	Fe	K	Mg	Na	P	Ti
JF41	1	C	1.68	0.07	0.84	0.46	0.12	0.24	0.01	0.19
JF41	3	C	5.27	.19	2.55	1.29	.40	.53	.03	.34
JF91	4	C	6.61	.08	1.92	1.46	.34	.27	.01	.30
JF41	10	C	2.03	.07	0.84	.55	.16	.29	.01	.16
JF91	11	C	1.51	.07	0.57	.44	.13	.26	.01	.18
JF41	18	C	5.54	.09	1.96	1.53	.50	.50	.02	.30
JF91	45	B	5.57	6.38	4.25	1.62	.56	.48	.04	.26
JF41	55	B	6.53	.57	4.07	1.90	.66	.49	.04	.35
JF41	78	A	2.46	.17	2.01	.75	.26	.25	.01	.19
JF91	88	A	2.75	.28	1.33	.82	.25	.27	.01	.18
B4	102	A	1.39	.10	1.08	.43	.14	.29	.01	.08
B4	161	K	8.39	.06	6.64	1.63	.25	.09	.07	.37
B4	241	K	3.51	.07	12.4	.72	.14	.09	.01	.21

Table 5. Concentrations of trace elements in core samples from wells JF41 and JF91, and borehole B4, J-Field, Aberdeen Proving Ground, Maryland

[Concentrations are in parts per million; depths are feet below land surface; < = less than]

Trace elements:

As = arsenic
Ba = barium
Be = beryllium
Ce = cerium
Co = cobalt
Cr = chromium
Cu = copper
Ga = gallium
La = lanthanum
Li = lithium
Mn = manganese
Mo = molybdenum
Nb = niobium
Nd = neodymium
Ni = nickel
Pb = lead
Sc = scandium
Sr = strontium
Th = thorium
V = vanadium
Y = yttrium
Yb = ytterbium
Zn = zinc

Lithologic units:

C = surficial aquifer
B = confining unit
A = confined aquifer of the Talbot Formation
K = Patapsco Formation

Well no.	Depth (feet)	Lithologic unit	As	Ba	Be	Ce	Co	Cr	Cu	Ga	La	Li	Mn	Mo	Nb	Nd	Ni	Pb	Sc	Sr	Th	V	Y	Yb	Zn
JF41	1	C	<10	108	<1	47	5	20	5	<4	21	19	66	<2	5	22	9	6	3	27	5	22	7	1	16
JF41	3	C	<10	292	1	63	8	65	14	12	32	37	131	<2	10	31	19	15	10	67	10	71	14	2	49
JF91	4	C	10	315	1	75	6	90	18	17	37	58	50	<2	9	34	16	18	13	59	13	93	15	2	46
JF41	10	C	<10	123	<1	45	5	24	7	5	20	25	65	<2	<4	18	10	6	3	31	4	23	7	1	26
JF91	11	C	<10	106	<1	50	3	16	4	<4	22	20	48	<2	5	22	7	6	2	26	4	18	7	<1	22
JF41	18	C	<10	320	2	76	15	70	18	13	37	53	149	<2	9	37	30	15	10	62	10	77	20	3	83
JF91	45	B	<10	211	2	69	16	69	17	15	36	52	1,070	<2	7	35	29	16	11	266	10	75	20	3	77
JF41	55	B	10	107	2	83	19	88	19	16	40	60	1,030	<2	9	41	37	17	13	94	12	92	24	3	92
JF41	78	A	10	155	<1	35	12	40	9	6	15	25	466	<2	5	16	16	8	5	40	5	37	9	1	38
JF91	88	A	10	196	1	38	10	39	13	7	18	24	158	<2	5	16	15	10	5	45	4	44	9	1	53
B4	102	A	<10	132	<1	33	6	27	6	<4	13	13	114	<2	<4	11	10	5	2	34	<4	18	6	<1	24
B4	161	K	10	335	3	101	5	102	23	22	49	21	63	<2	11	47	12	17	22	72	14	227	21	3	23
B4	241	K	480	19	1	42	311	50	28	9	19	18	64	7	7	20	774	46	7	35	8	63	12	2	4

Table 6. Percentage of pollen types in core samples from wells JF61 and JF81,. and borehole B3, J-Field, Aberdeen Proving Ground, Maryland

[Unit B = confining unit; Unit A = confined aquifer; --, not detected]

	Stratigraphically higher ------> Stratigraphically lower			
	Well No.			
Pollen type	JF61 (Unit B)	JF81 (Unit B)	B3 (Unit B)	JF81 (Unit A)
Acer (maple)	1.8	2.5	1.4	5.3
Alnus (alder)	--	1.2	--	--
Ambrosia (ragweed)	--	--	9.6	7.9
Amaranthaceae (amaranth)	.9	--	--	--
Betula (birch)	1.8	--	1.4	--
Carya (hickory)	8.2	16.2	21.9	31.6
Cephalanthus (buttonbush)	--	--	1.4	--
Chenopodium (pigweed)	--	1.2	1.4	--
Cornus (dogwood)	--	--	1.4	--
Dryopteris (wood-fern)	--	--	5.5	--
Fagus (beech)	2.7	--	4.1	7.9
Fraxinus (ash)	.9	1.2	1.4	--
Juglans (walnut)	4.6	2.5	12.3	5.3
Juniperus (red cedar)	--	2.5	--	1.3
Liquidambar (sweet gum)	--	--	2.7	1.3
Lycopodium (club moss)	1.8	1.2	2.7	2.6
Nyssa (black gum)	11.0	13.7	2.7	6.6
Pinus (pine)	41.3	22.5	8.2	7.9
Prunus (cherry)	1.8	1.2	--	--
Quercus (oak)	18.3	30.0	17.8	17.1
Sarracenia (skunk cabbage)	--	--	--	1.3
Selaginella (spikemoss)	--	--	1.2	--
Small tricolpate grain	--	--	2.5	--
Sparganium (burreed)	--	--	--	1.3
Stellaria (chickweed)	1.8	--	--	--
Thalictrum (meadow-rue)	--	1.4	--	--
Tsuga (hemlock)	.9	1.4	--	2.6
Ulmus (elm)	.9	1.4	--	--

Table 7a. Electromagnetic-induction data collected at the toxic-materials disposal area at J-Field, Aberdeen Proving Ground, Maryland

[mo = month; yr = year; values are millisiemens per meter; -- = no data; location of sampling sites shown in figures 7a-d]

Site No.	Date (mo/day/yr)	10-meter spacing		20-meter spacing	
		Horizontal dipole	Vertical dipole	Horizontal dipole	Vertical dipole
1	2/8/88	17	23	14	26
2	2/8/88	15	28	19	18
3	2/8/88	18	22	19	22
4	2/8/88	18	17	18	19
5	2/8/88	15	10	18	20
6	2/8/88	16	18	22	14
7	2/8/88	16	20	18	21
8	2/8/88	17	20	19	24
9	2/8/88	19	20	19	17
10	2/8/88	19	20	19	18
11	2/8/88	16	16	18	17
12	2/8/88	15	20	17	21
13	2/8/88	15	16	16	20
14	2/8/88	14	20	17	21
15	2/8/88	16	20	18	22
16	2/8/88	16	18	18	21
17	2/8/88	19	18	19	18
18	2/8/88	21	21	21	22
19	2/8/88	19	17	19	16
20	2/8/88	16	20	18	23
21	2/8/88	22	7	17	17
22	2/8/88	15	18	14	24
23	2/8/88	--	--	15	18
24	2/8/88	14	19	16	23
25	2/8/88	15	21	11	23
26	2/8/88	8	20	16	22
27	2/8/88	19	19	20	18
28	2/8/88	22	16	--	--
29	2/9/88	11	17	16	6
30	2/9/88	9	43	14	13
31	2/9/88	12	18	16	21
32	2/9/88	13	18	16	18
33	2/9/88	14	17	16	21
34	2/9/88	15	20	18	21
35	2/9/88	17	21	19	23
36	2/9/88	17	17	15	23
37	2/9/88	11	3	14	17
38	2/9/88	13	18	16	24
39	2/9/88	14	16	16	21
40	2/9/88	14	20	17	20
41	2/9/88	15	18	17	19
42	2/9/88	17	23	19	28
43	2/9/88	14	24	22	23
44	2/9/88	14	52	16	26
45	2/9/88	14	52	17	26
46	2/9/88	14	20	19	27
47	2/9/88	16	22	20	28
48	2/9/88	19	21	22	26
49	2/9/88	26	22	26	25
50	2/9/88	26	25	30	33
51	2/9/88	24	26	27	25
52	2/9/88	25	31	27	30
53	2/9/88	27	34	32	28
54	2/9/88	30	30	32	25
55	2/9/88	25	32	26	34
56	2/9/88	30	40	34	39
57	2/9/88	33	44	38	28
58	2/9/88	38	40	38	26
59	2/9/88	38	44	38	36
60	2/9/88	34	46	38	1
61	2/9/88	36	18	26	22
62	2/9/88	33	38	34	34
63	2/9/88	36	38	42	31
64	2/9/88	37	39	30	36
65	2/9/88	34	32	33	25
67	2/10/88	28	42	25	32
68	2/10/88	26	34	29	36
69	2/10/88	40	31	34	32
70	2/10/88	34	16	29	24
71	2/10/88	34	27	34	38
72	2/10/88	40	37	42	48

Table 7a. Electromagnetic-induction data collected at the toxic-materials disposal area at J-Field, Aberdeen Proving Ground, Maryland--Continued

Site No.	Date (mo/day/yr)	10-meter spacing		20-meter spacing	
		Horizontal dipole	Vertical dipole	Horizontal dipole	Vertical dipole
73	2/10/88	64	47	52	28
74	2/10/88	70	43	53	--
75	2/10/88	43	37	45	12
76	2/10/88	39	32	37	48
77	2/10/88	40	68	35	51
78	2/10/88	38	51	32	50
79	2/10/88	39	38	31	40
80	2/10/88	35	34	33	43
81	2/10/88	60	27	47	20
82	2/10/88	36	37	37	44
83	2/10/88	36	19	36	35
84	2/10/88	26	30	23	28
85	2/10/88	25	38	24	25
86	2/10/88	66	8	31	21
87	2/3/88	15	16	16	16
88	2/3/88	14	17	16	19
89	2/3/88	14	17	16	20
90	2/3/88	13	15	15	18
91	2/3/88	12	18	15	21
92	2/3/88	11	15	13	18
93	2/3/88	11	12	14	17
94	2/3/88	11	14	14	16
95	2/3/88	14	17	16	20
96	2/3/88	16	18	17	18
97	2/3/88	16	23	16	23
98	2/3/88	15	20	16	22
99	2/3/88	10	19	16	23
100	2/3/88	13	17	17	17
101	2/3/88	14	18	15	20
102	2/3/88	14	18	18	21
103	2/3/88	15	20	18	24
103	2/5/88	15	18	18	22
104	2/3/88	14	20	--	--
105	2/3/88	15	19	19	20
106	2/3/88	15	22	19	25
107	2/3/88	20	25	22	26
108	2/3/88	15	22	20	31
109	2/3/88	15	17	19	19
110	2/3/88	17	23	22	26
111	2/3/88	27	35	30	25
112	2/3/88	15	20	19	22
112	2/5/88	19	20	21	28
113	2/3/88	15	19	19	22
113	2/5/88	17	22	21	25
114	2/3/88	16	23	21	27
114	2/5/88	19	26	24	31
115	2/3/88	23	30	24	25
116	2/3/88	14	19	16	18
116	2/5/88	18	24	22	27
117	2/3/88	15	18	18	22
117	2/5/88	17	18	22	21
118	2/3/88	15	22	18	23
118	2/5/88	17	25	22	30
119	2/3/88	17	30	19	30
119	2/5/88	20	33	23	34
120	2/3/88	18	19	--	--
120	2/5/88	25	25	--	--
121	2/3/88	12	16	0	3
121	2/5/88	18	24	21	29
122	2/3/88	8	8	2	3
122	2/5/88	15	21	19	28
123	2/5/88	16	24	20	32
124	2/5/88	20	27	24	32
125	2/5/88	34	19	33	27
126	2/5/88	20	18	24	27
127	2/5/88	15	22	20	25
128	2/5/88	15	18	20	23
129	2/5/88	18	25	24	31
130	2/5/88	26	26	28	26
131	2/5/88	16	20	22	30
132	2/5/88	14	19	19	25

Table 7a. Electromagnetic-induction data collected at the toxic-materials disposal area at J-Field, Aberdee Proving Ground, Maryland--Continued

Site No.	Date (mo/day/yr)	10-meter spacing		20-meter spacing	
		Horizontal dipole	Vertical dipole	Horizontal dipole	Vertical dipole
133	2/5/88	21	31	23	34
134	2/5/88	16	21	23	38
135	2/5/88	16	22	21	31
135	2/10/88	34	27	34	38
136	2/5/88	14	19	20	27
136	2/10/88	34	16	29	24
137	2/5/88	15	18	19	24
137	2/10/88	40	31	34	32
138	2/5/88	16	20	20	30
138	2/10/88	26	34	29	36
139	2/5/88	--	--	--	--
139	2/10/88	28	42	25	32
140	2/5/88	29	15	25	24
141	2/5/88	17	24	25	30
141	2/10/88	39	32	37	48
142	2/5/88	17	24	18	26
142	2/10/88	43	37	45	12
143	2/5/88	14	18	19	26
143	2/10/88	70	43	53	--
144	2/5/88	17	20	20	25
144	2/10/88	64	47	52	28
145	2/5/88	20	25	22	34
145	2/10/88	40	37	42	48
146	2/5/88	22	--	--	--
147	2/5/88	16	22	22	26
148	2/5/88	15	22	20	21
149	2/5/88	16	19	19	28
149	2/10/88	35	34	33	43
150	2/5/88	16	18	20	26
150	2/10/88	39	38	33	40
151	2/5/88	17	18	22	30
151	2/10/88	38	51	32	50
152	2/5/88	17	26	26	36
152	2/10/88	40	68	35	51
153	2/5/88	16	18	19	25
153	2/10/88	36	19	36	35
154	2/5/88	15	22	21	26
154	2/10/88	36	37	37	44
155	2/5/88	17	18	21	26
155	2/10/88	60	27	47	20
156	2/5/88	19	22	24	25
157	2/5/88	17	18	21	24
158	2/5/88	16	19	21	29
158	2/10/88	66	8	31	21
159	2/5/88	19	20	22	27
159	2/10/88	25	38	24	25
160	2/5/88	19	18	24	27
160	2/10/88	26	30	23	28
161	2/8/88	22	23	28	31
162	2/8/88	17	23	24	33
163	2/8/88	18	17	22	25
164	2/8/88	18	21	23	27
165	2/8/88	19	21	24	26
166	2/8/88	27	34	34	38
167	2/8/88	20	24	25	35
168	2/8/88	19	21	24	28
169	2/8/88	19	23	24	25
170	2/8/88	20	25	26	28
171	2/8/88	27	33	36	33
172	2/8/88	32	31	35	42
173	2/8/88	23	26	28	39
174	2/8/88	22	26	28	36
175	2/8/88	28	31	36	37
176	2/8/88	48	31	48	35
177	2/8/88	79	30	60	25
178	2/8/88	40	43	46	49
179	2/8/88	27	33	40	40
180	2/8/88	35	37	44	48
181	2/8/88	56	32	54	38
182	2/8/88	39	44	52	62
183	2/8/88	43	45	49	52
184	2/8/88	62	49	--	--

Table 7b. Electromagnetic-induction data collected at the riot-control-agent disposal area at J-Field, Aberdeen Proving Ground, Maryland

Site No.	Date (mo/day/yr)	10-meter spacing		20-meter spacing	
		Horizontal dipole	Vertical dipole	Horizontal dipole	Vertical dipole
1	7/1/88	10	15	11	14
2	7/1/88	12	14	11	13
3	7/1/88	12	15	12	15
4	7/1/88	13	15	13	13
5	7/1/88	16	12	13	14
6	7/1/88	13	16	14	16
7	7/1/88	12	12	12	13
8	7/1/88	12	11	13	15
9	7/1/88	13	13	13	15
10	7/1/88	14	16	14	13
11	7/1/88	15	19	14	12
12	7/1/88	17	13	15	14
13	7/1/88	17	15	16	16
14	7/1/88	14	18	13	18
15	7/1/88	11	15	11	13
16	7/1/88	11	17	12	15
17	7/1/88	11	15	12	13
18	7/1/88	14	10	13	13
19	7/1/88	14	17	14	18
20	7/1/88	15	14	13	15
21	7/7/88	19	9	16	10
22	7/7/88	13	14	14	16
23	7/7/88	11	15	13	15
24	7/7/88	12	14	12	13
25	7/7/88	14	16	14	14
26	7/7/88	16	19	16	17
27	7/7/88	13	17	14	13
28	7/7/88	12	12	13	11
29	7/7/88	12	17	13	17
30	7/7/88	16	19	15	13
31	7/7/88	19	16	15	12
32	7/7/88	11	15	13	15
33	7/7/88	12	12	13	14
34	7/7/88	14	18	16	16
35	7/7/88	25	12	19	9
36	7/7/88	27	15	21	10
37	7/7/88	22	21	18	15
38	7/7/88	18	16	16	15
39	7/7/88	11	15	12	12
40	7/7/88	13	17	12	17
41	7/7/88	15	20	14	15
42	7/7/88	17	20	15	18
43	7/7/88	19	21	17	17
44	7/7/88	23	19	19	11
45	7/7/88	22	14	19	11

Table 7c. Electromagnetic-induction data collected at the Prototype Building area at J-Field, Aberdeen Proving Ground, Maryland

Site No.	Date (mo/day/yr)	10-meter spacing		20-meter spacing	
		Horizontal dipole	Vertical dipole	Horizontal dipole	Vertical dipole
1	5/19/88	14	16	15	19
2	5/19/88	17	16	10.5	22
3	5/19/88	12	19	14	19
4	5/19/88	12	12	13	16
5	5/19/88	13	13	14	18
6	5/19/88	14	17	16	18
7	5/19/88	18	16	17	17
8	5/19/88	14	17	15	17.5
9	5/19/88	13	18	15	18
10	5/19/88	15.5	16	18	19
11	5/19/88	11	16	13.5	18
12	5/19/88	13	17	19	23
13	5/19/88	15	16	15	16
14	5/19/88	13	17	14	19
15	5/19/88	14	14	15	16
16	5/19/88	15	17	15	14
17	5/19/88	12	14	14	19
18	5/19/88	18	20	22	28
19	5/19/88	17	20	16	19
20	5/19/88	12	15	14	17.5
21	5/19/88	16	20	17	20
22	5/19/88	24	23	25	26
23	5/19/88	23	23	22	21
24	5/19/88	18	21	15	16
25	5/19/88	12	15	16	19
26	5/19/88	20	21	19	17
27	5/19/88	18	21	18	21
28	5/19/88	15	18	17	20
29	5/19/88	18	21	18	19
30	5/19/88	16	21	16	21
31	5/19/88	16	20	18	21

Table 7d. Electromagnetic-induction data collected at the white-phosphorus disposal area at J-Field, Aberdeen Proving Ground, Maryland

Site No.	Date (mo/day/yr)	10-meter spacing		20-meter spacing	
		Horizontal dipole	Vertical dipole	Horizontal dipole	Vertical dipole
1	12/11/88	21	70	17	53
2	12/11/88	9	22	9	28
3	12/11/88	7	16	9	24
4	12/11/88	7	15	9	22
5	12/11/88	7	12	8.5	17
6	12/11/88	12.5	105	22.5	275
7	12/11/88	53	--	170	--
8	12/11/88	--	--	200	--
9	12/11/88	--	--	--	--
10	12/11/88	6	110	19	58
11	12/11/88	10.5	15	11.5	22
12	12/11/88	10	15	12	21.5
13	12/11/88	10	16	12	27
14	12/11/88	10	18	12	40
15	12/11/88	95	22	9	55
16	12/11/88	12.5	19.5	12	12
17	12/11/88	10	14	12	17
18	12/11/88	9	12	11	16.5
19	12/11/88	9	13	11	17
20	12/11/88	9	13.5	9	17
21	12/11/88	11	12.5	--	--
22	12/11/88	9	11	12.5	13.5
23	12/11/88	7.5	12	11	15
24	12/11/88	7	11	11	16
25	12/11/88	14	0	10	17
26	12/11/88	11	15	11.5	17.5
27	12/11/88	9	11.5	10	16
28	12/11/88	8	8	11	15
29	12/11/88	9.5	12	11	13
30	12/11/88	8	15	11	14
31	5/20/88	15	--	--	--
32	5/20/88	5	6	--	1.3
33	5/20/88	3.1	13	--	2.9
34	5/20/88	7.5	12	7	13
35	5/20/88	11	--	11	11
36	5/20/88	16	16	15	14
37	5/20/88	12	16	14	12
38	5/20/88	12	14	13	20
39	5/20/88	15	17	15	21
40	5/20/88	24	12	16	11
41	5/20/88	34	14	24	15
42	5/20/88	12	3	19	7
43	5/20/88	17	22	15	12.5
44	5/20/88	18	17	13	15
45	5/20/88	18	15	15	17
46	5/20/88	11.5	11	14.5	21
47	5/20/88	20	23	19	13
48	5/20/88	50	11.5	24	--
49	5/20/88	62	18	26	--
50	5/20/88	53	27	36	12.5
51	5/20/88	40	16	25	11
52	5/20/88	58	49	42	15
53	5/20/88	70	18	40	1.0
54	5/20/88	56	30	39	19
55	12/4/88	17	150	72	--
56	12/4/88	44	250	84	--
57	12/4/88	150	0	50	0
58	12/4/88	13	23.0	40	6
59	12/4/88	5	3.8	11	21
60	12/4/88	8	15.5	11	23
61	12/4/88	9	12.5	10	14
62	12/3/88	7.5	12	10	13
62	12/4/88	10.5	14	12	16
63	12/3/88	9	11	10	12.5
64	12/3/88	9	13	10	14.5
65	12/3/88	9	14	11	15
66	12/3/88	9.5	14	11	17
67	12/3/88	9.5	11.5	11	13
68	12/3/88	9.5	12	11	13
69	12/3/88	9.5	12	10.5	13

Table 7d. Electromagnetic-induction data collected at the white-phosphorus disposal area at J-Field, Aberdeen Proving Ground, Maryland--Continued

Site No.	Date (mo/day/yr)	10-meter spacing		20-meter spacing	
		Horizontal dipole	Vertical dipole	Horizontal dipole	Vertical dipole
70	12/3/88	10	12.5	11	14
71	12/3/88	10	12	11	13.5
72	12/3/88	10.5	14	11.5	17
73	12/3/88	10	11	11	13.5
74	12/3/88	11.5	12	12	13
75	12/3/88	12	12.5	12	16
76	12/3/88	13	13	13	14
77	12/3/88	12	15	13	17
78	12/3/88	--	--	--	--
79	12/3/88	14	14	14.5	19
80	12/3/88	14	16	15	18.5
81	12/3/88	13.5	16.5	15	18
82	12/3/88	15	16.5	16	21.5
83	12/3/88	15	15	15.5	16.5
84	12/3/88	14.5	16	12.5	18
85	12/3/88	14	14	15	18
86	12/3/88	16	15	18	6.7
87	12/3/88	16	18	--	--
88	12/3/88	14.5	17	16	16
89	12/3/88	14	16.5	15	17.5
90	12/3/88	14	16	15	18.5
91	12/3/88	16.5	15	15.5	17.5
92	12/3/88	18	17	--	--
93	12/3/88	13.5	16	15	17
94	12/3/88	14	15	15	17.5
95	12/3/88	17	15	16.5	14
96	12/3/88	18	19	18	17.5
97	12/3/88	19	19	18	16
98	12/3/88	15.5	18	15.5	19
99	12/3/88	14	16.5	14	17
100	12/3/88	13	19	14	20.5
101	12/3/88	13.5	19	14.5	22
102	12/3/88	18	14	16.5	18.5

Table 8. Measured ground-water levels at J-Field, Aberdeen Proving Ground, Maryland, October 1989 through September 1994

[Measuring point elevation is in feet above sea level, water levels in feet above or below (-) sea level; screen interval from land surface; lat: latitude; long: longitude; latitude and longitude: degrees (°), minutes (′), seconds (″); RCADA: Riot control agent disposal area; for location of observation wells, see figure 3; for hydrographs of selected wells, see figures 8a-g]

Well TH1
Lat: 39°18′27″ Long: 76°17′27″ Location: White phosphorus pits
Measuring point elevation: 7.66 Measuring point: top of well casing
Highest water level: 4.57 feet on APR 17, 1990 and on MAR 11, 1994 Screen interval: unknown
Lowest water level: -0.72 feet on NOV 02, 1988

Date	Water level	Date	Water level	Date	Water level
NOV 02, 1988	-0.72	APR 17, 1990	4.57	JUN 10, 1993	3.05
JAN 31, 1989	2.05	JUL 10	1.11	AUG 19	-.64
MAR 02	3.87	JAN 28, 1991	4.37	NOV 22	-.02
APR 10	4.40	JUL 09	.45	MAR 11, 1994	4.57
MAY 03	4.46	MAY 20, 1992	2.86		
NOV 16	4.41	AUG 12	-.17		

Well TH2
Lat: 39°18′26″ Long: 76°17′24″ Location: White phosphorus pits
Measuring point elevation: 13.07 Measuring point: top of well casing
Highest water level: 8.38 feet on APR 17, 1990 Screen interval: unknown
Lowest water level: 0.42 feet on AUG 19, 1993

Date	Water level	Date	Water level	Date	Water level
NOV 02, 1988		MAY 03, 1989	7.96	JUN 10, 1993	3.61
JAN 31, 1989		NOV 16	6.96	AUG 19	.42
MAR 02	5.79	APR 17, 1990	8.38	MAR 11, 1994	7.43
APR 10	7.90	JAN 28, 1991	6.86	AUG 22	.71

Well TH3
Lat: 39°18′24″ Long: 76°17′30″ Location: White phosphorus pits
Measuring point elevation: 9.99 Measuring point: top of well casing
Highest water level: 6.23 feet on MAR 11, 1994 Screen interval: unknown
Lowest water level: -0.58 feet on NOV 02, 1988

Date	Water level	Date	Water level	Date	Water Level
NOV 02, 1988	-0.58	APR 17, 1990	6.12	JUN 10, 1993	2.70
JAN 31, 1989	2.11	JUL 10	1.49	AUG 19	-.08
MAR 02	5.22	JAN 28, 1991	5.17	NOV 22	-.36
APR 10	5.93	JUL 09	1.18	MAR 11, 1994	6.23
MAY 03	6.11	MAY 20, 1992	2.72		
NOV 16	5.55	AUG 12	.4		

Well TH4
Lat: 39°18′10″ Long: 76°17′26″ Location: Toxic pits
Measuring point elevation: 8.09 Measuring point: top of well casing
Highest water level: 4.89 feet on MAR 11, 1994 Screen interval: unknown
Lowest water level: -0.76 feet on AUG 19, 1993

Date	Water level	Date	Water level	Date	Water level
NOV 02, 1988	-0.07	APR 17, 1990	4.10	JUN 10, 1993	2.51
JAN 31, 1989	3.14	JUL 10	1.40	AUG 19	-.76
MAR 02	3.64	JAN 28, 1991	3.51	NOV 22	.26
APR 10	4.06	JUL 09	.86	MAR 11, 1994	4.89
MAY 03	4.57	MAY 20, 1992	2.33	AUG 22, 1994	1.62
NOV 16	3.34	AUG 12	-.04		

Table 8. Measured ground-water levels at J-Field, Aberdeen Proving Ground, Maryland, October 1989 through September 1994--Continued

Well TH5
Lat: 39°18'12" Long: 76°17'33"
Measuring point elevation: 12.68
Highest water level: 8.43 feet on MAR 11, 1994
Lowest water level: 0.44 feet on NOV 02, 1988

Location: Prototype Building
Measuring point: top of well casing
Screen interval: unknown

Date	Water level	Date	Water level	Date	Water level
NOV 02, 1988	0.91	APR 17, 1990	7.89	AUG 19, 1993	1.85
JAN 31, 1989	4.23	JUL 10	3.70	NOV 22	1.11
MAR 02	5.71	JAN 28, 1991	6.56	MAR 11, 1994	8.43
APR 10	7.72	JUL 09	3.07	AUG 22	3.36
MAY 03	7.89	MAY 20, 1992	4.14		
NOV 16	5.71	JUN 10, 1993	4.78		

Well TH6
Lat: 39°18'17" Long: 76°17'37"
Measuring point elevation: 12.44
Highest water level: 9.01 feet on MAR 11, 1994
Lowest water level: 0.55 feet on NOV 02, 1988

Location: Prototype Building
Measuring point: floor of shelter
Screen interval: unknown

Date	Water level	Date	Water level	Date	Water level
NOV 02, 1988	0.55	SEP 25	3.60	MAR 09	8.26
DEC 13	2.09	OCT 31	3.32	31	8.76
JAN 31, 1989	3.63	JAN 15, 1991	8.48	MAY 06	6.23
FEB 01	2.81	28	6.69	JUN 07	4.45
MAR 02	5.82	MAR 06	5.43	10	4.36
APR 10	8.47	MAY 20, 1991	4.89	JUL 08, 1993	3.09
MAY 03	8.83	JUL 09	2.85	AUG 10	1.91
JUN 14	7.42	AUG 07	1.99	19	1.68
JUL 27	5.74	DEC 05	2.11	SEP 17	1.06
AUG 24	3.78	FEB 04, 1992	3.48	OCT 28	.68
OCT 25	5.76	MAR 18	6.17	NOV 22	.79
NOV 16	5.30	MAY 13	4.39	DEC 06	2.05
DEC 14, 1989	4.12	20	4.07	MAR 08, 1994	8.44
FEB 05, 1990	6.87	JUN 30	2.98	11	9.01
28	5.53	AUG 12	1.95	APR 14	8.65
APR 17	8.57	SEP 29	1.32	MAY 13	4.85
JUN 26	4.80	OCT 29	1.50	JUL 05	5.05
JUL 10	3.73	DEC 04, 1992	2.53	AUG 16	2.04
AUG 08	3.50	JAN 29, 1993	5.76	22	2.30

Well TH7
Lat: 39°18'14" Long: 76°17'10"
Measuring point elevation: 8.76
Highest water level: 5.14 feet on MAY 03, 1989
Lowest water level: -1.54 feet on NOV 02, 1988

Location: Demolition area
Measuring point: top of well casing
Screen interval: unknown

Date	Water level	Date	Water level	Date	Water level
NOV 02, 1988	-1.54	APR 17, 1990	5.03	JUN 10, 1993	3.41
JAN 31, 1989	3.31	JUL 10	1.02	AUG 19	-1.08
MAR 02	4.60	JAN 28, 1991	4.57	NOV 22	-1.21
APR 10	5.00	JUL 09	.64	MAR 11, 1994	4.96
MAY 03	5.14	MAY 20, 1992	3.46	AUG 22	.88
NOV 16	4.74	AUG 12	-.40		

Table 8. Measured ground-water levels at J-Field, Aberdeen Proving Ground, Maryland, October 1989 through September 1994--Continued

Well TH8
Lat: 39°18'16" Long: 76°17'38"
Measuring point elevation: 8.94
Highest water level: 4.17 feet on JUN 16, 1989
Lowest water level: 0.69 feet on NOV 22,1993
Location: Prototype Building
Measuring point: floor of shelter
Screen interval: unknown

Date	Water level	Date	Water level	Date	Water level
NOV 02, 1988	1.02	JUN 26	1.97	OCT 29	1.17
DEC 13	1.17	JUL 10	1.61	DEC 04	1.19
JAN 31, 1989	1.38	AUG 08	1.94	JAN 29, 1993	2.29
FEB 01	1.34	SEP 25	1.52	FEB 26	2.66
MAR 02	2.14	OCT 31, 1990	1.77	MAR 31, 1993	3.31
03	2.22	JAN 15, 1991	2.96	MAY 06	2.45
10	3.24	28	2.43	JUN 07	2.04
APR 10	3.16	MAR 06	2.29	10	1.93
MAY 03	3.47	JUL 09	1.52	JUL 08	1.42
JUN 16	4.17	AUG 02	1.34	AUG 10	1.22
JUL 27	2.25	OCT 25	1.38	19	1.45
AUG 24	1.62	DEC 05	1.37	SEP 17	1.12
SEP 07, 1989	1.68	JAN 05, 1992	3.06	NOV 22, 1993	.69
OCT 25	2.34	FEB 04	1.64	MAR 08, 1994	2.77
NOV 16	2.73	MAR 18	1.98	11	3.26
DEC 14	1.70	MAY 13	1.96	MAY 13	1.42
FEB 05, 1990	2.59	MAY 20, 1992	1.75	27	1.95
28	1.97	JUN 30	2.06	JUL 05	1.36
APR 17	3.11	AUG 12	1.35	AUG 22	1.89
MAY 01	2.54	SEP 29	1.32		

Well TH9
Lat: 39°18'11" Long: 76°17'47"
Measuring point elevation: 8.23
Highest water level: 2.00 feet on APR 17, 1990
Lowest water level: 0.80 feet on MAR 02, 1989
Location: RCADA (now off shore)
Measuring point: top of well casing
Screen interval: unknown

Date	Water level	Date	Water level	Date	Water level
MAR 02, 1989	0.8	NOV 16, 1989	1.29	JAN 28, 1991	1.49
APR 10	1.5	APR 17, 1990	2.00		
MAY 03	1.8	JUL 10	.95		

Well TH10
Lat: 39°18'05" Long: 76°17'40"
Measuring point elevation: 9.68
Highest water level: 4.80 feet on MAR 11, 1994
Lowest water level: -0.12 feet on AUG 19, 1993
Location: South beach
Measuring point: top of well casing
Screen interval: unknown

Date	Water level	Date	Water level	Date	Water level
NOV 02, 1988	0.07	APR 17, 1990	4.03	AUG 12, 1992	0.27
JAN 31, 1989	2.67	JUL 10	.85	JUN 10, 1993	1.67
MAR 02	3.35	JAN 28, 1991	3.24	AUG 19	-.12
APR 10	3.94	JUL 09	.78	NOV 22	.55
MAY 03	4.03	AUG 12	.27	MAR 11, 1994	4.80
NOV 16	2.88	MAY 20, 1992	1.66	AUG 22	1.05

Well TH11
Lat: 39°18'06" Long: 76°16'52"
Measuring point elevation: 8.30
Highest water level: 2.06 feet on APR 17, 1990
Lowest water level: 0.26 feet on AUG 12, 1992
Location: Robins Point
Measuring point: top of well casing
Screen interval: unknown

Date	Water level	Date	Water level	Date	Water level
NOV 02, 1988	0.97	JUL 10, 1990	0.53	AUG 19, 1993	1.48
JAN 31, 1989	.57	JAN 28, 1991	1.12	NOV 22	.48
MAR 02	.56	JUL 09	1.10	MAR 11, 1994	1.44
APR 10	1.50	MAY 20, 1992	1.31	AUG 22	.69
MAY 03	1.62	AUG 12	.26		
APR 17, 1990	2.06	JUN 10, 1993	1.48		

Table 8. Measured ground-water levels at J-Field, Aberdeen Proving Ground, Maryland, October 1989 through September 1994--Continued

Well P1
Lat: 39°18'11" Long: 76°17'32"
Measuring point elevation: 14.15
Highest water level: 9.21 feet on MAR 11, 1994
Lowest water level: 1.07 feet on NOV 02, 1988

Location: Toxic pits
Measuring point: top of well casing
Screen interval: 5.0 - 20.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 02, 1988	1.07	APR 17, 1990	8.10	JUN 10, 1993	5.06
JAN 31, 1989	4.43	JUL 10	4.08	AUG 19	2.09
MAR 02	7.16	JAN 28, 1991	6.96	NOV 22	1.31
APR 10	7.76	JUL 09	3.28	MAR 11, 1994	9.21
MAY 03	7.56	MAY 20, 1992	4.36	AUG 22	3.89
NOV 16	5.39	AUG 12	2.41		

Well P2
Lat: 39°18'09" Long: 76°17'30"
Measuring point elevation: 11.16
Highest water level: 7.58 feet on MAR 11, 1994
Lowest water level: 0.40 feet on NOV 02, 1988

Location: Toxic pits
Measuring point: top of well casing
Screen interval: 5.0 -20.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 02, 1988	0.40	APR 17, 1990	6.49	AUG 19, 1993	1.24
JAN 31, 1989	4.74	JUL 10	3.49	NOV 22	1.13
MAR 02	5.64	JAN 28, 1991	5.88	MAR 11, 1994	7.58
APR 10	6.27	JUL 09	2.63	AUG 22	3.28
MAY 03	6.02	MAY 20, 1992	4.19		
NOV 16	4.60	JUN 10, 1993	4.51		

Well P3
Lat: 39°18'12" Long: 76°17'29"
Measuring point elevation: 10.27
Highest water level: 6.60 feet on APR 10, 1989
Lowest water level: 1.33 feet on NOV 22, 1993

Location: Toxic pits
Measuring point: top of well casing
Screen interval: 5.0 - 20.0 feet

Date	Water level	Date	Water level	Date	Water level
MAR 02, 1989	5.81	JUL 10, 1990	3.20	JUN 10, 1993	4.62
APR 10	6.60	JAN 28, 1991	5.92	AUG 19	1.36
MAY 03	6.09	JUL 09	3.55	NOV 22	1.33
NOV 16	5.27	MAY 20, 1992	3.92	AUG 22, 1994	3.65
APR 17, 1990	6.38	AUG 12	1.85		

Well P4
Lat: 39°18'11" Long: 76°17'28"
Measuring point elevation: 10.19
Highest water level: 6.53 feet on MAR 11, 1994
Lowest water level: -0.01 feet on AUG 19, 1993

Location: Toxic pits
Measuring point: top of well casing
Screen interval: 5.0 - 17.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 02, 1988	0.41	APR 17, 1990	6.49	JUN 10, 1993	3.66
JAN 31, 1989	6.16	JUL 10	2.15	AUG 19	-.01
MAR 02	6.13	JAN 28, 1991	6.20	NOV 22	2.00
APR 10	6.07	JUL 09	1.56	MAR 11, 1994	6.53
MAY 03	5.95	MAY 20, 1992	3.77	AUG 22	5.79
NOV 16	6.44	AUG 12	.50		

Well P5
Lat: 39°18'25" Long: 76°17'25"
Measuring point elevation: 13.03
Highest water level: 8.03 feet on APR 11, 1990
Lowest water level: -0.92 feet on NOV 02, 1988

Location: White phosphorus pits
Measuring point: top of well casing
Screen interval: 5.0 - 20.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 02, 1988	-0.92	APR 17, 1990	8.03	JUN 10, 1993	3.50
JAN 31, 1989	2.03	JUL 10	2.47	AUG 19	.48
MAR 02	5.90	JAN 28, 1991	6.56	NOV 22	-.52
APR 10	7.36	JUL 09	1.74	MAR 11, 1994	7.38
MAY 03	7.52	MAY 20, 1992	3.97	AUG 22	.97
NOV 16	6.67	AUG 12	1.00		

Table 8. Measured ground-water levels at J-Field, Aberdeen Proving Ground, Maryland, October 1989 through September 1994--Continued

Well P6
Lat: 39°18'25" Long: 76°17'30"
Measuring point elevation: 10.88
Highest water level: 5.97 feet on APR 17, 1990
Lowest water level: -0.89 feet on NOV 02, 1988
Location: White phosphorus pits
Measuring point: top of well casing
Screen interval: 5.0 - 20.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 02, 1988	-0.89	APR 17, 1990	5.97	JUN 10, 1993	2.87
JAN 31, 1989	2.57	JUL 10	1.51	AUG 19	.54
MAR 02	4.33	JAN 28, 1991	4.67	NOV 22	.15
APR 10	4.63	JUL 09	1.51	MAR 11, 1994	5.70
MAY 03	4.87	MAY 20, 1992	3.77		
NOV 16	5.17	AUG 12	.90		

Well P7
Lat: 39°18'26" Long: 76°17'30"
Measuring point elevation: 7.77
Highest water level: 3.18 feet on APR 17, 1990
Lowest water level: 0.01 feet on NOV 02, 1988
Location: White phosphorus pits
Measuring point: top of well casing
Screen interval: 5.0 - 20.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 02, 1988	0.01	APR 17, 1990	3.18	JUN 10, 1993	1.88
JAN 31, 1989	2.18	JUL 10	1.05	AUG 19	1.07
MAR 02	1.93	JAN 28, 1991	2.30	NOV 22	.24
APR 10	2.30	MAY 20, 1992	1.90	MAR 11, 1994	2.38
MAY 03	2.27	AUG 12	.51		

Well P8
Lat: 39°18'27" Long: 76°17'28"
Measuring point elevation: 8.48
Highest water level: 4.62 feet on APR 17, 1990
Lowest water level: -0.29 feet on NOV 02, 1988
Location: White phosphorus pits
Measuring point: top of well casing
Screen interval: 5.0 - 20.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 02, 1988	-0.29	APR 17, 1990	4.62	JUN 10, 1993	2.80
JAN 31, 1989	2.21	JUL 10	.50	AUG 19	.53
MAR 02	3.72	JAN 28, 1991	4.05	NOV 22	.36
APR 10	4.06	JUL 09	1.15	MAR 11, 1994	4.23
MAY 03	4.12	MAY 20, 1992	2.55		
NOV 16	2.89	AUG 12	.61		

Well P9
Lat: 39°18'10" Long: 76°17'31"
Measuring point elevation: 11.12
Highest water level: 7.66 feet on MAR 11, 1994
Lowest water level: 0.76 feet on NOV 02, 1988
Location: Toxic pits
Measuring point: top of well casing
Screen interval: 5.0 - 20.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 02, 1988	0.76	APR 17, 1990	6.95	JUN 10, 1993	4.87
JAN 31, 1989	4.21	JUL 10	3.53	AUG 19	1.37
MAR 02	6.16	JAN 28, 1991	6.02	NOV 22	1.20
APR 10	6.62	JUL 09	2.89	MAR 11, 1994	7.66
MAY 03	6.59	MAY 20, 1992	4.27	AUG 22	3.39
NOV 16	5.01	AUG 12	1.96		

Well JF1
Lat: 39°18'06" Long: 76°16'53"
Measuring point elevation: 8.01
Highest water level: 2.40 feet on NOV 16, 1989
Lowest water level: -0.44 feet on MAR 11, 1994
Location: Robins Point
Measuring point: top of well casing
Screen interval: 185.0 - 190.0 feet

Date	Water level	Date	Water level	Date	Water level
APR 10, 1989	1.03	JUL 10, 1990	0.82	AUG 19, 1993	1.75
MAY 03	1.01	JAN 28, 1991	.91	NOV 22	.41
NOV 16	2.40	JUL 09	1.28	MAR 11, 1994	-.44
APR 17, 1990	1.91	JUN 10, 1993	1.33	AUG 22	1.20

Table 8. Measured ground-water levels at J-Field, Aberdeen Proving Ground, Maryland, October 1989 through September 1994--Continued

Well JF2
Lat: 39°18'06" Long: 76°16'53"
Measuring point elevation: 13.47 (estimated)
Highest water level: 2.16 feet on AUG 22, 1994
Lowest water level: 0.95 feet on MAR 11, 1994

Location: J-Field gate
Measuring point: top of well casing
Screen interval: 208.0 - 213.0 feet

Date	Water level	Date	Water level	Date	Water level
JUL 27, 1989	1.01	JUL 09, 1991	1.20	NOV 22, 1993	1.45
NOV 16	2.03	MAY 20, 1992	1.17	MAR 11, 1994	.95
APR 17, 1990	1.59	JUN 10, 1993	1.13	AUG 22	2.16
JUL 10	1.08	AUG 19	1.54		

Well JF11
Lat: 39°18'09" Long: 76°17'43"
Measuring point elevation: 10.35
Highest water level: 1.88 feet on MAY 20, 1991
Lowest water level: -1.44 feet on NOV 07, 1993

Location: RCADA
Measuring point: floor of shelter
Screen interval: 85.0 - 90.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	1.84	DEC 05, 1991	-0.17	AUG 19, 1993	1.69
FEB 05, 1990	.02	FEB 04, 1992	1.11	SEP 17	1.10
28	.90	MAR 18	.13	OCT 08	1.09
APR 17	1.31	MAY 13	1.39	28	1.79
MAY 01	1.23	20	1.30	NOV 07	-1.44
JUN 26	1.58	JUN 30	1.62	22	.67
JUL 10	1.07	AUG 12	1.03	DEC 06	.90
AUG 08	1.43	SEP 29	.92	JAN 10, 1994	-.93
SEP 25	1.05	OCT 29	.96	MAR 08	.86
OCT 31	1.18	DEC 04	.42	11	-.17
JAN 14, 1991	1.59	JAN 29, 1993	.94	APR 14	1.43
28	.80	MAR 09	.70	MAY 13	.27
MAR 06	1.80	31	1.49	23	1.06
MAY 20	1.88	MAY 06	.94	JUL 05	.81
JUL 09	.92	JUN 07	1.09	AUG 16	.50
AUG 07	.99	10	1.42	22	1.33
OCT 25	.84	JUL 08	1.16		

Well JF12
Lat: 39°18'09" Long: 76°17'43"
Measuring point elevation: 9.90
Highest water level: 3.49 feet on MAR 31, 1993
Lowest water level: 0.44 feet on OCT 29, 1993

Location: RCADA
Measuring point: top of well casing
Screen interval: 50.0 - 55.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	1.94	OCT 25, 1991	0.64	JUN 10, 1993	2.10
FEB 05, 1990	1.93	DEC 05	.95	JUL 08	1.53
28	1.92	FEB 04, 1992	1.32	AUG 10	1.08
APR 17	2.20	MAR 18	1.82	19	.95
MAY 01	2.24	MAY 13	2.02	SEP 17	.56
JUN 04	2.33	20	1.90	OCT 29	.44
JUL 10	1.65	JUN 30	1.70	NOV 22	.46
AUG 08	1.60	AUG 12	1.18	DEC 06	.65
SEP 25	1.79	SEP 29	.79	JAN 10, 1994	.94
OCT 31	1.52	OCT 29	1.30	MAR 08	1.92
JAN 14, 1991	1.85	DEC 04	1.37	11	1.98
28	2.17	JAN 29, 1993	2.97	APR 14	2.30
MAR 06	2.15	MAR 09	3.43	MAY 13	2.08
MAY 20	2.22	31	3.49	JUL 05	1.14
JUL 09	1.63	MAY 06	2.55	AUG 16	1.03
AUG 07	1.26	JUN 07	2.18	22	1.09

Table 8. Measured ground-water levels at J-Field, Aberdeen Proving Ground, Maryland, October 1989 through September 1994--Continued

Well JF13
Lat: 39°18'09" Long: 76°17'43"
Measuring point elevation: 10.24
Highest water level: 3.95 feet on MAR 31, 1993
Lowest water level: -0.09 feet on SEP 17, 1993
Location: RCADA
Measuring point: floor of shelter
Screen interval: 20.5 - 25.5 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	2.81	DEC 05, 1991	1.02	AUG 10, 1993	0.41
FEB 05, 1990	3.35	FEB 04, 1992	2.01	19	.38
28	1.65	MAR 18	2.74	SEP 17	-.09
APR 17	3.71	MAY 13	2.42	OCT 28	.70
MAY 01	3.50	20	1.90	NOV 22	.25
JUN 26	1.88	JUN 30	1.48	DEC 06	1.04
JUL 10	1.21	AUG 12	.52	JAN 10, 1994	1.60
AUG 08	1.48	SEP 29	.67	MAR 08	3.72
SEP 25	1.45	OCT 29	.77	11	3.76
OCT 31	1.68	DEC 04	1.17	APR 14	3.83
JAN 14, 1991	3.91	JAN 29, 1993	2.93	MAY 13	2.22
28	3.19	MAR 09	3.70	23	2.28
MAR 06	3.09	31	3.95	JUL 05	.87
MAY 20	2.51	MAY 06	3.30	AUG 16	.59
JUL 09	1.02	JUN 07	1.91	22	1.14
AUG 07	.54	10	2.16		
OCT 25	.73	JUL 08	1.07		

Well JF21
Lat: 39°18'09" Long: 76°17'46"
Measuring point elevation: 6.01
Highest water level: 1.84 feet on NOV 16, 1989
Lowest water level: -0.92 feet on JAN 10, 1994
Location: RCADA
Measuring point: floor of shelter
Screen interval: 68.0 - 71.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	1.84	AUG 08, 1991	1.11	AUG 10, 1993	1.04
FEB 05, 1990	-.02	OCT 25	.86	19	1.63
28	.93	DEC 05	-.19	SEP 17	1.07
APR 17	1.36	FEB 04, 1992	1.07	OCT 28	1.74
MAY 01	1.10	MAR 18	.16	NOV 22	.66
JUN 26	1.49	MAY 13	1.28	DEC 06	.96
JUL 10	1.06	20	1.29	JAN 10, 1994	-.92
AUG 08	1.43	JUN 30	1.53	MAR 08	.87
SEP 25	1.08	SEP 29	.94	11	-.19
OCT 02	1.23	OCT 29	.99	APR 14	1.42
31	1.23	DEC 04	.33	MAY 13	.26
JAN 14, 1991	1.50	JAN 29, 1993	1.02	27	1.19
28	.77	MAR 16	.35	JUL 05	.76
MAR 06	1.82	31	1.61	AUG 16	.53
MAY 20	1.84	MAY 06	.90	22	1.34
JUN 07	.98	JUN 10	1.38		
JUL 09	.89	JUL 08	1.21		

Well JF22
Lat: 39°18'09" Long: 76°17'46"
Measuring point elevation: 5.63
Highest water level: 1.80 feet on MAY 06, 1993
Lowest water level: 0.41 feet on AUG 19, 1993
Location: RCADA
Measuring point: top of well casing
Screen interval: 47.5 - 52.5 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	1.53	OCT 25, 1991	0.72	JUN 07, 1993	1.39
FEB 05, 1990	1.33	DEC 05	.83	10	1.34
APR 17	1.47	FEB 04, 1992	.91	AUG 19	.41
MAY 01	1.50	MAR 18	1.23	OCT 29	.79
JUN 26	1.41	MAY 13	1.52	NOV 22	.65
JUL 10	1.20	20	1.37	DEC 06	1.00
AUG 08	1.19	JUN 30	1.27	JAN 10, 1994	.69
SEP 25	1.34	AUG 12	.92	MAR 08	1.27
OCT 31	1.34	SEP 29	.88	11	1.32
JAN 14, 1991	1.45	OCT 29	.86	APR 14	1.49
28	1.48	DEC 04	1.07	MAY 13	1.31
MAR 06	1.50	JAN 29, 1993	1.17	JUL 05	.97
MAY 20	1.52	MAR 16	1.59	AUG 16	.82
JUL 09	1.30	31	1.58	22	.93
AUG 08	.88	MAY 06	1.80		

Table 8. Measured ground-water levels at J-Field, Aberdeen Proving Ground, Maryland, October 1989 through September 1994--Continued

Well JF23
Lat: 39°18'09" Long: 76°17'46"
Measuring point elevation: 5.86
Highest water level: 2.93 feet on MAR 31, 1993
Lowest water level: 0.14 feet on SEP 17, 1993

Location: RCADA
Measuring point: floor of shelter
Screen interval: 16.0 - 19.9 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	2.53	DEC 05, 1991	0.55	AUG 10, 1993	0.35
FEB 05, 1990	2.08	FEB 04, 1992	1.60	19	1.09
28	1.89	MAR 18	1.80	SEP 17	.14
APR 17	2.80	MAY 16	1.85	OCT 28	1.04
MAY 01	2.54	20	1.59	NOV 22	.16
JUN 26	1.36	JUN 30	1.28	DEC 06	1.57
JUL 10	.90	AUG 12	.50	JAN 10, 1994	.87
AUG 08	1.07	SEP 29	.66	MAR 08	2.60
SEP 25	1.37	OCT 29	.73	11	2.31
OCT 31	1.31	DEC 04	.66	APR 14	2.88
JAN 14, 1991	2.84	JAN 29, 1993	2.18	MAY 13	1.34
28	2.32	MAR 16	1.98	27	1.64
MAR 06	2.54	31	2.93	JUL 05	.63
MAY 20	2.01	MAY 06	2.44	AUG 16	.29
JUL 09	.68	JUN 07	1.38	22	1.06
AUG 08	.52	10	1.73		
OCT 25	.63	JUL 08	.79		

Well JF31
Lat: 39°18'14" Long: 76°17'38"
Measuring point elevation: 10.65
Highest water level: 1.83 feet on NOV 16, 1989
Lowest water level: -1.02 feet on JAN 10, 1993

Location: Prototype Building
Measuring point: floor of shelter
Screen interval: 73.8 - 78.8 feet

Date	Water level	Date	Water level	Date	Water level
MAR 02, 1989	0.23	AUG 02, 1991	1.15	JUN 10, 1993	1.32
APR 10	.75	OCT 25	.85	JUL 08	1.11
NOV 16	1.83	DEC 05	-.25	AUG 10	.90
FEB 05, 1990	.69	FEB 04, 1992	.97	19	1.58
28	.32	MAR 18	.18	SEP 17	1.04
APR 17	1.27	MAY 13	1.15	OCT 27	1.29
MAY 01	1.22	20	1.19	NOV 22	.54
JUN 26	1.47	JUN 30	1.73	DEC 02	.86
JUL 10	.98	AUG 12	1.00	JAN 10, 1994	-1.02
AUG 08	1.23	SEP 29	.83	MAR 08	.69
SEP 25	.96	OCT 29	.81	11	-.24
OCT 31	.90	DEC 04	.16	APR 14	1.28
JAN 14, 1991	1.21	JAN 29, 1993	.97	MAY 13	.15
28	.58	MAR 09	.78	23	.96
MAR 06	1.62	31	1.31	JUL 05	.75
MAY 20	1.67	MAY 06	1.05	AUG 16	.37
JUL 09	.81	JUN 07	1.16	22	1.25

Well JF32
Lat: 39°18'14" Long: 76°17'38"
Measuring point elevation: 10.57
Highest water level: 3.54 feet on APR 10, 1989 and on MAR 31, 1993
Lowest water level: 0.62 feet on NOV 22, 1993

Location: Prototype Building
Measuring point: top of well casing
Screen interval: 49.4-54.4 feet

Date	Water level	Date	Water level	Date	Water level
MAR 02, 1989	2.73	AUG 02, 1991	1.20	JUL 08, 1993	1.56
APR 10	3.54	OCT 25	1.05	AUG 10	1.03
NOV 16	2.51	DEC 05	1.14	19	1.07
FEB 05, 1990	2.83	FEB 04, 1992	1.52	SEP 17	.78
28	2.26	MAR 18	2.49	OCT 29	.74
APR 17	3.00	MAY 13	2.22	NOV 22	.62
JUN 26	2.31	20	1.98	DEC 02	.87
JUL 10	1.83	JUN 30	1.66	JAN 10, 1994	1.27
AUG 08	1.84	AUG 12	1.14	MAR 08	3.14
SEP 25	1.84	SEP 29	1.09	11	3.09
30	2.72	OCT 29	1.00	APR 14	3.08
OCT 31	1.74	NOV 23	1.26	MAY 13	2.24
JAN 14, 1991	3.14	JAN 29, 1993	1.42	JUL 05	1.31
28	2.95	MAR 31	3.54	AUG 16	1.17
MAR 06	2.42	MAY 06	3.07	22	1.35
MAY 20	2.38	JUN 07	2.16		
JUL 09	1.66	10	2.15		

Table 8. Measured ground-water levels at J-Field, Aberdeen Proving Ground, Maryland, October 1989 through September 1994--Continued

Well JF33
Lat: 39°18'14" Long: 76°17'38"
Measuring point elevation: 10.87
Highest water level: 6.85 feet on MAR 11, 1994
Lowest water level: 1.35 feet on SEP 17, 1993 and on NOV 22, 1993

Location: Prototype Building
Measuring point: floor of shelter
Screen interval: 15.0 - 20.0 feet

Date	Water level	Date	Water level	Date	Water level
MAR 02, 1989	4.69	AUG 02, 1991	2.07	JUL 08, 1993	2.50
APR 10	5.92	OCT 25	2.18	AUG 10	1.82
NOV 16	4.26	29	1.87	19	1.79
FEB 05, 1990	5.48	DEC 05	2.52	SEP 17	1.35
28	3.96	FEB 04, 1992	2.90	29	2.13
APR 17	5.72	MAR 18	4.36	OCT 27	1.39
MAY 01	5.27	MAY 13	3.44	NOV 22	1.35
JUN 26	3.47	20	3.17	DEC 02	2.08
JUL 10	2.63	JUN 30	2.69	JAN 10, 1994	3.29
AUG 08	3.25	AUG 12	1.96	MAR 08	5.99
SEP 25	3.00	DEC 04	2.51	11	6.85
OCT 31	2.99	JAN 29, 1993	4.28	APR 14	6.42
JAN 14, 1991	6.24	MAR 09	5.86	MAY 13	3.55
28	4.86	31	6.37	23	3.37
MAR 06	4.34	MAY 06	4.74	JUL 05	2.20
MAY 20	3.76	JUN 07	3.38	AUG 16	2.03
JUL 09	2.46	10	3.62	22	2.83

Well JF41
Lat: 39°18'12" Long: 76°17'31"
Measuring point elevation: 13.28
Highest water level: 1.99 in feet on NOV 16, 1989
Lowest water level: -0.85 in feet on JAN 10, 1994

Location: Toxic pits
Measuring point: floor of shelter
Screen interval: 85.0 - 90.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	1.99	DEC 05, 1991	-0.11	AUG 10, 1993	1.13
FEB 28, 1990	.32	FEB 06, 1992	1.07	19	1.71
APR 17	1.43	MAR 18	.18	SEP 17	1.05
MAY 01	1.42	MAY 20	1.22	OCT 27	1.54
JUN 26	1.61	JUN 30	1.25	NOV 22	.67
JUL 10	1.07	AUG 11	1.41	24	.40
AUG 08	1.30	12	1.31	DEC 02	.98
SEP 25	1.09	SEP 29	.87	JAN 10, 1994	-.85
OCT 31	1.24	OCT 29	1.05	MAR 08	.92
JAN 14, 1991	1.62	DEC 04	.15	11	-.12
28	.82	MAR 16, 1993	.54	APR 14	1.34
MAR 06	1.85	31	1.66	MAY 13	.24
MAY 20	1.89	MAY 06	1.46	JUL 05	.78
JUL 09	.96	JUN 07	1.50	AUG 16	.54
AUG 08	1.09	10	1.45	22	1.26
OCT 25	.84	JUL 08	1.32		

Well JF42
Lat: 39°18'12" Long: 76°17'31"
Measuring point elevation: 13.28
Highest water level: 3.83 feet on MAR 31, 1993
Lowest water level: 0.53 feet on SEP 12, 1993

Location: Toxic pits
Measuring point: top of well casing
Screen interval: 57.0 - 62.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	3.07	FEB 04, 1992	2.23	AUG 10, 1993	1.14
FEB 28, 1990	3.27	MAR 18	2.92	19	.99
APR 17	3.56	MAY 20	2.84	SEP 12	.53
MAY 01	3.61	JUN 30	2.30	OCT 29	.66
JUN 06	3.56	AUG 11	1.38	NOV 22	.81
JUL 10	2.59	12	1.39	DEC 02	.81
AUG 08	2.41	SEP 29	1.27	JAN 10, 1994	1.67
OCT 31	2.25	OCT 29	1.46	MAR 08	3.08
JAN 15, 1991	3.21	DEC 04	1.87	11	3.13
28	3.53	JAN 29, 1993	3.17	APR 14	3.73
MAR 06	3.36	MAR 16	3.59	MAY 13	3.36
MAY 20	3.23	31	3.83	JUL 05	1.84
JUL 09	2.08	MAY 06	3.80	AUG 16	1.52
AUG 08	1.46	JUN 07	3.26	22	1.60
OCT 25	1.36	10	3.15		
DEC 25	1.64	JUL 08	2.21		

Table 8. Measured ground-water levels at J-Field, Aberdeen Proving Ground, Maryland, October 1989 through September 1994--Continued

Well JF43
Lat: 39°18'12" Long: 76°17'31"
Measuring point elevation: 12.78
Highest water level: 6.33 feet on MAR 31, 1993
Lowest water level: 0.20 feet on SEP 17, 1993

Location: Toxic pits
Measuring point: floor of shelter
Screen interval: 30.0 - 35.0 feet

Date	Water level	Date	Water level	Date	Water Level
NOV 16, 1989	4.62	OCT 25, 1991	1.87	JUL 08, 1993	2.23
FEB 28, 1990	4.49	DEC 05	2.51	AUG 10	1.06
APR 17	5.75	FEB 04, 1992	3.34	19	.86
MAY 01	5.24	MAR 18	4.83	SEP 17	.20
JUN 26	3.62	MAY 20	3.48	OCT 27	.47
JUL 10	2.72	JUN 30	2.27	NOV 22	.88
AUG 08	3.17	AUG 11	1.38	DEC 02	1.35
SEP 25	3.21	SEP 29	1.73	JAN 10, 1994	3.49
OCT 31	3.21	OCT 29	1.81	MAR 08	5.93
JAN 14, 1991	6.13	DEC 02	3.14	11	6.33
28	5.22	JAN 29, 1993	4.91	APR 14	5.96
MAR 16	4.73	MAR 16	5.59	MAY 13	4.31
MAY 20	3.97	31	6.33	JUL 05	1.85
JUL 09	2.18	MAY 06	4.88	AUG 16	2.13
AUG 08	1.30	JUN 07	3.58	22	2.66
12	1.37	10	3.94		

Well JF51
Lat: 39°18'08" Long: 76°17'27"
Measuring point elevation: 7.21
Highest water level: 2.09 feet on APR 17, 1990
Lowest water level: -0.30 feet on JUL 10, 1990

Location: Toxic pits
Measuring point: top of well casing
Screen interval: 110.0 - 115.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	1.85	JUL 09, 1991	1.75	AUG 19, 1993	1.51
APR 17, 1990	2.09	MAY 20, 1992	1.63	NOV 22	1.12
JUL 10	-.30	AUG 12	1.07	MAR 11, 1994	1.57
JAN 28, 1991	1.95	JUN 10, 1993	1.85	AUG 22	1.37

Well JF52
Lat: 39°18'08" Long: 76°17'27"
Measuring point elevation: 8.13
Highest water level: 3.70 feet on JAN 28, 1991
Lowest water level: 0.50 feet on NOV 22, 1993

Location: Toxic pits
Measuring point: top of well casing
Screen interval: 60.0 - 65.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	3.01	JUL 09, 1991	2.07	AUG 19, 1993	0.87
APR 17, 1990	3.47	MAY 20, 1992	2.98	NOV 22	.50
JUL 10	1.76	AUG 12	1.32	MAR 11, 1994	3.45
JAN 28, 1991	3.70	JUN 10, 1993	3.19	AUG 22	1.59

Well JF53
Lat: 39°18'08" Long: 76°17'27"
Measuring point elevation: 8.07
Highest water level: 5.28 feet on JAN 28, 1991
Lowest water level: -0.41 feet on AUG 19, 1993

Location: Toxic pits
Measuring point: top of well casing
Screen interval: 14.2 - 19.2 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	3.64	JUL 09, 1991	1.21	AUG 19, 1993	-0.41
APR 17, 1990	4.35	MAY 20, 1992	2.62	NOV 22	.58
JUL 10	1.72	AUG 12	.30	MAR 11, 1994	5.08
JAN 28, 1991	5.28	JUN 10, 1993	2.87	AUG 22	2.01

Table 8. Measured ground-water levels at J-Field, Aberdeen Proving Ground, Maryland, October 1989 through September 1994--Continued

Well JF61
Lat: 39°18'10" Long: 76°17'28"
Measuring point elevation: 6.99
Highest water level: 1.60 feet on MAY 06, 1993
Lowest water level: -0.13 feet on AUG 12, 1992
Location: Toxic pits
Measuring point: floor of shelter
Screen interval: 95.0 - 100.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	1.48	JUL 01, 1992	1.48	AUG 19, 1993	1.29
APR 17, 1990	1.21	AUG 11	1.09	SEP 17	1.11
JUL 10	1.20	12	-.13	OCT 27	.93
JAN 15, 1991	1.22	SEP 29	1.14	NOV 22	.71
28	1.25	OCT 29	.99	DEC 02	.87
MAR 06	1.36	DEC 04	.82	JAN 10, 1994	1.41
MAY 20	1.51	JAN 25, 1993	1.17	MAR 08	1.12
JUL 09	1.48	MAR 16	.56	11	.91
AUG 08	1.09	31	1.43	APR 14	1.16
OCT 25	.90	MAY 06	1.60	MAY 13	1.15
DEC 05	.89	JUN 07	1.20	AUG 16	.89
FEB 06, 1992	1.00	10	1.32	22	1.27
MAR 18	.85	JUL 08	1.34		
MAY 20	.96	AUG 10	1.15		

Well JF62
Lat: 39°18'10" Long: 76°17'28"
Measuring point elevation: 7.09
Highest water level: 4.43 feet on JAN 28, 1991
Lowest water level: -0.34 feet on AUG 12, 1992
Location: Toxic pits
Measuring point: top of well casing
Screen interval: 60.0 - 65.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	2.89	AUG 12, 1992	-0.34	OCT 29, 1993	0.36
APR 17, 1990	3.30	OCT 29	1.69	NOV 22	.65
JUL 10	1.68	DEC 04	2.21	DEC 02	.75
JAN 28, 1991	4.43	JAN 25, 1993	3.16	JAN 10, 1994	1.92
MAR 06	3.32	MAR 16	3.84	MAR 08	3.14
MAY 20	3.15	31	3.59	11	3.15
JUL 09	2.06	MAY 06	3.54	APR 14	3.49
AUG 08	1.66	JUN 07	3.17	MAY 13	3.18
OCT 25	1.28	10	3.13	JUL 05	1.45
DEC 05	1.81	JUL 08	2.27	AUG 16	1.58
FEB 06, 1992	2.60	AUG 10	1.13	22	1.66
MAR 18	3.03	19	.94		
MAY 20	2.86	SEP 17	.16		

Well JF63
Lat: 39°18'10" Long: 76°17'28"
Measuring point elevation: 6.98
Highest water level: 4.7 feet on MAR 31, 1993
Lowest water level: -0.9 feet on SEP 17, 1993
Location: Toxic pits
Measuring point: floor of shelter
Screen interval: 16.0 - 19.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	4.1	JUL 01, 1992	1.5	AUG 10, 1993	0.3
APR 17, 1990	4.6	AUG 11	.7	19	.1
JUL 10	1.9	12	.7	SEP 17	-.9
JAN 28, 1991	4.2	SEP 29	2.3	OCT 27	.7
MAR 06	4.0	OCT 29	2.0	NOV 22	1.2
MAY 20	3.3	DEC 04	3.2	DEC 02	1.9
JUL 09	1.6	JAN 29, 1993	4.0	MAR 08, 1994	4.6
AUG 08	.7	MAR 16	4.4	11	3.4
OCT 25	1.9	31	4.7	APR 14	4.6
DEC 05	2.9	MAY 06	4.1	MAY 13	3.6
FEB 06, 1992	3.2	JUN 07	2.9	JUL 05	1.3
MAR 18	4.0	10	3.5	AUG 16	2.1
MAY 20	3.0	JUL 08	1.6	22	2.9

Table 8. Measured ground-water levels at J-Field, Aberdeen Proving Ground, Maryland, October 1989 through September 1994--Continued

Well JF71
Lat: 39°18'07" Long: 76°17'28"
Measuring point elevation: 10.01
Highest water level: 1.67 feet on NOV 16, 1989
Lowest water level: 0.54 feet on JUL 10, 1990
Location: Toxic pits
Measuring point: top of well casing
Screen interval: 120.0 - 125.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	1.67	MAY 20, 1992	1.37	MAR 11, 1994	1.02
APR 17, 1990	1.65	JUN 10, 1993	1.61	AUG 22	1.19
JUL 10	.54	AUG 19	1.35		
JAN 28, 1991	1.53	NOV 22	1.07		

Well JF72
Lat: 39°18'07" Long: 76°17'28"
Measuring point elevation: 11.08
Highest water level: 3.24 feet on MAR 11, 1994
Lowest water level: -1.14 feet on JUL 10, 1990
Location: Toxic pits
Measuring point: top of well casing
Screen interval: 76.0 - 81.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	2.24	MAY 20, 1992	2.49	NOV 22, 1993	0.79
APR 17, 1990	3.04	AUG 12	1.76	MAR 11, 1994	3.24
JUL 10	-1.14	JUN 10, 1993	2.83	AUG 22	1.36
JAN 28, 1991	2.79	AUG 19	1.70		

Well JF73
Lat: 39°18'07" Long: 76°17'28"
Measuring point elevation: 10.03
Highest water level: 5.56 feet on MAR 11, 1994
Lowest water level: -0.62 feet on AUG 19, 1993
Location: Toxic pits
Measuring point: top of well casing
Screen interval: 15.0 - 18.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	3.64	MAY 20, 1992	2.55	NOV 22, 1993	0.37
APR 17, 1990	4.66	AUG 12	.12	MAR 11, 1994	5.56
JUL 10	1.60	JUN 10, 1993	2.75	AUG 22	1.86
JAN 28, 1991	3.94	AUG 19	-.62		

Well JF81
Lat: 39°18'08" Long: 76°17'30"
Measuring point elevation: 12.80
Highest water level: 2.11 feet on NOV 16, 1989
Lowest water level: -0.09 feet on MAR 11, 1994
Location: Toxic pits
Measuring point: top of well casing
Screen interval: 120.0 - 123.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	2.11	JUL 09, 1991	0.93	NOV 22, 1993	0.65
APR 17, 1990	1.43	MAY 20, 1992	1.31	MAR 11, 1994	-.09
JUL 10	.98	JUN 10, 1993	1.45	AUG 22	1.30
JAN 28, 1991	.74	AUG 19	1.71		

Well JF82
Lat: 39°18'08" Long: 76°17'30"
Measuring point elevation: 13.09
Highest water level: 4.95 feet on APR 17, 1990
Lowest water level: -3.33 feet on JUL 10, 1990
Location: Toxic pits
Measuring point: top of well casing
Screen interval: 70.0 - 75.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	2.16	JUL 09, 1991	2.32	AUG 19, 1993	1.71
APR 17, 1990	4.95	MAY 20, 1992	2.82	NOV 22	1.01
JUL 10	-3.33	AUG 12	.84	MAR 11, 1994	2.81
JAN 28, 1991	4.70	JUN 10, 1993	2.97	AUG 22	1.42

Table 8. Measured ground-water levels at J-Field, Aberdeen Proving Ground, Maryland, October 1989 through September 1994--Continued

Well JF83
Lat: 39°18'08" Long: 76°17'30"
Measuring point elevation: 13.18
Highest water level: 6.60 feet on MAR 11, 1994
Lowest water level: 0.01 feet on AUG 19, 1993
Location: Toxic pits
Measuring point: top of well casing
Screen interval: 15.0 - 20.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	4.24	JUL 09, 1991	1.57	AUG 19, 1993	0.01
APR 17, 1990	5.39	MAY 20, 1992	3.11	NOV 22	.62
JUL 10	2.21	AUG 12	.66	MAR 11, 1994	6.60
JAN 28, 1991	4.76	JUN 10, 1993	3.35	AUG 22	2.41

Well JF91
Lat: 39°18'25" Long: 76°17'26"
Measuring point elevation: 13.08
Highest water level: 9.17 feet on MAR 11, 1994
Lowest water level: -0.69 feet on JAN 10, 1994
Location: White phosphorus pits
Measuring point: floor of shelter
Screen interval: 74.0 - 79.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	1.91	DEC 05, 1991	0.04	JUL 08, 1993	1.20
MAR 01, 1990	.56	FEB 04, 1992	1.22	AUG 10	1.11
APR 17	1.63	MAR 18	.58	19	1.62
MAY 01	1.51	MAY 13	1.36	SEP 17	1.08
JUN 26	1.50	20	1.13	OCT 27	1.09
JUL 10	1.01	JUN 26	1.19	NOV 22	2.49
AUG 08	2.16	AUG 11	1.22	DEC 02	1.03
SEP 25	.97	SEP 29	.95	JAN 10, 1994	-.69
OCT 31	1.19	OCT 29	.98	MAR 08	.92
JAN 14, 1991	1.16	DEC 04	.36	11	.08
28	.87	JAN 29, 1993	1.02	APR 14	1.40
MAR 06	1.81	MAR 09	1.23	MAY 13	.41
MAY 20	1.53	31	1.63	JUL 05	1.07
JUL 09	1.08	MAY 06	1.65	AUG 22	1.34
AUG 02	1.18	JUN 07	1.33		
OCT 25	1.08	10	1.18		

Well JF92
Lat: 39°18'25" Long: 76°17'26"
Measuring point elevation: 13.67
Highest water level: 4.07 feet on APR 17, 1990 and on MAR 31, 1993
Lowest water level: 0.04 feet on NOV 22, 1993
Location: White phosphorus pits
Measuring point: top of well casing
Screen interval: 50.5 - 55.5 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	3.60	JUN 26, 1990	2.91	OCT 31, 1990	1.69
MAR 01, 1990	3.48	JUL 10	2.16	JAN 14, 1991	3.68
APR 17	4.07	AUG 08	1.93	28	3.93
MAY 01	3.89	SEP 25	2.17	MAR 06	3.65
MAY 20, 1991	3.34	OCT 29, 1992	.77	OCT 29, 1993	.21
JUL 09	1.64	DEC 04	1.17	NOV 22	.04
AUG 02	1.07	JAN 29, 1993	3.41	DEC 02	.05
OCT 25	.59	MAR 09	3.80	JAN 10, 1994	.59
DEC 05	.78	31	4.07	MAR 08	3.10
MAR 18, 1992	2.62	MAY 06	3.93	11	3.20
MAY 13	3.29	JUN 07	2.91	APR 14	3.89
20	2.88	10	2.62	MAY 13	3.20
JUN 26	2.18	JUL 08	1.65	JUL 05	1.20
AUG 11	1.06	AUG 10	.69	AUG 22	.91
12	.98	19	.67		
SEP 29	.73	SEP 17	.29		

Table 8. Measured ground-water levels at J-Field, Aberdeen Proving Ground, Maryland, October 1989 through September 1994--Continued

Well JF93
Lat: 39°18'25" Long: 76°17'26"
Measuring point elevation: 13.56
Highest water level: 5.90 feet on MAR 31, 1993 and on APR 14, 1994
Lowest water level: -0.43 feet on OCT 27, 1994

Location: White phosphorus pits
Measuring point: floor of shelter
Screen interval: 20.0 - 25.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	4.98	FEB 04, 1992	2.65	JUL 08, 1993	1.41
MAR 01, 1990	4.52	MAR 18	4.73	AUG 10	.44
APR 17	5.85	MAY 04	3.84	19	.06
MAY 01	5.53	20	3.28	SEP 17	-.38
JUN 26	3.02	JUN 26	1.96	OCT 27	-.43
JUL 10	1.92	AUG 11	.78	NOV 22	-.32
AUG 08	2.14	12	.71	DEC 02	.01
SEP 25	2.11	SEP 29	.49	JAN 10, 1994	1.38
OCT 31	2.21	OCT 29	.45	MAR 08	5.43
JAN 14, 1991	5.69	DEC 04	1.37	11	5.64
28	5.10	JAN 29, 1993	4.88	APR 14	5.90
MAR 06	5.19	MAR 09	5.57	MAY 13	4.15
JUL 09	1.47	31	5.90	JUL 05	1.06
AUG 02	.85	MAY 06	4.94	AUG 22	1.00
OCT 25	.64	JUN 07	2.68		
DEC 05	1.12	10	3.06		

Well JF101
Lat: 39°18'26" Long: 76°17'31"
Measuring point elevation: 8.06
Highest water level: 2.17 feet on NOV 16, 1989
Lowest water level: -0.04 feet on MAR 11, 1994

Location: White phosphorus pits
Measuring point: top of well casing
Screen interval: 73.0 - 76.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	2.17	JUL 09, 1991	1.06	NOV 22, 1993	0.57
APR 17, 1990	1.64	MAY 20, 1992	1.20	MAR 11, 1994	-.04
JUL 10	.96	JUN 10, 1993	1.16		
JAN 28, 1991	.79	AUG 19	1.61		

Well JF102
Lat: 39°18'26" Long: 76°17'31"
Measuring point elevation: 8.00
Highest water level: 2.14 feet on APR 17, 1990
Lowest water level: 0.64 feet on NOV 22, 1993

Location: White phosphorus pits
Measuring point: top of well casing
Screen interval: 52.0 - 55.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	1.94	JUL 09, 1991	1.39	AUG 19, 1993	0.92
APR 17, 1990	2.14	MAY 20, 1992	1.85	NOV 22	.64
JUL 10	1.66	AUG 12	1.05	MAR 11, 1994	1.89
JAN 28, 1991	2.14	JUN 10, 1993	1.86		

Well JF103
Lat: 39°18'26" Long: 76°17'31"
Measuring point elevation: 8.24
Highest water level: 3.15 feet on APR 17, 1990
Lowest water level: 0.27 feet on NOV 22, 1993

Location: White phosphorus pits
Measuring point: top of well casing
Screen interval: 25.0 - 28.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	2.79	JUL 09, 1991	1.19	AUG 19, 1993	0.59
APR 17, 1990	3.15	MAY 20, 1992	1.91	NOV 22	.27
JUL 10	1.25	AUG 12	.70	MAR 11, 1994	2.93
JAN 28, 1991	2.76	JUN 10, 1993	1.85		

Table 8. Measured ground-water levels at J-Field, Aberdeen Proving Ground, Maryland, October 1989 through September 1994--Continued

Well JF111
Lat: 39°18'26" Long: 76°17'31"
Measuring point elevation: 9.69
Highest water level: 2.14 feet on NOV 16, 1989
Lowest water level: -0.95 feet on NOV 22, 1993
Location: White phosphorus pits
Measuring point: floor of shelter
Screen interval: 72.0 - 75.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	2.14	OCT 25, 1991	1.07	JUN 07, 1993	**1.29**
MAR 01, 1990	.63	DEC 05	-.05	10	**1.15**
APR 17	1.65	MAR 18, 1992	.45	JUL 08	**1.24**
MAY 01	1.51	MAY 13	1.35	AUG 10	**1.15**
JUN 26	1.51	20	1.39	19	**1.66**
JUL 10	.95	JUN 26	1.17	SEP 17	**1.13**
AUG 08	1.11	AUG 11	1.10	OCT 27	**1.24**
SEP 25	.95	12	.43	NOV 22	**-.95**
OCT 31	1.45	SEP 29	.95	JAN 10, 1994	**-.76**
JAN 14, 1991	1.20	OCT 29	.99	MAR 08	**.82**
28	.80	DEC 04	.50	11	**-.06**
MAR 06	1.83	JAN 29, 1993	.94	APR 14	**1.37**
MAY 20	1.50	MAR 09	1.14	MAY 13	**.33**
JUL 09	1.05	31	1.31	23	**1.14**
AUG 02	1.19	MAY 06	1.58	JUL 05	**1.01**

Well JF112
Lat: 39°18'26" Long: 76°17'31"
Measuring point elevation: 9.61
Highest water level: 3.80 feet on MAR 09, 1993
Lowest water level: -2.82 feet on JUL 05, 1994
Location: White phosphorus pits
Measuring point: top of well casing
Screen interval: 47.0 - 50.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	2.10	DEC 05, 1991	2.25	JUL 08, 1993	**1.45**
JAN 14, 1990	2.67	MAR 18, 1992	3.14	AUG 10	**.98**
APR 17	3.77	MAY 13	2.23	19	**.92**
MAY 01	3.20	20	2.07	SEP 17	**.85**
JUN 26	3.38	JUN 26	1.69	OCT 29	**.70**
JUL 10	-1.09	AUG 11	1.13	NOV 22	**.59**
AUG 08	1.34	12	1.11	DEC 02	**1.28**
SEP 25	1.82	SEP 29	.84	JAN 10, 1994	**2.38**
OCT 31	1.55	OCT 29	.91	MAR 08	**-.92**
JAN 28, 1991	2.59	DEC 04	2.29	11	**3.25**
MAR 06	3.37	JAN 29, 1993	3.15	APR 14	**-.13**
MAY 20	2.56	MAR 09	3.80	MAY 13	**-.82**
JUL 09	1.40	31	3.10	JUL 05	**-2.82**
AUG 02	1.14	JUN 07	2.23		
OCT 25	1.23	10	2.12		

Well JF113
Lat: 39°18'26" Long: 76°17'31"
Measuring point elevation: 9.44
Highest water level: 3.20 feet on APR 17, 1990
Lowest water level: -0.01 feet on NOV 22, 1993
Location: White phosphorus pits
Measuring point: floor of shelter
Screen interval: 22.0 - 25.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	3.11	DEC 05, 1991	0.48	JUN 07, 1993	**1.74**
JAN 14, 1990	2.75	FEB 04, 1992	1.73	10	**1.75**
MAR 01	1.99	MAR 18	2.03	JUL 08	**1.14**
APR 17	3.20	MAY 13	2.14	AUG 10	**.73**
MAY 01	2.92	20	1.90	19	**.93**
JUN 26	1.95	JUN 26	1.19	SEP 17	**.43**
JUL 10	1.04	AUG 11	.79	OCT 27	**.53**
AUG 08	1.46	12	.39	NOV 22	**-.01**
SEP 25	1.14	SEP 29	.72	DEC 02	**.79**
OCT 31	1.50	OCT 29	.26	JAN 10, 1994	**.51**
JAN 28, 1991	2.21	DEC 04	.62	MAR 08	**2.45**
MAY 20	2.18	JAN 29, 1993	.82	11	**2.11**
JUL 09	.93	MAR 09	1.58	APR 14	**3.02**
AUG 02	.74	31	1.72	MAY 13	**1.49**
OCT 25	.90	MAY 06	2.81	JUL 05	**.87**

Table 8. Measured ground-water levels at J-Field, Aberdeen Proving Ground, Maryland, October 1989 through September 1994--Continued

Well JF121
Lat: 39°18'27" Long: 76°17'30"
Measuring point elevation: 6.99
Highest water level: 2.16 feet on NOV 16, 1989
Lowest water level: -0.04 feet on MAR 11, 1994

Location: White phosphorus pits
Measuring point: top of well casing
Screen interval: 67.0 - 70.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	2.16	JUL 09, 1991	1.07	NOV 22, 1993	0.63
APR 17, 1990	1.63	MAY 20, 1992	1.24	MAR 11, 1994	-.04
JUL 10	.98	JUN 10, 1993	1.16		
JAN 28, 1991	.79	AUG 19	1.67		

Well JF122
Lat: 39°18'27" Long: 76°17'30"
Measuring point elevation: 6.75
Highest water level: 1.95 feet on JAN 28, 1991
Lowest water level: 0.67 feet on NOV 22, 1993

Location: White phosphorus pits
Measuring point: top of well casing
Screen interval: 52.0 - 55.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	1.85	JUL 09, 1991	1.39	AUG 19, 1993	0.97
APR 17, 1990	1.76	MAY 20, 1992	1.61	NOV 22	.67
JUL 10	1.39	AUG 12	.98	MAR 11, 1994	1.54
JAN 28, 1991	1.95	JUN 10, 1993	1.58		

Well JF123
Lat: 39°18'27" Long: 76°17'30"
Measuring point elevation: 7.01
Highest water level: 3.57 feet on APR 17, 1990
Lowest water level: 0.09 feet on NOV 22, 1993

Location: White phosphorus pits
Measuring point: top of well casing
Screen interval: 25.0 - 28.0 feet

Date	Water level	Date	Water level	Date	Water level
NOV 16, 1989	3.52	JUL 09, 1991	0.54	AUG 19, 1993	0.69
APR 17, 1990	3.57	MAY 20, 1992	2.19	NOV 22	.09
JUL 10	1.22	AUG 12	.44	MAR 11, 1994	2.83
JAN 28, 1991	2.81	JUN 10, 1993	2.07		

Well JF133
Lat: 39°18'06" Long: 76°17'35"
Measuring point elevation: 6.06
Highest water level: 1.65 feet on JUN 10, 1993
Lowest water level: 0.43 feet on NOV 22, 1993

Location: South beach
Measuring point: top of well casing
Screen interval: 5.0 - 10.0 feet

Date	Water level	Date	Water level
JUN 10, 1993	1.65	AUG 19	0.88
NOV 22	0.43	AUG 22, 1994	1.43

Well JF143
Lat: 39°18'08" Long: 76°17'44"
Measuring point elevation: 7.89
Highest water level: 1.37 feet on JUN 10., 1993
Lowest water level: -0.10 feet on AUG 22, 1994

Location: South beach
Measuring point: top of well casing
Screen interval: 5.0 - 10.0 feet

Date	Water level	Date	Water level
JUN 10, 1993	1.37	AUG 19	-1.46
NOV 22	-.29	AUG 22, 1994	-.10

Table 8. Measured ground-water levels at J-Field, Aberdeen Proving Ground, Maryland, October 1989 through September 1994--Continued

Well JF153
Lat: 39°18'15" Long: 76°17'03" Location: Demolition area
Measuring point elevation: 8.98 Measuring point: top of well casing
Highest water level: 4.82 feet on AUG 22, 1994 Screen interval: 5.0 - 10.0 feet
Lowest water level: 0.55 feet on AUG 19, 1993

Date	Water level	Date	Water level
JUN 10, 1993	4.35	AUG 19	0.55
NOV 22	2.23	AUG 22, 1994	4.82

Well JF163
Lat: 39°18'15" Long: 76°17'06" Location: Demolition area
Measuring point elevation: 11.76 Measuring point: top of well casing
Highest water level: 4.33 feet on JUN 10, 1993 Screen interval: 7.0 -12.0 feet
Lowest water level: 1.25 feet on NOV 22, 1993

Date	Water level	Date	Water level
JUN 10, 1993	4.33	AUG 19	1.41
NOV 22	1.25	AUG 22, 1994	3.0

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990

[Elevation in feet above sea level; --- = data not available]

WELL TH6, STATION NUMBER 391817076173701; LATITUDE 39° 18′ 11" LONGITUDE 76° 17′ 39"
GEOLOGIC UNIT: SURFICIAL AQUIFER

DAILY MEAN VALUES
WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	2.11	---	6.05	8.60	6.37	6.73	---	5.25	3.34
2	---	---	---	2.13	2.75	6.46	8.35	8.65	6.48	---	5.19	3.29
3	---	---	---	2.15	2.77	6.72	8.49	8.81	6.21	---	5.09	3.23
4	---	---	---	2.14	2.83	6.52	8.45	8.43	6.01	---	5.00	3.19
5	---	---	---	2.16	2.95	6.50	8.16	8.47	5.94	---	4.90	3.16
6	---	---	---	2.18	3.04	7.46	8.94	9.20	8.63	---	4.81	3.12
7	---	---	1.86	2.19	3.09	8.41	8.87	9.12	9.06	---	4.71	3.09
8	---	---	1.87	2.22	3.13	8.35	9.00	8.82	8.94	---	4.59	3.06
9	---	---	1.90	2.25	3.14	8.35	8.81	8.47	9.00	---	4.48	3.02
10	---	---	1.92	2.32	3.18	8.35	8.53	8.86	9.12	---	4.41	2.99
11	---	---	1.93	2.38	3.20	8.26	8.23	9.02	8.65	---	4.35	2.95
12	---	---	1.94	2.48	3.17	7.99	7.88	8.77	8.22	---	4.28	2.91
13	---	---	1.97	2.56	3.14	7.61	7.61	8.42	7.93	---	4.22	2.88
14	---	---	1.98	2.67	3.46	7.49	7.33	8.13	7.66	---	4.16	2.85
15	---	---	1.99	3.07	3.79	7.37	7.41	7.85	8.63	---	4.11	2.82
16	---	---	1.99	3.25	4.06	6.91	8.08	8.27	---	---	4.06	2.79
17	---	---	2.01	3.34	4.32	6.83	7.92	8.58	---	---	3.98	2.78
18	---	---	2.01	3.43	4.52	6.86	7.73	8.11	---	---	3.92	2.75
19	---	---	2.02	3.48	4.61	6.59	8.38	7.68	---	---	3.89	2.87
20	---	---	2.02	3.55	4.61	6.65	8.46	7.45	---	---	3.85	3.14
21	---	---	2.03	3.54	5.19	7.58	8.10	7.17	---	---	3.81	3.16
22	---	---	2.02	3.59	6.69	7.70	7.72	6.89	---	---	3.77	3.24
23	---	---	2.03	3.62	7.15	7.54	7.35	7.64	---	---	3.73	3.28
24	---	---	2.05	3.64	6.87	8.53	7.11	9.05	---	---	3.66	3.28
25	---	---	2.04	3.62	6.53	8.94	6.93	8.78	---	---	3.62	3.32
26	---	---	2.04	3.68	6.48	8.71	6.75	8.40	---	---	3.59	3.51
27	---	---	2.06	3.66	6.18	8.54	6.59	8.22	---	---	3.54	3.65
28	---	---	2.07	3.64	6.22	8.38	6.36	8.04	---	5.46	3.50	3.75
29	---	---	2.06	3.67	---	8.06	6.23	7.55	---	5.23	3.47	3.81
30	---	---	2.09	3.70	---	7.84	6.26	7.25	---	5.12	3.43	3.82
31	---	---	2.10	---	---	8.28	---	6.97	---	5.18	3.37	---
MEAN	---	---	2.00	2.95	4.34	7.61	7.82	8.18	---	---	4.15	3.17
MAX	---	---	2.10	3.70	7.15	8.94	9.00	9.20	---	---	5.25	3.82
MIN	---	---	1.86	2.11	2.75	6.05	6.23	6.37	---	---	3.37	2.75
MED	---	---	2.02	3.16	3.79	7.61	8.00	8.40	---	---	4.06	3.15

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL TH6, STATION NUMBER 391817076173701

DAILY MEAN VALUES
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.83	4.94	4.42	3.73	7.42	---	---	---	---	4.38	3.82	5.29
2	4.26	4.93	4.48	3.84	7.24	---	---	6.37	7.44	4.30	3.76	5.16
3	4.68	4.91	4.45	3.93	6.74	---	---	6.26	7.21	4.24	3.71	4.98
4	4.76	4.81	4.36	4.02	7.07	---	---	6.56	7.43	4.19	3.66	4.84
5	4.78	4.78	4.34	4.02	6.81	---	---	6.50	7.03	4.14	3.62	4.78
6	4.77	4.80	4.30	4.06	6.78	---	---	6.28	6.80	4.07	3.65	4.69
7	4.68	4.75	4.18	4.06	6.64	---	---	6.11	6.54	4.00	3.67	4.60
8	4.61	4.74	4.16	4.13	6.36	---	---	6.20	6.28	3.96	3.49	4.44
9	4.49	4.86	4.16	4.45	6.40	---	---	8.27	6.13	3.92	3.39	4.37
10	4.41	5.09	4.13	4.68	6.61	---	---	8.13	5.94	3.88	4.06	4.30
11	4.34	5.22	4.10	4.87	6.98	---	---	7.90	5.73	3.86	4.63	4.21
12	4.27	5.21	4.07	4.93	6.84	---	---	7.67	5.53	3.93	4.88	4.14
13	4.21	5.14	4.05	4.81	6.73	---	---	7.30	5.41	5.13	4.99	4.07
14	4.15	5.17	4.01	4.75	6.57	---	---	7.09	5.33	5.10	5.02	4.03
15	4.10	5.15	4.02	4.77	6.44	---	---	6.98	5.33	5.06	5.04	3.98
16	4.05	5.18	3.95	4.70	6.47	---	---	6.73	5.36	4.98	5.00	3.90
17	4.01	4.99	3.89	4.69	6.11	---	---	6.44	5.29	4.92	4.91	3.82
18	3.96	4.95	3.84	4.67	5.99	---	---	6.22	5.27	4.86	4.81	3.77
19	4.34	4.90	3.82	4.47	6.15	---	---	6.02	5.20	4.79	4.71	3.74
20	5.45	5.07	3.77	4.52	5.79	---	---	5.82	5.10	4.71	4.56	3.68
21	6.40	4.87	3.73	4.54	5.72	---	---	5.71	5.03	4.62	4.49	3.62
22	6.11	4.72	3.67	4.40	5.85	---	---	5.56	4.97	4.53	6.16	3.61
23	5.91	4.71	3.60	4.28	5.91	---	---	5.41	4.93	4.45	8.39	3.57
24	5.78	4.60	3.58	4.26	5.74	---	---	5.55	4.84	4.34	8.22	3.52
25	5.65	4.62	3.56	4.73	5.44	---	---	7.29	4.74	4.25	7.76	3.48
26	5.49	4.62	3.53	7.04	5.35	---	---	7.11	4.68	4.18	7.38	3.45
27	5.36	4.54	3.46	7.54	5.47	---	---	7.02	4.63	4.11	6.93	3.40
28	5.26	4.62	3.40	7.42	---	---	---	8.85	4.56	4.06	6.47	3.36
29	5.14	4.48	3.35	7.42	---	---	---	8.61	4.51	4.01	6.09	3.33
30	5.06	4.51	3.32	7.67	---	---	---	8.16	4.44	3.95	5.74	3.31
31	5.05	---	3.35	7.54	---	---	---	---	---	3.90	5.47	---
MEAN	4.82	4.86	3.90	5.00	6.36	---	---	6.83	5.58	4.35	5.11	4.05
MAX	6.40	5.22	4.48	7.67	7.42	---	---	8.85	7.44	5.13	8.39	5.29
MIN	3.83	4.48	3.32	3.73	5.35	---	---	5.41	4.44	3.86	3.39	3.31
MED	4.68	4.86	3.95	4.67	6.44	---	---	6.56	5.33	4.24	4.88	3.94

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL TH8, STATION NUMBER 391816076173801; LATITUDE 39° 18′16" LONGITUDE 76° 17′ 40"
GEOLOGIC UNIT; SURFICIAL AQUIFER

DAILY MEAN VALUES
WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.97	0.81	1.45	0.99	---	2.25	---	2.22	2.30	2.31	2.08	1.71
2	1.09	.98	1.30	1.18	1.62	2.58	---	3.88	2.36	2.35	1.75	1.51
3	.88	.60	1.30	1.33	1.34	3.19	---	3.32	2.28	2.28	1.77	1.18
4	.79	.50	1.12	1.07	1.45	3.15	---	2.81	2.36	2.25	1.78	1.59
5	1.16	.89	1.12	.97	1.53	2.97	---	3.15	2.22	2.75	1.86	1.67
6	.98	1.35	1.16	1.29	1.66	3.59	---	4.35	3.77	3.25	1.57	1.60
7	.69	1.02	1.24	1.23	1.76	3.42	---	3.94	4.08	3.49	1.50	---
8	.58	.80	1.06	1.56	1.64	3.58	---	3.37	3.78	2.94	1.63	1.56
9	1.17	.64	1.09	1.64	1.57	3.49	---	3.03	3.92	2.77	1.72	1.60
10	1.45	.86	1.15	1.48	1.46	---	---	3.63	4.18	2.69	1.66	1.65
11	1.07	.77	1.11	1.39	1.32	---	2.64	3.79	3.16	2.36	1.66	1.57
12	.63	.54	.89	1.50	1.36	---	2.64	3.56	3.00	2.21	1.75	1.41
13	.46	.81	1.07	1.60	1.29	---	2.67	3.25	3.16	2.36	1.77	1.51
14	.44	.77	1.07	1.43	1.24	---	2.44	3.01	2.79	2.23	1.76	1.58
15	.65	.72	1.43	1.92	1.96	---	2.61	2.83	3.68	2.22	1.70	1.52
16	.54	.63	.91	1.87	2.01	---	2.96	3.15	3.88	2.46	1.61	1.39
17	.81	1.03	1.05	1.86	2.02	---	3.09	3.29	3.90	2.39	1.61	1.78
18	1.00	.80	1.01	1.73	1.93	---	2.84	3.21	3.75	2.55	1.77	1.50
19	.77	.80	1.27	1.68	1.93	---	3.27	2.97	3.17	2.51	1.96	1.52
20	.70	1.24	1.15	1.73	1.97	---	3.23	2.88	3.10	3.09	1.81	2.20
21	.91	1.26	1.02	1.42	2.04	---	2.96	2.82	3.31	2.87	1.68	2.01
22	1.08	1.00	.84	1.38	2.42	---	2.69	2.51	3.06	2.70	1.65	2.31
23	1.02	1.03	.95	1.30	3.10	---	2.53	3.06	3.30	2.44	1.68	2.60
24	1.16	1.05	1.13	1.36	2.79	---	2.49	3.96	3.69	2.21	1.60	1.46
25	.98	1.19	1.13	1.43	2.42	---	2.29	3.42	3.35	2.28	1.78	1.69
26	.99	1.25	.92	1.55	2.34	---	2.24	3.41	3.09	2.21	1.84	2.06
27	.81	1.49	.87	1.55	2.80	---	2.21	2.94	2.94	2.11	1.67	1.86
28	.98	1.95	1.29	1.27	2.36	---	2.14	2.63	2.74	1.87	1.72	2.10
29	.71	1.56	.98	1.43	---	---	2.42	2.67	2.36	2.17	1.82	2.07
30	.64	1.60	.89	1.35	---	---	2.14	2.84	2.28	2.24	1.68	1.69
31	.57	---	1.13	---	---	---	---	2.48	---	2.14	1.40	---
MEAN	.86	1.00	1.10	1.45	1.90	---	1.72	3.17	3.17	2.47	1.72	---
MAX	1.45	1.95	1.45	1.92	3.10	---	2.60	4.35	4.18	3.49	2.08	---
MIN	.44	.50	.84	.97	1.24	---	1.18	2.22	2.22	1.87	1.40	---
MED	.88	.93	1.11	1.43	1.93	---	1.60	3.15	3.16	2.36	1.72	---

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL TH8, STATION NUMBER 391816076173801

DAILY MEAN VALUES
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.69	2.09	1.45	1.65	2.73	1.63	2.59	2.58	2.80	1.62	1.32	2.31
2	2.62	1.84	1.58	1.46	2.69	1.90	2.70	2.38	2.67	1.51	1.45	2.18
3	2.58	2.02	1.72	1.42	2.41	1.65	3.30	2.16	2.61	1.83	1.43	1.90
4	2.06	1.85	1.32	1.47	2.82	1.47	3.18	2.22	---	1.90	---	2.02
5	1.92	2.02	1.52	1.57	---	1.71	3.01	2.61	---	1.35	---	2.31
6	2.02	2.21	1.52	1.53	---	1.65	2.54	2.33	---	1.30	---	2.10
7	1.80	2.01	1.48	1.60	---	1.48	2.96	2.43	---	1.56	---	2.02
8	1.82	2.07	1.32	1.63	---	1.67	2.99	2.28	---	1.72	---	1.72
9	1.78	2.49	1.25	1.97	---	1.74	2.72	2.26	---	1.74	1.68	2.14
10	2.01	2.53	1.36	2.21	---	1.56	2.88	3.02	---	1.31	2.12	2.18
11	1.94	2.31	1.59	2.08	---	1.69	2.73	3.48	---	1.38	2.26	1.76
12	1.85	2.16	1.44	2.03	---	1.63	2.20	2.70	---	1.57	2.49	1.79
13	1.79	1.89	1.37	1.79	---	1.59	2.08	3.02	---	2.08	2.46	1.83
14	1.67	2.05	1.61	1.68	---	1.59	2.38	2.56	---	2.21	2.37	1.93
15	1.76	2.02	1.57	1.75	---	1.69	3.22	2.54	---	2.38	2.21	2.00
16	1.75	2.40	1.53	1.72	---	1.81	3.12	2.62	---	2.01	2.21	1.76
17	1.83	1.96	1.12	1.75	---	1.91	3.01	2.49	---	1.75	2.09	1.52
18	1.57	1.97	1.08	1.85	---	2.17	2.36	2.36	---	1.75	2.11	1.52
19	2.23	1.63	1.11	1.55	---	2.18	2.32	2.28	---	1.78	2.10	1.75
20	3.31	2.03	1.20	1.58	---	2.06	2.48	2.22	---	1.75	1.83	1.67
21	3.12	1.61	1.24	1.77	---	1.75	2.33	2.19	---	1.65	2.04	1.54
22	2.50	1.44	1.03	1.80	---	2.03	2.15	2.39	---	1.65	3.14	2.01
23	2.16	1.50	.97	1.94	---	2.15	2.33	2.41	---	1.84	3.79	1.72
24	2.36	1.72	.95	1.87	---	1.78	2.26	2.10	---	1.53	3.37	1.53
25	2.22	2.07	1.23	2.15	---	2.05	2.23	2.10	---	1.51	2.97	1.50
26	2.16	1.75	1.49	3.26	---	2.06	2.21	2.80	---	1.46	2.76	1.72
27	2.01	1.53	1.16	2.97	---	1.88	2.18	2.71	1.86	1.50	2.49	1.35
28	2.05	1.94	1.16	2.70	---	2.00	2.14	2.81	1.70	1.48	2.49	1.60
29	1.97	1.58	1.16	2.53	---	2.01	2.20	3.52	1.62	1.56	2.50	1.60
30	1.99	1.49	1.21	3.37	---	1.92	2.44	3.45	1.63	1.71	2.23	1.60
31	2.11	---	1.37	2.93	---	2.31	---	3.08	---	1.73	2.28	---
MEAN	2.09	1.94	1.33	1.99	---	1.83	2.57	2.58	---	1.68	2.31	1.82
MAX	3.31	2.53	1.72	3.37	---	2.31	3.30	3.52	---	2.38	3.79	2.31
MIN	1.57	1.44	.95	1.42	---	1.47	2.08	2.10	---	1.30	1.32	1.35
MED	2.01	1.99	1.32	1.79	---	1.78	2.46	2.49	---	1.65	2.24	1.76

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL JF11, STATION NUMBER 391809076174301; LATITUDE 39° 18′ 09" LONGITUDE 76° 17′ 43"
GEOLOGIC UNIT: CONFINED AQUIFER

DAILY MEAN VALUES
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	0.78	0.39	0.75	1.00	1.38	1.19	1.21	0.95	1.52
2	---	---	---	.18	.54	.77	1.01	.84	1.24	1.07	1.19	1.43
3	---	---	---	-.08	.28	.78	1.02	.83	1.30	1.61	1.19	1.01
4	---	---	---	.29	.85	.70	1.02	1.01	---	1.61	1.11	1.38
5	---	---	---	.44	---	.81	1.03	1.29	.31	.91	1.66	1.80
6	---	---	---	.44	---	.81	1.04	.69	1.31	.91	1.68	1.57
7	---	---	---	.61	---	.69	1.04	1.13	.92	1.27	1.15	1.50
8	---	---	---	.58	---	1.16	1.05	1.02	.93	1.49	1.11	1.01
9	---	---	---	.84	---	1.29	1.06	1.19	1.25	1.49	1.14	1.73
10	---	---	---	1.06	---	.91	1.32	1.80	1.09	.89	1.22	1.74
11	---	---	---	.85	---	.92	1.70	1.16	.54	.92	1.27	1.23
12	---	---	---	.69	---	.92	1.05	.83	.67	1.27	1.19	1.32
13	---	---	---	.09	---	.93	1.07	1.54	1.51	1.05	1.35	1.41
14	---	---	---	.22	---	.94	1.12	.76	1.39	1.52	1.13	1.59
15	---	---	---	.32	---	1.23	1.13	1.14	1.52	1.76	1.16	1.63
16	---	---	---	.38	---	1.59	1.14	1.34	1.32	1.19	1.22	1.39
17	---	---	---	.46	---	1.60	1.61	1.23	1.29	.99	1.21	0.86
18	---	---	---	.62	---	1.42	.73	1.09	1.53	1.06	1.30	1.03
19	---	---	---	-.13	---	1.52	.60	1.10	1.45	1.14	1.35	1.41
20	---	---	---	.30	---	1.09	.60	1.16	1.08	1.15	1.00	1.19
21	---	---	---	.62	---	.65	.61	1.20	1.37	1.05	1.41	1.18
22	---	---	-0.39	.67	---	.93	.62	1.63	1.33	1.14	1.81	1.79
23	---	---	-.54	.90	---	.94	.63	1.54	1.58	1.43	1.85	1.22
24	---	---	-.71	.80	---	.91	.63	1.22	1.43	.96	1.73	.91
25	---	---	.65	.82	---	.95	.64	1.31	1.23	1.00	1.55	1.09
26	---	---	.81	.65	---	.96	.96	1.78	1.28	.97	1.37	1.31
27	---	---	-.04	.38	---	.97	1.55	1.32	1.43	1.11	1.21	.86
28	---	---	.28	.19	---	.97	1.56	1.68	1.24	1.07	1.42	1.25
29	---	---	.40	.20	---	.98	1.57	1.73	1.21	1.25	1.51	1.25
30	---	---	.51	.68	---	.99	1.57	.96	1.16	1.50	1.24	1.25
31	---	---	.86	.33	---	1.00	---	1.27	---	1.59	1.46	---
MEAN	---	---	---	.49	---	1.00	1.06	1.23	1.21	1.21	1.33	1.33
MAX	---	---	---	1.06	---	1.60	1.70	1.80	1.58	1.76	1.85	1.80
MIN	---	---	---	-.13	---	.65	.60	.69	.31	.89	.95	.86
MED	---	---	---	.46	---	.94	1.04	1.20	1.28	1.14	1.24	1.31

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL JF12, STATION NUMBER 391809076174302; LATITUDE 39° 18′ 09" LONGITUDE 76° 17′ 43"
GEOLOGIC UNIT: CONFINING UNIT

DAILY MEAN VALUES
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	1.35	1.82	1.89	1.87	2.24	2.32	1.57	1.64	1.90
2	---	---	---	1.36	1.84	1.87	1.92	2.24	2.31	1.63	1.63	1.90
3	---	---	---	1.33	1.87	1.89	1.98	2.22	2.30	1.67	1.61	1.90
4	---	---	---	1.31	1.90	1.90	2.06	2.20	---	1.68	1.60	1.88
5	---	---	---	1.33	1.93	1.88	2.13	2.21	---	1.70	1.59	1.86
6	---	---	---	1.35	1.93	1.84	2.17	2.25	---	1.72	1.59	1.86
7	---	---	---	1.36	1.95	1.79	2.19	2.28	---	1.72	1.61	1.87
8	---	---	---	1.38	1.97	1.72	2.18	2.28	---	1.69	1.62	1.89
9	---	---	---	1.43	1.98	1.69	2.16	2.28	---	1.67	1.59	1.88
10	---	---	---	1.48	2.04	1.70	2.14	2.29	---	1.67	1.59	1.87
11	---	---	---	1.53	2.09	1.71	2.17	2.32	---	1.67	1.60	1.86
12	---	---	---	1.60	2.11	1.72	2.20	2.31	---	1.67	1.61	1.84
13	---	---	---	1.65	2.11	1.74	2.19	2.29	---	1.68	1.61	1.83
14	---	---	---	1.63	2.13	1.76	2.16	2.30	---	1.68	1.61	1.83
15	---	---	---	1.61	2.13	1.78	2.16	2.29	---	1.68	1.62	1.85
16	---	---	---	1.60	2.14	1.79	2.18	2.29	---	1.69	1.62	1.87
17	---	---	---	1.58	2.16	1.82	2.20	2.31	---	1.68	1.62	1.88
18	---	---	---	1.59	2.13	1.86	2.20	2.34	---	1.67	1.62	1.86
19	---	---	---	1.60	2.10	1.86	2.17	2.36	---	1.67	1.63	1.83
20	---	---	---	1.59	2.09	1.86	2.14	2.36	---	1.67	1.64	1.82
21	---	---	---	1.61	2.06	1.87	2.13	2.36	---	1.68	1.64	1.80
22	---	---	1.54	1.66	2.02	1.86	2.15	2.36	---	1.70	1.65	1.78
23	---	---	1.47	1.68	2.05	1.86	2.17	2.34	---	1.72	1.67	1.81
24	---	---	1.40	1.69	2.10	1.85	2.19	2.33	---	1.73	1.69	1.81
25	---	---	1.37	1.72	2.12	1.84	2.19	2.30	---	1.72	1.72	1.80
26	---	---	1.38	1.77	2.04	1.83	2.20	2.29	---	1.70	1.74	1.79
27	---	---	1.38	1.78	1.96	1.82	2.22	2.29	1.23	1.68	1.77	1.76
28	---	---	1.37	1.77	1.92	1.81	2.23	2.30	1.34	1.65	1.81	1.73
29	---	---	1.34	1.77	---	1.80	2.24	2.31	1.43	1.64	1.85	1.70
30	---	---	1.32	1.82	---	1.80	2.24	2.34	1.50	1.63	1.89	1.67
31	---	---	1.31	1.84	---	1.83	---	2.34	---	1.64	1.91	---
MEAN	---	---	---	1.57	2.02	1.81	2.15	2.30	---	1.68	1.66	1.83
MAX	---	---	---	1.84	2.16	1.90	2.24	2.36	---	1.73	1.91	1.90
MIN	---	---	---	1.31	1.82	1.69	1.87	2.20	---	1.57	1.59	1.67
MED	---	---	---	1.60	2.05	1.83	2.17	2.30	---	1.68	1.62	1.84

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL JF13, STATION NUMBER 391809076174303; LATITUDE 39° 18′ 09" LONGITUDE 76° 17′ 43"
GEOLOGIC UNIT: SURFICIAL AQUIFER

DAILY MEAN VALUES
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	2.24	3.44	---	---	---	3.39	1.67	2.00	2.23
2	---	---	---	2.23	3.51	---	---	3.31	3.25	1.60	1.96	2.14
3	---	---	---	2.20	3.30	---	---	3.09	3.16	1.72	1.98	1.91
4	---	---	---	2.28	3.55	---	---	3.10	---	1.87	1.93	1.87
5	---	---	---	2.41	3.37	---	---	3.40	2.73	1.58	2.12	2.09
6	---	---	---	2.39	3.54	---	---	3.22	2.95	1.47	2.41	2.03
7	---	---	---	2.43	3.36	---	---	3.15	2.80	1.57	2.32	1.94
8	---	---	---	2.49	3.16	---	---	3.01	2.54	1.69	1.72	1.67
9	---	---	---	2.73	3.28	---	---	2.92	2.62	1.76	1.40	1.88
10	---	---	---	3.02	3.32	---	---	3.28	2.47	1.54	1.61	1.97
11	---	---	---	2.94	3.15	---	---	3.64	2.17	1.60	1.94	1.71
12	---	---	---	2.90	3.15	---	---	3.33	1.91	1.77	2.09	1.68
13	---	---	---	2.60	3.06	---	---	3.58	2.22	2.17	2.19	1.70
14	---	---	---	2.45	3.04	---	---	3.35	2.24	2.59	2.18	1.79
15	---	---	---	2.56	2.69	---	---	3.21	2.37	2.86	2.06	1.81
16	---	---	---	2.55	2.92	---	---	3.26	2.51	2.67	2.07	1.63
17	---	---	---	2.60	2.62	---	---	3.21	2.42	2.41	1.98	1.43
18	---	---	---	2.70	2.19	---	---	3.01	2.44	2.37	1.95	1.38
19	---	---	---	2.36	2.52	---	---	2.81	2.42	2.37	1.92	1.57
20	---	---	---	2.40	2.06	---	---	2.72	2.13	2.32	1.75	1.52
21	---	---	---	2.65	1.90	---	---	2.65	2.11	2.24	1.87	1.41
22	---	---	1.49	2.61	2.07	---	---	2.67	2.02	2.21	2.43	1.74
23	---	---	1.31	2.67	2.28	---	---	2.69	2.14	2.32	3.09	1.59
24	---	---	1.28	2.64	2.01	---	---	2.44	2.05	2.12	3.17	1.39
25	---	---	1.56	2.76	1.52	---	---	2.35	1.87	2.02	3.03	---
26	---	---	1.92	3.28	1.12	---	---	2.77	1.80	1.97	2.92	1.49
27	---	---	1.51	3.29	1.50	---	---	3.18	1.88	1.99	2.75	1.26
28	---	---	1.54	3.31	---	---	---	3.30	1.80	2.01	2.67	1.36
29	---	---	1.54	3.24	---	---	---	3.54	1.71	2.05	2.61	1.39
30	---	---	1.60	3.60	---	---	---	3.65	1.71	2.21	2.36	1.39
31	---	---	1.79	3.51	---	---	---	3.54	---	2.26	2.25	---
MEAN	---	---	---	2.71	2.73	---	---	3.11	2.34	2.03	2.22	1.69
MAX	---	---	---	3.60	3.55	---	---	3.65	3.39	2.86	3.17	2.23
MIN	---	---	---	2.20	1.12	---	---	2.35	1.71	1.47	1.40	1.26
MED	---	---	---	2.61	3.04	---	---	3.19	2.24	2.02	2.09	1.68

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL JF21, STATION NUMBER 391809076174601; LATITUDE 39° 18′ 09" LONGITUDE 76° 17′ 46"
GEOLOGIC UNIT: CONFINED AQUIFER

DAILY MEAN VALUES
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	0.85	0.72	0.53	---	---	---	1.19	0.98	---
2	---	---	---	.29	.87	.86	---	0.84	---	1.06	1.20	---
3	---	---	---	.06	.62	.47	---	.83	---	1.57	1.20	---
4	---	---	---	.42	1.16	.26	---	.99	---	1.56	1.13	---
5	---	---	---	.56	.64	.82	---	1.26	---	.91	1.65	---
6	---	---	---	.58	1.29	.50	---	.68	---	.91	1.67	---
7	---	---	---	.74	.86	.36	---	1.09	.05	1.26	1.16	---
8	---	---	---	.72	.91	.79	---	.97	.07	1.47	---	---
9	---	---	---	.97	1.30	.83	---	1.15	.44	1.47	---	---
10	---	---	---	1.18	1.18	.69	---	1.71	.35	.90	---	---
11	---	---	---	1.00	.84	.94	---	1.10	-.03	.93	---	---
12	---	---	---	.85	.89	.83	---	.80	-.13	1.26	---	---
13	---	---	---	.29	1.22	.80	---	1.47	.84	1.05	---	---
14	---	---	---	.42	.91	.87	---	.72	.86	1.50	---	---
15	---	---	---	.52	.73	1.09	---	1.08	.97	1.72	---	---
16	---	---	---	.59	1.40	---	---	1.26	.93	1.19	---	---
17	---	---	---	.68	---	---	---	1.14	.85	.99	---	---
18	---	---	---	.84	---	---	---	1.01	1.02	1.08	---	---
19	---	---	---	.12	---	---	---	1.03	1.21	1.15	---	---
20	---	---	---	.54	---	---	---	1.08	.84	1.16	---	---
21	---	---	---	.85	---	---	---	1.11	1.03	1.07	---	---
22	---	---	-0.35	.90	---	---	---	1.53	1.09	1.15	---	---
23	---	---	-.47	1.13	---	---	---	1.42	1.34	1.42	---	---
24	---	---	-.63	1.04	---	---	---	1.12	1.38	.98	---	---
25	---	---	.68	1.07	---	---	---	1.20	1.25	1.02	---	---
26	---	---	.84	.92	---	---	---	1.64	1.29	.99	---	---
27	---	---	.05	.67	---	---	---	1.22	1.40	1.12	---	---
28	---	---	.36	.50	---	---	---	---	1.22	1.08	---	---
29	---	---	.47	.51	---	---	---	---	1.19	1.27	---	---
30	---	---	.59	.96	---	---	---	---	1.14	1.50	---	---
31	---	---	.93	.65	---	---	---	---	---	1.58	---	---
MEAN	---	---	---	.69	---	---	---	1.13	.86	1.21	---	---
MAX	---	---	---	1.18	---	---	---	1.71	1.40	1.72	---	---
MIN	---	---	---	.06	---	---	---	.68	-.13	.90	---	---
MED	---	---	---	.68	---	---	---	1.10	1.00	1.15	---	---

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL JF22, STATION NUMBER 391809076174602; LATITUDE 39° 18′ 09″ LONGITUDE 76° 17′ 46″
GEOLOGIC UNIT: CONFINING UNIT

DAILY MEAN VALUES
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	0.70	1.25	1.02	1.28	1.50	1.69	1.29	1.08	1.56
2	---	---	---	.73	1.27	1.02	1.33	---	1.67	1.27	1.07	1.55
3	---	---	---	.74	1.28	1.05	1.41	1.50	1.66	1.24	1.05	1.54
4	---	---	---	.73	1.31	1.07	1.49	1.49	1.68	1.22	1.04	1.51
5	---	---	---	.75	1.17	1.05	1.55	1.53	---	1.22	1.02	1.48
6	---	---	---	.77	1.09	1.02	1.57	1.55	---	1.21	1.04	1.50
7	---	---	---	.79	1.12	.98	1.57	1.55	---	1.17	1.08	1.52
8	---	---	---	.82	1.15	.95	1.55	1.54	---	1.12	1.15	1.52
9	---	---	---	.88	1.19	.94	1.50	1.53	---	1.10	1.19	1.50
10	---	---	---	.95	1.26	.97	1.48	1.58	---	1.11	1.20	1.48
11	---	---	---	1.02	1.32	1.00	1.51	1.62	---	1.11	1.21	1.47
12	---	---	---	1.09	1.35	1.03	1.52	1.61	---	1.09	1.22	1.46
13	---	---	---	1.13	1.35	1.06	1.48	1.61	---	1.10	1.23	1.45
14	---	---	---	1.10	1.36	1.09	1.42	1.61	---	1.10	1.25	1.45
15	---	---	---	1.06	1.37	1.12	1.42	1.60	---	1.13	1.26	1.48
16	---	---	---	1.04	1.39	1.15	1.46	1.60	---	1.16	1.26	1.50
17	---	---	---	1.02	1.41	1.19	1.48	1.63	---	1.17	1.26	1.48
18	---	---	---	1.03	1.38	1.26	1.48	1.64	---	1.18	1.26	1.42
19	---	---	---	1.03	1.35	1.28	1.43	1.63	---	1.18	1.27	1.39
20	---	---	---	1.02	1.33	1.29	1.38	1.62	---	1.18	1.28	1.37
21	---	---	---	1.04	1.28	1.27	1.38	1.62	---	1.19	1.27	1.35
22	---	---	0.85	1.06	1.24	1.23	1.40	1.61	---	1.19	1.30	1.36
23	---	---	.77	1.09	1.27	1.20	1.40	1.60	---	1.19	1.35	1.38
24	---	---	.67	1.12	1.32	1.19	1.40	1.61	---	1.19	1.40	1.37
25	---	---	.61	1.17	1.32	1.18	1.40	1.60	---	1.17	1.46	1.29
26	---	---	.60	1.24	1.21	1.18	1.41	1.62	---	1.13	1.50	1.32
27	---	---	.61	1.26	1.10	1.19	1.43	1.64	1.37	1.09	1.53	1.30
28	---	---	.62	1.25	1.05	1.19	1.44	1.65	1.34	1.06	1.56	1.27
29	---	---	.61	1.24	---	1.18	1.45	1.69	1.32	1.04	1.58	1.24
30	---	---	.61	1.26	---	1.19	1.48	1.73	1.30	1.04	1.58	1.22
31	---	---	.63	1.26	---	1.23	---	1.72	---	1.06	1.57	---
MEAN	---	---	---	1.01	1.27	1.12	1.45	1.60	---	1.15	1.27	1.42
MAX	---	---	---	1.26	1.41	1.29	1.57	1.73	---	1.29	1.58	1.56
MIN	---	---	---	.70	1.05	.94	1.28	1.49	---	1.04	1.02	1.22
MED	---	---	---	1.04	1.28	1.15	1.44	1.61	---	1.17	1.26	1.45

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL JF23, STATION NUMBER 391809076174603; LATITUDE 39° 18′ 09" LONGITUDE 76° 17′ 46"
GEOLOGIC UNIT: SURFICIAL AQUIFER

DAILY MEAN VALUES
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	1.79	2.45	1.60	2.62	2.68	2.46	1.06	0.71	---
2	---	---	---	1.59	2.54	1.91	2.75	2.42	2.36	.96	.76	---
3	---	---	---	1.47	2.30	1.64	2.80	2.25	2.30	1.12	.77	---
4	---	---	---	1.69	2.71	1.34	2.74	2.33	2.20	1.40	.68	---
5	---	---	---	1.77	2.37	1.70	2.78	2.66	---	.86	1.05	---
6	---	---	---	1.77	2.80	1.59	2.44	2.26	---	.80	1.34	---
7	---	---	---	1.86	2.50	1.27	2.54	2.38	1.94	.99	1.06	---
8	---	---	---	1.89	2.41	1.63	2.54	2.22	1.73	1.16	.95	---
9	---	---	---	2.22	2.69	1.73	2.49	2.20	1.88	1.19	1.02	---
10	---	---	---	2.42	2.70	1.60	2.74	2.72	1.73	.76	1.21	---
11	---	---	---	2.27	2.46	1.80	2.60	2.74	1.29	.89	1.50	---
12	---	---	---	2.13	2.54	1.74	2.04	2.35	1.12	1.13	1.60	---
13	---	---	---	1.72	2.62	1.68	2.02	2.82	1.72	1.44	1.68	---
14	---	---	---	1.74	2.54	1.69	2.41	2.34	1.70	1.87	1.66	---
15	---	---	---	1.84	2.21	1.78	2.69	2.37	1.88	2.13	1.48	---
16	---	---	---	1.86	2.69	1.88	2.70	2.49	1.95	1.74	1.55	---
17	---	---	---	1.92	2.21	2.03	2.79	2.38	1.84	1.42	1.44	---
18	---	---	---	2.02	1.87	2.15	2.08	2.15	1.89	1.40	1.43	---
19	---	---	---	1.51	2.39	2.24	2.29	2.01	1.82	1.38	1.42	---
20	---	---	---	1.74	1.72	2.04	2.48	1.96	1.51	1.30	1.17	---
21	---	---	---	2.01	1.80	1.65	2.39	1.92	1.59	1.17	---	---
22	---	---	0.71	1.99	2.05	2.18	2.18	2.10	1.49	1.16	---	---
23	---	---	.54	2.12	2.34	2.26	2.43	2.09	1.71	1.34	---	---
24	---	---	.50	2.05	1.95	1.80	2.35	1.77	1.57	.97	---	---
25	---	---	1.23	2.22	1.42	2.26	2.32	1.74	1.37	.89	---	---
26	---	---	1.34	2.50	1.08	2.22	2.30	2.33	1.33	.83	---	2.48
27	---	---	.84	2.36	1.84	2.02	2.25	2.45	1.42	.89	---	2.08
28	---	---	.94	2.28	1.78	2.15	2.19	2.64	1.26	.87	---	2.30
29	---	---	1.01	2.24	---	2.13	2.26	2.85	1.14	.97	---	2.27
30	---	---	1.10	2.70	---	2.09	2.64	2.56	1.10	1.16	---	2.23
31	---	---	1.45	2.49	---	2.39	---	2.61	---	1.19	---	---
MEAN	---	---	---	2.01	2.25	1.88	2.46	2.35	1.69	1.18	---	---
MAX	---	---	---	2.70	2.80	2.39	2.80	2.85	2.46	2.13	---	---
MIN	---	---	---	1.47	1.08	1.27	2.02	1.74	1.10	.76	---	---
MED	---	---	---	1.99	2.38	1.80	2.46	2.35	1.71	1.16	---	---

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL JF31, STATION NUMBER 391814076173801; LATITUDE 39° 18′ 14" LONGITUDE 76° 17′ 38"
GEOLOGIC UNIT: CONFINED AQUIFER

DAILY MEAN VALUES
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	0.67	0.39	1.15	1.15	1.07	1.07	0.85	1.42
2	---	---	---	---	.82	.83	1.39	.79	1.12	.93	1.07	1.33
3	---	---	---	---	.58	.43	1.19	.78	1.15	1.45	1.07	.93
4	---	---	---	---	1.14	.13	1.18	.94	.77	1.47	.99	1.28
5	---	---	---	---	.56	.76	1.21	1.22	.22	.78	1.53	1.69
6	---	---	---	---	1.20	.53	.80	.63	1.21	.77	1.57	1.47
7	---	---	---	---	.76	.19	.84	1.06	.87	1.13	1.04	1.40
8	---	---	---	---	.81	.73	.80	.94	.83	1.35	1.00	.94
9	---	---	---	---	1.21	.82	.81	1.11	1.16	1.36	1.02	1.64
10	---	---	---	---	1.09	.60	1.19	1.70	1.01	.77	1.10	1.65
11	---	---	---	---	.72	.89	.89	1.09	.49	.80	1.16	1.14
12	---	---	---	---	.80	.79	.30	.74	.54	1.14	1.08	1.24
13	---	---	---	0.25	1.12	.75	.42	1.45	1.39	.93	1.23	1.32
14	---	---	---	.37	.83	.80	1.04	.69	1.29	1.38	1.03	1.50
15	---	---	---	.48	.61	1.00	1.07	1.05	1.42	1.63	1.05	1.54
16	---	---	---	.55	1.32	1.08	.93	1.24	1.23	1.08	1.12	1.30
17	---	---	---	.64	.48	1.27	1.09	1.12	1.18	.87	1.10	.79
18	---	---	---	.82	.32	.79	.10	.99	1.41	.94	1.19	.94
19	---	---	---	.09	.95	.84	.62	1.01	1.35	1.02	1.24	1.32
20	---	---	---	.51	-.03	.38	.91	1.06	.96	1.03	.90	1.12
21	---	---	---	.84	.39	-.03	.75	1.09	1.24	.93	1.30	1.11
22	---	---	---	.89	.68	.92	.44	1.51	1.21	1.01	1.69	1.71
23	---	---	---	1.13	.99	.89	.90	1.42	1.46	1.30	1.73	1.15
24	---	---	---	1.04	.43	.42	.86	1.11	1.30	.84	1.62	.85
25	---	---	---	1.08	-.53	1.00	.91	1.19	1.10	.88	1.45	.99
26	---	---	---	.94	-.63	.74	.97	1.65	1.14	.85	1.27	1.22
27	---	---	---	.66	.62	.55	.98	1.20	1.29	.98	1.12	.78
28	---	---	---	.50	.43	.84	1.01	1.55	1.10	.95	1.32	1.16
29	---	---	---	.49	---	.80	1.07	1.60	1.07	1.13	1.41	1.15
30	---	---	---	.98	---	.72	1.31	.84	1.02	1.38	1.15	1.16
31	---	---	---	.66	---	.98	---	---	---	1.47	1.36	---
MEAN	---	---	---	---	.65	.70	.90	1.13	1.09	1.08	1.22	1.24
MAX	---	---	---	---	1.32	1.27	1.39	1.70	1.46	1.63	1.73	1.71
MIN	---	---	---	---	-.63	-.03	.10	.63	.22	.77	.85	.78
MED	---	---	---	---	.70	.79	.92	1.10	1.14	1.02	1.15	1.23

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL JF32, STATION NUMBER 391814076173802; LATITUDE 39° 18′ 14" LONGITUDE 76° 17′ 38"
GEOLOGIC UNIT: CONFINING UNIT

DAILY MEAN VALUES
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	3.33	2.24	2.41	---	---	2.15	1.83	2.64
2	---	---	---	---	3.39	2.26	2.52	2.78	---	2.10	1.79	2.59
3	---	---	---	---	3.40	2.26	2.64	2.77	---	2.06	1.76	2.53
4	---	---	---	---	3.43	2.22	2.77	2.75	---	2.06	1.72	2.44
5	---	---	---	---	3.41	2.19	2.88	2.78	---	2.02	1.72	2.41
6	---	---	---	---	3.45	2.15	2.91	2.79	---	1.98	1.80	2.39
7	---	---	---	---	3.43	2.07	2.91	2.82	2.66	1.93	1.85	2.38
8	---	---	---	---	3.41	2.06	2.91	2.80	2.63	1.89	1.84	2.33
9	---	---	---	---	3.42	2.07	2.93	2.79	2.65	1.88	1.84	2.28
10	---	---	---	---	3.42	2.09	2.98	2.84	2.64	1.88	1.87	2.27
11	---	---	---	---	3.36	2.11	3.01	2.86	2.58	1.90	1.93	2.23
12	---	---	---	---	3.37	2.12	2.95	2.89	2.48	1.89	1.98	2.20
13	---	---	---	---	3.36	2.13	2.87	2.99	2.45	1.94	2.05	2.18
14	---	---	---	---	3.35	2.14	2.83	2.99	2.42	1.99	2.13	2.16
15	---	---	---	---	3.28	2.14	2.85	3.01	2.43	2.08	2.16	2.17
16	---	---	---	---	3.28	2.15	2.89	3.02	2.45	2.14	2.21	2.14
17	---	---	---	---	3.21	2.19	2.99	3.03	2.46	2.15	2.21	2.11
18	---	---	---	2.71	3.07	2.23	2.95	3.00	2.49	2.15	2.20	2.03
19	---	---	---	2.66	3.04	2.25	2.93	2.95	2.51	2.14	2.20	2.00
20	---	---	---	2.65	2.92	2.29	2.90	2.90	2.49	2.13	2.17	1.99
21	---	---	---	2.68	2.82	2.27	2.89	2.85	2.46	2.10	2.15	1.94
22	---	---	---	2.69	2.76	2.30	2.85	2.80	2.43	2.08	2.20	1.97
23	---	---	---	2.72	2.77	2.33	2.85	2.78	2.44	2.07	2.30	1.99
24	---	---	---	2.73	2.73	2.28	2.84	2.73	2.41	2.03	2.46	1.97
25	---	---	---	2.78	2.60	2.30	2.81	2.68	2.36	1.97	2.61	1.93
26	---	---	---	2.85	2.41	2.29	2.80	2.73	2.32	1.92	2.71	1.92
27	---	---	---	2.91	2.34	2.28	2.78	2.76	2.30	1.88	2.76	1.87
28	---	---	---	3.03	2.28	2.29	2.76	2.84	2.26	1.85	2.79	1.85
29	---	---	---	3.11	---	2.30	2.73	2.95	2.22	1.82	2.80	1.82
30	---	---	---	3.24	---	2.31	---	3.02	2.19	1.83	2.76	1.81
31	---	---	---	3.28	---	2.35	---	---	---	1.85	2.70	---
MEAN	---	---	---	---	**3.11**	2.21	2.84	**2.86**	**2.45**	**2.00**	**2.18**	**2.15**
MAX	---	---	---	---	3.45	2.35	3.01	3.03	**2.66**	**2.15**	**2.80**	**2.64**
MIN	---	---	---	---	**2.28**	2.06	2.41	**2.68**	**2.19**	**1.82**	**1.72**	**1.81**
MED	---	---	---	---	**3.30**	2.24	2.87	**2.84**	**2.45**	**1.99**	**2.16**	**2.15**

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL JF33, STATION NUMBER 391814076173803; LATITUDE 39° 18′ 14″ LONGITUDE 76° 17′ 38″
GEOLOGIC UNIT: SURFICIAL AQUIFER

DAILY MEAN VALUES
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	5.67	3.85	5.14	5.30	5.34	3.20	2.83	4.08
2	---	---	---	---	5.60	3.96	5.18	5.01	5.12	3.12	2.81	3.97
3	---	---	---	---	5.31	3.85	5.98	4.72	5.02	3.19	2.79	3.78
4	---	---	---	---	5.73	3.66	6.03	4.69	5.32	3.21	2.73	3.71
5	---	---	---	---	5.86	3.73	5.79	5.23	4.82	2.98	2.82	3.79
6	---	---	---	---	6.40	3.67	5.43	5.01	4.85	2.91	3.15	3.71
7	---	---	---	---	6.15	3.51	5.90	4.83	4.62	2.94	3.31	3.62
8	---	---	---	---	5.91	3.62	5.88	4.62	4.39	2.98	3.20	3.42
9	---	---	---	---	5.95	3.68	5.59	4.50	4.39	2.98	3.17	3.50
10	---	---	---	---	6.15	3.58	5.60	5.16	4.22	2.83	3.89	3.52
11	---	---	---	---	6.26	3.64	5.51	6.08	3.96	3.00	4.22	3.32
12	---	---	---	---	6.08	3.62	5.07	5.59	3.78	3.10	4.75	3.28
13	---	---	---	4.03	5.91	3.58	4.86	5.67	3.93	4.03	4.52	3.26
14	---	---	---	3.91	5.75	3.57	4.92	5.44	3.87	4.20	4.51	3.28
15	---	---	---	3.94	---	3.58	5.86	5.19	4.25	4.25	4.25	3.29
16	---	---	---	3.91	---	3.61	6.07	5.10	4.30	4.00	4.11	3.16
17	---	---	---	3.92	---	3.76	5.88	5.03	4.12	3.79	3.95	3.03
18	---	---	---	3.97	4.94	4.56	5.36	4.81	4.07	3.70	3.86	2.98
19	---	---	---	3.70	5.10	4.63	5.16	4.60	4.00	3.63	3.78	3.05
20	---	---	---	3.76	4.66	4.51	5.14	4.47	3.77	3.55	3.60	3.02
21	---	---	---	3.88	4.54	4.23	5.15	4.35	3.75	3.45	3.65	2.94
22	---	---	---	3.83	4.61	4.31	5.14	4.33	3.67	3.39	4.99	3.21
23	---	---	---	3.84	4.72	4.31	5.06	4.27	3.73	3.41	6.14	3.27
24	---	---	---	3.82	4.46	4.04	4.88	4.09	3.65	3.22	5.97	3.09
25	---	---	---	4.31	4.08	4.18	4.77	3.99	3.51	3.13	5.61	3.02
26	---	---	---	5.73	3.86	4.34	4.69	4.78	3.45	3.06	5.43	3.04
27	---	---	---	5.77	4.04	4.23	4.57	5.30	3.46	3.03	5.06	2.88
28	---	---	---	5.60	3.96	4.21	4.46	5.20	3.37	2.99	4.81	2.92
29	---	---	---	5.52	---	4.16	4.52	5.87	3.29	2.98	4.62	2.91
30	---	---	---	6.06	---	4.14	4.99	6.30	3.25	3.02	4.33	2.90
31	---	---	---	5.86	---	4.81	---	---	---	3.02	4.16	---
MEAN	---	---	---	---	**5.27**	**3.97**	**5.29**	**4.98**	**4.11**	**3.30**	**4.10**	**3.30**
MAX	---	---	---	---	**6.40**	**4.81**	**6.07**	**6.30**	**5.34**	**4.25**	**6.14**	**4.08**
MIN	---	---	---	---	**3.86**	**3.51**	**4.46**	**3.99**	**3.25**	**2.83**	**2.73**	**2.88**
MED	---	---	---	---	**5.60**	**3.85**	**5.15**	**5.01**	**3.98**	**3.13**	**4.11**	**3.26**

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL JF41, STATION NUMBER 391812076173101; LATITUDE 39° 18′ 12" LONGITUDE 76° 17′ 32"
GEOLOGIC UNIT: CONFINED AQUIFER

DAILY MEAN VALUES
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	0.77	---	1.26	1.27	1.20	1.20	0.97	1.56
2	---	---	---	---	.93	0.94	1.50	.90	1.23	1.06	1.20	1.48
3	---	---	---	---	.69	.53	1.30	.89	1.29	1.60	1.20	1.07
4	---	---	---	---	1.26	.23	1.28	1.05	.85	1.60	1.12	1.43
5	---	---	---	---	.70	.87	1.31	1.34	.37	.91	1.66	1.84
6	---	---	---	---	1.40	.64	.90	.75	---	.91	1.70	1.62
7	---	---	---	---	.94	.29	.94	1.18	---	1.28	1.16	1.55
8	---	---	---	---	.99	.84	.90	1.05	.96	1.50	1.13	1.08
9	---	---	---	---	1.39	.92	.91	1.22	1.28	1.50	1.15	1.79
10	---	---	---	---	1.28	.71	1.30	1.82	1.12	.90	1.23	1.80
11	---	---	---	---	.90	1.00	.99	1.22	.58	.93	1.29	1.29
12	---	---	---	---	.99	.89	.40	.86	.69	1.28	1.21	1.39
13	---	---	---	0.32	1.30	.85	.52	1.58	1.53	1.05	1.36	1.47
14	---	---	---	.45	1.02	.91	1.14	.81	1.42	1.53	1.16	1.65
15	---	---	---	.55	.79	1.11	1.17	1.17	1.55	1.76	1.18	1.69
16	---	---	---	.62	1.51	1.19	1.04	1.37	1.35	1.20	1.25	1.45
17	---	---	---	.71	.66	1.39	1.19	1.26	1.31	.99	1.24	.94
18	---	---	---	.89	.50	.89	.20	1.11	1.54	1.07	1.33	1.09
19	---	---	---	.15	1.14	.94	.73	1.13	1.47	1.14	1.38	1.47
20	---	---	---	.57	.14	.48	1.01	1.18	1.09	1.15	1.04	1.29
21	---	---	---	.91	.56	.07	.84	1.22	1.37	1.06	1.44	1.26
22	---	---	---	.96	.86	1.03	.54	1.63	1.35	1.15	1.84	1.87
23	---	---	---	1.20	1.17	.99	1.00	1.55	1.60	1.43	1.87	1.31
24	---	---	---	1.11	.60	.52	.97	1.23	1.44	.96	1.77	1.00
25	---	---	---	1.14	-.35	1.10	1.01	1.31	1.24	1.00	1.59	1.14
26	---	---	---	1.00	-.47	.84	1.08	1.78	1.28	.97	1.41	1.37
27	---	---	---	.72	.79	.65	1.08	1.33	1.43	1.10	1.25	.90
28	---	---	---	.55	---	.94	1.12	1.69	1.23	1.07	1.47	1.28
29	---	---	---	.54	---	.90	1.18	1.74	1.20	1.26	1.56	1.27
30	---	---	---	1.04	---	.82	1.42	.97	1.15	1.51	1.29	1.28
31	---	---	---	.71	---	1.09	---	1.27	---	1.60	1.50	---
MAX	---	---	---	---	1.51	1.39	1.50	1.82	1.60	1.76	1.87	1.87
MIN	---	---	---	---	-.47	.07	.20	.75	.37	.90	.97	.90
MEAN	---	---	---	---	0.83	0.82	1.01	1.25	1.22	1.22	1.35	1.39
MED	---	---	---	---	.90	.86	1.03	1.20	1.20	1.15	1.29	1.38

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL JF42, STATION NUMBER 391812076173102; LATITUDE 39° 18′ 12" LONGITUDE 76° 17′ 32"
GEOLOGIC UNIT: CONFINING UNIT

DAILY MEAN VALUES
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	3.10	3.25	3.18	3.61	3.53	3.11	---	---
2	---	---	---	---	3.14	3.25	3.25	3.61	3.50	3.14	---	---
3	---	---	---	---	3.18	3.29	3.33	3.57	3.50	3.15	---	---
4	---	---	---	---	3.22	3.33	3.43	3.52	3.54	3.14	---	---
5	---	---	---	---	3.27	3.30	3.51	3.54	3.57	---	---	---
6	---	---	---	---	3.27	3.25	3.54	3.60	---	---	---	---
7	---	---	---	---	3.29	3.17	3.53	3.62	---	---	---	---
8	---	---	---	---	3.31	3.09	3.50	3.61	---	---	---	---
9	---	---	---	---	3.33	3.07	3.46	3.59	---	---	---	---
10	---	---	---	---	3.40	3.09	3.43	3.60	---	---	---	---
11	---	---	---	---	3.46	3.10	3.49	3.65	---	---	---	---
12	---	---	---	---	3.49	3.11	3.53	3.62	---	---	---	---
13	---	---	---	---	3.48	3.13	3.50	3.59	---	---	---	---
14	---	---	---	---	3.49	3.15	3.46	3.59	---	---	---	---
15	---	---	---	---	3.48	3.16	3.47	3.57	---	---	---	---
16	---	---	---	---	3.50	3.16	3.52	3.56	---	---	---	---
17	---	---	---	---	3.53	3.19	3.55	3.60	---	---	---	---
18	---	---	---	2.85	3.47	3.23	3.56	3.64	---	---	---	---
19	---	---	---	2.85	3.43	3.23	3.51	3.65	---	---	---	---
20	---	---	---	2.83	3.44	3.21	3.46	3.64	---	---	---	---
21	---	---	---	2.87	3.38	3.21	3.46	3.64	---	---	---	---
22	---	---	---	2.93	3.35	3.19	3.50	3.63	---	---	---	---
23	---	---	---	2.96	3.42	3.18	3.53	3.60	---	---	---	---
24	---	---	---	2.97	3.51	3.17	3.56	3.57	---	---	---	---
25	---	---	---	2.98	3.53	3.14	3.56	3.53	---	---	---	---
26	---	---	---	3.03	3.42	3.13	3.58	3.50	---	---	---	2.51
27	---	---	---	3.03	3.32	3.13	3.60	3.52	2.90	---	---	2.50
28	---	---	---	3.01	3.28	3.11	3.60	3.52	2.97	---	---	2.48
29	---	---	---	3.01	---	3.10	3.61	3.53	3.01	---	---	2.44
30	---	---	---	3.08	---	3.10	3.61	3.58	3.06	---	---	2.41
31	---	---	---	3.11	---	3.13	---	3.57	---	---	---	---
MEAN	---	---	---	---	3.37	3.17	3.49	3.59	---	---	---	---
MAX	---	---	---	---	3.53	3.33	3.61	3.65	---	---	---	---
MIN	---	---	---	---	3.10	3.07	3.18	3.50	---	---	---	---
MED	---	---	---	---	3.41	3.16	3.51	3.59	---	---	---	---

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL JF43, STATION NUMBER 391812076173103; LATITUDE 39° 18′ 12" LONGITUDE 76° 17′ 32"
GEOLOGIC UNIT: SURFICIAL AQUIFER

DAILY MEAN VALUES
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	5.50	4.44	5.14	5.23	5.43	---	---	4.24
2	---	---	---	---	5.51	4.45	5.24	5.27	5.25	---	---	4.12
3	---	---	---	---	5.42	4.50	5.44	5.08	5.11	---	---	4.00
4	---	---	---	---	5.47	4.40	5.67	4.97	5.21	---	---	3.83
5	---	---	---	---	5.54	4.25	5.64	5.17	5.19	---	---	3.75
6	---	---	---	---	5.48	4.21	5.49	5.32	---	---	---	3.72
7	---	---	---	---	5.47	4.10	5.53	5.17	---	---	---	3.66
8	---	---	---	---	5.35	4.07	5.65	4.97	---	---	---	3.54
9	---	---	---	---	5.30	4.16	5.57	4.80	---	---	3.17	3.42
10	---	---	---	---	5.39	4.23	5.54	4.86	---	---	3.43	3.40
11	---	---	---	---	5.52	4.26	5.60	5.40	4.31	---	3.92	3.34
12	---	---	---	---	5.54	4.26	5.46	5.46	4.14	---	4.25	3.28
13	---	---	---	4.57	5.42	4.24	5.22	5.41	4.01	---	4.45	3.23
14	---	---	---	4.36	5.39	4.20	5.11	5.46	3.96	---	4.52	3.21
15	---	---	---	4.35	5.27	4.16	5.29	5.32	4.02	---	4.51	3.24
16	---	---	---	4.37	5.26	4.13	5.67	5.19	4.37	---	4.38	3.16
17	---	---	---	4.35	5.22	4.18	5.72	5.16	4.41	---	4.23	3.12
18	---	---	---	4.39	4.96	4.57	5.56	5.09	4.34	---	4.08	3.06
19	---	---	---	4.31	4.98	4.85	5.35	4.87	4.29	---	3.96	3.04
20	---	---	---	4.24	4.90	4.91	5.25	4.68	4.19	---	3.83	3.05
21	---	---	---	4.38	4.71	4.84	5.27	4.57	4.04	---	3.82	2.98
22	---	---	---	4.37	4.73	4.72	5.35	4.47	3.92	---	4.05	3.01
23	---	---	---	4.29	4.92	4.71	5.33	4.37	3.91	---	4.97	3.27
24	---	---	---	4.25	4.95	4.58	5.23	4.25	3.94	---	5.37	3.30
25	---	---	---	4.34	4.72	4.59	5.09	4.12	---	---	5.36	3.22
26	---	---	---	4.96	4.43	4.76	5.01	4.25	---	---	5.29	3.17
27	---	---	---	5.28	4.41	4.77	4.90	4.91	---	---	5.21	3.10
28	---	---	---	5.36	4.50	4.69	4.79	5.07	---	---	5.05	3.01
29	---	---	---	5.35	---	4.63	4.71	5.18	---	---	4.87	2.97
30	---	---	---	5.54	---	4.63	4.95	5.65	---	---	4.66	2.96
31	---	---	---	5.57	---	4.86	---	5.63	---	---	4.42	---
MEAN	---	---	---	---	5.15	4.46	5.33	5.01	---	---	4.43	3.35
MAX	---	---	---	---	5.54	4.91	5.72	5.65	---	---	5.37	4.24
MIN	---	---	---	---	4.41	4.07	4.71	4.12	---	---	3.17	2.96
MED	---	---	---	---	5.28	4.45	5.34	5.09	---	---	4.42	3.23

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL JF61, STATION NUMBER 391810076172801; LATITUDE 39° 18′ 10" LONGITUDE 76° 17′ 28"
GEOLOGIC UNIT: CONFINED AQUIFER

DAILY MEAN VALUES
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	1.48
2	---	---	---	---	---	---	---	---	---	---	---	1.53
3	---	---	---	---	---	---	---	---	---	---	---	1.49
4	---	---	---	---	---	---	---	---	---	---	---	1.36
5	---	---	---	---	---	---	---	---	---	---	---	1.49
6	---	---	---	---	---	---	---	---	---	---	---	1.55
7	---	---	---	---	---	---	---	---	---	---	---	1.59
8	---	---	---	---	---	---	---	---	---	---	---	1.49
9	---	---	---	---	---	---	---	---	---	---	1.38	1.44
10	---	---	---	---	---	---	---	---	---	---	1.36	1.64
11	---	---	---	---	---	---	---	---	---	---	1.40	1.57
12	---	---	---	---	---	---	---	---	---	---	1.34	1.51
13	---	---	---	---	---	---	---	---	---	---	1.32	1.50
14	---	---	---	---	---	---	---	---	---	---	1.41	1.50
15	---	---	---	---	---	---	---	---	---	---	1.34	1.64
16	---	---	---	---	---	---	---	---	---	---	1.37	1.60
17	---	---	---	---	---	---	---	---	---	---	1.35	1.46
18	---	---	---	---	---	---	---	---	---	---	1.36	1.27
19	---	---	---	---	---	---	---	---	---	---	1.31	1.32
20	---	---	---	---	---	---	---	---	---	---	1.29	1.45
21	---	---	---	---	---	---	---	---	---	---	1.27	1.35
22	---	---	---	---	---	---	---	---	---	---	1.45	1.48
23	---	---	---	---	---	---	---	---	---	---	1.61	1.57
24	---	---	---	---	---	---	---	---	---	---	1.70	1.47
25	---	---	---	---	---	---	---	---	---	---	1.69	1.39
26	---	---	---	---	---	---	---	---	---	---	1.65	1.61
27	---	---	---	---	---	---	---	---	---	---	1.56	1.71
28	---	---	---	---	---	---	---	---	---	---	1.54	1.82
29	---	---	---	---	---	---	---	---	---	---	1.56	1.98
30	---	---	---	---	---	---	---	---	---	---	1.55	2.21
31	---	---	---	---	---	---	---	---	---	---	1.47	---
MEAN	---	---	---	---	---	---	---	---	---	---	1.45	1.55
MAX	---	---	---	---	---	---	---	---	---	---	1.70	2.21
MIN	---	---	---	---	---	---	---	---	---	---	1.27	1.27
MED	---	---	---	---	---	---	---	---	---	---	1.40	1.50

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL JF62, STATION NUMBER 391810076172802; LATITUDE 39° 18′ 10" LONGITUDE 76° 17′ 28"
GEOLOGIC UNIT: CONFINING UNIT

DAILY MEAN VALUES
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	2.52
27	---	---	---	---	---	---	---	---	---	---	---	2.51
28	---	---	---	---	---	---	---	---	---	---	---	2.50
29	---	---	---	---	---	---	---	---	---	---	---	2.48
30	---	---	---	---	---	---	---	---	---	---	---	2.48
31	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---
MED	---	---	---	---	---	---	---	---	---	---	---	---

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL JF63, STATION NUMBER 391810076172803; LATITUDE 39° 18′ 10″ LONGITUDE 76° 17′ 28″
GEOLOGIC UNIT: SURFICIAL AQUIFER

DAILY MEAN VALUES
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	3.41
2	---	---	---	---	---	---	---	---	---	---	---	3.35
3	---	---	---	---	---	---	---	---	---	---	---	3.22
4	---	---	---	---	---	---	---	---	---	---	---	3.07
5	---	---	---	---	---	---	---	---	---	---	---	3.06
6	---	---	---	---	---	---	---	---	---	---	---	3.03
7	---	---	---	---	---	---	---	---	---	---	---	2.99
8	---	---	---	---	---	---	---	---	---	---	---	2.81
9	---	---	---	---	---	---	---	---	---	---	2.85	2.75
10	---	---	---	---	---	---	---	---	---	---	3.28	2.75
11	---	---	---	---	---	---	---	---	---	---	3.50	2.68
12	---	---	---	---	---	---	---	---	---	---	3.66	2.64
13	---	---	---	---	---	---	---	---	---	---	3.70	2.62
14	---	---	---	---	---	---	---	---	---	---	3.77	2.67
15	---	---	---	---	---	---	---	---	---	---	3.70	2.69
16	---	---	---	---	---	---	---	---	---	---	3.58	2.56
17	---	---	---	---	---	---	---	---	---	---	3.46	2.63
18	---	---	---	---	---	---	---	---	---	---	3.33	2.57
19	---	---	---	---	---	---	---	---	---	---	3.22	2.62
20	---	---	---	---	---	---	---	---	---	---	3.14	---
21	---	---	---	---	---	---	---	---	---	---	3.31	---
22	---	---	---	---	---	---	---	---	---	---	3.66	---
23	---	---	---	---	---	---	---	---	---	---	4.19	---
24	---	---	---	---	---	---	---	---	---	---	4.24	---
25	---	---	---	---	---	---	---	---	---	---	4.18	---
26	---	---	---	---	---	---	---	---	---	---	4.19	---
27	---	---	---	---	---	---	---	---	---	---	4.16	---
28	---	---	---	---	---	---	---	---	---	---	4.06	---
29	---	---	---	---	---	---	---	---	---	---	3.93	---
30	---	---	---	---	---	---	---	---	---	---	3.76	---
31	---	---	---	---	---	---	---	---	---	---	3.55	---
MEAN	---	---	---	---	---	---	---	---	---	---	3.67	---
MAX	---	---	---	---	---	---	---	---	---	---	4.24	---
MIN	---	---	---	---	---	---	---	---	---	---	2.85	---
MED	---	---	---	---	---	---	---	---	---	---	3.66	---

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL JF91, STATION NUMBER 391825076172601; LATITUDE 39° 18′ 24" LONGITUDE 76° 17′ 27"
GEOLOGIC UNIT: CONFINED AQUIFER

DAILY MEAN VALUES
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	0.78	0.48	1.24	1.28	1.22	1.30	1.77	1.51
2	---	---	---	---	.95	.91	1.45	.97	1.26	1.19	1.98	1.42
3	---	---	---	---	.72	.54	1.30	.92	1.30	1.68	2.01	1.10
4	---	---	---	---	1.25	.24	1.24	1.07	.93	1.78	1.95	1.26
5	---	---	---	---	.73	.83	1.32	1.34	.40	1.12	2.46	1.72
6	---	---	---	---	1.39	.65	.92	.81	1.34	1.11	2.58	1.59
7	---	---	---	---	.97	.28	.94	1.19	1.02	1.47	2.08	1.48
8	---	---	---	---	.98	.80	.89	1.09	.97	1.71	1.57	1.08
9	---	---	---	---	1.38	.90	.89	1.23	1.30	1.77	1.07	1.64
10	---	---	---	---	1.30	.69	1.26	1.79	1.16	1.22	1.12	1.82
11	---	---	---	---	.91	.97	1.04	---	.68	1.26	1.20	1.30
12	---	---	---	---	1.03	.88	.42	---	.68	1.58	1.14	1.35
13	---	---	---	---	1.26	.84	.51	---	1.51	1.44	1.25	1.43
14	---	---	---	---	1.09	.89	1.09	---	1.43	1.86	1.13	1.56
15	---	---	---	---	.79	1.07	1.16	1.18	1.56	2.14	1.08	1.68
16	---	---	---	---	1.48	1.17	1.03	1.39	1.38	1.68	1.19	1.35
17	---	---	---	---	.77	1.34	1.19	1.29	1.33	1.45	1.15	1.04
18	---	---	---	0.92	.48	.91	.23	1.15	1.53	1.53	1.23	.97
19	---	---	---	.23	1.14	.92	.71	1.16	1.50	1.63	1.29	1.34
20	---	---	---	.57	.23	.54	1.00	1.21	1.11	1.66	.97	1.36
21	---	---	---	.92	.56	.07	.85	1.25	1.38	1.59	1.29	1.14
22	---	---	---	.95	.85	.96	.54	1.60	1.33	1.67	1.73	1.77
23	---	---	---	1.20	1.17	1.01	.97	1.59	1.59	1.99	1.76	1.35
24	---	---	---	1.11	.65	.51	.95	1.26	1.44	1.58	1.70	1.07
25	---	---	---	1.14	-.21	1.07	.99	1.32	1.25	1.63	1.52	1.10
26	---	---	---	1.05	-.46	.85	1.05	1.77	1.27	1.62	1.38	1.35
27	---	---	---	.74	.75	.64	1.07	1.35	1.44	1.76	1.21	.90
28	---	---	---	.61	.60	.90	1.09	1.68	1.30	1.76	1.38	1.26
29	---	---	---	.54	---	.90	1.17	1.75	1.25	1.95	1.51	1.26
30	---	---	---	1.06	---	.82	1.38	1.03	1.25	2.22	1.28	1.27
31	---	---	---	.76	---	1.03	---	1.29	---	2.34	1.40	---
MEAN	---	---	---	---	.84	.79	1.00	1.29	1.24	1.64	1.50	1.35
MAX	---	---	---	---	1.48	1.34	1.45	1.79	1.59	2.34	2.58	1.82
MIN	---	---	---	---	-.46	.07	.23	.81	.40	1.11	.97	.90
MED	---	---	---	---	.88	.88	1.03	1.26	1.30	1.63	1.38	1.35

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL JF92, STATION NUMBER 391825076172602; LATITUDE 39° 18′ 24" LONGITUDE 76° 17′ 27"
GEOLOGIC UNIT: CONFINING UNIT

DAILY MEAN VALUES
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	3.72	---	3.98	---	---	2.79	2.21	---
2	---	---	---	---	3.79	3.66	3.94	---	---	2.72	2.16	---
3	---	---	---	---	3.78	3.49	3.86	---	---	2.62	2.12	---
4	---	---	---	---	3.73	3.29	3.80	---	---	2.58	2.09	---
5	---	---	---	---	3.79	3.21	3.89	---	---	2.56	2.06	---
6	---	---	---	---	3.80	3.34	4.07	---	---	2.51	2.06	---
7	---	---	---	---	3.84	3.36	4.00	---	---	2.36	2.06	---
8	---	---	---	---	4.00	3.40	3.87	---	---	2.27	---	---
9	---	---	---	---	3.95	3.42	3.85	---	---	2.26	---	---
10	---	---	---	---	3.92	3.41	3.95	---	---	2.23	---	---
11	---	---	---	---	3.85	3.40	3.97	---	---	2.19	---	---
12	---	---	---	---	3.92	3.48	4.01	---	---	2.18	---	---
13	---	---	---	---	3.88	3.50	3.91	---	---	2.16	---	---
14	---	---	---	---	3.97	3.39	3.80	---	---	2.15	---	---
15	---	---	---	---	3.85	3.45	3.81	---	---	2.20	---	---
16	---	---	---	---	3.82	3.49	3.95	---	---	2.21	---	---
17	---	---	---	---	3.68	3.47	3.97	---	---	2.21	---	---
18	---	---	---	---	3.90	3.51	3.99	---	---	2.23	---	---
19	---	---	---	3.31	3.87	3.47	3.98	---	---	2.24	---	---
20	---	---	---	3.49	3.50	3.48	3.96	---	---	2.25	---	---
21	---	---	---	3.46	---	3.51	4.00	---	---	2.25	---	---
22	---	---	---	3.45	---	3.50	3.99	---	---	2.25	---	---
23	---	---	---	3.47	---	3.48	3.98	---	---	2.25	---	---
24	---	---	---	3.53	---	3.50	3.94	---	---	2.26	---	---
25	---	---	---	3.41	---	3.55	3.91	---	---	2.26	---	---
26	---	---	---	3.41	---	3.66	---	---	---	2.26	---	2.18
27	---	---	---	3.49	---	3.72	---	---	2.91	2.26	---	2.11
28	---	---	---	3.68	---	3.80	---	---	2.86	2.24	---	2.05
29	---	---	---	3.61	---	3.93	---	---	2.83	2.23	---	2.01
30	---	---	---	3.58	---	4.03	---	---	2.81	2.23	---	2.00
31	---	---	---	3.70	---	4.05	---	---	---	2.23	---	---
MEAN	---	---	---	---	---	3.53	3.94	---	---	2.31	---	---
MAX	---	---	---	---	---	4.05	4.07	---	---	2.79	---	---
MIN	---	---	---	---	---	3.21	3.80	---	---	2.15	---	---
MED	---	---	---	---	---	3.48	3.95	---	---	2.25	---	---

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL JF93, STATION NUMBER 391825076172603; LATITUDE 39° 18′ 24" LONGITUDE 76° 17′ 27"
GEOLOGIC UNIT: SURFICIAL AQUIFER

DAILY MEAN VALUES
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	5.56	4.55	5.67	5.52	5.26	2.63	2.18	3.69
2	---	---	---	---	5.63	4.66	5.75	5.50	5.10	2.51	2.04	3.56
3	---	---	---	---	5.48	4.70	5.92	5.27	5.01	2.44	1.99	3.37
4	---	---	---	---	5.63	4.48	5.97	5.21	5.16	2.46	1.92	3.12
5	---	---	---	---	5.58	4.36	5.86	5.53	4.97	2.31	1.95	3.15
6	---	---	---	---	5.59	4.32	5.62	5.58	4.90	2.17	2.16	3.13
7	---	---	---	---	5.57	4.11	5.67	5.40	4.76	2.10	2.27	3.03
8	---	---	---	---	5.41	4.18	5.70	5.20	4.48	2.10	2.19	2.80
9	---	---	---	---	5.47	4.36	5.59	5.14	4.42	2.14	2.16	2.70
10	---	---	---	---	5.60	4.41	5.66	5.22	4.26	2.05	2.56	2.76
11	---	---	---	---	5.58	4.49	5.74	---	3.98	2.11	3.08	2.57
12	---	---	---	---	5.58	4.55	5.44	---	3.66	2.22	3.45	2.46
13	---	---	---	---	5.45	4.56	5.20	---	3.62	2.77	3.66	2.42
14	---	---	---	---	5.50	4.54	5.21	---	3.59	3.30	3.76	2.44
15	---	---	---	---	5.28	4.52	5.51	5.34	3.65	3.63	3.69	2.52
16	---	---	---	---	5.41	4.53	5.75	5.28	3.93	3.62	3.63	2.36
17	---	---	---	---	5.30	4.64	5.78	5.25	3.96	3.45	3.50	2.24
18	---	---	---	5.02	4.90	5.05	5.49	5.06	3.98	3.40	3.39	2.09
19	---	---	---	4.80	5.12	5.23	5.31	4.79	4.00	3.36	3.30	2.17
20	---	---	---	4.75	4.94	5.32	5.32	4.61	3.81	3.28	3.11	2.21
21	---	---	---	5.01	4.71	5.15	5.40	4.48	3.66	3.18	3.09	2.05
22	---	---	---	4.98	4.84	5.12	5.44	4.35	3.48	3.07	3.55	2.22
23	---	---	---	4.91	5.14	5.21	5.48	4.30	3.52	3.04	4.65	2.32
24	---	---	---	4.87	5.13	4.94	5.39	4.07	3.46	2.83	5.04	2.19
25	---	---	---	4.98	4.77	5.02	5.26	3.89	3.21	2.64	5.02	2.11
26	---	---	---	5.47	4.37	5.26	5.21	4.14	3.03	2.49	4.94	2.17
27	---	---	---	5.48	4.51	5.24	5.10	4.79	2.99	2.40	4.81	2.04
28	---	---	---	5.52	4.66	5.18	4.98	5.01	2.88	2.35	4.64	2.01
29	---	---	---	5.51	---	5.14	4.90	5.26	2.76	2.32	4.47	2.01
30	---	---	---	5.75	---	5.14	5.19	5.56	2.71	2.36	4.16	2.02
31	---	---	---	5.65	---	5.42	---	5.43	---	2.36	3.85	---
MEAN	---	---	---	---	5.24	4.79	5.48	5.01	3.94	2.68	3.36	2.53
MAX	---	---	---	---	5.63	5.42	5.97	5.58	5.26	3.63	5.04	3.69
MIN	---	---	---	---	4.37	4.11	4.90	3.89	2.71	2.05	1.92	2.01
MED	---	---	---	---	5.41	4.66	5.48	5.21	3.87	2.49	3.45	2.39

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL JF111, STATION NUMBER 391826076173101; LATITUDE 39° 18′ 26" LONGITUDE 76° 17′ 31"
GEOLOGIC UNIT: CONFINED AQUIFER

DAILY MEAN VALUES
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	0.78	0.49	1.24	1.25	1.20	1.21	1.03	1.37
2	---	---	---	---	.95	.93	1.48	.91	1.24	1.09	1.25	1.28
3	---	---	---	---	.70	.54	1.29	.88	1.28	1.60	1.26	.88
4	---	---	---	---	1.26	.24	1.26	1.04	.87	1.63	1.18	1.20
5	---	---	---	---	.71	.86	1.31	1.33	.37	.94	1.70	1.62
6	---	---	---	---	1.41	.64	.89	.74	1.35	.93	1.77	1.40
7	---	---	---	---	.95	.29	.93	1.17	.98	1.29	1.23	1.33
8	---	---	---	---	1.00	.82	.88	1.05	.96	1.51	1.09	.87
9	---	---	---	---	1.40	.90	.88	1.21	1.29	1.52	1.03	1.55
10	---	---	---	---	1.30	.70	1.26	1.80	1.14	.93	1.10	1.58
11	---	---	---	---	.91	.98	1.00	1.22	.61	.97	1.15	1.07
12	---	---	---	---	1.01	.88	.39	.85	.68	1.30	1.08	1.16
13	---	---	---	---	1.30	.84	.50	1.56	1.52	1.11	1.22	1.24
14	---	---	---	---	1.05	.89	1.11	.80	1.42	1.55	1.03	1.41
15	---	---	---	---	.80	1.09	1.15	1.15	1.54	1.79	1.03	1.45
16	---	---	---	---	1.52	1.18	1.01	1.35	1.36	1.26	1.11	1.20
17	---	---	---	---	.71	1.37	1.18	1.24	1.31	1.04	1.09	.71
18	---	---	---	0.90	.49	.88	.19	---	1.53	1.11	1.17	.84
19	---	---	---	.18	1.15	.93	.70	1.13	1.48	1.19	1.22	1.21
20	---	---	---	.58	.17	.49	.98	1.19	1.09	1.20	.88	1.03
21	---	---	---	.92	.57	.06	.82	1.22	1.37	1.10	1.26	.99
22	---	---	---	.97	.86	1.00	.52	1.62	1.33	1.18	1.66	1.60
23	---	---	---	1.21	1.18	.99	.97	1.56	1.59	1.48	1.69	1.04
24	---	---	---	1.12	.63	.50	.93	1.23	1.43	1.03	1.59	.74
25	---	---	---	1.15	-.30	1.07	.97	1.30	1.24	1.06	1.41	1.01
26	---	---	---	1.02	-.46	.82	1.03	1.77	1.28	1.03	1.24	1.34
27	---	---	---	.73	.78	.63	1.04	1.32	1.44	1.15	1.07	.87
28	---	---	---	.57	.58	.90	1.08	1.67	1.26	1.13	1.28	1.26
29	---	---	---	.55	---	.88	1.14	1.73	1.21	1.31	1.38	1.25
30	---	---	---	1.06	---	.80	1.38	.98	1.18	1.56	1.11	1.25
31	---	---	---	.74	---	1.05	---	1.28	---	1.65	1.31	---
MEAN	---	---	---	---	.84	.79	.98	1.25	1.22	1.25	1.25	1.19
MAX	---	---	---	---	1.52	1.37	1.48	1.80	1.59	1.79	1.77	1.62
MIN	---	---	---	---	-.46	.06	.19	.74	.37	.93	.88	.71
MED	---	---	---	---	.88	.88	1.00	1.22	1.28	1.19	1.22	1.22

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL JF112, STATION NUMBER 391826076173102; LATITUDE 39° 18′ 26" LONGITUDE 76° 17′ 31"
GEOLOGIC UNIT: CONFINING UNIT

DAILY MEAN VALUES
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	3.98	2.68	3.51	3.19	---	---	---	2.20
2	---	---	---	---	3.94	2.67	3.68	3.30	---	---	---	2.19
3	---	---	---	---	3.84	2.69	3.87	3.29	---	---	---	2.17
4	---	---	---	---	3.83	2.64	4.03	3.26	---	---	---	2.15
5	---	---	---	---	3.91	2.56	4.06	3.32	---	---	---	2.13
6	---	---	---	---	3.90	2.51	3.97	3.44	---	---	---	2.12
7	---	---	---	---	3.90	2.42	3.94	3.46	---	---	---	2.11
8	---	---	---	---	3.81	2.36	4.00	3.40	---	---	---	2.09
9	---	---	---	---	3.75	2.37	3.96	3.31	---	---	---	2.07
10	---	---	---	---	3.78	2.39	3.90	3.28	---	---	---	2.06
11	---	---	---	---	3.90	2.41	3.87	3.48	---	---	---	2.04
12	---	---	---	---	3.95	2.45	3.75	3.55	---	---	---	2.02
13	---	---	---	---	3.88	2.48	3.57	3.55	---	---	---	2.00
14	---	---	---	---	3.85	2.50	3.42	3.57	---	---	---	1.99
15	---	---	---	---	3.72	2.50	3.45	3.51	---	---	---	1.98
16	---	---	---	---	3.66	2.52	3.65	3.45	---	---	---	1.97
17	---	---	---	---	3.61	2.56	3.74	---	---	---	1.59	1.96
18	---	---	---	3.25	3.42	2.82	3.71	---	---	---	1.60	1.94
19	---	---	---	3.17	3.35	3.11	3.57	---	---	---	1.62	1.92
20	---	---	---	3.06	3.26	3.26	3.47	---	---	---	1.62	1.90
21	---	---	---	3.08	3.10	3.29	3.41	---	---	---	1.62	1.88
22	---	---	---	3.09	3.03	3.24	3.40	---	---	---	1.65	1.87
23	---	---	---	3.07	3.06	3.23	3.39	---	---	---	1.76	1.87
24	---	---	---	3.05	3.09	3.14	3.35	---	---	---	1.90	1.86
25	---	---	---	3.10	3.01	3.07	3.27	---	---	---	2.02	1.83
26	---	---	---	3.54	2.84	3.14	3.20	---	---	---	2.10	1.83
27	---	---	---	3.82	2.75	3.20	3.13	---	---	---	2.15	1.82
28	---	---	---	3.91	2.72	3.20	3.06	---	---	---	2.19	1.82
29	---	---	---	3.89	---	3.17	2.99	---	---	---	2.21	1.81
30	---	---	---	4.00	---	3.13	3.02	---	---	---	2.22	1.80
31	---	---	---	4.04	---	3.25	---	---	---	---	2.21	---
MEAN	---	---	---	---	3.53	2.81	3.58	---	---	---	---	1.98
MAX	---	---	---	---	3.98	3.29	4.06	---	---	---	---	2.20
MIN	---	---	---	---	2.72	2.36	2.99	---	---	---	---	1.80
MED	---	---	---	---	3.73	2.68	3.57	---	---	---	---	1.97

Table 9. Daily mean ground-water elevations at J-Field, Aberdeen Proving Ground, Maryland, October 1988 through September 1990--Continued

WELL JF113, STATION NUMBER 391826076173103; LATITUDE 39° 18′ 26" LONGITUDE 76° 17′ 32"
GEOLOGIC UNIT: SURFICIAL AQUIFER

DAILY MEAN VALUES
WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	2.52	1.85	2.80	2.72	2.47	1.46	1.00	---
2	---	---	---	---	2.64	2.18	2.97	2.49	2.41	1.31	1.14	---
3	---	---	---	---	2.41	1.88	2.86	2.39	2.37	1.71	1.10	---
4	---	---	---	---	2.86	1.64	2.86	2.46	2.16	1.70	1.00	---
5	---	---	---	---	2.47	2.06	2.87	2.76	1.77	1.07	1.45	---
6	---	---	---	---	2.98	1.86	2.48	2.35	2.49	1.04	1.58	---
7	---	---	---	---	2.59	1.54	2.56	2.63	---	1.34	1.25	---
8	---	---	---	---	2.57	1.94	2.58	2.44	---	1.51	---	---
9	---	---	---	---	2.86	2.02	2.54	2.47	---	1.47	---	---
10	---	---	---	---	2.80	1.90	2.79	2.94	---	.96	---	---
11	---	---	---	---	2.55	2.16	2.59	2.70	1.52	1.11	---	---
12	---	---	---	---	2.65	2.07	2.09	2.37	1.47	1.42	---	---
13	---	---	---	---	2.80	2.04	2.10	2.91	2.12	1.54	---	---
14	---	---	---	---	2.61	2.07	2.54	2.34	1.98	2.12	---	---
15	---	---	---	---	2.33	2.21	2.64	2.56	2.15	2.39	---	---
16	---	---	---	---	2.89	2.26	2.65	2.66	2.15	1.93	---	---
17	---	---	---	---	2.33	2.41	2.78	---	2.11	1.68	---	---
18	---	---	---	2.38	2.03	2.29	2.01	---	2.25	1.70	---	---
19	---	---	---	1.82	2.54	2.42	2.32	2.14	2.19	1.72	---	---
20	---	---	---	2.06	1.81	2.12	2.50	2.10	1.82	1.67	---	---
21	---	---	---	2.37	2.00	1.81	2.35	2.07	1.99	1.54	---	---
22	---	---	---	2.39	2.21	2.48	2.16	2.35	1.89	1.57	---	---
23	---	---	---	2.55	2.53	2.44	2.53	2.27	2.11	1.77	---	---
24	---	---	---	2.42	2.13	2.00	2.45	1.93	1.98	1.33	---	---
25	---	---	---	2.48	1.65	2.47	2.41	1.94	1.75	1.29	---	---
26	---	---	---	2.63	1.40	2.36	2.42	2.38	1.71	1.21	---	1.48
27	---	---	---	2.47	2.14	2.22	2.37	2.33	1.82	1.27	---	1.07
28	---	---	---	2.36	1.98	2.41	2.34	2.71	1.61	1.20	---	1.41
29	---	---	---	2.30	---	2.35	2.36	2.80	1.52	1.34	---	1.40
30	---	---	---	2.81	---	2.26	2.69	2.37	1.46	1.53	---	1.41
31	---	---	---	2.54	---	2.58	---	2.60	---	1.56	---	---
MEAN	---	---	---	---	2.40	2.14	2.52	2.45	1.97	1.50	---	---
MAX	---	---	---	---	2.98	2.58	2.97	2.94	2.49	2.39	---	---
MIN	---	---	---	---	1.40	1.54	2.01	1.93	1.46	.96	---	---
MED	---	---	---	---	2.53	2.16	2.53	2.44	1.98	1.51	---	---

Table 10. Slug-test data from J-Field, Aberdeen Proving Ground, Maryland, January 1990

[--, could not be determined; <, less than]

Well No.	Length of screen (feet)	Screen opening (inches)	Hydraulic conductivity		Hydrologic unit
			Hvorslev method[1] (feet/day)	Cooper method[2] (feet/day)	
JF33	5	0.001	0.70	1.04	Surficial aquifer
JF93	5	.01	.29	--	
JF113	3	.01	.69	.58	
JF32	5	.001	.05	.09	Confining unit
JF42	5	.06	<.01	.02	
JF92	5	.06	.20	--	
JF31	5	.001	13.6	51.8	Confined aquifer
JF41	5	.01	272.	932.	
JF91	5	.001	3.16	7.41	
JF111	5	.01	111.	508.	
JF2	5	.01	.61	.06	Patapsco Formation

[1] Hvorslev, M.J. (1951)
[2] Cooper, H.H., Bredehoeft, J.D., and Papadopulos, I.S. (1967)

Table 11. Soil-gas data from J-Field, Aberdeen Proving Ground, Maryland, Phase I, March 1989

[TCE = Trichloroethene; PCE = Tetrachloroethene]

Site No.	Relative Flux	
	TCE (ion counts)	PCE (ion counts)
1	13	12
2	0	34
3	0	12
4	13	18
5	0	0
6	355	656
7	0	10
8	25	67
9	0	18
10	20	33
11	125	363
12	0	0
13	11	27
14	0	40
15	2,561	311
16	242	320
17	53	14
18	14,514	7,968
19	1,684	1,000
20	0	80
21	11	42
22	0	26
23	0	0
24	0	31
25	29	33
26	0	0
27	84	104
28	0	18
29	0	12
30	0	0
31	22	286
32	108	1,700
33	0	44
34	0	0
35	0	261
36	28	28
37	149	56

Table 11. Soil-gas data from J-Field, Aberdeen Proving Ground, Maryland, Phase I, March 1989--Continued

[TCE = Trichloroethene; PCE = Tetrachloroethene]

Site No.	Relative Flux	
	TCE (ion counts)	PCE (ion counts)
38	387	766
39	1,101	1,624
40	0	14,500
41	1,582	1,559
42	10,074	16,603
43	20,058	7,372
44	10,298	1,421
45	9,207	3,052
46	10,143	5,045
47	17,185	10,822
48	19,414	11,968
49	22,204	12,285
50	16,382	2,358
51	299	62
52	13,279	768
53	137	188
54	34	23
55	0	51
56	17,569	14,122
57	20,002	9,673
58	21	0
59	312	184
60	11,274	14,918
61	14,483	13,398
62	23,163	16,163
63	20,919	5,994
64	1,019	143
65	427	421
66	40	21
67	164	288
68	261	226
69	0	16
70	782	2,545
71	200	1,814
72	3,608	3,459

Table 12. Soil-gas data from J-Field, Aberdeen Proving Ground, Maryland, Phase II, May 1990

[TCE = Trichloroethene; PCE = tetrachloroethene; DCE = Dichloroethene; TCA = Trichloroethane]

Site No.	Relative Flux (ion counts)			
	Combined TCE & PCE	Heavy aromatic hydrocarbon	Pthalates	Combined DCE & TCA
1	1,913	281	0	2,786
2	142,166	1,465	0	55,161
3	1,598	207	0	31,183
4	2,478	685	0	1,865
5	7,171	213	0	3,937
6	38,780	1,491	0	9,586
7	204,960	2,925	702	22,190
8	829	487	0	4,421
9	483,788	5,171	982	197,283
10	49,209	911	0	8,656
11	172,765	1,472	0	13,610
12	249	227	0	1,627
13	387,078	9,125	334	255,681
14	138,658	3,457	341	8,731
15	2,925	6,926	584	1,641
16	1,765	11,025	923	6,510
17	251,994	10,942	2,662	73,338
18	265,300	1,398	0	49,943
19	394	2,655	0	2,641
20	0	3,130	208	5,721
21	32,387	139,910	84,678	15,725
22	96,030	1,944	371	59,024
23	3,139	795	227	27,832
24	4,909	4,183	528	83,238
25	17,208	257,566	40,748	14,191
26	67,795	1,275	0	79,423
27	3,017	3,826	1,036	10,729
28	5,206	5,573	6,418	65,662
29	0	834	224	410
30	0	1,281	233	5,607
31	1,521	2,433	2,911	4,100
32	620	3,778	967	2,143
33	1,148	5,729	848	128,231
34	233,752	615	1,024	59,110
35	100,212	7,008	579	60,408
36	452	2,230	272	59,971
37	148,400	7,472	11,324	25,943

Table 12. Soil-gas data from J-Field, Aberdeen Proving Ground, Maryland, Phase II, May 1990--Continued

Site No.	Relative Flux (ion counts)			
	Combined TCE & PCE	Heavy aromatic hydrocarbons	Pthalates	Combined DCE & TCA
38	1,674	3,817	470	79,678
39	326	2,730	246	48,657
40	18,786	161,583	51,978	11,078
41	2,864	2,263	212	16,222
42	796	2,344	0	23,582
43	3,981	85,517	8,508	4,390
44	0	2,036	0	313
45	2,067	2,181	252	16,617
46	777	5,575	686	1,759
47	437	1,907	0	3,035
48	6,561	6,022	14,176	15,643
49	0	9,688	978	659
50	7,490	1,823	238	7,882
51	247	0	0	828
52	1,109	402	519	4,742
53	7,013	4,947	722	5,779
54	784	571	0	1,391
55	672	37	206	941
56	0	1,475	332	972
57	4,306	2,038	454	1,299
58	5,960	2,398	261	2,043
59	990	325	0	2,924
60	3,618	3,302	990	3,308
61	708	1,543	0	1,137
62	1,994	839	0	970
101	13,283	42,162	344,222	17,700
102	7,082	26,219	16,565	17,969
103	0	3,427	480	1,584
104	6,686	1,045	282	9,117
105	14,275	2,892	811	5,743
106	2,008	13,303	4,470	3,694
107	3,226	18,858	5,028	33,794
108	3,722	15,079	5,279	44,105
109	0	4,030	543	1,532
110	1,177	10,163	1,541	4,780
111	26,922	100,295	74,212	12,406
112	209	5,450	656	7,201

Table 13. Soil-quality data from J-Field, Aberdeen Proving Ground, Maryland--Inorganic constituents, April 1991

[µg/g = micrograms per gram; < = less than; -- = no data; > = greater than]

NOTE: Sample No. ending in "d" represents duplicate analyses.

Sample No.	Station number	Date	Time	Antimony (µg/g)	Arsenic (µg/g)	Boron (µg/g)	Cadmium (µg/g)	Calcium (µg/g)	Carbon disulfide (µg/g)	Chromium (µg/g)
JS1	391827076173101	04-16-91	1130	<7.9	4.2	<7.4	<0.4	<1,300	<0.005	16
JS2	391828076173001	04-16-91	1115	<7.9	2.7	<7.4	<.4	310	<.005	12
JS3	391827076172702	04-16-91	1425	<7.9	2.8	<7.4	<.4	500	<.005	12
JS4	391827076172802	04-16-91	1100	<7.9	2.3	<7.4	<.4	110	<.005	8.9
JS5	391827076172601	04-16-91	1415	<7.9	<2.2	<7.4	<.4	200	<.005	9.5
JS6	391824076172801	04-16-91	1400	<7.9	<2.2	<7.4	<.4	570	<.005	8.8
JS7	391824076172901	04-16-91	1320	<7.9	<2.2	<7.4	<.4	800	<.005	11
JS7d		04-16-91	1324	<7.9	<2.2	<7.4	<.4	800	<.005	9.7
JS9	391825076173101	04-16-91	1155	<7.9	2.9	<7.4	<.4	820	<.005	13
JS10	391825076173201	04-16-91	1145	<7.9	2.9	<7.4	<.4	370	<.005	10
JS11	391815076173901	04-12-91	1100	<7.9	<2.2	<7.4	<.4	960	<.005	12
JS11d		04-12-91	1104	<7.9	3.5	<7.4	<.4	800	<.005	10
JS13	391815076174001	04-12-91	1050	<7.9	<2.2	<7.4	<.4	2,100	<.005	12
JS14	391813076173801	04-12-91	1020	<7.9	3.5	<7.4	<.4	<1,300	<.005	12
JS15	391814076173501	04-12-91	1040	<7.9	3.6	<7.4	<.4	<1,300	<.005	19
JS16	391811076174401	04-12-91	1000	<7.9	4.4	<7.4	<.4	1,300	<.005	11
JS17	391810076174602	04-12-91	0930	<7.9	3.8	<7.4	<.4	390	<.005	8.6
JS17d		04-12-91	0934	<7.9	3.4	<7.4	<.4	450	<.005	8.6
JS19	391808076174402	04-11-91	1345	<7.9	2.9	<7.4	<.4	320	<.005	7.5
JS20	391807076174701	04-11-91	1400	<7.9	3.7	<7.4	<.4	370	<.005	11
JS21	391807076174301	04-11-91	1330	<7.9	3.3	<7.4	<.4	240	<.005	8.8
JS22	391806076174201	04-11-91	1320	<7.9	<2.2	<7.4	.8	130	<.005	7.4
JS23	391805076173801	04-11-91	1245	<7.9	3.7	<7.4	<.4	380	<.005	--
JS24	391806076173601	04-11-91	1230	<7.9	3.2	<7.4	<.4	290	<.005	11
JS25	391804076173401	04-11-91	1215	<7.9	<2.2	<7.4	<.4	130	<.005	6.6
JS26	391813076173101	04-12-91	1240	<7.9	4.5	<7.4	<.4	580	<.005	16
JS26d		04-12-91	1244	<7.9	4.2	<7.4	<.4	540	<.005	15
JS28	391812076172801	04-12-91	1300	<7.9	7.8	<7.4	2.4	5,900	<.005	37
JS29	391810076172603	04-12-91	1340	1,200	49	120	16	410	<.005	120
JS30	391809076172702	04-12-91	1320	<7.9	21	<7.4	<.4	560	<.005	46
JS31	391807076172804	04-12-91	1355	<7.9	2.6	<7.4	<.4	1,600	<.005	12
JS32	391805076172601	04-16-91	0935	<7.9	3.3	<7.4	<.4	3,100	<.005	13
JS33	391807076173101	04-16-91	1010	<7.9	3.5	<7.4	<.4	660	<.005	13
JS34	391809076173101	04-16-91	0950	<7.9	6.6	<7.4	<.4	730	<.005	17
JS36	391810076173302	04-16-91	1025	<7.9	3.2	<7.4	<.4	790	<.005	17
JS37	391814076170401	04-11-91	1000	<7.9	3.7	<7.4	<.4	<130	<.005	16
JS38	391815076170401	04-11-91	1025	<7.9	3.7	<7.4	<.4	210	<.005	8.6
JS39	391816076170501	04-11-91	1040	<7.9	<2.2	<7.4	<.4	<130	<.005	7.8
JS40	391815076170602	04-11-91	1055	<7.9	2.5	<7.4	<.4	<130	<.005	9.8
JS41	391816076170701	04-11-91	1110	<7.9	<2.2	<7.4	<.4	91	<.005	12

Table 13. Soil-quality data from J-Field, Aberdeen Proving Ground, Maryland--Inorganic constituents, April 1991--Continued

Sample No.	Date	Copper (µg/g)	Fluorene (µg/g)	Iron (µg/g)	Lead (µg/g)	Magnesium (µg/g)	Manganese (µg/g)	Mercury (µg/g)	Selenium (µg/g)	Sodium (µg/g)	Zinc (µg/g)
JS1	04-16-91	42	<0.33	13,000	<11,000	1,400	110	0.044	<5.8	75	940
JS2	04-16-91	3.8	<.33	13,000	25	1,500	69	<.026	<5.8	<52	<80
JS3	04-16-91	20	<.33	12,000	41	1,000	110	<.026	<5.8	<52	<800
JS4	04-16-91	3.5	<.33	9,800	<5.3	1,400	47	<.026	<5.8	<52	18
JS5	04-16-91	5.0	<.33	8,900	19	880	63	<.026	<5.8	<52	<80
JS6	04-16-91	4.7	<.33	8,000	18	940	110	<.026	<5.8	<52	<80
JS7	04-16-91	10	<.33	12,000	15	1,900	130	<.026	<5.8	<52	<80
JS7d	04-16-91	6.1	<2.0	9,200	18	1,400	97	<.026	<5.8	<52	<80
JS9	04-16-91	6.3	<.33	13,000	15	1,200	100	<.026	<5.8	<52	<80
JS10	04-16-91	9.9	<.33	11,000	17	1,300	58	<.026	<5.8	<52	26
JS11	04-12-91	6.8	<.33	14,000	12	1,700	130	<.026	<5.8	<52	26
JS11d	04-12-91	5.4	<.33	13,000	17	1,000	140	.145	<5.8	<52	22
JS13	04-12-91	36	<.33	11,000	25	1,400	330	.039	<5.8	<52	<80
JS14	04-12-91	34	<.33	12,000	45	1,400	360	.040	<5.8	<52	<80
JS15	04-12-91	48	<2.0	27,000	93	1,300	350	<.026	<5.8	<52	160
JS16	04-12-91	9.5	<.33	12,000	68	1,300	250	.118	<5.8	95	160
JS17	04-12-91	10	<.70	9,300	41	1,100	110	.045	<5.8	85	<80
JS17d	04-12-91	9.5	<.33	8,700	34	1,200	110	.039	<5.8	99	<80
JS19	04-11-91	5.4	<.33	6,900	2.1	1,000	140	.065	<5.8	<52	<80
JS20	04-11-91	7.0	<.33	12,000	41	1,200	150	.039	<5.8	150	<80
JS21	04-11-91	7.2	<.33	8,200	1.7	1,100	80	<.026	<5.8	<52	<80
JS22	04-11-91	15	<.33	6,400	22	970	87	.059	<5.8	<52	<80
JS23	04-11-91	21	<.33	13,000	17	1,300	100	<.026	<5.8	<52	<80
JS24	04-11-91	50	<.33	9,700	40	1,300	61	.165	<5.8	<52	<80
JS25	04-11-91	10	<.33	5,300	13	550	56	<.026	<5.8	<52	20
JS26	04-12-91	22	<.33	14,000	41	1,700	66	<.026	<5.8	62	96
JS26d	04-12-91	19	<.33	13,000	38	1,600	65	<.026	<5.8	<52	160
JS28	04-12-91	230	<.33	12,000	660	2,300	120	.324	<5.8	130	<800
JS29	04-12-91	790	<.33	8,300	87,000	1,600	300	>.500	<5.8	<520	<8,000
JS30	04-12-91	480	<.33	20,000	950	1,600	87	.407	<5.8	200	<800
JS31	04-12-91	4.2	<.33	12,000	15	1,700	100	<.026	<5.8	<52	25
JS32	04-16-91	11	<.33	16,000	17	2,000	190	.045	<5.8	<52	<80
JS33	04-16-91	15	<.33	10,000	29	1,200	170	.058	<5.8	<52	<80
JS34	04-16-91	40	<.33	11,000	42	1,300	110	<.026	<5.8	<52	<800
JS36	04-16-91	17	<.33	18,000	19	1,600	170	<.026	<5.8	62	<80
JS37	04-11-91	76	<.33	15,000	13	1,400	130	<.026	<5.8	<52	<80
JS38	04-11-91	7.9	<.70	6,800	20	1,000	52	<.026	<5.8	<52	<80
JS39	04-11-91	3.3	<.33	7,700	<5.4	1,100	60	<.026	<5.8	<52	23
JS40	04-11-91	8.2	<.33	9,800	8.6	1,400	59	<.026	<5.4	<52	<80
JS41	04-11-91	2.6	<.33	11,000	6.9	1,300	51	<.026	<5.8	<52	22

Table 14. Soil-quality data from J-Field, Aberdeen Proving Ground, Maryland--
Organic constituents, April 1991

[mg/kg = milligrams per kilogram , < = less than , -- = no data]

NOTE: Sample No. ending in a "d" represents duplicate analyses.

Sample No.	Station number	Date	Time	Acetone, (mg/kg)	Benzene (mg/kg)	Bromo-form (mg/kg)	Bromo-methane (mg/kg)	Carbon-tetra-chlor-ide (mg/kg)	Chloro-ethane (mg/kg)	Chloro-form (mg/kg)	Chloro-methane (mg/kg)	1,1-Di-chloro-ethane (mg/kg)
				Volatile organic compounds								
JS1	391827076173101	04-16-91	1130	<0.01	<0.003	<0.02	<0.01	<0.006	<0.03	<0.002	<0.02	<0.002
JS2	391828076173001	04-16-91	1115	<.01	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS3	391827076172702	04-16-91	1425	<.01	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS4	391827076172802	04-16-91	1100	<.01	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS5	391827076172601	04-16-91	1415	<.01	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS6	391824076172801	04-16-91	1400	<.01	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS7	391824076172901	04-16-91	1320	<.01	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS7d		04-16-91	1324	<.01	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS9	391825076173101	04-16-91	1155	<.01	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS10	391825076173201	04-16-91	1145	<.01	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS11	391815076173901	04-12-91	1100	.002	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.02
JS11d		04-12-91	1104	.005	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.02
JS13	391815076174001	04-12-91	1050	.01	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.02
JS14	391813076173801	04-12-91	1020	.03	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS15	391814076173501	04-12-91	1040	.02	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS16	391811076174401	04-12-91	1000	.007	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS17	391810076174602	04-12-91	0930	.03	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JF17d		04-12-91	0934	.009	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS19	391808076174402	04-11-91	1345	.007	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS20	391807076174701	04-11-91	1400	.01	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS21	391807076174301	04-11-91	1330	.01	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS22	391806076174201	04-11-91	1320	.02	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS23	391805076173801	04-11-91	1245	.006	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS24	391806076173601	04-11-91	1230	.01	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS25	391804076173401	04-11-91	1215	.007	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS26	391813076173101	04-12-91	1240	.02	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS26d		04-12-91	1244	.007	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS28	391812076172801	04-12-91	1300	.01	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS29	391810076172603	04-12-91	1340	.02	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS30	391809076172702	04-12-91	1320	.005	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS31	391807076172804	04-12-91	1355	.002	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.02
JS32	391805076172601	04-16-91	0935	<.01	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS33	391807076173101	04-16-91	1010	.02	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS34	391809076173101	04-16-91	0950	<.01	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS36	391810076173302	04-16-91	1025	<.01	<.003	<.02	<.01	<.006	<.30	<.002	<.02	<.002
JS37	391814076170401	04-11-91	1000	.008	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS38	391815076170401	04-11-91	1025	.01	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS39	391816076170501	04-11-91	1040	.009	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS40	391815076170602	04-11-91	1055	.005	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002
JS41	391816076170701	04-11-91	1110	.006	<.003	<.02	<.01	<.006	<.03	<.002	<.02	<.002

Table 14. Soil-quality data from J-Field, Aberdeen Proving Ground, Maryland--
Organic constituents, April 1991--Continued

Sample No.	Date	1,2-Di-chloro-ethane (mg/kg)	1,1-Di-chloro-ethene (mg/kg)	1,2-Di-chloro-ethene (mg/kg)	1,2-Di-chloro-propane (mg/kg)	Ethyl-benzene (mg/kg)	Tetra-chloro-ethene (mg/kg)	Toluene (mg/kg)	1,1,1-Tri-chloro-ethane (mg/kg)	1,1,2-Tri-chloro-ethane (mg/kg)	Tri-chloro-ehtyl-ene (mg/kg)	Tri-chloro-fluoro-methane (mg/kg)	Vinyl-chlor-ide (mg/kg)
						Volatile organic compounds--Continued							
JS1	04-16-91	<0.003	<0.02	0.002	<0.002	<0.003	<0.002	<0.008	<0.004	<0.02	<0.004	<0.005	<0.02
JS2	04-16-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS3	04-16-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS4	04-16-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS5	04-16-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS6	04-16-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS7	04-16-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS7d	04-16-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS9	04-16-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS10	04-16-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS11	04-12-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS11d	04-12-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS13	04-12-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS14	04-12-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS15	04-12-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	0.009	<.02	<.004	<.005	<.02
JS16	04-12-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS17	04-12-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS17d	04-12-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS19	04-11-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS20	04-11-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS21	04-11-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS22	04-11-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS23	04-11-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS24	04-11-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS25	04-11-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS26	04-12-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS26d	04-12-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS28	04-12-91	<.003	<.02	.003	<.002	<.003	<.002	<.008	<.004	<.02	0.01	<.005	<.02
JS29	04-12-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS30	04-12-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	0.02	<.005	<.02
JS31	04-12-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS32	04-16-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS33	04-16-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS34	04-16-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS36	04-16-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS37	04-11-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS38	04-11-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS39	04-11-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS40	04-11-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02
JS41	04-11-91	<.003	<.02	.002	<.002	<.003	<.002	<.008	<.004	<.02	<.004	<.005	<.02

Table 14. Soil-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, April 1991--Continued

Sample No.	Date	Time	Acenaphthene (mg/kg)	Aldrin (mg/kg)	Anthracene (mg/kg)	Benzo[a]anthracene (mg/kg)	Benzo[a]pyrene (mg/kg)	Benzo[b]fluoranthene (mg/kg)	Benzo[ghi]perylene (mg/kg)	Benzo[k]fluoranthene (mg/kg)	Benzoic acid (mg/kg)	Benzyl alcohol (mg/kg)
						Semi-volatile organic compounds						
JS1	04-16-91	1130	<0.41	<0.29	<0.54	<0.30	<0.38	<0.36	<0.20	<0.80	<0.17	<0.33
JS2	04-16-91	1115	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	<.17	<.33
JS3	04-16-91	1425	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	<.17	<.33
JS4	04-16-91	1100	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	<.17	<.33
JS5	04-16-91	1415	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	<.17	<.33
JS6	04-16-91	1400	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	<.17	<.33
JS7	04-16-91	1320	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	<.17	<.33
JS7d	04-16-91	1324	<2.0	<1.0	<3.0	<2.0	<2.0	<2.0	<1.0	<4.0	<.80	<2.0
JS9	04-16-91	1155	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	<.17	<.33
JS10	04-16-91	1145	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	<.17	<.33
JS11	04-12-91	1100	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	<.17	<.33
JS11d	04-12-91	1104	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	<.17	<.33
JS13	04-12-91	1050	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	<.17	<.33
JS14	04-12-91	1020	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	<.17	<.33
JS15	04-12-91	1040	<2.0	<1.0	<3.0	<2.0	<2.0	<2.0	<1.0	<4.0	<.80	<2.0
JS16	04-12-91	1000	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	3.0	<.33
JS17	04-12-91	0930	<.80	<.60	<1.0	<.60	<.80	<.70	<.50	<2.0	10	<.70
JS17d	04-12-91	0934	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	<.17	<.33
JS19	04-11-91	1345	<.41	<.29	<.54	<.30	<.38	--	<.24	<.80	1.8	<.33
JS20	04-11-91	1400	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	0.95	<.33
JS21	04-11-91	1330	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	0.65	<.33
JS22	04-11-91	1320	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	3.7	<.33
JS23	04-11-91	1245	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	0.35	<.33
JS24	04-11-91	1230	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	7.0	--
JS25	04-11-91	1215	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	1.5	<.33
JS26	04-12-91	1240	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	<.17	<.33
JS26d	04-12-91	1244	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	<.17	<.33
JS28	04-12-91	1300	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	<.17	<.33
JS29	04-12-91	1340	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	0.42	<.33
JS30	04-12-91	1320	<.41	<.29	<.54	0.53	<.38	0.68	<.24	<.80	0.42	<.33
JS31	04-12-91	1355	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	<.17	<.33
JS32	04-16-91	0935	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	<.17	<.33
JS33	04-16-91	1010	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	2.1	<.33
JS34	04-16-91	0950	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	<.17	<.33
JS36	04-16-91	1025	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	<.17	<.33
JS37	04-11-91	1000	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	0.67	<.33
JS38	04-11-91	1025	<.80	<.60	<1.0	<.60	<.80	<.70	<.50	<2.0	0.40	<.70
JS39	04-11-91	1040	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	0.33	<.33
JS40	04-11-91	1055	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	<.17	<.33
JS41	04-11-91	1110	<.41	<.29	<.54	<.30	<.38	<.36	<.24	<.80	<.17	<.33

Table 14. Soil-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, April 1991--Continued

Sample No.	Date	Benzyl-butyl phthal-ate (mg/kg)	4-Bromo-phenyl phenyl ether (mg/kg)	2-Buta-none (mg/kg)	Chlor-dane (mg/kg)	Chloro-benzene (mg/kg)	Bis(2-chloro-ethoxy) methane (mg/kg)	Bis(2-chloro-ethyl) ether (mg/kg)	2-Chloro-ethyl vinyl ether (mg/kg)	Bis(2-chloro-iso-propyl) ether (mg/kg)	2-4-Chloro-3-methyl phenol (mg/kg)	Chloro-naph-thalene (mg/kg)
						Semi-voaltile organic compounds--Continued						
JS1	04-16-91	<0.33	<0.33	<0.01	<1.0	<0.003	<0.33	<0.33	<0.05	<0.33	<0.33	<0.32
JS2	04-16-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS3	04-16-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS4	04-16-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS5	04-16-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS6	04-16-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS7	04-16-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS7d	04-16-91	<2.0	<2.0	<.01	<5.0	<.003	<2.0	<2.0	<.05	<2.0	<2.0	<2.0
JS9	04-16-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS10	04-16-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS11	04-12-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS11d	04-12-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS13	04-12-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS14	04-12-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS15	04-12-91	<2.0	<2.0	<.01	<5.0	<.003	<2.0	<2.0	<.05	<2.0	<2.0	<2.0
JS16	04-12-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS17	04-12-91	<.70	<.70	<.01	<2.0	<.003	<.70	<.70	<.05	<.70	<.70	<.60
JS17d	04-12-91	.53	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS19	04-11-91	--	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS20	04-11-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS21	04-11-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS22	04-11-91	.43	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS23	04-11-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS24	04-11-91	.60	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS25	04-11-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS26	04-12-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS26d	04-12-91	.72	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS28	04-12-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS29	04-12-91	.58	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS30	04-12-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS31	04-12-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS32	04-16-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS33	04-16-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS34	04-16-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS36	04-16-91	<.33	<.33	<.01	<1.0	<.003	--	--	<.05	--	<.33	<.32
JS37	04-11-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS38	04-11-91	<.70	<.70	<.01	<2.0	<.003	<.70	<.70	<.05	<.70	<.70	<.60
JS39	04-11-91	0.38	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS40	04-11-91	0.38	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32
JS41	04-11-91	<.33	<.33	<.01	<1.0	<.003	<.33	<.33	<.05	<.33	<.33	<.32

Table 14. Soil-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, April 1991--Continued

Sample No.	Date	2-Chlorophenol (mg/kg)	4-Chlorophenyl phenyl ether (mg/kg)	Chrysene (mg/kg)	Delta-benzene hexachloride (mg/kg)	Dibenzo-[ah]-anthracene (mg/kg)	Dibenzofuran (mg/kg)	Dibromochloromethane (mg/kg)	1,2-Dichlorobenzene (mg/kg)	1,3-Dichlorobenzene (mg/kg)	1,4-Dichlorobenzene (mg/kg)	3,3-Dichlorobenzidine (mg/kg)
						Semi-volatile organic compounds--Continued						
JS1	04-16-91	<0.33	<0.33	<0.45	<0.29	<0.20	<0.33	<0.01	<0.001	<0.002	<0.001	<0.20
JS2	04-16-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS3	04-16-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS4	04-16-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS5	04-16-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS6	04-16-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS7	04-16-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS7d	04-16-91	<2.0	<2.0	<2.0	<1.0	<1.0	<2.0	<.01	<.001	<.002	<.001	<1.0
JS9	04-16-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS10	04-16-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS11	04-12-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS11d	04-12-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS13	04-12-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS14	04-12-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS15	04-12-91	<2.0	<2.0	<2.0	<1.0	<1.0	<2.0	<.01	<.001	<.002	<.001	<1.0
JS16	04-12-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS17	04-12-91	<.70	<.70	<.90	<.60	<.40	<.70	<.01	<.001	<.002	<.001	<.40
JS17d	04-12-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS19	04-11-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS20	04-11-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS21	04-11-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS22	04-11-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS23	04-11-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS24	04-11-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS25	04-11-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS26	04-12-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS26d	04-12-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS28	04-12-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS29	04-12-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS30	04-12-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS31	04-12-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS32	04-16-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS33	04-16-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS34	04-16-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS36	04-16-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS37	04-11-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS38	04-11-91	<.70	<.70	<.90	<.60	<.40	<.70	<.01	<.001	<.002	<.001	<.40
JS39	04-11-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS40	04-11-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20
JS41	04-11-91	<.33	<.33	<.45	<.29	<.20	<.33	<.01	<.001	<.002	<.001	<.20

Table 14. Soil-quality data from J-Field, Aberdeen Proving Ground, Maryland--
Organic constituents, April 1991--Continued

Sample No.	Date	2,4-Di-chloro-phenol (mg/kg)	cis-1,3-Di-chloro-propane (mg/kg)	trans-1,3-Di-chloro-propane (mg/kg)	Diel-drin (mg/kg)	Di-ethyl-phthal-ate (mg/kg)	2,4-Di-methyl-phenol (mg/kg)	Di-methyl-phthal-ate (mg/kg)	Di-n-butyl-phthal-ate (mg/kg)	4,6-Di-nitro-o-cresol (mg/kg)	2,4-Di-nitro-phenol (mg/kg)	2,4-Di-nitro-toluene (mg/kg)
						Semi-volatile organic compounds--Continued						
JS1	04-16-91	<0.33	<0.005	<0.005	<0.30	<0.33	<0.33	<0.33	4.8	<1.7	<1.7	<4.9
JS2	04-16-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<0.33	<1.7	<1.7	<0.39
JS3	04-16-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.74
JS4	04-16-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.39
JS5	04-16-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.74
JS6	04-16-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.74
JS7	04-16-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.74
JS7d	04-16-91	<2.0	<.005	<.005	<2.0	<2.0	<2.0	<2.0	<2.0	<8.0	<8.0	<.74
JS9	04-16-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.74
JS10	04-16-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.74
JS11	04-12-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.39
JS11d	04-12-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.74
JS13	04-12-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.39
JS14	04-12-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.74
JS15	04-12-91	<2.0	<.005	<.005	<2.0	<2.0	<2.0	<2.0	<2.0	<8.0	<8.0	<.74
JS16	04-12-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.39
JS17	04-12-91	<.70	<.005	<.005	<.60	<.70	<.70	<.70	<.70	<3.0	<3.0	<.80
JD17d	04-12-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.74
JS19	04-11-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.74
JS20	04-11-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.39
JS21	04-11-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.74
JS22	04-11-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.39
JS23	04-11-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.74
JS24	04-11-91	<.33	--	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.74
JS25	04-11-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	0.39	<1.7	<1.7	<.39
JS26	04-12-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.74
JS26d	04-12-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.39
JS28	04-12-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.39
JS29	04-12-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.39
JS30	04-12-91	<.33	<.005	<.005	<.30	<.33	--	<.33	0.62	<1.7	--	<.53
JS31	04-12-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.39
JS32	04-16-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.74
JS33	04-16-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.74
JS34	04-16-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.74
JS36	04-16-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.74
JS37	04-11-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.74
JS38	04-11-91	<.70	<.005	<.005	<.60	<.70	<.70	<.70	<.70	<3.0	<3.0	<.74
JS39	04-11-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.39
JS40	04-11-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.39
JS41	04-11-91	<.33	<.005	<.005	<.30	<.33	<.33	<.33	<.33	<1.7	<1.7	<.74

Table 14. Soil-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, April 1991--Continued

Sample No.	Date	2,6-Dinitrotoluene (mg/kg)	Di-n-octylphthalate (mg/kg)	Endosulfan I (mg/kg)	Endosulfan II (mg/kg)	Endosulfan sulfate (mg/kg)	Endrin (mg/kg)	2-Ethylhexylphthalate bis (mg/kg)	Fluoranthene (mg/kg)	Heptachlor (mg/kg)	Heptachlor epoxide (mg/kg)	Hexachlorobenzene (mg/kg)
					Semi-volatile organic compounds--Continued							
JS1	04-16-91	<0.83	<0.59	<1.0	<0.20	<0.20	<0.41	<0.39	<0.52	<0.28	<0.36	<0.26
JS2	04-16-91	<.83	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS3	04-16-91	<.83	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS4	04-16-91	<.53	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS5	04-16-91	<.53	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS6	04-16-91	<.83	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS7	04-16-91	<.53	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS7d	04-16-91	<3.0	<3.0	<5.0	<1.0	<1.0	<2.0	<2.0	<3.0	<1.0	<2.0	<1.0
JS9	04-16-91	<.53	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS10	04-16-91	<.53	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS11	04-12-91	<.53	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS11d	04-12-91	<.53	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS13	04-12-91	<.53	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS14	04-12-91	<.83	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS15	04-12-91	<.83	<3.0	<5.0	<1.0	<1.0	<2.0	<2.0	<3.0	<1.0	<2.0	<1.0
JS16	04-12-91	<.83	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS17	04-12-91	<.83	<1.0	<2.0	<.40	<.40	<.80	<.80	<1.0	<.60	<.70	<.50
JS17d	04-12-91	<.53	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS19	04-11-91	<.83	<.59	<1.0	--	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS20	04-11-91	<.53	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS21	04-11-91	<.83	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS22	04-11-91	<.53	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS23	04-11-91	<.83	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS24	04-11-91	<.83	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS25	04-11-91	<.83	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS26	04-12-91	<.53	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS26d	04-12-91	<.83	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS28	04-12-91	<.83	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS29	04-12-91	<.83	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	0.59
JS30	04-12-91	--	<.59	<1.0	<.20	<.20	<.41	1.1	<.52	<.28	<.36	<.26
JS31	04-12-91	<.53	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS32	04-16-91	<.83	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS33	04-16-91	<.53	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS34	04-16-91	<.53	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS36	04-16-91	<.53	<.59	<1.0	<.20	<.20	<.41	--	<.52	<.28	<.36	<.26
JS37	04-11-91	<.53	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS38	04-11-91	<.83	<1.0	<2.0	<.40	<.40	<.80	<.80	<1.0	<.60	<.70	<.50
JS39	04-11-91	<.53	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS40	04-11-91	<.83	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26
JS41	04-11-91	<.53	<.59	<1.0	<.20	<.20	<.41	<.39	<.52	<.28	<.36	<.26

Table 14. Soil-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, April 1991--Continued

Sample No.	Date	Hexachlorobutadiene (mg/kg)	Hexachlorocyclopentadiene (mg/kg)	Hexachloroethane (mg/kg)	2-Hexanone (mg/kg)	Indeno [1,2,3-C,D]-pyrene (mg/kg)	Isophorone (mg/kg)	Malathion (mg/kg)	Methoxychlor (mg/kg)	4-Methyl-2-pentanone (mg/kg)	Methylene chloride (mg/kg)	2-Methylnaphthalene (mg/kg)
						Semi-volatile organic compounds--Continued						
JS1	04-16-91	<0.42	<0.33	<0.40	<0.01	<0.21	<0.33	<0.48	<1.0	<0.01	<0.006	<0.33
JS2	04-16-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS3	04-16-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS4	04-16-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS5	04-16-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS6	04-16-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS7	04-16-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS7d	04-16-91	<2.0	<2.0	<2.0	<.01	<1.0	<2.0	<2.0	<5.0	<.01	<.006	<2.0
JS9	04-16-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS10	04-16-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS11	04-12-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS11d	04-12-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS13	04-12-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS14	04-12-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS15	04-12-91	<2.0	<2.0	<2.0	<.01	<1.0	<2.0	<2.0	<5.0	<.01	<.006	<2.0
JS16	04-12-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS17	04-12-91	<.80	<.70	<.80	<.01	<.40	<.70	<1.0	<2.0	<.01	<.006	<.70
JS17d	04-12-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS19	04-11-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS20	04-11-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS21	04-11-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS22	04-11-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS23	04-11-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS24	04-11-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS25	04-11-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS26	04-12-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS26d	04-12-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS28	04-12-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS29	04-12-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS30	04-12-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS31	04-12-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS32	04-16-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS33	04-16-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS34	04-16-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS36	04-16-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS37	04-11-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS38	04-11-91	<.80	<.70	<.80	<.01	<.40	<.70	<1.0	<2.0	<.01	<.006	<.70
JS39	04-11-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS40	04-11-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33
JS41	04-11-91	<.42	<.33	<.40	<.01	<.21	<.33	<.48	<1.0	<.01	<.006	<.33

Table 14. Soil-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, April 1991--Continued

Sample No.	Date	2-Methyl-phenol (mg/kg)	4-Methyl-phenol (mg/kg)	N-Nitro-sodi-phenyl-amine (mg/kg)	Naph-thalene (mg/kg)	2-Nitro-aniline (mg/kg)	3-Nitro-aniline (mg/kg)	4-Nitro-aniline (mg/kg)	Nitro-benzene (mg/kg)	2-Nitro-phenol (mg/kg)	4-Nitro-phenol (mg/kg)	Ortho + para-xylene (mg/kg)
					Semi-volatile organic compounds--Continued							
JS1	04-16-91	<0.33	<0.33	<0.33	<0.42	<1.7	<1.7	<1.7	<0.33	<0.33	<1.7	<0.002
JS2	04-16-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<.33	<.33	<1.7	<.002
JS3	04-16-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<1.0	<.33	<1.7	<.002
JS4	04-16-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<.33	<.33	<1.7	<.002
JS5	04-16-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<.33	<.33	<1.7	<.002
JS6	04-16-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<.33	<.33	<1.7	<.002
JS7	04-16-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<.33	<.33	<1.7	<.002
JS7d	04-16-91	<2.0	<2.0	<2.0	<2.0	<8.0	<8.0	<8.0	<2.0	<2.0	<8.0	<.002
JS9	04-16-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<.33	<.33	<1.7	<.002
JS10	04-16-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<1.0	<.33	<1.7	<.002
JS11	04-12-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<.33	<.33	<1.7	<.002
JS11d	04-12-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<1.0	<.33	<1.7	<.002
JS13	04-12-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<1.0	<.33	<1.7	<.002
JS14	04-12-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<1.0	<.33	<1.7	<.002
JS15	04-12-91	<2.0	<2.0	<2.0	<2.0	<8.0	<8.0	<8.0	<2.0	<2.0	<8.0	<.002
JS16	04-12-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<1.0	<.33	<1.7	<.002
JS17	04-12-91	<.70	<.70	<.70	<.80	<3.0	<3.0	<3.0	<1.0	<.70	<3.0	<.002
JS17d	04-12-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<.33	<.33	<1.7	<.002
JS19	04-11-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<.33	<.33	<1.7	<.002
JS20	04-11-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<1.0	<.33	<1.7	<.002
JS21	04-11-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<.33	<.33	<1.7	<.002
JS22	04-11-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<.33	<.33	<1.7	<.002
JS23	04-11-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<1.0	<.33	<1.7	<.002
JS24	04-11-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<.33	<.33	<1.7	<.002
JS25	04-11-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<1.0	<.33	<1.7	<.002
JS26	04-12-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<1.0	<.33	<1.7	<.002
JS26d	04-12-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<.33	<.33	<1.7	<.002
JS28	04-12-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<.33	<.33	<1.7	<.002
JS29	04-12-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<1.0	<.33	<1.7	<.002
JS30	04-12-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<.33	<.33	<1.7	<.002
JS31	04-12-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<.33	<.33	<1.7	<.002
JS32	04-16-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<.33	<.33	<1.7	<.002
JS33	04-16-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<.33	<.33	<1.7	<.002
JS34	04-16-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<1.0	<.33	<1.7	<.002
JS36	04-16-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<1.0	<.33	<1.7	<.002
JS37	04-11-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<1.0	<.33	<1.7	<.002
JS38	04-11-91	<.70	<.70	<.70	<.80	<3.0	<3.0	<3.0	<.70	<.70	<3.0	<.002
JS39	04-11-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<.33	<.33	<1.7	<.002
JS40	04-11-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<1.0	<.33	<1.7	<.002
JS41	04-11-91	<.33	<.33	<.33	<.42	<1.7	<1.7	<1.7	<.33	<.33	<1.7	<.002

Table 14. Soil-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, April 1991--Continued

Sample No.	Date	Penta-chloro-phenol (mg/kg)	Phenan-threne (mg/kg)	Phenol (mg/kg)	Pyrene (mg/kg)	Styrene (mg/kg)	1,2,4-Tri-chloro-benzene (mg/kg)	2,4,5-Tri-chloro-phenol (mg/kg)	2,4,6-Tri-chloro-phenol (mg/kg)	Vinyl-acetate (mg/kg)	Total xylene (mg/kg)
					Semi-volatile organic compounds--Continued						
JS1	04-16-91	<1.7	<0.41	<0.33	<0.42	<0.005	<0.29	<1.7	<0.33	<0.01	<0.002
JS2	04-16-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS3	04-16-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS4	04-16-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS5	04-16-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS6	04-16-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS7	04-16-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS7d	04-16-91	<8.0	<2.0	<1.1	<2.0	<.005	<1.0	<8.0	<2.0	<.01	<.002
JS9	04-16-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS10	04-16-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS11	04-12-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS11d	04-12-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS13	04-12-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS14	04-12-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS15	04-12-91	<8.0	<2.0	<1.1	<2.0	<.005	<1.0	<8.0	<2.0	<.01	<.002
JS16	04-12-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS17	04-12-91	<3.0	<.80	<.33	<.80	<.005	<.60	<3.0	<.70	<.01	<.002
JS17d	04-12-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS19	04-11-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS20	04-11-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS21	04-11-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS22	04-11-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS23	04-11-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS24	04-11-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS25	04-11-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS26	04-12-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS26d	04-12-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS28	04-12-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS29	04-12-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS30	04-12-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS31	04-12-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS32	04-16-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS33	04-16-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS34	04-16-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS36	04-16-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS37	04-11-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS38	04-11-91	<3.0	<.80	<.70	<.80	<.005	<.60	<3.0	<.70	<.01	<.002
JS39	04-11-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS40	04-11-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002
JS41	04-11-91	<1.7	<.41	<.33	<.42	<.005	<.29	<1.7	<.33	<.01	<.002

Table 15. Surface-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Inorganic constituents, spring and fall 1993

[µS/cm = microsiemens per centimeter; mg/L = milligrams per liter; °C = degrees Celsius; µg/L = micrograms per liter; -- = no data]

NOTE: Sample No. ending in "d" represents duplicate analyses.

Sample No.	Station Number	Date	Time	Specific conductance (µS/cm)	pH, water whole field (standard units)	Oxygen, dissolved (mg/L)	Temperature, water (°C)	Temperature, air (°C)	Calcium, total recoverable (mg/L)
				Field parameters and major ions					
JFSW 01	391858076171101	04-07-93	1030	7,640	7.0	--	7.0	--	17
JFSW 02	391830076172101	04-06-93	1345	122	4.9	--	12.5	--	3.5
JFSW 03	391829076172801	04-06-93	1315	682	5.9	--	13.0	--	11
JFSW 04	391822076173101	04-06-93	1230	200	6.5	--	--	11.5	13
JFSW 05	391807076174801	04-06-93	1100	1,590	6.3	--	--	8.0	14
JFSW 06	391808076173401	04-05-93	0945	710	6.4	--	6.5	8.0	28
JFSW 07	391806076173201	04-05-93	1030	957	6.4	--	5.5	8.0	34
JFSW 07		09-30-93	1330	--	3.7	3.5	14.5	16.0	210
JFSW 08	391804076172801	04-05-93	1345	2,350	6.7	--	9.5	--	120
JFSW 09	391807076172201	04-05-93	1345	1,100	7.9	--	8.5	--	64
JFSW 10	391808076172401	04-05-93	1330	930	7.6	--	10.0	--	79
JFSW 11	391809076172701	04-05-93	1500	1,000	8.1	--	12.0	--	44
JFSW 12	391810076172702	04-06-93	0944	--	--	--	--	--	24
JFSW 12d		04-06-93	0945	808	7.3	--	7.5	--	24
JFSW 13	391810076172602	04-05-93	1545	470	6.8	--	7.5	--	19
JFSW 14	391803076171801	04-07-93	1030	940	7.3	--	5.0	--	22
JFSW 14		09-30-93	1430	865	7.1	7.9	19.5	16.0	100
JFSW 15	391801076171501	04-07-93	1100	1,010	7.3	--	12.5	--	17
JFSW 15		09-30-93	1500	859	7.3	8.9	18.0	--	100
JFSW 16	391802076175801	04-07-93	1100	640	6.6	--	13.0	--	5.4
JFSW 17	391814076165801	04-06-93	1430	640	6.3	--	11.0	--	5.7
JFSW 18	391815076170101	04-06-93	1445	33	5.7	--	11.5	--	1.8
JFSW 18		09-30-93	1045	63	5.1	7.4	16.5	14.0	1.8
JFSW 19	391816076165701	04-06-93	1500	1,330	6.9	--	13.5	--	12
JFSW 20	391758076172701	04-07-93	1130	162	7.3	--	10.0	--	11
JFSW 20d		04-07-93	1134	--	--	--	--	--	11
JFSW 20		09-30-93	1530	1,080	7.9	9.4	19.5	16.0	87

Table 15. Surface-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Inorganic constituents, spring and fall 1993--Continued

Sample No.	Date	Magnesium, total recoverable (mg/L)	Iron, total recoverable (µg/L as Fe)	Sodium, total recoverable (mg/L as Na)	Potassium, total recoverable (mg/L)	Sulfate (mg/L as SO4)	Chloride, dissolved (mg/L as Cl)	Fluoride, total (mg/L as F)	Phosphate, total (mg/L as PO4)	Nitrogen, nitrate total (mg/L as N)
Field parameters and major ions--Continued										
JFSW 01	04-07-93	32	260	290	11.0	81	520	1.2	<0.5	<0.50
JFSW 02	04-06-93	3.4	690	9.3	0.84	29	12	<0.5	<.5	<.50
JFSW 03	04-06-93	21	11,000	150	4.9	36	270	<.5	<.5	<.50
JFSW 04	04-06-93	4.9	1,500	18	2.7	27	30	<.5	<.5	<.50
JFSW 05	04-06-93	28	10,000	230	12.3	15	390	1.1	<.5	<.50
JFSW 06	04-05-93	20	18,000	99	3.4	41	130	<.5	<.5	<.50
JFSW 07	04-05-93	25	3,700	160	49.7	90	450	1.0	<.5	<.50
JFSW 07	09-30-93	230	100,000	960	38.7	1,700	2,600	6.0	<.5	1.50
JFSW 08	04-05-93	52	3,000	420	7.4	170	840	2.2	<.5	.57
JFSW 09	04-05-93	25	460	110	4.0	45	210	.6	<.5	<.50
JFSW 10	04-05-93	16	1,200	97	3.5	60	140	.6	<.5	<.50
JFSW 11	04-05-93	58	1,000	59	8.3	43	150	.6	<.5	<.50
JFSW 12	04-06-93	50	2,100	56	6.0	25	110	<.5	<.5	<.50
JFSW 12d	04-06-93	50	3,200	56	5.9	24	120	<.5	<.5	<.50
JFSW 13	04-05-93	16	1,900	75	4.0	16	140	<.5	<.5	<.50
JFSW 14	04-07-93	23	460	130	5.5	34	240	.5	<.5	<.50
JFSW 14	09-30-93	220	2,900	1,500	53.9	490	2,600	5.0	<.5	1.80
JFSW 15	04-07-93	20	310	150	5.8	34	270	.5	<.5	<.50
JFSW 15	09-30-93	220	1,300	1,600	61.3	490	2,700	4.9	<.5	1.90
JFSW 16	04-07-93	9.3	8,100	96	7.2	21	150	<.5	<.5	<.50
JFSW 17	04-06-93	11	6,400	85	5.3	20	130	<.5	<.5	<.50
JFSW 18	04-06-93	1.3	570	3.9	2.2	6.0	2.9	<.5	<.5	<.50
JFSW 18	09-30-93	1.4	380	1.1	6.7	14	3.2	<.5	<.5	<.50
JFSW 19	04-06-93	22	1,000	200	10.4	19	350	.8	<.5	<.50
JFSW 20	04-07-93	3.8	3,000	8.6	1.9	18	15	<.5	<.5	1.00
JFSW 20d	04-07-93	3.9	3,000	9.2	1.8	18	16	<.5	<.5	1.00
JFSW 20	09-30-93	250	710	2,000	76.2	480	3,600	5.6	<.5	2.40

Table 15. Surface-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Inorganic constituents, spring and fall 1993--Continued

Sample No.	Date	Time	Aluminum, total recoverable (µg/L)	Arsenic, total (µg/L as As)	Antimony, total (µg/L as Sb	Beryllium, total recoverable (µg/L)	Barium, total recoverable (µg/L as Ba)	Cadmium, total recoverable (µg/L)	Chromium, total recoverable (µg/L)	Cobalt, total recoverable (µg/L as Co)
					Metals					
JFSW 01	04-07-93	1030	200	<2	<49	<1	8	<4	<6	<6
JFSW 02	04-06-93	1345	1,000	<2	<49	<1	66	<4	<6	20
JFSW 03	04-06-93	1315	1,400	<2	<49	<1	44	<4	6	10
JFSW 04	04-06-93	1230	300	<2	<49	<1	28	<4	<6	<6
JFSW 05	04-06-93	1100	7,400	5	<49	<1	37	<4	9	<6
JFSW 06	04-05-93	0945	870	2	<49	<1	150	<4	<6	<6
JFSW 07	04-05-93	1030	260	<2	<49	<1	61	<4	<6	9
JFSW 07	09-30-93	1330	6,100	2	<54	<3	61	13	<5	100
JFSW 08	04-05-93	1345	230	<2	<49	<1	79	<4	<6	<6
JFSW 09	04-05-93	1345	65	<2	<49	<1	49	<4	<6	<6
JFSW 10	04-05-93	1330	<50	4	<49	<1	51	<4	<6	<6
JFSW 11	04-05-93	1500	60	2	<49	<1	86	<4	<6	<6
JFSW 12	04-06-93	0944	<50	<2	<49	<1	133	<4	<6	<6
JFSW 12d	04-06-93	0945	<50	<2	<49	<1	133	<4	<6	<6
JFSW 13	04-05-93	1545	110	<2	<49	<1	59	<4	<6	<6
JFSW 14	04-07-93	1030	80	<2	<49	<1	36	<4	<6	<6
JFSW 14	09-30-93	1430	1,100	3	<54	<3	170	<3	<5	<4
JFSW 15	04-07-93	1100	50	<2	<49	<1	18	<4	<6	<6
JFSW 15	09-30-93	1500	240	3	<54	<3	170	<3	<5	<4
JFSW 16	04-07-93	1100	6,400	2	<49	<1	41	<4	7	<6
JFSW 17	04-06-93	1430	3,000	<2	<49	<1	20	<4	10	8
JFSW 18	04-06-93	1445	170	<2	<49	<1	75	<4	7	<6
JFSW 18	09-30-93	1045	190	1	<54	<3	22	<3	8	<4
JFSW 19	04-06-93	1500	420	<2	<49	<1	8	<4	<6	<6
JFSW 20	04-07-93	1130	2,100	<2	<49	<1	32	<4	<6	<6
JFSW 20d	04-07-93	1134	2,000	<2	<49	<1	30	<4	<6	<6
JFSW 20	09-30-93	1530	250	2	<54	<3	50	<3	<5	<4

Table 15. Surface-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Inorganic constituents, spring and fall 1993--Continued

Sample No.	Date	Copper, total recoverable (µg/L)	Lead, total recoverable (µg/L)	Manganese, total recoverable (µg/L)	Mercury, total recoverable (µg/L)	Nickel, total recoverable (µg/L)	Selenium, total (µg/L as Se)	Silver, total recoverable (µg/L)	Thallium, total recoverable (µg/L as Tl)	Vanadium, total (µg/L as V)	Zinc, total recoverable (µg/L as Zn)
					Metals--Continued						
JFSW 01	04-07-93	<5	1	20	<0.10	<13	3	<7	<2	<5	20
JFSW 02	04-06-93	6	2	120	<.10	<13	<2	<7	<2	<5	110
JFSW 03	04-06-93	12	8	400	<.10	<13	<2	<7	<2	7	130
JFSW 04	04-06-93	10	2	480	<.10	<13	<2	<7	<2	<5	40
JFSW 05	04-06-93	30	26	360	<.10	23	<2	<7	<2	17	160
JFSW 06	04-05-93	15	6	350	<.10	<13	3	<7	<20	6	70
JFSW 07	04-05-93	11	<1	390	<.10	<13	<2	8	<20	7	40
JFSW 07	09-30-93	34	51	3,700	<.05	120	<1	<6	<5	16	2,500
JFSW 08	04-05-93	7	<1	300	<.10	<13	3	<7	<20	<5	20
JFSW 09	04-05-93	8	<1	70	<.10	<13	<2	<7	<2	<5	30
JFSW 10	04-05-93	<5	<1	90	<.10	<13	<2	<7	<2	<5	20
JFSW 11	04-05-93	18	8	110	<.10	<13	<2	<7	<20	<5	260
JFSW 12	04-06-93	15	15	100	<.10	<13	<2	<7	<2	<5	730
JFSW 12d	04-06-93	14	20	130	<.10	<13	<2	<7	<2	<5	780
JFSW 13	04-05-93	12	2	100	<.10	<13	<2	<7	<2	<5	40
JFSW 14	04-07-93	<5	2	100	<.10	<13	<2	<7	<2	<5	20
JFSW 14	09-30-93	<4	2	2,500	<.05	<8	<1	<6	<1	9	60
JFSW 15	04-07-93	<5	5	70	<.10	<13	<2	<7	<2	<5	10
JFSW 15	09-30-93	5	<1	2,600	<.05	<8	<1	<6	<1	7	30
JFSW 16	04-07-93	8	12	220	<.10	<13	<2	<7	<2	10	60
JFSW 17	04-06-93	16	17	190	<.10	<13	<2	7	<2	13	70
JFSW 18	04-06-93	15	<1	240	<.10	<13	<2	<7	<2	<5	60
JFSW 18	09-30-93	14	<1	250	<.05	<8	<1	<6	<1	--	70
JFSW 19	04-06-93	7	3	40	<.10	<13	<2	<7	<2	<5	20
JFSW 20	04-07-93	<5	13	280	<.10	<13	<2	<7	<2	<5	30
JFSW 20d	04-07-93	<5	5	280	<.10	15	<2	<7	<2	<5	30
JFSW 20	09-30-93	<4	<1	110	<.05	<8	<1	<6	<1	--	3

Table 16. Surface-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--
Organic constituents, spring and fall 1993

[µg/L = micrograms per liter; mg/L = milligrams per liter; < = less than; > = greater than; -- = no data; A "v" after a value indicates parameter was found in the associated blank, as well as in the sample; A "j" after a value indicates an estimated value that is less than the reporting value; An "e" after a value indicates analyses that exceeded the calibration range of the instrument.

NOTE: Sample No. ending in "d" represents duplicate analyses.

Sample No.	Station Number	Date	Time	Acetone (µg/L)	Benzene (µg/L)	Carbon-tetra-chlo-ride (µg/L)	Chloro-ethane (µg/L)	Chloro-form (µg/L)	1,1-Di-chloro-ethane (µg/L)	1,1-Di-chloro-ethene (µg/L)	1,2-Di-chloro-ethene (µg/L)
Volatile organic compounds											
JFSW 01	391858076171101	04-07-93	1030	8vj	<10	<10	<10	<10	<10	<10	<10
JFSW 02	391830076172101	04-06-93	1345	2vj	<10	<10	<10	<10	<10	<10	1j
JFSW 03	391829076172801	04-06-93	1315	6vj	<10	<10	<10	<10	<10	<10	1j
JFSW 04	391822076173101	04-06-93	1230	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 05	391807076174801	04-06-93	1100	16	<10	<10	<10	<10	<10	<10	<10
JFSW 06	391808076173401	04-05-93	0945	9vj	<10	<10	<10	<10	<10	<10	<10
JFSW 07	391806076173201	04-05-93	1030	<10	<10	<10	<10	<10	<10	<10	19
JFSW 07		09-30-93	1330	17	<10	<10	<10	<10	<10	<10	<10
JFSW 08	391804076172801	04-05-93	1345	6vj	<10	<10	<10	<10	<10	<10	<10
JFSW 09	391807076172201	04-05-93	1345	7vj	<10	<10	<10	<10	<10	<10	<10
JFSW 10	391808076172401	04-05-93	1330	32j	<62	<62	<62	<62	<62	<62	>1,400e
JFSW 10d		04-05-93	1334	110j	<250	<250	<250	<250	<250	<250	1,400
JFSW 11	391809076172701	04-05-93	1500	8vj	<10	<10	<10	<10	<10	<10	16
JFSW 12	391810076172702	04-06-93	0944	8vj	<10	<10	<10	<10	<10	<10	<10
JFSW 12d		04-06-93	0945	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 13	391810076172602	04-05-93	1545	11	<10	<10	<10	<10	<10	<10	<10
JFSW 14	391803076171801	04-07-93	1030	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 14		09-30-93	1430	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 15	391801076171501	04-07-93	1100	9vj	<10	<10	<10	<10	<10	<10	<10
JFSW 15		09-30-93	1500	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 16	391802076175801	04-07-93	1100	7vj	<10	<10	<10	<10	<10	<10	<10
JFSW 17	391814076165801	04-06-93	1430	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 18	391815076170101	04-06-93	1445	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 18		09-30-93	1045	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 19	391816076165701	04-06-93	1500	5vj	<10	<10	<10	<10	<10	<10	<10
JFSW 20	391758076172701	04-07-93	1130	6vj	<10	<10	<10	<10	<10	<10	<10
JFSW 20d		04-07-93	1134	9vj	<10	<10	<10	<10	<10	<10	<10
JFSW 20		09-30-93	1530	<10	<10	<10	<10	<10	<10	<10	<10
Quality Assurance Samples											
TRIP BLANK		04-05-93	1400	6j	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK		09-30-93		<10	<10	<10	<10	<10	<10	<10	<10
AMBIENT BLANK		04-07-93	1300	<10	<10	<10	<10	<10	<10	<10	<10
AMBIENT BLANK		09-30-93	1530	<10	<10	<10	<10	<10	<10	<10	<10

Table 16. Surface-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, spring and fall 1993--Continued

Sample No.	Date	Methylene chloride (µg/L)	Methyl-isobutyl-keytone (µg/L)	Methyl-ethyl-keytone (µg/L)	1,1,2,2-Tetrachloroethane (µg/L)	Tetrachloroethene (µg/L)	Toluene (µg/L)	1,1,1-Trichloroethane (µg/L)	1,1,2-Trichloroethane (µg/L)	Trichloroethene (µg/L)	Vinyl chloride (µg/L)
Volatile organic compounds--Continued											
JFSW 01	04-07-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 02	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 03	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 04	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 05	04-06-93	<10	<10	<10	<10	<10	1j	<10	<10	<10	<10
JFSW 06	04-05-93	<10	<10	2vj	<10	<10	2j	<10	<10	<10	<10
JFSW 07	04-05-93	1vj	<10	<10	190	1j	2j	<10	13	59	<10
JFSW 07	09-30-93	1vj	<10	<10	<10	<10	1vj	<10	<10	<10	<10
JFSW 08	04-05-93	<10	<10	<10	2j	<10	<10	<10	<10	<10	<10
JFSW 09	04-05-93	<10	<10	<10	8j	<10	<10	<10	<10	6j	<10
JFSW 10	04-05-93	<62	<62	<62	>2,200e	44j	<62	<62	93j	>2,100e	<62
JFSW 10d	04-05-93	27vj	<250	<250	2,300	40j	<250	<250	97j	2,100	<250
JFSW 11	04-05-93	<10	<10	<10	8j	<10	<10	<10	1j	6j	2j
JFSW 12	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	2j	<10
JFSW 12d	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 13	04-05-93	<10	<10	5vj	<10	<10	1j	<10	<10	<10	<10
JFSW 14	04-07-93	<10	<10	2vj	2j	<10	<10	<10	<10	<10	<10
JFSW 14	09-30-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 15	04-07-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 15	09-30-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 16	04-07-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 17	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 18	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 18	09-30-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 19	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 20	04-07-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 20d	04-07-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 20	09-30-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Quality Assurance Samples											
TRIP BLANK	04-05-93	1vj	1j	5j	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK	09-30-93	1vj	<10	<10	<10	<10	<10	<10	<10	<10	<10
AMBIENT BLANK	04-07-93	1j	<10	3j	<10	<10	<10	<10	<10	<10	<10
AMBIENT BLANK	09-30-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Table 16. Surface-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, spring and fall 1993--Continued

Sample No.	Date	Time	Acenaphthene (µg/L)	Acenaphthylene (µg/L)	Aldrin (µg/L)	Anthracene (µg/L)	Beta benzene hexachloride (µg/L)	Delta benzene hexachloride (µg/L)
Semi-volatile organic compounds								
JFSW 01	04-07-93	1030	<10	<10	<0.05	<10	<0.05	<0.05
JFSW 02	04-06-93	1345	<10	<10	<.05	<10	<.05	<.05
JFSW 03	04-06-93	1315	<10	<10	<.05	<10	<.05	<.05
JFSW 04	04-06-93	1230	<10	<10	<.05	<10	<.05	<.05
JFSW 05	04-06-93	1100	<10	<10	<.05	<10	<.05	<.05
JFSW 06	04-05-93	0945	<10	<10	<.05	<10	<.05	<.05
JFSW 07	04-05-93	1030	<10	<10	<.05	<10	<.05	<.05
JFSW 07	09-30-93	1330	<10	<10	<.05	<10	<.05	<.05
JFSW 08	04-05-93	1345	<10	<10	<.05	<10	<.05	<.05
JFSW 09	04-05-93	1345	<10	<10	<.05	<10	<.05	<.05
JFSW 10	04-05-93	1330	<10	<10	<.05	<10	<.05	<.05
JFSW 10d	04-05-93	1334	--	--	--	--	--	--
JFSW 11	04-05-93	1500	<10	<10	<.05	<10	<.05	<.05
JFSW 12	04-06-93	0944	<10	<10	<.05	<10	<.05	<.05
JFSW 12d	04-06-93	0945	<10	<10	<.05	<10	<.05	<.05
JFSW 13	04-05-93	1545	<10	<10	<.05	<10	<.05	<.05
JFSW 14	04-07-93	1030	<10	<10	<.05	<10	<.05	<.05
JFSW 14	09-30-93	1430	<10	<10	<.05	<10	<.05	<.05
JFSW 15	04-07-93	1100	<10	<10	<.05	<10	<.05	<.05
JFSW 15	09-30-93	1500	<10	<10	<.05	<10	<.05	<.05
JFSW 16	04-07-93	1100	<10	<10	<.05	<10	<.05	<.05
JFSW 17	04-06-93	1430	<10	<10	<.05	<10	<.05	<.05
JFSW 18	04-06-93	1445	<10	<10	<.05	<10	<.05	<.05
JFSW 18	09-30-93	1045	<10	<10	<.05	<10	<.05	<.05
JFSW 19	04-06-93	1500	<10	<10	<.05	<10	<.05	<.05
JFSW 20	04-07-93	1130	<10	<10	<.05	<10	<.05	<.05
JFSW 20d	04-07-93	1134	<10	<10	<.05	<10	<.05	<.05
JFSW 20	09-30-93	1530	<10	<10	<.05	<10	<.05	<.05

Table 16. Surface-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, spring and fall 1993--Continued

Sample No.	Date	Benzo[a] anthracene (µg/L)	Benzo [a] pyrene (µg/L)	Benzo[b] fluoranthene (µg/L)	Benzo[k] fluoranthene (µg/L)	Benzo [ghi] perylene (µg/L)	Bis (2-chloroethoxy) methane (µg/L)	Bis (2-chloroethyl) ether (µg/L)	Bis(2-chloroisopropyl) ether (µg/L)	4-Bromophenyl phenyl ether (µg/L)
Semi-volatile organic compounds--Continued										
JFSW 01	04-07-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 02	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 03	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 04	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 05	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 06	04-05-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 07	04-05-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 07	09-30-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 08	04-05-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 09	04-05-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 10	04-05-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 10d	04-05-93	--	--	--	--	--	--	--	--	--
JFSW 11	04-05-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 12	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 12d	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 13	04-05-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 14	04-07-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 14	09-30-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 15	04-07-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 15	09-30-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 16	04-07-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 17	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 18	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 18	09-30-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 19	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 20	04-07-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 20d	04-07-93	<10	<10	<10	<10	<10	<10	<10	<10	<10
JFSW 20	09-30-93	<10	<10	<10	<10	<10	<10	<10	<10	<10

Table 16. Surface-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, spring and fall 1993--Continued

Sample No.	Date	Alpha chlordane (µg/L)	Gamma chlordane (µg/L)	4-Chloroaniline (µg/L)	2-Chloronaphthalene (µg/L)	2-Chlorophenol (µg/L)	4-Chlorophenyl phenyl ether (µg/L)	Chrysene (µg/L)	Dibenzofuran (µg/L)	1,2-Dichlorobenzene (µg/L)
				Semi-volatile organic compounds--Continued						
JFSW 01	04-07-93	<0.05	<0.05	<10	<10	<10	<10	<10	<10	<10
JFSW 02	04-06-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 03	04-06-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 04	04-06-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 05	04-06-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 06	04-05-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 07	04-05-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 07	09-30-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 08	04-05-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 09	04-05-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 10	04-05-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 10d	04-05-93	--	--	--	--	--	--	--	--	--
JFSW 11	04-05-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 12	04-06-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 12d	04-06-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 13	04-05-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 14	04-07-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 14	09-30-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 15	04-07-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 15	09-30-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 16	04-07-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 17	04-06-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 18	04-06-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 18	09-30-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 19	04-06-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 20	04-07-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 20d	04-07-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10
JFSW 20	09-30-93	<.05	<.05	<10	<10	<10	<10	<10	<10	<10

Table 16. Surface-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, spring and fall 1993--Continued

Sample No.	Date	1,3-Dichlorobenzene (mg/L)	1,4-Dichlorobenzene (µg/L)	3,3'-Dichlorobenzidine (µg/L)	2,4-Dichlorophenol (µg/L)	Dieldrin (µg/L)	2,4-Dimethylphenol (µg/L)	Dimethyl phthalate (µg/L)	Endosulfan-I (µg/L)	Endosulfan-sulfate (µg/L)
Semi-volatile organic compounds--Continued										
JFSW 01	04-07-93	<10	<10	<10	<10	<0.10	<10	<10	<0.05	<0.1
JFSW 02	04-06-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 03	04-06-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 04	04-06-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 05	04-06-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 06	04-05-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 07	04-05-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 07	09-30-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 08	04-05-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 09	04-05-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 10	04-05-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 10d	04-05-93	--	--	--	--	--	--	--	--	--
JFSW 11	04-05-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 12	04-06-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 12d	04-06-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 13	04-05-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 14	04-07-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 14	09-30-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 15	04-07-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 15	09-30-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 16	04-07-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 17	04-06-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 18	04-06-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 18	09-30-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 19	04-06-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 20	04-07-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 20d	04-07-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1
JFSW 20	09-30-93	<10	<10	<10	<10	<.10	<10	<10	<.05	<.1

Table 16. Surface-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, spring and fall 1993--Continued

Sample No.	Date	Beta-endo-sulfan (µg/L)	Endrin (µg/L)	Endrin alde-hyde (µg/L)	Endrin keytone (µg/L)	Alpha BHC (µg/L)	Fluo-ranthene (µg/L)	Fluo-rene (µg/L)	Hepta-chlor (µg/L)
Semi-volatile organic compounds--Continued									
JFSW 01	04-07-93	<0.1	<0.1	<0.1	<0.1	<0.05	<10	<10	<0.05
JFSW 02	04-06-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 03	04-06-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 04	04-06-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 05	04-06-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 06	04-05-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 07	04-05-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 07	09-30-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 08	04-05-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 09	04-05-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 10	04-05-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 10d	04-05-93	--	--	--	--	--	--	--	--
JFSW 11	04-05-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 12	04-06-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 12d	04-06-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 13	04-05-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 14	04-07-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 14	09-30-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 15	04-07-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 15	09-30-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 16	04-07-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 17	04-06-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 18	04-06-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 18	09-30-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 19	04-06-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 20	04-07-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 20d	04-07-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05
JFSW 20	09-30-93	<.1	<.1	<.1	<.1	<.05	<10	<10	<.05

Table 16. Surface-water-quality data fron J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, spring and fall 1993--Continued

Sample No.	Date	Heptachlor epoxide (µg/L)	Hexachlorobenzene (µg/L)	Hexachlorobutadiene (µg/L)	Hexachlorocyclopentadiene (µg/L)	Hexachloroethane (µg/L)	Indeno [1,2,3-CD] pyrene (µg/L)	Isophorone (µg/L)	Lindane (µg/L)	N-Nitrosodi-n-propylamine (µg/L)	N-Nitrosodiphenylamine (µg/L)
					Semi-volatile organic compounds--Continued						
JFSW 01	04-07-93	<0.05	<10	<10	<10	<10	<10	<10	<0.05	<10	1vj
JFSW 02	04-06-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	1vj
JFSW 03	04-06-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	1vj
JFSW 04	04-06-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	<10
JFSW 05	04-06-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	1vj
JFSW 06	04-05-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	2vj
JFSW 07	04-05-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	1vj
JFSW 07	09-30-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	<10
JFSW 08	04-05-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	1vj
JFSW 09	04-05-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	2vj
JFSW 10	04-05-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	2vj
JFSW 10d	04-05-93	--	--	--	--	--	--	--	--	--	--
JFSW 11	04-05-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	2vj
JFSW 12	04-06-93	<.05	<10	<10	<10	<10	<10	<10	<.05	2j	2vj
JFSW 12d	04-06-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	1vj
JFSW 13	04-05-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	1vj
JFSW 14	04-07-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	1vj
JFSW 14	09-30-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	<10
JFSW 15	04-07-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	1vj
JFSW 15	09-30-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	<10
JFSW 16	04-07-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	1vj
JFSW 17	04-06-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	1vj
JFSW 18	04-06-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	1vj
JFSW 18	09-30-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	<10
JFSW 19	04-06-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	1vj
JFSW 20	04-07-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	<10
JFSW 20d	04-07-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	1vj
JFSW 20	09-30-93	<.05	<10	<10	<10	<10	<10	<10	<.05	<10	<10

Table 16. Surface-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, spring and fall 1993--Continued

Sample No.	Date	Phenan-threne (µg/L)	Phenols (µg/L)	Pyrene (µg/L)	Styrene (µg/L)	1,2,4-Tri-chloro-benzene (µg/L)	2,4,6-Tri-chloro-phenol (µg/L)	2,4,5-Tri-chloro-phenol (µg/L)	Xylene (µg/L)
Semi-volatile organic compounds--Continued									
JFSW 01	04-07-93	<10	<10	<10	<10	<10	<10	<25	<10
JFSW 02	04-06-93	<10	<10	<10	<10	<10	<10	<25	<10
JFSW 03	04-06-93	<10	<10	<10	<10	<10	<10	<25	<10
JFSW 04	04-06-93	<10	20	<10	<10	<10	<10	<25	<10
JFSW 05	04-06-93	<10	<10	<10	<10	<10	<10	<25	<10
JFSW 06	04-05-93	<10	<10	<10	<10	<10	<10	<25	<10
JFSW 07	04-05-93	<10	<10	<10	<10	<10	<10	<25	<10
JFSW 07	09-30-93	<10	6j	<10	<10	<10	<10	<25	<10
JFSW 08	04-05-93	<10	<10	<10	<10	<10	<10	<25	<10
JFSW 09	04-05-93	<10	<10	<10	<10	<10	<10	<25	<10
JFSW 10	04-05-93	<10	<10	<10	<62	<10	<10	<25	<62
JFSW 10d	04-05-93	--	--	--	<250	--	--	--	<250
JFSW 11	04-05-93	<10	<10	<10	<10	<10	<10	<25	<10
JFSW 12	04-06-93	<10	<10	<10	<10	<10	<10	<25	<10
JFSW 12d	04-06-93	<10	2j	<10	<10	<10	<10	<25	<10
JFSW 13	04-05-93	<10	<10	<10	<10	<10	<10	<25	<10
JFSW 14	04-07-93	<10	<10	<10	<10	<10	<10	<25	<10
JFSW 14	09-30-93	<10	<10	<10	<10	<10	<10	<25	<10
JFSW 15	04-07-93	<10	<10	<10	<10	<10	<10	<25	<10
JFSW 15	09-30-93	<10	<10	<10	<10	<10	<10	<25	<10
JFSW 16	04-07-93	<10	<10	<10	<10	<10	<10	<25	<10
JFSW 17	04-06-93	<10	<10	<10	<10	<10	<10	<25	<10
JFSW 18	04-06-93	<10	<10	<10	<10	<10	<10	<25	<10
JFSW 18	09-30-93	<10	<10	<10	<10	<10	<10	<25	<10
JFSW 19	04-06-93	<10	<10	<10	<10	<10	<10	<25	<10
JFSW 20	04-07-93	<10	<10	<10	<10	<10	<10	<25	<10
JFSW 20d	04-07-93	<10	<10	<10	<10	<10	<10	<25	<10
JFSW 20	09-30-93	<10	<10	<10	<10	<10	<10	<25	<10

Table 16. Surface-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, spring and fall 1993--Continued

Sample No.	Date	Bis(2-ethyl hexyl) phthalate (µg/L)	n-Butyl benzyl phthalate (µg/L)	Cyanide (mg/L as CN)	Di-n-butyl phthalate (µg/L)	Diethyl phthalate (µg/L)	Dimethyl phthalate (µg/L)	Di-n-octyl phthalate (µg/L)	2-Nitrophenol (µg/L)	2,4-Dinitrotoluene (µg/L)	2,6-Dinitrotoluene (µg/L)	Nitrobenzene (µg/L)	Nitroglycerine (µg/L)	PETN (µg/L)	RDX (µg/L)	1,3,5-Trinitrobenzene (µg/L)
Chemical surety materials																
JFSW 01	04-07-93	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 02	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 03	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 04	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 05	04-06-93	1	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 06	04-05-93	2j	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 07	04-05-93	2j	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 07	09-30-93	3j	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 08	04-05-93	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 09	04-05-93	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 10	04-05-93	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 10d	04-05-93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
JFSW 11	04-05-93	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 12	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 12d	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 13	04-05-93	1j	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 14	04-07-93	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 14	09-30-93	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 15	04-07-93	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 15	09-30-93	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 16	04-07-93	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 17	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<60	<310	<2	<2
JFSW 18	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 18	09-30-93	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 19	04-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 20	04-07-93	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2
JFSW 20d	04-07-93	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<2	<50	<250	<2	<2
JFSW 20	09-30-93	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<50	<250	<2	<2

Table 17. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Inorganic constituents, Phase I, May-June 1990

[µS/cm = microsiemens per centimeter; mg/L = milligrams per liter; °C = degrees Celsius; µg/L = micrograms per liter; < = less than; -- = data not available; A "v" after a well no. indicates possible contamination bias due to drilling methods]

NOTE: Well No. ending in "d" represents duplicate analyses. Asterisk (*) indicates pH value has exceeded calibration range of the pH meter. Field blank 1 was collected after sampling well P7. Field blank 2 was collected after sampling well JF83.

Well No.	Station number	Date	Time	Specific conductance, (µS/cm)	pH, water whole field (standard units)	Temperature, air (°C)	Temperature, water (°C)	Oxygen, dissolved (mg/L)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (µg/L as Mg)
				Field parameters and major ions						
				Surficial Aquifer						
P1	391811076173201	06-06-90	1400	170	5.6	23.5	15.5	7.2	20	3,700
P2	391809076173001	06-12-90	1000	425	5.4	21.5	15.5	8.0	37	8,000
P3	391812076172901	06-07-90	1050	1,330	6.8	26.0	15.0	1.7	16.8	87,000
P4	391811076172801	06-07-90	1200	1,570	5.8	26.0	15.0	0.2	179	45,000
P5	391825076172501	05-11-90	0945	162	5.5	19.0	12.0	8.0	18	3,900
P6	391825076173001	05-15-90	1345	652	6.1	24.0	13.5	6.5	44	11,000
P7	391826076173001	05-17-90	1130	189	5.3	22.5	14.0	0.1	7.4	8,100
P8	391827076172801	05-16-90	1445	449	4.7	23.5	15.0	6.9	37	23,000
P9	391810076173101	06-08-90	1330	277	5.7	28.0	17.0	6.5	33	4,200
P9d		06-08-90	1334	--	--	--	--	--	31	4,000
TH1	391827076172701	05-16-90	1130	170	5.0	23.0	14.5	6.1	4.0	8,500
TH1d		05-16-90	1134	--	--	--	--	--	4.2	9,100
TH3	391824076173001	05-14-90	1330	453	7.0	22.0	13.0	9.5	99	1,700
TH4	391810076172601	06-13-90	1030	668	6.8	23.0	16.5	--	130	2,800
TH4d		06-13-90	1034	--	--	--	--	--	130	2,900
TH6	391817076173701	06-01-90	1000	167	6.3	25.0	12.0	10.5	12.9	2,200
TH7	391814076171001	05-08-90	1315	123	5.7	28.0	--	10.9	6.6	8,400
TH8	391816076173801	06-04-90	0950	285	6.9	22.5	18.0	6.6	6.5	2,270
TH10	391805076174001	06-05-90	0945	542	4.7	16.5	13.0	2.6	1.6	13,400
TH11	391806076165201	05-08-90	1015	154	4.6	21.0	--	--	7.7	3,400
JF13	391809076174303	06-04-90	1040	1,770	6.4	27.0	15.5	0.2	300	17,000
JF13d		06-04-90	1044	--	--	--	--	--	310	17,000
JF23	391809076174603	06-05-90	1300	1,150	6.8	--	15.5	0.1	195	11,000
JF33	391814076173803	05-31-90	0954	--	--	--	--	--	156	5,400
JF33d		05-31-90	0955	732	6.6	22.0	13.5	2.3	158	5,400
JF43	391812076173103	06-07-90	1030	183	6.3	26.0	17.0	1	20	4,500
JF53	391808076172703	06-13-90	1355	491	6.8	25.5	17.5	1.2	55	9,700
JF63	391810076172803	06-14-90	1340	993	6.0	28.5	16.0	0.2	93	15,000
JF73	391807076172803	06-12-90	1400	467	7.4	--	16.0	0.2	44	3,000
JF83	391808076173003	06-12-90	1100	584	5.6	23.5	14.5	0.6	42	30,000
JF93	391825076172603	05-11-90	1100	278	5.5	19.0	15.0	--	15	6,100
JF103v	391826076173106	05-17-90	1000	3,830	12.5*	--	14.5	0.0	370	<130
JF113	391826076173103	05-18-90	1330	150	6.4	21.0	13.5	0.1	6.0	2,700
JF123	391827076173003	05-30-90	1300	97	6.2	--	13.5	0.3	3.1	1,600

Table 17. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Inorganic constituents, Phase I, May-June 1990--Continued

Well No.	Station number	Date	Time	Specific conductance, (µS/cm)	pH, water whole field (standard units)	Temperature, air (°C)	Temperature, water (°C)	Oxygen, dissolved (mg/L)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (µg/L as Mg)
Field parameters and major ions--Continued										
Confining Unit										
JF12	391811076173201	06-05-90	1030	514	7.2	--	14.0	3.1	91	5,900
JF22	391809076174602	06-05-90	1400	591	7.1	25.0	14.5	1.2	58	9,600
JF32	391814076173802	05-31-90	1400	270	6.6	23.0	15.0	0.8	17	3,500
JF42	391812076173102	06-08-90	1200	525	7.1	25.0	16.0	0.7	94	4,500
JF52	391808076172702	06-14-90	1100	574	7.4	28.0	16.0	--	85	9,000
JF62	391810076172802	06-14-90	1100	638	7.6	28.0	16.0	--	92	5,700
JF72v	391807076172802	06-12-90	1430	2,600	12.4*	22.0	15.5	0.6	180	<130
JF82v	391808076173002	06-14-90	1000	2,070	11.9*	25.0	15.0	--	130	<130
JF82dv		06-14-90	1004	--	--	--	--	--	110	<130
JF92	391825076172602	05-16-90	1115	448	7.0	24.5	14.5	0.5	73	3700
JF102v	391826076173105	05-18-90	1130	2,140	12.0*	--	15.5	1.0	51	<130
JF112v	391826076173102	06-08-90	1340	2,010	12.0*	27.0	15.0	1.3	59	<130
JF122v	391827076173002	05-30-90	1400	2,710	12.1*	19.5	14.5	1.2	30	<130
Confined Aquifer										
JF1	391806076165301	05-07-90	1200	1,060	6.4	22.0	13.5	0.8	51	16,000
JF2	391845076171401	06-15-90	0950	438	7.0	--	15.0	1.0	27	7,000
JF2d		06-15-90	0954	--	--	--	--	--	27	7,100
JF11	391809076174301	06-04-90	1400	245	7.3	--	14.0	0.6	69	--
JF21	391809076174601	06-05-90	1400	489	6.9	--	14.0	0.4	56	5,600
JF31	391814076173801	05-31-90	1215	474	7.1	--	15.0	0.2	62	6,500
JF41	391812076173101	06-06-90	1100	495	7.2	22.0	15.0	5.5	74	5,800
JF51v	391808076172701	06-13-90	1415	813	9.1*	27.5	15.5	--	10	3,900
JF61v	391810076172801	06-14-90	1130	1,360	12.0*	28.0	16.0	--	68	160
JF71v	391807076172801	06-13-90	1130	649	11.2*	--	16.0	--	19	3,800
JF81v	391808076173001	06-12-90	1300	781	8.0*	25.0	15.5	0.1	54	19,000
JF91	391825076172601	05-11-90	1500	549	7.4	20.0	15.0	--	98	2,600
JF101	391826076173104	05-17-90	1050	479	7.8	28.0	15.0	0.2	78	2,500
JF111	391826076173101	05-18-90	1105	459	7.2	--	15.0	0.1	70	3,100
JF121	391827076173001	05-30-90	0940	408	7.3	19.5	14.5	0.5	63	3,000
Quality Assurance Samples										
TRIP BLANK		06-12-90	--	--	--	--	--	--	<1.1	<130
FIELD BLANK 1		05-17-90	1145	--	--	--	--	--	<1.1	<130
FIELD BLANK 2		06-12-90	1115	--	--	--	--	--	1.5	<130

Table 17. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Inorganic constituents, Phase I, May-June 1990--Continued

Well No.	Date	Manganese, dissolved (µg/L as Mn)	Sodium, dissolved (µg/L as Na)	Potassium, dissolved (µg/L as K)	Bicarbonate, water lab (mg/L as HCO_3)	Alkalinity, (mg/L as $CaCO_3$)	Sulfide, total (mg/L as S)	Sulfite (mg/L as SO_3)	Sulfate, dissolved (µg/L)
Field parameters and major ions--Continued									
Surficial Aquifer									
P1	06-06-90	<10	7,200	<1,200	11	9	<1.0	--	66,000
P2	06-12-90	17	33,000	<1,200	49	40	<1.0	--	160,000
P3	06-07-90	350	130,000	62,000	--	--	<1.0	--	270,000
P4	06-07-90	470	67,000	5,300	70	57	<1.0	--	140,000
P5	05-11-90	<10	7,200	<1,200	9	7	--	<0.001	57,000
P6	05-15-90	23	89,000	<1,200	63	52	<1.0	--	220,000
P7	05-17-90	260	13,000	<1,200	8	7	<1.0	--	72,000
P8	05-16-90	200	13,000	<1,200	--	--	<1.0	--	170,000
P9	06-08-90	<10	12,000	<1,200	116	95	<1.0	--	94,000
P9d	06-08-90	<10	12,000	<1,200	--	--	<1.0	--	1,920
TH1	05-16-90	78	12,000	<1,200	--	--	<1.0	--	33,000
TH1d	05-16-90	84	13,000	<1,200	--	--	<1.0	--	32,000
TH3	05-14-90	<10	5,600	<1,200	7	6	<1.0	--	24,000
TH4	06-13-90	120	16,000	--	351	290	<1.0	--	--
TH4d	06-13-90	130	16,000	1,200	--	--	<1.0	--	--
TH6	06-01-90	<10	2,800	25,000	--	--	<1.0	--	18,000
TH7	05-08-90	22	6,800	1,200	27	22	--	<0.001	30,000
TH8	06-04-90	<10	12,000	4,200	87	71	<1.0	--	98,000
TH10	06-05-90	340	--	<1,200	--	--	<1.0	--	44,000
TH11	05-08-90	160	14,000	1,600	--	--	--	<0.001	44,000
JF13	06-04-90	150	55,000	3,700	366	300	<1.0	--	200,000
JF13d	06-04-90	150	56,000	3,300	--	--	<1.0	--	200,000
JF23	06-05-90	76	47,000	1,600	337	280	<1.0	--	130,000
JF33	05-31-90	10	13,000	<1,200	--	--	<1.0	--	280,000
JF33d	05-31-90	10	13,000	<1,200	95	79	<1.0	--	270,000
JF43	06-07-90	350	8,900	1,500	63	52	<1.0	--	23,000
JF53	06-13-90	900	12,000	1,300	87	71	<1.0	--	9,940
JF63	06-14-90	710	89,000	2,400	121	99	<1.0	--	110,000
JF73	06-12-90	120	28,000	38,000	146	120	<1.0	--	31,000
JF83	06-12-90	280	22,000	<1,200	366	300	<1.0	--	85,000
JF93	05-11-90	94	28,000	2,100	7	6	--	<0.001	110,000
JF103v	05-17-90	<10	19,000	45,000	1,040	850	<1.0	--	7,340
JF113	05-18-90	490	12,000	1,300	58	48	<1.0	--	14,000
JF123	05-30-90	260	8,900	<1,200	35	29	<1.0	--	4,420

Table 17. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Inorganic constituents, Phase I, May-June 1990--Continued

Well No.	Date	Manganese, dissolved (µg/L as Mn)	Sodium, dissolved (µg/L as Na)	Potassium, dissolved (µg/L as K)	Bicarbonate, (mg/L as HCO_3)	Alkalinity, (mg/L as $CaCO_3$)	Sulfide, total (mg/L as S)	Sulfite (mg/L as SO_3)	Sulfate, dissolved (µg/L)
Field parameters and major ions--Continued									
Confining Unit									
JF12	06-05-90	1,800	--	2,000	296	240	<1.0	--	7,900
JF22	06-05-90	1,600	42,000	12,000	229	190	<1.0	--	49,000
JF32	05-31-90	1,400	10,000	<1,200	152	120	<1.0	--	3,910
JF42	06-08-90	1,300	11,000	2,400	318	260	<1.0	--	4,700
JF52	06-14-90	520	18,000	11,000	323	270	<1.0	--	25,000
JF62	06-14-90	970	25,000	13,000	351	290	<1.0	--	40,000
JF72v	06-12-90	<10	44,000	18,000	849	700	<1.0	--	19,000
JF82v	06-14-90	<10	45,000	75,000	567	460	<1.0	--	26,000
JF82dv	06-14-90	<10	44,000	72,000	--	--	--	--	25,000
JF92	05-16-90	1,300	12,000	1,600	273	220	<1.0	--	3,380
JF102v	05-18-90	<10	48,000	220,000	555	460	<1.0	--	25,000
JF112v	06-08-90	<10	54,000	140,000	535	440	<1.0	--	98,000
JF122v	05-30-90	<10	83,000	320,000	816	670	<1.0	--	15,000
Confined Aquifer									
JF1	05-07-90	1,100	82,000	4,200	71	59	--	<0.001	2,580
JF2	06-15-90	530	23,000	3,600	--	--	<1.0	--	433
JF2d	06-15-90	540	23,000	. --	--	--	<1.0	--	381
JF11	06-04-90	890	17,000	2,400	224	180	<1.0	--	1,450
JF21	06-05-90	2,700	--	2,500	196	160	<1.0	--	6,460
JF31	05-31-90	1,700	14,000	2,600	210	170	<1.0	--	3,840
JF41	06-06-90	1,100	12,000	2,700	257	210	<1.0	--	4,400
JF51v	06-13-90	10	62,000	140,000	339	280	<1.0	--	34,000
JF61v	06-14-90	<10	45,000	98,000	490	400	<1.0	--	20,000
JF71v	06-13-90	<10	43,000	79,000	--	--	<1.0	--	18,000
JF81v	06-12-90	770	30,000	13,000	188	150	<1.0	--	3,180
JF91	05-11-90	490	11,000	2,700	302	250	<1.0	<0.001	1,310
JF101	05-17-90	980	13,000	12,000	232	190	<1.0	--	811
JF111	05-18-90	2,000	13,000	2,200	210	170	<1.0	--	<175
JF121	05-30-90	2,200	12,000	2,000	--	--	<1.0	--	3,950
Quality Assurance Samples									
TRIP BLANK	06-20-90	<10	620	<1,200	--	--	<1.0	--	<175
FIELD BLANK 1	05-17-90	<10	<280	<1,200	--	--	<1.0	--	<175
FIELD BLANK 2	06-20-90	<10	480	<1,200	--	--	<1.0	--	2,300

Table 17. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Inorganic constituents, Phase I, May-June 1990--Continued

Well No.	Date	Chloride, dissolved (µg/L)	Fluoride, total (mg/L as F)	Bromide, dissolved (µg/L)	Solids, residue at 180°C dissolved (mg/L)	Nitrogen, ammonia + organic, total (mg/L as N)	Nitrogen, nitrate, total (mg/L as N)	Phosphorus, total (µg/L) as PO_4)	Iron, dissolved (µg/L) as Fe)
				Field parameters and major ions--Continued					
				Surficial Aquifer					
P1	06-06-90	2,980	0.2	<407	130	0.52	0.500	<10	30
P2	06-12-90	25,000	.3	<407	300	.43	6.90	16	<78
P3	06-07-90	56,000	1.5	<407	850	8.6	.210	970	4,400
P4	06-07-90	390,000	.8	<407	910	.61	.020	73	1,500
P5	05-11-90	5,380	.2	<407	82	--	.640	<10	<78
P6	05-15-90	31,000	.6	<407	480	--	7.10	<10	<78
P7	05-17-90	9,150	.4	<407	160	--	.017	<10	8,900
P8	05-16-90	21,000	.5	<407	330	--	4.90	80	<78
P9	06-08-90	8,250	.2	<407	170	.49	.940	<10	<78
P9d	06-08-90	7,380	.5	<407	180	.50	.950	<10	<78
TH1	05-16-90	30,000	.3	<407	140	--	.590	<10	<78
TH1d	05-16-90	28,000	.2	<407	130	.56	.620	<10	<78
TH3	05-14-90	12,000	.3	<407	290	--	.103	<10	<78
TH4	06-13-90	22,000	--	--	410	.54	--	20	<78
TH4d	06-13-90	--	--	--	400	.49	.013	16	<78
TH6	06-01-90	1,030	.2	407	120	.54	--	19	<78
TH7	05-08-90	9,590	1.1	407	250	--	.042	<10	<78
TH8	06-04-90	3,720	.3	<407	250	.67	.700	<10	<78
TH10	06-05-90	120,000	.5	1,040	290	.43	--	<10	300
TH11	05-08-90	20,000	1	<407	67	--	.410	12	<78
JF13	06-04-90	250,000	1.2	1,480	1,200	2.7	.012	57	5,300
JF13d	06-04-90	250,000	1.1	1,570	1,200	2.7	.014	63	5,300
JF23	06-05-90	120,000	.6	<407	710	.73	.010	<10	3,400
JF33	05-31-90	15,000	.5	<407	540	.59	1.50	25	<78
JF33d	05-31-90	15,000	.5	<407	540	.60	1.50	20	<78
JF43	06-07-90	8,270	.4	<407	130	.80	.023	<10	1,600
JF53	06-13-90	92,000	.3	<407	290	.92	.018	11	4,800
JF63	06-14-90	180,000	.8	2,840	590	.99	.023	260	18,000
JF73	06-12-90	57,000	.4	<407	300	.59	.100	<10	<78
JF83	06-12-90	120,000	.6	<407	320	.54	2.40	61	1,000
JF93	05-11-90	5,950	.3	<407	170	.72	1.30	<10	170
JF103v	05-17-90	7,130	1.0	<407	1,000	4.7	.370	<10	<78
JF113	05-18-90	8,110	.3	<407	110	1.3	.020	11	14,000
JF123	05-30-90	8,160	.3	<407	88	1.3	<.002	38	8,900

Table 17. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland
Inorganic constituents, Phase I, May-June 1990--Continued

Well No.	Date	Chloride, dissolved (µg/L)	Fluoride, total (mg/L as F)	Bromide, dissolved (µg/L)	Solids, residue at 180°C dissolved (mg/L)	Nitrogen, ammonia + organic, total (mg/L as N)	Nitrogen, nitrate, total (mg/L as N)	Phosphorus, total (µg/L as PO_4)	Iron, dissolved (µg/L as Fe)
Field parameters and major ions--Continued									
Confining Unit									
JF12	06-05-90	11,000	0.5	<407	330	3.3	0.108	12	4,600
JF22	06-05-90	35,000	.8	<407	360	3.0	.108	<10	19,000
JF32	05-31-90	7,880	.3	<407	180	3.1	.220	360	42,000
JF42	06-08-90	6,710	.4	<407	330	4.8	.154	17	6,300
JF52	06-14-90	7,440	.5	<407	330	8.0	.086	61	<78
JF62	06-14-90	5,700	.5	<407	370	7.6	<.010	67	4,700
JF72v	06-12-90	6,000	1.4	<407	650	32	.210	15	<78
JF82v	06-14-90	14,000	.6	<407	580	7.7	.400	27	<78
JF82dv	06-14-90	14,000	.7	<407	590	7.7	.420	22	<78
JF92	05-16-90	6,560	.3	<407	270	3.3	<.010	18	23,000
JF102v	05-18-90	15,000	1.1	<407	710	6.8	.160	38	<78
JF112v	06-08-90	8,280	<.2	<407	590	3.1	<.010	35	<78
JF122v	05-30-90	12,000	1.1	<407	900	5.5	.230	85	<78
Confined Aquifer									
JF1	05-07-90	270,000	1.1	1,200	580	--	0.012	360	63,000
JF2	06-15-90	76,000	.3	668	180	7.0	.042	130	27,000
JF2d	06-15-90	76,000	.4	670	190	7.0	.044	120	27,000
JF11	06-04-90	44,000	--	<407	300	6.1	<.010	760	9,200
JF21	06-05-90	36,000	.5	<407	280	4.7	.170	370	14,000
JF31	05-31-90	33,000	.3	<407	300	6.1	.030	520	10,000
JF41	06-06-90	25,000	.4	<407	310	6.9	<.010	<10	7,600
JF51v	06-13-90	48,000	1.1	<407	460	17	.500	140	<78
JF61v	06-14-90	25,000	.4	<407	460	24	.033	28	<78
JF71v	06-13-90	15,000	.9	<407	350	16	.740	470	<78
JF81v	06-12-90	130,000	.5	981	370	17	<.010	200	7,800
JF91	05-11-90	29,000	.3	<407	320	3.9	.013	1,200	4,700
JF101	05-17-90	37,000	.3	<407	320	4.2	.015	780	1,100
JF111	05-18-90	39,000	.3	478	320	4.0	.021	690	8,600
JF121	05-30-90	24,000	.3	<407	290	4.0	<.010	770	4,900
Quality Assurance Samples									
TRIP BLANK	06-12-90	<280	<.15	<407	15	0.5	0.024	11	<78
FIELD BLANK 1	05-17-90	<290	<.15	<407	16	.5	.061	<10	<78
FIELD BLANK 2	06-12-90	500	<.15	<407	23	.3	--	17	<78

Table 17. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Inorganic constituents, Phase I, May-June 1990--Continued

Well No.	Date	Aluminum, dissolved (µg/L as Al)	Antimony, dissolved (µg/L as Sb)	Arsenic, dissolved (µg/L as As)	Barium, dissolved (µg/L as Ba)	Beryllium, dissolved (µg/L as Be)	Boron, dissolved (µg/L as B)	Cadmium, dissolved (µg/L as Cd)	Chromium, dissolved (µg/L as Cr)	Cobalt, dissolved (µg/L as Co)
					Metals					
					Surficial Aquifer					
P1	06-06-90	<110	<60	<2	23	<1	<230	<6.8	<17	--
P2	06-12-90	--	<60	<2	48	<1	<230	<6.8	<17	<25
P3	06-07-90	<110	<60	30	55	<1	2,500	<6.8	<17	--
P4	06-07-90	120	<60	<2	74	<1	--	<6.8	<17	<10
P5	05-11-90	<110	<60	<2	39	<1	<230	<6.8	<17	--
P6	05-15-90	<110	<60	<2	47	<1	<230	<6.8	<17	--
P7	05-17-90	240	<60	21	22	<1	<230	<6.8	<17	--
P8	05-16-90	780	<60	<2	46	1	<230	<6.8	<17	--
P9	06-08-90	<110	<60	<2	23	<1	<230	<6.8	<17	<25
P9d	06-08-90	<110	<60	<2	22	<1	<230	<6.8	<17	<25
TH1	05-16-90	170	<60	<2	78	<1	<230	<6.8	<17	--
TH1d	05-16-90	180	<60	<2	82	<1	<230	<6.8	<17	--
TH3	05-14-90	<110	<60	<2	15	<1	<230	<6.8	<17	--
TH4	06-13-90	<110	<60	<2	24	<1	<230	<6.8	<17	<25
TH4d	06-13-90	<110	<60	<2	24	<1	<230	<6.8	<17	<25
TH6	06-01-90	130	--	<2	15	<1	--	--	--	--
TH7	05-08-90	<110	<60	<2	15	<1	<230	<6.8	<17	--
TH8	06-04-90	<110	--	<2	25	<1	420	<6.8	<17	--
TH10	06-05-90	130	--	<2	130	<1	<230	<6.8	<17	--
TH11	05-08-90	250	<60	<2	46	<1	<230	<6.8	<17	--
JF13	06-04-90	<110	<60	3	270	<1	<230	<6.8	<17	--
JF13d	06-04-90	200	<60	3	270	<1	<230	<6.8	<17	--
JF23	06-05-90	<110	<60	<2	180	<1	<230	<6.8	<17	--
JF33	05-31-90	<110	<60	<2	41	<1	320	<6.8	<17	--
JF33d	05-31-90	<110	<60	<2	41	<1	<230	<6.8	<17	--
JF43	06-07-90	<110	<60	<2	35	<1	<230	<6.8	<17	--
JF53	06-13-90	<110	<60	<2	93	<1	<230	<6.8	<17	<25
JF63	06-14-90	<110	<60	4	110	<1	<230	<6.8	<17	<25
JF73	06-12-90	<110	<60	6	56	<1	<230	<6.8	<17	<25
JF83	06-12-90	<110	<60	60	120	<1	<230	<6.8	<17	<25
JF93	05-11-90	<110	<60	<2	84	<1	<230	<6.8	<17	--
JF103v	05-17-90	1600	63	<2	260	<1	<230	<6.8	<17	--
JF113	05-18-90	<110	<60	<2	66	<1	<230	<6.8	<17	--
JF123	05-30-90	<110	<60	<2	41	<1	<230	<6.8	<17	--

Table 17. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Inorganic constituents, Phase I, May-June 1990--Continued

Well No.	Date	Aluminum, dissolved (µg/L as Al)	Antimony, dissolved (µg/L as Sb)	Arsenic, dissolved (µg/L as As)	Barium, dissolved (µg/L as Ba)	Beryllium, dissolved (µg/L as Be)	Boron, dissolved (µg/L as B)	Cadmium, dissolved (µg/L as Cd)	Chromium, dissolved (µg/L as Cr)	Cobalt, dissolved (µg/L as Co)
					Metals--Continued					
					Confining Unit					
JF12	06-05-90	<110	<60	<2	110	<1	<230	<6.8	<17	--
JF22	06-05-90	<110	<60	<2	150	<1	<230	<6.8	<17	--
JF32	05-31-90	<110	<60	<2	110	<1	<230	<6.8	<17	--
JF42	06-08-90	<110	<60	<2	96	<1	<230	<6.8	<17	<25
JF52	06-14-90	<110	<60	<2	70	<1	<230	<6.8	<17	<25
JF62	06-14-90	<110	<60	<2	110	<1	<230	<6.8	<17	<25
JF72v	06-12-90	340	<60	<2	77	<1	<230	<6.8	<17	<25
JF82v	06-14-90	430	67	21	140	<1	<230	<6.8	<17	<25
JF82dv	06-14-90	351	67	20	--	<1	<230	<6.8	<17	<25
JF92	05-16-90	<110	<60	<2	130	<1	<230	<6.8	<17	--
JF102v	05-18-90	420	<60	<2	170	<1	<230	<6.8	<17	--
JF112v	06-08-90	<110	82	<2	160	<1	<230	<6.8	<17	<25
JF122v	05-30-90	--	<60	--	73	<1	<230	<6.8	<17	--
					Confined aquifer					
JF1	05-07-90	<110	<60	<2	250	<1	<230	<6.8	<17	--
JF2	06-15-90	<110	<60	3	68	<1	<230	<6.8	<17	<25
JF2d	06-15-90	<110	<60	<2	65	<1	<230	<6.8	<17	<25
JF11	06-04-90	<110	<60	4	100	<1	<230	<6.8	<17	--
JF21	06-05-90	<110	<60	<2	38	<1	<230	<6.8	<17	--
JF31	05-31-90	<110	<60	<2	67	<1	<230	<6.8	<17	--
JF41	06-06-90	<110	<60	4	110	<1	<230	<6.8	<17	--
JF51v	06-13-90	<110	<60	<2	25	<1	<230	<6.8	<17	<25
JF61v	06-14-90	780	<60	8	76	<1	<230	<6.8	<17	<25
JF71v	06-13-90	<110	<60	3	52	<1	<230	<6.8	<17	<25
JF81v	06-12-90	<110	<60	<2	87	<1	<230	<6.8	<17	<25
JF91	05-11-90	<110	<60	<2	70	<1	<230	<6.8	<17	--
JF101	05-17-90	<110	<60	3	44	<1	<230	<6.8	<17	--
JF111	05-18-90	<110	<60	3	45	<1	<230	<6.8	<17	--
JF121	05-30-90	<110	<60	<2	39	<1	<230	<6.8	<17	--
					Quality Assurance Samples					
TRIP BLANK	06-12-90	<110	<60	<2	<2.8	<1	<230	<6.8	<17	--
FIELD BLANK 1	06-12-90	<110	<60	<2	<2.8	<1	<230	<6.8	<17	--
FIELD BLANK 2	06-12-90	<110	<60	<2	5.1	<1	<230	<6.8	<17	<25

Table 17. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Inorganic constituents, Phase I, May-June 1990--Continued

Well No.	Date	Copper, dissolved (µg/L as Cu)	Lead, dissolved (µg/L as Pb)	Mercury, dissolved (µg/L as Hg)	Nickel, dissolved (µg/L as Ni)	Selenium, dissolved (µg/L as Se)	Silver, dissolved (µg/L as Ag)	Thallium, dissolved (µg/L as Tl)	Vanadium, dissolved (µg/L as V)	Zinc, dissolved (µg/L as Zn)
					Metals--Continued					
					Surficial Aquifer					
P1	06-06-90	<19	<43	<0.1	<32	<3	<10	<120	--	<18
P2	06-12-90	<19	<43	<.1	<32	4	<10	<120	<28	<18
P3	06-07-90	<19	<43	<.1	<32	<3	<10	<120	--	62
P4	06-07-90	<19	<43	<.1	<32	<3	<10	<120	--	290
P5	05-11-90	<19	<4	--	<32	<3	<10	<120	--	21
P6	05-15-90	<19	<4	--	<32	<3	<10	<120	--	29
P7	05-17-90	<19	<4	--	40	<3	<10	<120	--	87
P8	05-16-90	<19	<4	--	39	<3	<10	<120	--	100
P9	06-08-90	<19	<43	<.1	<32	<3	<10	<120	<28	<18
P9d	06-08-90	<19	<43	<.1	<32	<3	<10	<120	<28	<18
TH1	05-16-90	<19	120	--	<32	<3	<10	<120	--	60
TH1d	05-16-90	<19	130	--	<32	<3	<10	<120	--	70
TH3	05-14-90	<19	--	--	<32	<3	<10	<120	--	<18
TH4	06-13-90	<19	<43	<.1	<32	<3	<10	<120	--	<18
TH4d	06-13-90	<19	<43	<.1	<32	5	<10	<120	<28	<18
TH6	06-01-90	<19	<43	<.1	<32	<3	<10	<120	--	<18
TH7	05-08-90	<19	<4	--	<32	<3	<10	<120	--	48
TH8	06-04-90	<19	<43	<.1	<32	<3	<10	<120	--	<18
TH10	06-05-90	<19	<43	<.1	<32	<3	<10	<120	--	110
TH11	05-08-90	<19	<4	--	<32	<3	<10	<120	--	120
JF13	06-04-90	<19	<43	<.1	<32	<3	<10	<120	--	<18
JF13d	06-04-90	<19	<43	<.1	--	<3	<10	<120	--	<18
JF23	06-05-90	<19	<43	<.1	<32	<3	<10	<120	--	<18
JF33	05-31-90	<19	<43	<.1	<32	<3	<10	<120	--	<18
JF33d	05-31-90	--	<43	<.1	<32	<3	<10	<120	--	--
JF43	06-07-90	<19	<43	<.1	<32	<3	<10	<120	--	<18
JF53	06-13-90	<19	<43	<.1	440	<3	<10	<120	<28	36
JF63	06-14-90	<19	<43	<.1	<32	<3	<10	<120	<28	19
JF73	06-12-90	<19	<43	<.1	<32	<3	<10	<120	<28	<18
JF83	06-12-90	<19	<43	<.1	<32	6	<10	<120	<28	29
JF93	05-11-90	<19	<4	--	55	<3	<10	<120	--	170
JF103v	05-17-90	<19	<4	--	<32	<3	<10	<120	--	39
JF113	05-18-90	<19	<4	--	<32	<3	<10	<120	--	33
JF123	05-30-90	<19	<43	<.1	<32	<3	<10	<120	--	60

Table 17. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Inorganic constituents, Phase I, May-June 1990--Continued

Well No.	Date	Copper, dissolved (µg/L as Cu)	Lead, dissolved (µg/L as Pb)	Mercury, dissolved (µg/L as Hg)	Nickel, dissolved (µg/L as Ni)	Selenium, dissolved (µg/L as Se)	Silver, dissolved (µg/L as Ag)	Thallium, dissolved (µg/L as Tl)	Vanadium, dissolved (µg/L as V)	Zinc, dissolved (µg/L as Zn)
				Metals--Continued						
				Confining Unit						
JF12	06-05-90	<19	<43	<0.1	<32	<3	<10	<120	--	<18
JF22	06-05-90	<19	<43	<.1	<32	<3	<10	<120	--	<18
JF32	05-31-90	<19	<43	<.1	<32	<3	<10	<120	--	<18
JF42	06-08-90	<19	<43	<.1	<32	<3	<10	<120	<28	<18
JF52	06-14-90	<19	<43	<.1	<32	<3	<10	<120	<28	<18
JF62	06-14-90	<19	<43	<.1	<32	<3	<10	<120	<28	<18
JF72v	06-12-90	<19	<43	<.1	<32	3	<10	<120	<28	<18
JF82v	06-14-90	<19	<43	<.1	<32	<3	<10	<120	<28	<18
JF82dv	06-14-90	<19	<43	<.1	<32	<3	<10	<120	<28	<18
JF92	05-16-90	<19	<4	--	<32	<3	<10	<120	--	36
JF102v	05-18-90	<19	<4	--	<32	<3	<10	<120	--	<18
JF112v	06-08-90	<19	<43	<.1	<32	<3	<10	<120	<28	<18
JF122v	05-30-90	<19	<43	<.1	<32	<3	<10	<120	--	--
				Confined Aquifer						
JF1	05-07-90	<19	<4	--	<32	<3	<10	<120	--	<18
JF2	06-15-90	<19	<43	<0.1	<32	<3	<10	<120	<28	<18
JF2d	06-15-90	<19	<43	<.1	<32	<3	<10	<120	<28	<18
JF11	06-04-90	<19	<43	<.1	--	<3	<10	<120	--	<18
JF21	06-05-90	<19	<43	<.1	<32	<3	<10	<120	--	<18
JF31	05-31-90	<19	<43	<.1	<32	<3	<10	<120	--	20
JF41	06-06-90	<19	<43	<.1	<32	<3	<10	<120	--	<18
JF51v	06-13-90	<19	<43	<.1	<32	<3	<10	<120	<28	<18
JF61v	06-14-90	<19	<43	<.1	<32	<3	<10	<120	<28	<18
JF71v	06-13-90	<19	<43	<.1	<32	<3	<10	<120	<28	<18
JF81v	06-12-90	<19	<43	<.1	<32	<3	<10	<120	<28	<18
JF91	05-11-90	<19	<4	--	<32	<3	<10	<120	--	33
JF101	05-17-90	<19	<4	--	<32	<3	<10	<120	--	<18
JF111	05-18-90	<19	--	--	<32	<3	<10	<120	--	<18
JF121	05-30-90	<19	<43	<.1	<32	<3	<10	<120	--	<18
				Quality Assurance Samples						
TRIP BLANK	06-12-90	<19	<43	<0.1	<32	<3	<10	<120	--	<18
FIELD BLANK 1	05-17-90	<19	<4	--	<32	<3	<10	<120	--	<18
FIELD BLANK 2	06-12-90	<19	<43	<.1	<32	<3	<10	<120	<28	<18

Table 18. Ground-water-quality data from J-field, Aberdeen Proving Ground, Maryland--
Organic constituents, Phase I, May-June 1990

[TOC = Total organic carbon; µg/L = micrograms per liter; mg/L = milligrams per liter; < = less than; -- = data not available; > = greater than; A "v" after a well no. indicates possible contamination bias due to drilling methods, while a "v" after a value indicates parameter was found in the associated blank, as well as in the sample]

NOTE: Well No. ending in "d" represents duplicate analyses. Field blank 1 was collected after sampling well P7. Field blank 2 was collected after sampling well JF83.

Well No.	Station Number	Date	Time	TOC (µg/L)	Acetone (µg/L)	Benzene (µg/L)	Bromo-dichloro-methane (µg/L)	Bromo-form (µg/L)	Bromo-methane (µg/L)	Carbon-tetra-chloride (µg/L)
				Volatile organic compounds						
				Surficial Aquifer						
P1	391811076173201	06-06-90	1400	1,000	<8	<1.0	--	--	--	--
P2	391809076173001	06-12-90	1000	<1,000	<8	<1.0	<1.0	<11	<14	2.2
P3	391812076172901	06-07-90	1050	25,000	--	--	--	--	--	--
P4	391811076172801	06-07-90	1200	--	--	--	--	--	--	--
P5	391825076172501	05-11-90	0945	--	<8	<1.0	<1.0	<11	<14	<1.0
P6	391825076173001	05-15-90	1345	--	<8	<1.0	<1.0	<11	<14	<1.0
P7	391826076173001	05-17-90	1130	--	<8	<1.0	<1.0	<11	<14	<1.0
P8	391827076172801	05-16-90	1445	--	<8	<1.0	<1.0	<11	<14	<1.0
P9	391810076173101	06-08-90	1330	2,000	<8	<1.0	<1.0	<11	<14	<1.0
P9d		06-08-90	1334	2,000	<8	<1.0	<1.0	<11	<14	<1.0
TH1	391827076172701	05-16-90	1130	--	<8	<1.0	--	<11	<14	<1.0
TH1d		05-16-90	1134	--	<8	<1.0	<1.0	<11	<14	<1.0
TH3	391824076173001	05-14-90	1330	--	<8	<1.0	<1.0	<11	<14	<1.0
TH4	391810076172601	06-13-90	1030	3,000	<8	<1.0	<1.0	<11	<14	<1.0
TH4d		06-13-90	1034	3,000	<8	<1.0	<1.0	<11	<14	<1.0
TH6	391817076173701	06-01-90	1000	<1,000	<8	<1.0	<1.0	<11	<14	<1.0
TH7	391814076171001	05-08-90	1315	--	<8	<1.0	<1.0	<11	<14	<1.0
TH8	391816076173801	06-04-90	0950	3,000	<8	6.4	<1.0	<11	<14	--
TH10	391805076174001	06-05-90	0945	<1,000	<8	<1.0	<1.0	<11	<14	<1.0
TH11	391806076165201	05-08-90	1015	--	<8	<1.0	<1.0	<11	<14	<1.0
JF13	391809076174303	06-04-90	1044	18,000	<8	1,500	<1.0	<11	<14	<1.0
JF13d		06-04-90	1300	15,000	<8	1,100	<1.0	<11	<14	<1.0
JF23	391809076174603	06-05-90	1300	3,000	<8	120	<1.0	<11	<14	<1.0
JF33	391814076173803	05-31-90	0954	1,800	<8	<1.0	<1.0	<11	<14	<1.0
JF33d		05-31-90	0955	1,100	<8	<1.0	<1.0	<11	<14	<1.0
JF43	391812076173103	06-07-90	1030	2,000	--	--	--	--	--	--
JF53	391808076172703	06-13-90	1355	<1,000	<8	<1.0	<1.0	<11	<14	<1.0
JF63	391810076172803	06-14-90	1340	50,000	<8	<1.0	<1.0	<11	<14	<1.0
JF73	391807076172803	06-12-90	1400	2,000	<8	<1.0	<1.0	<11	<14	<1.0
JF83	391808076173003	06-12-90	1100	3,000	<8	4.9	<1.0	<11	<14	11.0
JF93	391825076172603	05-11-90	1100	--	<8	<1.0	<1.0	<11	<14	<1.0
JF103	391826076173106	05-17-90	1000	--	<8	<1.0	<1.0	<11	<14	<1.0
JF113	391826076173103	05-18-90	1330	--	<8	<1.0	<1.0	<11	<14	<1.0
JF123	391827076173003	05-30-90	1300	<1,000	<8	<1.0	<1.0	<11	<14	<1.0

Table 18. Ground-water-quality data from J-field, Aberdeen Proving Ground, Maryland-Organic constituents, Phase I, May-June 1990--Continued

Well No.	Station Number	Date	Time	TOC (µg/L)	Acetone (µg/L)	Benzene (µg/L)	Bromo-dichloro-methane (µg/L)	Bromo-form (µg/L)	Bromo-methane (µg/L)	Carbon-tetra-chloride (µg/L)
Volatile organic compounds--Continued										
Confining Unit										
JF12	391811076173201	06-05-90	1030	5,000	<8	3.5	<1.0	<11	<14	<1.0
JF22	391809076174602	06-05-90	1400	4,000	<8	<1.0	<1.0	<11	<14	<1.0
JF32	391814076173802	05-31-90	1400	<1,000	<8	<1.0	<1.0	<11	<14	<1.0
JF42	391812076173102	06-08-90	1200	4,000	<8	<1.0	<1.0	<11	<14	<1.0
JF52	391808076172702	06-14-90	1100	9,000	<8	<1.0	<1.0	<11	<14	<1.0
JF62	391810076172802	06-14-90	1100	10,000	<8	<1.0	<1.0	<11	<14	<1.0
JF72	391807076172802	06-12-90	1430	180,000	>100	<1.0	<1.0	<11	<14	<1.0
JF82	391808076173002	06-14-90	1000	100,000	90	<1.0	<1.0	<11	<14	<1.0
JF82d		06-14-90	1004	9,000	110	<1.0	<1.0	<11	<14	<1.0
JF92	391825076172602	05-16-90	1115	--	<8	<1.0	<1.0	<11	<14	<1.0
JF102	391826076173105	05-18-90	1130	--	<8	0.9	<1.0	<11	<14	<1.0
JF112	391826076173102	06-08-90	1340	3,000	90	<1.0	<1.0	<11	<14	<1.0
JF122	391827076173002	05-30-90	1400	7,400	<8	<1.0	<1.0	<11	<14	<1.0
Confined Aquifer										
JF1	391806076165301	05-07-90	1200	--	<8	<1.0	<1.0	<11	<14	<1.0
JF2	391845076171401	06-15-90	0950	2,000	<8	<1.0	<1.0	<11	<14	<1.0
JF2d	391845076171401	06-15-90	0954	2,000	<8	<1.0	<1.0	<11	<14	<1.0
JF11	391809076174301	06-04-90	1400	2,000	<8	<1.0	<1.0	<11	<14	<1.0
JF21	391809076174601	06-05-90	1400	4,000	--	--	--	--	--	--
JF31	391814076173801	05-31-90	1215	--	<8	<1.0	<1.0	<11	<14	<1.0
JF41	391812076173101	06-06-90	1100	3,000	--	--	--	--	--	--
JF51v	391808076172701	06-13-90	1415	9,000	130	<1.0	<1.0	<11	<14	<1.0
JF61v	391810076172801	06-14-90	1130	160,000	150	<1.0	<1.0	<11	<14	<1.0
JF71v	391807076172801	06-13-90	1130	6,000	<8	<1.0	<1.0	<11	<14	<1.0
JF81v	391808076173001	06-12-90	1300	2,000	<8	<1.0	<1.0	<11	<14	<1.0
JF91	391825076172601	05-11-90	1500	--	<8	<1.0	<1.0	<11	<14	<1.0
JF101	391826076173104	05-17-90	1050	--	<8	--	<1.0	<11	<14	<1.0
JF111	391826076173101	05-18-90	1105	--	<8	<1.0	<1.0	<11	<14	<1.0
JF121	391827076173001	05-30-90	0940	1,600	<8	<1.0	<1.0	<11	<14	<1.0
Quality Assurance Samples										
TRIP BLANK		06-12-90	--	<1,000	<8	<1.0	<1.0	<11	<14	<1.0
FIELD BLANK 1		05-17-90	1145	--	<8	<1.0	<1.0	<11	<14	<1.0
FIELD BLANK 2		06-12-90	0930	<1,000	<8	<1.0	<1.0	<11	<14	<1.0

Table 18. Ground-water-quality data from J-field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase I, May-June 1990--Continued

Well No.	Date	Chloro-ethane (µg/L)	Chloro-form (µg/L)	Chloro-methane (µg/L)	Dibromo-chloro-methane (µg/L)	Dibromo-chloro-propane (µg/L)	1,1-Di-chloro-ethane (µg/L)	1,2-Di-chloro-ethane (µg/L)
		Volatile organic compounds--Continued						
		Surficial Aquifer						
P1	06-06-90	<8.0	<1.0	--	--	<12	3.0	<1.0
P2	06-12-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
P3	06-07-90	--	--	--	--	<12	--	--
P4	06-07-90	--	--	--	--	<12	--	--
P5	05-11-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
P6	05-15-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
P7	05-17-90	<8.0	<1.0	2.8	<1.0	<12	<1.0	<1.0
P8	05-16-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
P9	06-08-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
P9d	06-08-90	<8.0	<1.0	<1.2	<1.0	--	<1.0	<1.0
TH1	05-16-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
TH1d	05-16-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
TH3	05-14-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
TH4	06-13-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
TH4d	06-13-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
TH6	06-01-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
TH7	05-08-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
TH8	06-04-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
TH10	06-05-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
TH11	05-08-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF13	06-04-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF13d	06-04-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF23	06-05-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF33	05-31-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF33d	05-31-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF43	06-07-90	--	--	--	--	<12	--	--
JF53	06-13-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF63	06-14-90	<8.0	7.6	<1.2	<1.0	<12	<1.0	<1.0
JF73	06-12-90	<8.0	2.9	<1.2	<1.0	<12	<1.0	<1.0
JF83	06-12-90	<8.0	50	<1.2	<1.0	<12	<1.0	<1.0
JF93	05-11-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF103	05-17-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF113	05-18-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	--
JF123	05-30-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0

Table 18. Ground-water-quality data from J-field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase I, May-June 1990--Continued

Well No.	Date	Chloro-ethane (µg/L)	Chloro-form (µg/L)	Chloro-methane (µg/L)	Dibromo-chloro-methane (µg/L)	Dibromo-chloro-propane (µg/L)	1,1-Di-chloro-ethane (µg/L)	1,2-Di-chloro-ethane (µg/L)
Volatile organic compounds--Continued								
Confining Unit								
JF12	06-05-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF22	06-05-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF32	05-31-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF42	06-08-90	<8.0	2.2	<1.2	<1.0	<12	<1.0	<1.0
JF52	06-14-90	<8.0	2.2	<1.2	<1.0	<12	<1.0	<1.0
JF62	06-14-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF72	06-12-90	<8.0	1.9	<1.2	<1.0	<12	<1.0	<1.0
JF82	06-14-90	<8.0	6.3	<1.2	<1.0	<12	<1.0	<1.0
JF82d	06-14-90	<8.0	4.9	<1.2	<1.0	<12	<1.0	<1.0
JF92	05-16-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF102	05-18-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF112	06-08-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF122	05-30-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
Confined Aquifer								
JF1	05-07-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF2	06-15-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF2d	06-15-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF11	06-04-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF21	06-05-90	--	--	--	--	<12	--	--
JF31	05-31-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF41	06-06-90	--	--	--	--	<12	--	--
JF51v	06-13-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF61v	06-14-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF71v	06-13-90	<8.0	24	<1.2	<1.0	<12	<1.0	<1.0
JF81v	06-12-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF91	05-11-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF101	05-17-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF111	05-18-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
JF121	05-30-90	<8.0	<1.0	<1.2	<1.0	<12	<1.0	<1.0
Quality Assurance Samples								
TRIP BLANK	--	<8.0	<1.0	<1.2	--	<12	<1.0	<1.0
FIELD BLANK 1	05-17-90	<8.0	<1.0	<1.2	--	<12	<1.0	<1.0
FIELD BLANK 2	06-12-90	<8.0	<1.0	<1.2	--	<12	<1.0	<1.0

Table 18. Ground-water-quality data from J-field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase I, May-June 1990--Continued

Well No.	Date	1,1-Dichloroethene (µg/L)	1,2-Dichloroethene (µg/L)	1,2-Dichloropropane (µg/L)	Ethylbenzene (µg/L)	Methylene chloride (µg/L)	Methyl-isobutylkeytone (µg/L)	1,1,2,2-Tetrachloroethane (µg/L)	Tetrachloroethene (µg/L)
		Volatile organic compounds--Continued							
		Surficial Aquifer							
P1	06-06-90	<1	--	<3.0	3.0	3.0	--	--	<1.0
P2	06-12-90	<1	10	<1.0	<1.0	<1.0	<1	100v	<1.0
P3	06-07-90	<1	--	--	--	--	--	--	--
P4	06-07-90	<1	--	--	--	--	--	--	--
P5	05-11-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
P6	05-15-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
P7	05-17-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
P8	05-16-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
P9	06-08-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
P9d	06-08-90	<1	<5.0	--	<1.0	<1.0	<1	<1.5	<1.0
TH1	05-16-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
TH1d	05-16-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
TH3	05-14-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
TH4	06-13-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
TH4d	06-13-90	<1	<5.0	<1.0	<1.0	<1.0	<1	8v	<1.0
TH6	06-01-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
TH7	05-08-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
TH8	06-04-90	<1	<5.0	<1.0	<1.0	<1.0	120	<1.5	<1.0
TH10	06-05-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
TH11	05-08-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
JF13	06-04-90	<1	<5.0	<1.0	<1.0	<1.0	640	<1.5	<1.0
JF13d	06-04-90	<1	<5.0	<1.0	<1.0	<1.0	1,100	<1.5	<1.0
JF23	06-05-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
JF33	05-31-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
JF33d	05-31-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	--
JF43	06-07-90	<1	--	--	--	--	--	--	--
JF53	06-13-90	8	850	<1.0	<1.0	<1.0	<1	3,500	<1.0
JF63	06-14-90	<1	7.3	<1.0	<1.0	<1.0	<1	<1.5	18
JF73	06-12-90	6.8	7,150	<1.0	<1.0	<1.0	<1	340	<1.0
JF83	06-12-90	19	7,150	<1.0	<1.0	<1.0	<1	250	1,000
JF93	05-11-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
JF103	05-17-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
JF113	05-18-90	<1	<1.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
JF123	05-30-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0

Table 18. Ground-water-quality data from J-field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase I, May-June 1990--Continued

Well No.	Date	1,1-Di-chloro-ethene (µg/L)	1,2-Di-chloro-ethene (µg/L)	1,2-Di-chloro-propane (µg/L)	Ethyl-benzene (µg/L)	Methyl-ene chlo-ride (µg/L)	Methyl-iso-butyl-keytone (µg/L)	1,1,2,2-Tetra-chloro-ethane (µg/L)	Tetra-chloro-ethene (µg/L)
Volatile organic compounds--Continued									
Confining Unit									
JF12	06-05-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
JF22	06-05-90	<1	<5.0	<1.0	<1.0	--	<1	<1.5	<1.0
JF32	05-31-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
JF42	06-08-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
JF52	06-14-90	<1	420	<1.0	<1.0	<1.0	<1	34v	<1.0
JF62	06-14-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
JF72	06-12-90	<1	33	<1.0	<1.0	<1.0	<1	<1.5	<1.0
JF82	06-14-90	35	240	<1.0	<1.0	<1.0	<1	<1.5	54v
JF82d	06-14-90	26	150	<1.0	<1.0	<1.0	<1	<1.5	41v
JF92	05-16-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
JF102	05-18-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
JF112	06-08-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
JF122	05-30-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
Confined Aquifer									
JF1	05-07-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
JF2	06-15-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
JF2d	06-15-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
JF11	06-04-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
JF21	06-05-90	<1	--	--	--	--	--	--	--
JF31	05-31-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
JF41	06-06-90	<1	--	--	--	--	--	--	--
JF51v	06-13-90	3.8	430	<1.0	<1.0	<1.0	<1	<1.5	<1.0
JF61v	06-14-90	<1	<1.0	--	<1.0	<1.0	<1	<1.0	--
JF71v	06-13-90	<1	>150	<1.0	<1.0	<1.0	<1	<1.5	<1.0
JF81v	06-12-90	<1	35	<1.0	<1.0	--	<1	290	<1.0
JF91	05-11-90	<1	<5.0	<1.0	<1.0	<1.0	<1	--	<1.0
JF101	05-17-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
JF111	05-18-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
JF121	05-30-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
Quality Assurance Samples									
TRIP BLANK	06-12-90	<1	<1.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
FIELD BLANK 1	05-17-90	<1	<5.0	<1.0	<1.0	<1.0	<1	<1.5	<1.0
FIELD BLANK 2	06-12-90	<1	<5.0	<1.0	<1.0	<1.0	<1	17	6.2

Table 18. Ground-water-quality data from J-field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase I, May-June 1990--Continued

Well No.	Date	Toluene (µg/L)	1,1,1-Trichloroethane (µg/L)	1,1,2-Trichloroethane (µg/L)	Trichloroethene (µg/L)	Trichlorofluoromethane (µg/L)	Vinyl chloride (µg/L)
		Volatile organic compounds--Continued					
		Surficial Aquifer					
P1	06-06-90	3.0	<1	--	--	3.0	--
P2	06-12-90	<1.0	<1	4.0	44	<1.0	<12.0
P3	06-07-90	--	<1	--	--	--	--
P4	06-07-90	--	<1	--	--	--	--
P5	05-11-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
P6	05-15-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
P7	05-17-90	<1.0	<1	<1.0	40	<1.0	<12.0
P8	05-16-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
P9	06-08-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
P9d	06-08-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
TH1	05-16-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
TH1d	05-16-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
TH3	05-14-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
TH4	06-13-90	<1.0	<1	<1.0	--	<1.0	<12.0
TH4d	06-13-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
TH6	06-01-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
TH7	05-08-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
TH8	06-04-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
TH10	06-05-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
TH11	05-08-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
JF13	06-04-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
JF13d	06-04-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
JF23	06-05-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
JF33	05-31-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
JF33d	05-31-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
JF43	06-07-90	--	<1	--	--	--	--
JF53	06-13-90	<1.0	<1	110	820	<1.0	130
JF63	06-14-90	<1.0	<1	<1.0	600	<1.0	<12.0
JF73	06-12-90	<1.0	<1	67	1,800	<1.0	<12.0
JF83	06-12-90	<1.0	<1	7,100	4,900	<1.0	56
JF93	05-11-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
JF103	05-17-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
JF113	05-18-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
JF123	05-30-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0

Table 18. Ground-water-quality data from J-field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase I, May-June 1990--Continued

Well No.	Date	Toluene (µg/L)	1,1,1-Trichloroethane (µg/L)	1,1,2-Trichloroethane (µg/L)	Trichloroethene (µg/L)	Trichlorofluoromethane (µg/L)	Vinyl chloride (µg/L)
Volatile organic compounds--Continued							
Confining Unit							
JF12	06-05-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
JF22	06-05-90	<1.0	3.0	<1.0	<1.0	<1.0	<12.0
JF32	05-31-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
JF42	06-08-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
JF52	06-14-90	<1.0	<1	10	52v	<1.0	<12.0
JF62	06-14-90	<1.0	<1	<1.0	2.7v	<1.0	<12.0
JF72	06-12-90	<1.0	<1	<1.0	5.4v	<1.0	<12.0
JF82	06-14-90	<1.0	<1	<1.0	1,600	<1.0	<12.0
JF82d	06-14-90	<1.0	<1	<1.0	>150	<1.0	<12.0
JF92	05-16-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
JF102	05-18-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
JF112	06-08-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
JF122	05-30-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
Confined Aquifer							
JF1	05-07-90	<1.0	2.3	<1.0	<1.0	<1.0	<12.0
JF2	06-15-90	<1.0	<1	<1.0	10v	<1.0	<12.0
JF2d	06-15-90	<1.0	<1	<1.0	3v	<1.0	<12.0
JF11	06-04-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
JF21	06-05-90	--	<1	--	--	--	--
JF31	05-31-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
JF41	06-06-90	--	<1	--	--	--	--
JF51v	06-13-90	<1.0	<1	<1.0	520	<1.0	<12.0
JF61v	06-14-90	<1.0	<1	<1.0	2	<1.0	<12.0
JF71v	06-13-90	<1.0	<1	<1.0	8	<1.0	<12.0
JF81v	06-12-90	<1.0	<1	7,100	230	<1.0	<12.0
JF91	05-11-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
JF101	05-17-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
JF111	05-18-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
JF121	05-30-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
Quality Assurance Samples							
TRIP BLANK	06-12-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
FIELD BLANK 1	05-17-90	<1.0	<1	<1.0	<1.0	<1.0	<12.0
FIELD BLANK 2	06-12-90	<1.0	<1	<1.0	21	<1.0	<12.0

Table 18. Ground-water-quality data from J-field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase I, May-June 1990--Continued

Well No.	Date	Time	Aldrin (µg/L)	Atrazine (µg/L)	Chlordane (µg/L)	Chlorobenzene (µg/L)	2-Chloroethylvinylether (µg/L)	2-Chlorophenol (µg/L)
Semi-volatile organic compounds								
Surficial Aquifer								
P1	06-06-90	1400	--	<5.9	--	<37	3.0	<2.8
P2	06-12-90	1000	<13	<5.9	<37	<1.0	<3.5	<2.8
P3	06-07-90	1050	<13	<5.9	<37	--	--	<2.8
P4	06-07-90	1200	<13	<5.9	<37	--	--	<2.8
P5	05-11-90	0945	<13	<5.9	<37	<1.0	<3.5	<2.8
P6	05-15-90	1345	<13	<5.9	<37	<1.0	<3.5	<2.8
P7	05-17-90	1130	<13	<5.9	<37	<1.0	<3.5	<2.8
P8	05-16-90	1445	<13	<5.9	<37	<1.0	<3.5	<2.8
P9	06-08-90	1330	<13	<5.9	<37	<1.0	<3.5	<2.8
P9d	06-08-90	1334	<13	<5.9	<37	<1.0	<3.5	<2.8
TH1	05-16-90	1130	<13	<5.9	<37	<1.0	<3.5	<2.8
TH1d	05-16-90	1134	<13	<5.9	<37	<1.0	<3.5	<2.8
TH3	05-14-90	1330	<13	<5.9	<37	<1.0	<3.5	<2.8
TH4	06-13-90	1030	<13	--	<37	<1.0	<3.5	<2.8
TH4d	06-13-90	1034	<13	<5.9	<37	<1.0	<3.5	<2.8
TH6	06-01-90	1000	--	<5.9	<37	<1.0	<3.5	<2.8
TH7	05-08-90	1315	<13	<5.9	<37	<1.0	<3.5	<2.8
TH8	06-04-90	0950	<13	<5.9	<37	<1.0	<3.5	<2.8
TH10	06-05-90	0945	<13	<5.9	<37	<1.0	<3.5	<2.8
TH11	05-08-90	1015	<13	<5.9	<37	<1.0	<3.5	<2.8
JF13	06-04-90	1044	<13	<5.9	<37	<1.0	<3.5	<2.8
JF13d	06-04-90	1300	<13	<5.9	<37	<1.0	<3.5	<2.8
JF23	06-05-90	1300	<13	<5.9	<37	<1.0	<3.5	<2.8
JF33	05-31-90	0954	<13	<5.9	<37	<1.0	<3.5	<2.8
JF33d	05-31-90	0955	<13	<5.9	<37	<1.0	<3.5	<2.8
JF43	06-07-90	1030	<13	<5.9	<37	--	--	<2.8
JF53	06-13-90	1355	<13	<5.9	<37	<1.0	<3.5	<2.8
JF63	06-14-90	1340	<13	<5.9	<37	2.5	<3.5	<2.8
JF73	06-12-90	1400	<13	<5.9	<37	<1.0	<3.5	<2.8
JF83	06-12-90	1100	<13	<5.9	<37	<1.0	<3.5	<2.8
JF93	05-11-90	1100	<13	<5.9	<37	<1.0	<3.5	<2.8
JF103	05-17-90	1000	<13	<5.9	<37	<1.0	<3.5	<2.8
JF113	05-18-90	1330	<13	<5.9	<37	<1.0	<3.5	<2.8
JF123	05-30-90	1300	<13	<5.9	<37	<1.0	<3.5	<2.8

Table 18. Ground-water-quality data from J-field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase I, May-June 1990--Continued

Well No.	Date	Time	Aldrin (µg/L)	Atrazine (µg/L)	Chlordane (µg/L)	Chlorobenzene (µg/L)	2-Chloroethyl-vinyl-ether (µg/L)	2-Chlorophenol (µg/L)
Semi-volatile organic compounds--Continued								
Confining Unit								
JF12	06-05-90	1030	<13	<5.9	<37	<1.0	<3.5	<2.8
JF22	06-05-90	1400	<13	<5.9	<37	<1.0	<3.5	<2.8
JF32	05-31-90	1400	<13	<5.9	<37	<1.0	<3.5	<2.8
JF42	06-08-90	1200	<13	<5.9	<37	<1.0	<3.5	<2.8
JF52	06-14-90	1100	<13	<5.9	<37	<1.0	<3.5	<2.8
JF62	06-14-90	1100	<13	<5.9	<37	<1.0	<3.5	<2.8
JF72	06-12-90	1430	<13	<5.9	<37	<1.0	<3.5	<2.8
JF82	06-14-90	1000	<13	<5.9	<37	<1.0	<3.5	<2.8
JF82d	06-14-90	1004	<13	<5.9	<37	<1.0	<3.5	<2.8
JF92	05-16-90	1115	<13	<5.9	<37	<1.0	<3.5	<2.8
JF102	05-18-90	1130	<13	<5.9	<37	<1.0	<3.5	<2.8
JF112	06-08-90	1340	<13	<5.9	<37	<1.0	<3.5	<2.8
JF122	05-30-90	1400	<13	<5.9	<37	<1.0	<3.5	<2.8
Confined Aquifer								
JF1	05-07-90	1200	<13	<5.9	<37	<1.0	<3.5	--
JF2	06-15-90	0950	<13	<5.9	<37	--	--	--
JF2d	06-15-90	0954	<13	<5.9	<37	<1.0	<3.5	<2.8
JF11	06-04-90	1400	<13	<5.9	<37	<1.0	<3.5	<2.8
JF21	06-05-90	1400	<13	<5.9	<37	--	--	<2.8
JF31	05-31-90	1215	<13	<5.9	<37	<1.0	<3.5	<2.8
JF41	06-06-90	1100	<13	<5.9	<37	--	--	<2.8
JF51v	06-13-90	1415	<13	<5.9	<37	<1.0	<3.5	<2.8
JF61v	06-14-90	1130	<13	<5.9	<37	<1.0	<3.5	<2.8
JF71v	06-13-90	1130	<13	<5.9	<37	<1.0	<3.5	<2.8
JF81v	06-12-90	1300	<13	<5.9	<37	<1.0	<3.5	<2.8
JF91	05-11-90	1500	<13	<5.9	<37	<1.0	<3.5	<2.8
JF101	05-17-90	1050	<13	<5.9	<37	<1.0	<3.5	<2.8
JF111	05-18-90	1105	<13	<5.9	<37	<1.0	<3.5	<2.8
JF121	05-30-90	0940	<13	<5.9	<37	<1.0	<3.5	<2.8
Quality Assurance Samples								
TRIP BLANK	06-12-90	1050	<13	<5.9	<37	<1.0	<3.5	<2.8
FIELD BLANK 1	05-17-90	1105	<13	<5.9	<37	<1.0	<3.5	<2.8
FIELD BLANK 2	06-12-90	0940	<13	<5.9	<37	<1.0	<3.5	<2.8

Table 18. Ground-water-quality data from J-field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase I, May-June 1990--Continued

Well No.	Date	1,3-Dichlorobenzene (µg/L)	2,4-Dichlorophenol (µg/L)	Dichlorvos (µg/L)	Dieldrin (µg/L)	2,4-Dimethylphenol (µg/L)	Endrin (µg/L)	Hexachlorocyclopentadiene (µg/L)	Isodrin (µg/L)
		Semi-volatile organic compounds--Continued							
		Surficial Aquifer							
P1	06-06-90	<3.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
P2	06-12-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
P3	06-07-90	--	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
P4	06-07-90	--	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
P5	05-11-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
P6	05-15-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
P7	05-17-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
P8	05-16-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
P9	06-08-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
P9d	06-08-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
TH1	05-16-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
TH1d	05-16-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
TH3	05-14-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
TH4	06-13-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
TH4d	06-13-90	<1.0	<8.4	<8.5	<26	<4.4	--	<54	<7.8
TH6	06-01-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
TH7	05-08-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
TH8	06-04-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
TH10	06-05-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
TH11	05-08-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF13	06-04-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF13d	06-04-90	--	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF23	06-05-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF33	05-31-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
Jf33d	05-31-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF43	06-07-90	--	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF53	06-13-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF63	06-14-90	<1.0	<8.4	<8.5	<26	4.3	<18	<54	<7.8
JF73	06-12-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF83	06-12-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF93	05-11-90	<1.0	--	<8.5	<26	<4.4	<18	<54	<7.8
JF103	05-17-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF113	05-18-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF123	05-30-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8

Table 18. Ground-water-quality data from J-field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase I, May-June 1990--Continued

Well No.	Date	1,3-Dichlorobenzene (µg/L)	2,4-Dichlorophenol (µg/L)	Dichlorvos (µg/L)	Dieldrin (µg/L)	2,4-Dimethylphenol (µg/L)	Endrin (µg/L)	Hexachlorocyclopentadiene (µg/L)	Isodrin (µg/L)
Semi-volatile organic compounds--Continued									
Confining Unit									
JF12	06-05-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF22	06-05-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF32	05-31-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF42	06-08-90	<1.0	<8.4	<8.5	<26	<4.4	--	<54	<7.8
JF52	06-14-90	<1.0	<8.4	<8.5	<26	--	<18	<54	<7.8
JF62	06-14-90	<4.8	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF72	06-12-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF82	06-14-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF82d	06-14-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF92	05-16-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF102	05-18-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF112	06-08-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF122	05-30-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
Confined Aquifer									
JF1	05-07-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF2	06-15-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF2d	06-15-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF11	06-04-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF21	06-05-90	--	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF31	05-31-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF41	06-06-90	--	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF51v	06-13-90	<1.0	--	<8.5	<26	<4.4	<18	<54	<7.8
JF61v	06-14-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF71v	06-13-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF81v	06-12-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF91	05-11-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF101	05-17-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF111	05-18-90	<4.8	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
JF121	05-30-90	--	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
Quality Assurance Samples									
TRIP BLANK	06-12-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
FIELD BLANK 1	05-17-90	<1.0	<8.4	<8.5	<26	<4.4	<18	<54	<7.8
FIELD BLANK 2	06-12-90	--	<8.4	<8.5	<26	<4.4	<18	<54	<7.8

Table 18. Ground-water-quality data from J-field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase I, May-June 1990--Continued

Well No.	Date	Malathion (µg/L)	Meta-xylene (µg/L)	Parathion (µg/L)	Pentachlorophenol (µg/L)	Phenols (µg/L)	2,4,5-Trichlorophenol (µg/L)	2,4,6-Trichlorophenol (µg/L)	Xylene (µg/L)
		Semi-volatile organic compounds--Continued							
		Surficial Aquifer							
P1	06-06-90	<21	--	<37	<9.1	<2	<2.8	<3.6	<3.0
P2	06-12-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
P3	06-07-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	--
P4	06-07-90	<21	--	<37	<9.1	<2	<2.8	<3.6	--
P5	05-11-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
P6	05-15-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
P7	05-17-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
P8	05-16-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
P9	06-08-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
P9d	06-08-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
TH1	05-16-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
TH1d	05-16-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
TH3	05-14-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
TH4	06-13-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
TH4d	06-13-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
TH6	06-01-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
TH7	05-08-90	<21	<1.0	<37	<9.1	<2	<2.8	--	<2.0
TH8	06-04-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
TH10	06-05-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
TH11	05-08-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF13	06-04-90	<21	<1.0	<37	--	24	<2.8	<3.6	<2.0
JF13d	06-04-90	<21	<1.0	<37	<9.1	--	<2.8	<3.6	<2.0
JF23	06-05-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF33	05-31-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF33d	05-31-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF43	06-07-90	<21	--	<37	<9.1	<2	<2.8	<3.6	--
JF53	06-13-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF63	06-14-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	6.7
JF73	06-12-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF83	06-12-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF93	05-11-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF103	05-17-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF113	05-18-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF123	05-30-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0

Table 18. Ground-water-quality data from J-field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase I, May-June 1990--Continued

Well No.	Date	Malathion (µg/L)	Meta-xylene (µg/L)	Parathion (µg/L)	Pentachlorophenol (µg/L)	Phenols (µg/L)	2,4,5-Trichlorophenol (µg/L)	2,4,6-Trichlorophenol (µg/L)	Xylene (µg/L)
Semi-volatile organic compounds--Continued									
Confining Unit									
JF12	06-05-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF22	06-05-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF32	05-31-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF42	06-08-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF52	06-14-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF62	06-14-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF72	06-12-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF82	06-14-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF82d	06-14-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF92	05-16-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF102	05-18-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF112	06-08-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF122	05-30-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
Confined Aquifer									
JF1	05-07-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF2	06-15-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF2d	06-15-90	<21	--	<37	<9.1	<2	<2.8	<3.6	<2.0
JF11	06-04-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF21	06-05-90	<21	--	<37	<9.1	<2	<2.8	<3.6	--
JF31	05-31-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF41	06-06-90	<21	--	<37	<9.1	<2	<2.8	<3.6	--
JF51v	06-13-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF61v	06-14-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF71v	06-13-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF81v	06-12-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF91	05-11-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF101	05-17-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
JF111	05-18-90	<21	<1.0	<37	--	<2	<2.8	<3.6	<2.0
JF121	05-30-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
Quality Assurance Samples									
TRIP BLANK	06-12-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
FIELD BLANK 1	05-17-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0
FIELD BLANK 2	06-12-90	<21	<1.0	<37	<9.1	<2	<2.8	<3.6	<2.0

Table 18. Ground-water-quality data from J-field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase I, May-June 1990--Continued

Well No.	Date	Time	Acrylo-nitrile (µg/L)	Cyanide (µg/L as CN)	2,4-Di-chloro-phenol (µg/L)	2,4-Di-nitro-phenol (µg/L)	2,4-Di-nitro-toluene (µg/L)
Chemical surety materials							
Surficial Aquifer							
P1	06-06-90	1400	--	<5.0	<8.4	<180	--
P2	06-12-90	1000	<8.4	--	<8.4	<180	--
P3	06-07-90	1050	--	<5.0	<8.4	<180	<0.397
P4	06-07-90	1200	--	<5.0	<8.4	<180	<.397
P5	05-11-90	0945	<8.4	<5.0	<8.4	<180	--
P6	05-15-90	1345	<8.4	7.0	<8.4	<180	--
P7	05-17-90	1130	<8.4	<5.0	<8.4	<180	--
P8	05-16-90	1445	<8.4	<5.0	<8.4	<180	<.397
P9	06-08-90	1330	<8.4	--	<8.4	<180	<.397
P9d	06-08-90	1334	<8.4	--	<8.4	<180	<.397
TH1	05-16-90	1130	<8.4	<5.0	<8.4	<180	--
TH1d	05-16-90	1134	<8.4	<5.0	<8.4	<180	--
TH3	05-14-90	1330	<8.4	<5.0	<8.4	<180	--
TH4	06-13-90	1030	<8.4	<5.0	<8.4	<180	<.397
TH4d	06-13-90	1034	<8.4	<5.0	<8.4	<180	<.397
TH6	06-01-90	1000	<8.4	<5.0	<8.4	<180	--
TH7	05-08-90	1315	<8.4	<5.0	<8.4	<180	<.397
TH8	06-04-90	0950	<8.4	<5.0	<8.4	<180	--
TH10	06-05-90	0945	<8.4	<5.0	<8.4	<180	<.397
TH11	05-08-90	1015	<8.4	<5.0	<8.4	<180	--
JF13	06-04-90	1044	<8.4	21.0	<8.4	<180	--
JF13d	06-04-90	1300	<8.4	21.0	<8.4	<180	--
JF23	06-05-90	1300	<8.4	11.0	<8.4	<180	<.397
JF33	05-31-90	0954	<8.4	<5.0	<8.4	<180	--
JF33d	05-31-90	0955	<8.4	<5.0	<8.4	<180	--
JF43	06-07-90	1030	--	<5.0	<8.4	<180	<.397
JF53	06-13-90	1355	<8.4	<5.0	<8.4	<180	<.397
JF63	06-14-90	1340	<8.4	<5.0	<8.4	<180	<.397
JF73	06-12-90	1400	<8.4	--	<8.4	<180	<.397
JF83	06-12-90	1100	<8.4	--	<8.4	<180	<.397
JF93	05-11-90	1100	<8.4	<5.0	<8.4	<180	--
JF103	05-17-90	1000	<8.4	<5.0	<8.4	<180	<.397
JF113	05-18-90	1330	<8.4	<5.0	<8.4	<180	<.397
JF123	05-30-90	1300	<8.4	<5.0	<8.4	<180	<.397

Table 18. Ground-water-quality data from J-field, Aberdeen Proving Ground, Maryland
Organic constituents, Phase I, May-June 1990--Continued

Well No.	Date	Time	Acrylo-nitrile (µg/L)	Cyanide (µg/L as CN)	2,4-Di-chloro-phenol (µg/L)	2,4-Di-nitro-phenol (µg/L)	2,4-Di-nitro-toluene (µg/L)
Chemical surety materials--Continued							
Confining Unit							
JF12	06-05-90	1030	<8.4	<5.0	<8.4	<180	--
JF22	06-05-90	1400	<8.4	66.0	<8.4	<180	<.397
JF32	05-31-90	1400	<8.4	<5.0	<8.4	<180	--
JF42	06-08-90	1200	<8.4	--	<8.4	<180	--
JF52	06-14-90	1100	<8.4	<5.0	<8.4	<180	<.397
JF62	06-14-90	1100	--	<5.0	<8.4	<180	--
JF72	06-12-90	1430	<8.4	<5.0	<8.4	<180	--
JF82	06-14-90	1000	<8.4	92.0	<8.4	<180	--
JF82d	06-14-90	1004	<8.4	84.0	<8.4	<180	--
JF92	05-16-90	1115	<8.4	<5.0	<8.4	<180	--
JF102	05-18-90	1130	<8.4	--	<8.4	<180	--
JF112	06-08-90	1340	<8.4	--	<8.4	<180	--
JF122	05-30-90	1400	<8.4	9.0	<8.4	<180	<.397
Confined Aquifer							
JF1	05-07-90	1200	<8.4	<5.0	<8.4	<180	--
JF2	06-15-90	0950	<8.4	<5.0	<8.4	<180	--
JF2d	06-15-90	0954	<8.4	<5.0	<8.4	<180	--
JF11	06-04-90	1400	<8.4	<5.0	<8.4	<180	--
JF21	06-05-90	1400	--	<5.0	<8.4	<180	--
JF31	05-31-90	1215	<8.4	<5.0	<8.4	<180	--
JF41	06-06-90	1100	--	<5.0	<8.4	<180	--
JF51v	06-13-90	1415	<8.4	14.0	<8.4	<180	<.878
JF61v	06-14-90	1130	<8.4	<5.0	<8.4	<180	--
JF71v	06-13-90	1130	<8.4	<5.0	<8.4	<180	--
JF81v	06-12-90	1300	<8.4	--	<8.4	<180	--
JF91	05-11-90	1500	<8.4	<5.0	<8.4	<180	--
JF101	05-17-90	1050	<8.4	<5.0	<8.4	<180	--
JF111	05-18-90	1105	<8.4	<5.0	<8.4	<180	--
JF121	05-30-90	0940	<8.4	<5.0	<8.4	<180	<.397
Quality Assurance Samples							
TRIP BLANK	06-12-90		<8.4	<5.0	<8.4	<180	<.397
FIELD BLANK 1	05-17-90	1145	<8.4	<5.0	<8.4	<180	--
FIELD BLANK 2	65-12-90	0930	<8.4	--	<8.4	<180	<.397

Table 18. Ground-water-quality data from J-field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase I, May-June 1990--Continued

Well No.	Date	2,6-Dinitrotoluene (µg/L)	Bis(2-ethylhexyl)phthalate (µg/L)	Nitrobenzene (µg/L)	2-Nitrophenol (µg/L)	4-Nitrophenol (µg/L)	RDX (µg/L)	Thiodiglycol (µg/L)
			Chemical surety materials--Continued					
			Surficial Aquifer					
P1	06-06-90	--	--	--	<8.2	<96	--	--
P2	06-12-90	--	--	--	<8.2	<96	--	--
P3	06-07-90	<0.60	--	<0.682	<8.2	<96	<4.2	--
P4	06-07-90	<0.60	--	<0.682	<8.2	<96	<4.2	--
P5	05-11-90	--	--	--	<8.2	<96	--	--
P6	05-15-90	<0.60	--	<0.682	<8.2	<96	<0.416	--
P7	05-17-90	--	--	--	<8.2	<96	--	--
P8	05-16-90	<0.60	--	<0.682	<8.2	<96	<0.416	--
P9	06-08-90	<0.60	--	<0.682	<8.2	<96	0.521	--
P9d	06-08-90	<0.60	--	<0.682	<8.2	<96	0.471	--
TH1	05-16-90	--	--	--	<8.2	<96	--	--
TH1d	05-16-90	--	--	--	<8.2	<96	--	--
TH3	05-14-90	--	--	--	<8.2	<96	--	--
TH4	06-13-90	<0.60	<7.7	<0.682	<8.2	<96	<0.416	<6.69
TH4d	06-13-90	<0.60	<7.7	<0.682	<8.2	<96	<0.416	<6.69
TH6	06-01-90	--	<7.7	--	<8.2	<96	--	--
TH7	05-08-90	<0.60	--	<0.682	8.2	<96	<0.416	--
TH8	06-04-90	--	--	--	<8.2	<96	--	--
TH10	06-05-90	<0.60	--	<0.682	<8.20	<96	<0.416	--
TH11	05-08-90	--	--	--	<8.2	<96	--	--
JF13	06-04-90	--	--	--	<8.2	<96	--	--
JF13d	06-04-90	--	--	--	<8.2	<96	--	--
JF23	06-05-90	<0.60	--	<0.682	<8.2	<96	<0.416	--
JF33	05-31-90	--	<7.7	--	<8.2	<96	--	--
JF33d	05-31-90	--	<7.7	--	--	<96	--	--
JF43	06-07-90	<0.60	--	<0.682	<8.2	<96	--	--
JF53	06-13-90	<0.60	<7.7	<0.682	<8.2	<96	<0.416	<6.69
JF63	06-14-90	<0.60	--	<0.682	<8.2	<96	4.2	21
JF73	06-12-90	<0.60	--	<0.682	<8.2	<96	1.18	--
JF83	06-12-90	<0.60	--	<0.682	<8.2	<96	<0.416	--
JF93	05-11-90	--	--	--	<8.2	<96	--	--
JF103	05-17-90	<0.60	--	<0.682	<8.2	<96	0.576	--
JF113	05-18-90	<0.60	--	<0.682	<8.2	<96	<0.416	--
JF123	05-30-90	<0.60	--	<0.682	<8.2	<96	<0.416	--

Table 18. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase I, May-June 1990--Continued

Well No.	Date	2,6-Dinitrotoluene (µg/L)	Bis(2-ethylhexyl) phthalate (µg/L)	Nitrobenzene (µg/L)	2-Nitrophenol (µg/L)	4-Nitrophenol (µg/L)	RDX (µg/L)	Thiodiglycol (µg/L)
Chemical surety materials--Continued								
Confining Unit								
JF12	06-05-90	--	--	--	<8.2	<96	--	--
JF22	06-05-90	<0.60	--	<0.682	<8.2	<96	<0.416	--
JF32	05-31-90	--	<7.7	--	<8.2	<96	--	--
JF42	06-08-90	--	--	--	<8.2	<96	--	--
JF52	06-14-90	<.60	--	<.682	<8.2	<96	--	--
JF62	06-14-90	--	--	--	<8.2	<96	--	--
JF72	06-12-90	--	--	--	--	<96	--	--
JF82	06-14-90	--	--	--	<8.2	<96	--	--
JF82d	06-14-90	--	--	--	<8.2	<96	--	--
JF92	05-16-90	--	--	--	<8.2	<96	<60.0	--
JF102	05-18-90	--	--	--	<8.2	<96	--	--
JF112	06-08-90	--	--	--	<8.2	<96	--	--
JF122	05-30-90	2.26	--	<.682	<8.2	<96	1.07	--
Confined Aquifer								
JF1	05-07-90	--	--	--	<8.2	<96	--	--
JF2	06-15-90	--	--	--	<8.2	<96	--	--
JF2d	06-15-90	--	--	--	<8.2	<96	--	--
JF11	06-04-90	--	--	--	<8.2	<96	--	--
JF21	06-05-90	--	--	--	<8.2	<96	--	--
JF31	05-31-90	--	<7.7	--	<8.2	<96	--	--
JF41	06-06-90	--	--	--	<8.2	<96	--	--
JF51v	06-13-90	<0.60	--	0.889	<8.2	<96	--	<6.69
JF61v	06-14-90	--	--	--	<8.2	<96	--	--
JF71v	06-13-90	--	<7.7	--	<8.2	<96	--	--
JF81v	06-12-90	--	--	--	<8.2	<96	--	--
JF91	05-11-90	--	--	--	<8.2	<96	--	--
JF101	05-17-90	--	--	--	<8.2	<96	--	--
JF111	05-18-90	--	--	--	<8.2	<96	--	--
JF121	05-30-90	<.60	--	<.682	<8.2	<96	<0.416	--
Quality Assurance Samples								
TRIP BLANK	06-12-90	<.60	--	<.682	<8.2	<96	<0.416	--
FIELD BLANK 1	05-17-90	--	--	--	<8.2	<96	--	--
FIELD BLANK 2	06-12-90	<.60	--	<.682	<8.2	<96	<.416	--

Table 19. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--
Inorganic constituents, Phase II, November 1992 through January 1993

[µS/cm = microsiemens per centimeter; mg/L = milligrams per liter; °C = degrees Celsius; µg/L = micrograms per liter; -- = data not available; < = less than; A "v" after a well no. indicates possible contamination bias due to drilling methods, while a "v" after a value indicates parameter was found in the associated blank, as well as in the sample]

NOTE: Well No. ending in "d" represents duplicate analyses. Asterisk (*) indicates pH value has exceeded calibration range of the pH meter. Field blank 1 was collected after sampling well JF1. Field blank 2 was collected after sampling well JF21. Field blank 3 was collected after sampling well P8.

Well No.	Station number	Date	Time	Specific conductance (µS/cm)	pH, water whole field (standard units)	Temperature, air (°C)	Temperature, water (°C)	Oxygen, dissolved (mg/L)	Calcium, total recoverable (mg/L)	Calcium, dissolved (µg/L as Ca)	Magnesium, total recoverable (mg/L)	Magnesium, dissolved (µg/L as Mg)
Field parameters and major ions												
Surficial Aquifer												
P2	391809076173001	01-14-93	1330	285	6.0	5.0	8.5	6.7	23	--	4.6	--
P3	391812076172901	01-21-93	1330	988	6.8	6.0	10.5	1.8	15	--	67	--
P4	391812076172801	01-21-93	1200	1,190	6.4	5.0	10.5	--	120	--	35	--
P6	391825076173001	12-15-92	1015	300	6.9	7.0	11.5	2.2	23	22,000	.2	6,700
P7	391826076173001	12-15-92	1200	769	4.2	6.0	12.5	1.0	48	50,000	40	42,000
P8	391827076172801	12-29-92	1100	397	4.8	12.0	10.5	5.4	30	32,000	19	19,000
P8d		12-29-92	1104	--	--	--	--	--	31	31,000	19	19,000
P9	391810076173101	01-14-93	1100	177	6.0	6.0	7.5	10.0	21	--	2.4	--
TH1	391827076172701	12-29-92	1400	148	5.0	10.5	12.5	6.0	3.2	3,200	6.2	6,400
TH3	391824076173001	12-16-92	0930	307	6.5	8.0	11.5	2.2	50	51,000	2.1	1,900
TH8	391816076173801	01-06-93	1100	395	6.7	9.0	11.5	--	27	72,000	6.8	2,100
TH10	391805076174001	01-14-93	1030	703	4.3	6.0	11.5	--	--	29,000	--	20,000
JF13	391809076174303	01-07-93	1230	1,200	6.8	8.0	12.5	0.6	190	190,000	13	14,000
JF23	391809076174603	01-11-93	1410	1,140	6.8	2.5	11.0	1.3	190	190,000	11	11,000
JF33	391814076173803	11-23-92	1400	570	7.0	18.5	16.0	2.0	120	130,000	46	4,500
JF43	391812076173103	12-03-92	1030	172	6.4	10.0	14.5	0.7	16	17,000	4.3	4,500
JF53	391812076172703	01-21-93	1130	554	6.3	1.5	11.5	0.5	49	--	13	--
JF53d		01-21-93	1134	--	--	--	--	--	48	--	13	--
JF63	391810076172803	01-20-93	1430	1,010	6.3	8.0	14.0	2.3	96	--	14	--
JF73	391807076172803	01-19-93	1400	596	6.9	5.0	10.0	--	97	--	3.7	--
JF73d		01-19-93	1404	--	--	--	--	--	101	--	3.7	--
JF83	391808076173003	01-19-93	1130	523	6.2	3.5	10.5	1.8	39	--	21	--
JF93	391825076172603	12-14-92	1350	194	5.2	7.0	14.0	1.0	8.8	8,200	5.7	3,700
JF103v	391826076173106	12-22-92	1020	3,990	12.8*	8.5	12.5	1.5	320	330,000	2.4	190
JF113	391826076173103	12-16-92	1330	151	6.7	8.0	13.5	1	3.3	3,100	2.1	2,000
JF123	391827076173003	12-21-92	1200	102	6.5	--	13.5	0.9	2.4	2,100	1.6	1,600
JF133	391806076173501	12-30-92	1200	4,770	3.5	--	11.0	0.6	47	50,000	85	92,000
JF143	391808076174401	12-30-92	1100	585	3.7	8.0	10.0	3.5	28	30,000	5.3	5,300
JF153	391815076170301	01-06-93	1300	273	5.2	11.0	9.5	--	1.2	1,900	8.6	9,400
JF163	391815076170601	12-30-92	1300	127	4.4	12.5	13.0	1.6	2.0	1,000	9.2	8,500

Table 19. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Inorganic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Station number	Date	Time	Specific conductance (µS/cm)	pH, water whole field (standard units)	Temperature, air (°C)	Temperature, water (°C)	Oxygen, dissolved (mg/L)	Calcium, total recoverable (mg/L)	Calcium, dissolved (µg/L as Ca)	Magnesium, total recoverable (mg/L)	Magnesium, dissolved (µg/L as Mg)
Field parameters and major ions--Continued												
Confining Unit												
JF12	391809076174302	01-08-93	1000	545	7.2	--	--	--	98	100,000	5.1	5,200
JF22	391809076174602	01-12-93	1000	441	6.9	6.0	12.0	3.2	54	--	6.7	--
JF22d		01-12-93	1004	--	--	--	--	--	37	--	6.1	--
JF32	391814076173802	11-23-92	0930	91	6.8	16.0	13.0	0.0	12	1,300	2.6	2,700
JF52	391808076172702	01-26-93	0745	641	7.8	7.0	9.0	--	94	--	9.4	--
JF62	391810076172802	01-26-93	0830	566	7.6	7.0	10.0	--	87	--	5.2	--
JF82v	391808076173002	01-20-93	1100	643	--	7.0	13.5	--	59	--	.38	--
JF122v	391827076173002	12-22-92	1030	410	9.5*	9.0	12.5	0.5	31	26,000	1.2	800
Confined Aquifer												
JF1	391806076165301	01-22-93	1230	1,100	6.6	10.0	12.5	1.7	49	--	15	--
JF2	391845076171401	01-05-93	1400	444	6.9	7.5	13.5	--	68	27,000	2.0	7,000
JF11	391809076174301	01-07-93	1300	537	7.4	8.5	13.0	0.2	67	68,000	7.6	7,700
JF21	391809076174601	01-14-93	1200	589	7.3	5.5	13.5	--	58	--	5.0	--
JF31	391809076173801	11-24-92	1230	188	7.4	18.0	--	0.2	55	59,000	6.2	6,400
JF41	391812076173101	12-01-92	1230	562	7.7	8.0	14.0	0.3	70	7,200	5.6	5,600
JF51v	391808076172701	01-26-93	0730	880	7.7	7.0	9.5	--	52	--	16	--
JF61v	391810076172801	01-26-93	0800	1,250	12.1*	7.0	11.0	--	46	--	0.78	--
JF61dv		01-26-93	0804	--	--	--	--	--	45	--	0.86	--
JF71v	391807076172801	01-21-93	1030	705	8.6*	1.5	11.5	--	40	--	25	--
JF81v	391808076173001	01-19-93	1330	721	9.6*	5.0	11.5	0.2	53	--	19	--
JF91	391825076172601	12-14-92	1000	501	7.4	5.0	12.5	0.4	86	86,000	2.9	2,800
JF101	391826076173104	12-16-92	1330	146	7.2	9.0	11.5	--	66	31,000	4.1	2,500
JF111	391826076173101	12-16-92	1130	435	7.4	6.0	13.5	0.2	64	58,000	3.0	2,800
JF121	391827076173001	12-21-92	1430	480	6.5	--	13.0	0.3	6.3	61,000	3.1	2,900
Quality Assurance Samples												
FIELD BLANK 1		01-25-93	1400	--	--	--	--	--	0.8	--	.06	--
FIELD BLANK 2		01-14-93	1047	--	--	--	--	--	0.5	--	<.04	--
FIELD BLANK 3		12-29-92	1130	--	--	--	--	--	0.7	--	.1	--

Table 19. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Inorganic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Date	Sodium, total recoverable (mg/L as Na)	Sodium, dissolved (mg/L as Na)	Potassium, total recoverable (mg/L)	Potassium, dissolved (µg/L as K)	Alkalinity, (mg/L as $CaCO_3$)	Sulfate, dissolved (mg/L as SO_4)	Chloride, dissolved (mg/L as Cl)	Fluoride, dissolved (mg/L as F)	Nitrate, dissolved (mg/L as N)	Phosphate, ortho-dissolved (mg/L as PO_4)	Iron, total recoverable (µg/L as Fe)	Iron, dissolved (µg/L as Fe)
					Field parameters and major ions--Continued								
					Surficial Aquifer								
P2	01-14-93	27	--	0.9	--	15	86	14	<0.5	2.1	<0.5	1,900	--
P3	01-21-93	46	--	42	--	360	130	27	.5	<.5	<.5	8,500	--
P4	01-21-93	46	--	3.1	--	--	100	230	.6	<.5	<.5	1,000	--
P6	12-15-92	32	37	1.5	470	73	69	6.9	<.5	.78	<.5	15,000	26
P7	12-15-92	30	34	.80	850	--	340	21	.7	1.1	<.5	3,800	200
P8	12-29-92	12	13	.60	510	--	150	11	<.5	3.3	<.5	500	10
P8d	12-29-92	12	13	.74	530	--	150	9.7	<.5	3.4	<.5	870	13
P9	01-14-93	--	--	.52	--	12	59	4.3	<.5	<.5	<.5	380	--
TH1	12-29-92	11	12	.75	680	--	26	19	<.5	.7	<.5	680	45
TH3	12-16-92	8.9	11	.86	770	110	27	7.9	<.5	<.5	<.5	2,300	--
TH8	01-06-93	20	7.5	3.1	2,700	67	120	3.6	<.5	.83	<.5	24,000	14
TH10	01-14-93	--	70	--	1,700	--	110	150	<.5	<.5	<.5	--	--
JF13	01-07-93	34	3.7	2.2	2,000	260	120	180	.6	<.5	<.5	5,400	4,600
JF23	01-11-93	37	40	1.6	1,900	270	120	140	.9	<.5	<.5	3,100	1,600
JF33	11-23-92	8.6	9.8	1.1	830	75	265	7.6	<.5	.96	<.5	2,400	24
JF43	12-03-92	7.6	8.0	1.3	1,400	55	15	6.4	<.5	<.5	<.5	5,200	5,200
JF53	01-21-93	12	--	1.2	--	54	7.1	130	<.5	<.5	<.5	18,000	--
JF53d	01-21-93	12	--	.92	--	--	7.0	130	<.5	<.5	<.5	17,000	--
JF63	01-20-93	71	--	2.1	--	89	120	170	.55	<.5	<.5	9,900	--
JF73	01-19-93	22	--	2.1	--	200	25	61	<.5	<.5	<.5	3,400	--
JF73d	01-19-93	21	--	2.1	--	--	25	61	<.5	<.5	<.5	3,400	--
JF83	01-19-93	21	--	.9	--	47	59	95	<.5	1.1	<.5	1,500	--
JF93	12-14-92	19	20	2.0	790	4	66	5.8	<.5	<.5	<.5	15,000	850
JF103v	12-22-92	11	11	16.7	18,000	--	1.8	3.6	.3	<.5	<.5	100	50
JF113	12-16-92	13	16	1.3	1,200	45	15	7.2	<.5	<.5	<.5	16,000	14,000
JF123	12-21-92	8.2	8.7	1.0	920	35	1.2	7.5	<.5	<.5	<.5	12,000	11,000
JF133	12-30-92	610	670	9.2	10,000	--	320	1,300	3.2	.88	<.5	50,000	53,000
JF143	12-30-92	68	70	.67	530	--	170	64	<.5	<.5	<.5	1,800	30
JF153	01-06-93	5.1	35	1.1	590	7	82	21	<.5	<.5	<.5	2,700	<10
JF163	12-30-92	34	5.4	.82	920	--	39	3.8	<.5	.53	<.5	1,400	<10

Table 19. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Inorganic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Date	Sodium, total recoverable (mg/L as Na)	Sodium, dissolved (mg/L as Na)	Potassium, total recoverable (mg/L)	Potassium, dissolved (µg/L as K)	Alkalinity, (mg/L as $CaCO_3$)	Sulfate, dissolved (mg/L as SO_4)	Chloride, dissolved (mg/L as Cl)	Fluoride, dissolved (mg/L as F)	Nitrate dissolved (mg/L as N)	Phosphate, ortho-dissolved (mg/L as PO_4)	Iron, total recoverable (µg/L as Fe)	Iron, dissolved (µg/L as Fe)
Field parameters and major ions--Continued													
Confining Unit													
JF12	01-08-93	12	13	1.9	1,800	240	1.1	9.0	<0.5	<0.5	<0.5	6,800	2,200
JF22	01-12-93	28	--	3.0	--	190	18	23	<.5	<.5	<.5	18,000	--
JF22d	01-12-93	26	--	2.7	--	--	18	23	<.5	<.5	<.5	13,000	--
JF32	11-23-92	8.6	--	1.3	1,400	110	1.4	7.4	<.5	<.5	<.5	28,000	--
JF52	01-26-93	16	--	8.0	--	340	4.8	4.4	<.5	<.5	<.5	2,100	--
JF62	01-26-93	19	--	9.9	--	300	5.8	4.7	<.5	<.5	<.5	3,600	--
JF82v	01-20-93	25	--	17.2	--	210	20	12	.63	<.5	<.5	700	--
JF122v	12-22-92	22	24	59.6	63,000	200	1.8	4.2	2.5	<.5	<.5	6,000	40
Confined Aquifer													
JF1	01-22-93	71	--	3.8	--	--	1.4	290	<0.5	<0.5	<0.5	52,000	--
JF2	01-05-93	6.9	21	2.6	3,200	97	<.50	81	<.5	<.5	<.5	800	24,000
JF11	01-07-93	13	14	2.8	2,700	190	1.7	52	<.5	<.5	<.5	11,000	9,400
JF21	01-14-93	15	--	2.1	3,300	200	1.7	40	<.5	<.5	<.5	11,000	--
JF31	11-24-92	14	14	3.8	3,300	180	1.8	40	<.5	<.5	<.5	10,000	9,200
JF41	12-01-92	9.4	11	2.6	2,900	220	.9	29	<.5	<.5	<.5	8,300	7,100
JF51v	01-26-93	40	--	53.3	--	330	27	58	<.5	<.5	.87	430	--
JF61v	01-26-93	50	--	90.1	--	340	10	36	.7	<.5	<.5	100	--
JF61dv	01-26-93	48	--	89.2	--	--	10	36	.7	<.5	<.5	90	--
JF71v	01-21-93	25	--	37.8	--	330	13	19	<.5	<.5	1.8	2,300	--
JF81v	01-19-93	34	--	20	--	220	59	95	<.5	1.1	<.5	10,000	--
JF91	12-14-92	9.8	10	2.2	2,300	240	1.8	22	<.5	<.5	<.5	5,000	3,400
JF101	12-16-92	12	14	4.4	3,700	170	1.2	36	<.5	<.5	<.5	3,700	8,000
JF111	12-16-92	13	18	2.7	4,600	170	1.3	36	<.5	<.5	<.5	7,200	5,100
JF121	12-21-92	11	12	2.7	2,700	150	1.2	50	<.5	<.5	<.5	4,900	4,200
Quality Assurance Samples													
FIELD BLANK 1	01-25-93	2.8	--	<0.5	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	44	--
FIELD BLANK 2	01-14-93	3.4	--	<.5	--	--	<.5	<.5	<.5	<.5	<.5	<34	--
FIELD BLANK 3	12-29-92	1.1	--	.2	--	--	<.5	<.5	<.5	<.5	<.5	35	--

Table 19. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Inorganic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Date	Time	Barium, total recoverable (µg/L as Ba)	Barium, dissolved (µg/L as Ba)	Cobalt, total recoverable (µg/L as Co)	Cobalt, dissolved (µg/L as Co)	Cyanide, total (mg/L as CN)	Manganese, total recoverable (µg/L)	Manganese, dissolved (µg/L as Mn)	Mercury, total recoverable (µg/L)	Mercury, dissolved (µg/L as Hg)	Vanadium, total (µg/L as V)	Vanadium, dissolved (µg/L as V)	Zinc, total recoverable (µg/L as Zn)	Zinc, dissolved (µg/L as Zn)
Metals															
Surficial Aquifer															
P2	01-14-93	1330	52	--	4	--	--	25v	--	<0.2	--	<5	--	17v	--
P3	01-21-93	1330	81	--	<4	--	<10	310	--	<.2	--	<5	--	74v	--
P4	01-21-93	1200	110	--	<4	--	<10	160	--	<.2	--	<5	--	73v	--
P6	12-15-92	1015	100	21	24	<4	<10	170	5.7	<.2	<0.2	21	<5	70v	14
P7	12-15-92	1200	20	20	92	97	<10	440	450	<.2	<.2	<5	<5	280v	290
P8	12-29-92	1100	42	34	25	28	<10	170	150	<.2	<.2	<4	<4	85v	92
P8d	12-29-92	1104	41	33	29	28	<10	250	150	<.2	<.2	<4	<4	87v	92
P9	01-14-93	1100	15	--	<4	--	--	9.7v	--	<.2	--	<5	--	16v	--
TH1	12-29-92	1400	54	52	12	11	<10	77	57	<.2	<.2	<4	<4	40v	45
TH3	12-16-92	0930	25	15	8.8	<4	<10	43v	14	<.2	<.2	5	<5	24v	10
TH8	01-06-93	1100	76	21	<6	<6	<10	520	<6	<.2	<.2	<4	<4	32v	20
TH10	01-14-93	1030	120	--	42	--	--	630	--	<.2	--	<5	--	180v	--
JF13	01-07-93	1230	180	170	<6	<6	<10	220	160	<.2	<.2	<4	<4	28v	13
JF23	01-11-93	1410	150	150	<6	<6	<10	99	100	<.2	<.2	<4	<4	16v	13
JF33	11-23-92	1400	42	40	12	4.2	--	41v	8.8	<.2	<.2	5.8	<5	190v	<4
JF43	12-03-92	1030	34	37	4	<4	<10	400	400	<.2	<.2	<5	<5	18v	5
JF53	01-21-93	1130	110	--	6.9	--	<10	860	--	<.2	--	7.5	--	80v	--
JF53d	01-21-93	1134	110	--	6.2	--	<10	830	--	<.2	--	5.6	--	76v	--
JF63	01-20-93	1430	100	--	11	--	--	570	--	<.2	--	<5	--	17v	--
JF73	01-19-93	1400	66	--	4.7	--	--	170	--	<.2	--	<5	--	12v	--
JF73d	01-19-93	1404	67	--	5.7	--	--	180	--	<.2	--	--	--	11v	--
JF83	01-19-93	1130	90	--	13	--	--	170	--	<.2	--	--	--	15v	--
JF93	12-14-92	1350	82	34	29	22	<10	170	96	<.2	<.2	15	<5	130v	63
JF103v	12-22-92	1020	170	170	<4	<4	<10	<5	<5	<.2	<.2	<5	<5	<4	<4
JF113	12-16-92	1330	50	45	5.5	<4	<10	400	420	<.2	<.2	<5	<5	25v	8
JF123	12-21-92	1200	35	30	4.3	<4	<10	310	300	<.2	<.2	<5	<5	10v	12
JF133	12-30-92	1200	45	45	29	29	<10	1,700	1,800	<.2	<.2	6.7	<4	210v	210
JF143	12-30-92	1100	30	30	12	10	<10	110	67	<.2	<.2	<4	<4	53v	37
JF153	01-06-93	1300	54	60	10	22	<10	90	120	<.2	<.2	<4	<4	34v	39
JF163	12-30-92	1300	65	48	22	7.8	<10	130	22	<.2	<.2	<4	<4	44v	30

Table 19. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Inorganic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Date	Time	Barium, total recoverable (µg/L as Ba)	Barium, dissolved (µg/L as Ba)	Cobalt, total recoverable (µg/L as Co)	Cobalt, dissolved (µg/L as Co)	Cyanide, total (mg/L as CN)	Manganese, total recoverable (µg/L)	Manganese, dissolved (µg/L as Mn)	Mercury, total recoverable (µg/L)	Mercury, dissolved (µg/L as Hg)	Vanadium, total (µg/L as V)	Vanadium, dissolved (µg/L as V)	Zinc, total recoverable (µg/L as Zn)	Zinc, dissolved (µg/L as Zn)
Metals--Continued															
Confining Unit															
JF12	01-08-93	1000	110	90	<6	<6	17.1	1,900	1,900	<0.2	<0.2	<4	<4	21v	6
JF22	01-12-93	1000	130	--	<4	--	--	1,900	--	<.2	--	<5	--	11v	--
JF22d	01-12-93	1004	130	--	<4	--	--	2,000	--	<.2	--	<5	--	<11	--
JF32	11-23-92	0930	87	80	<4	<4	--	1,000	1,100	<.2	<.2	<5	<5	36v	25
JF52	01-26-93	0745	54	--	<4	--	<10	680	--	<.2	--	<5	--	23v	--
JF62	01-26-93	0830	75	--	<4	--	22.3	790	--	<.2	--	<5	--	28v	--
JF82v	01-20-93	1100	51	--	<4	--	--	26v	--	<.2	--	20	20	<11	--
JF122v	12-22-92	1030	62	30	<4	<4	<10	750	32	<.2	<.2	<5	<5	<4	<4
Confined Aquifer															
JF1	01-22-93	1230	240	--	<4	--	<10	1,100	--	<0.2	--	<5	--	27v	--
JF2	01-05-93	1400	23	70	<6	<6	<10	90	510	<.2	<0.2	4.1	4	30v	17
JF11	01-07-93	1300	110	100	<6	<6	<10	11,000	910	<.2	<.2	<4	<4	20v	15
JF21	01-14-93	1200	47	--	<4	--	--	3,000	--	<.2	--	<5	--	<11	--
JF31	11-24-92	1230	70	65	<4	<4	--	1,500	1,600	<.2	<.2	<5	<5	15v	<4
JF41	12-01-92	1230	110	110	<4	<4	--	1,000	1,100	<.2	<.2	<5	<5	21v	<4
JF51v	01-26-93	0730	150	--	<4	--	<10	150	--	<.2	--	<5	--	<11	--
JF61v	01-26-93	0800	110	--	<4	--	<10	5.6v	--	<.2	--	<5	--	13v	--
JF61dv	01-26-93	0804	110	--	<4	--	<10	5.7v	--	<.2	--	<5	--	15v	--
JF71v	01-21-93	1030	120	--	<4	--	<10	480	--	<.2	--	<5	--	81v	--
JF81v	01-19-93	1330	120	--	5	--	--	880	--	<.2	--	11	--	13v	--
JF91	12-14-92	1000	61	53	<4	<4	<10	570	540	<.2	<.2	<5	<5	25v	6
JF101	12-16-92	1330	45	35	<4	<4	<10	1,600	940	<.2	<.2	<5	<5	4v	5
JF111	12-16-92	1130	59	46	<4	<4	<10	2,100	1,900	<.2	<.2	<5	<5	<4	<4
JF121	12-21-92	1430	51	43	<4	<4	<10	2,100	2,100	<.2	<.2	<5	<5	10v	4
Quality Assurance Samples															
FIELD BLANK 1	01-25-93	1400	<3.0	--	<4	--	<10	<4	--	<0.2	--	<5	--	20	--
FIELD BLANK 2	01-14-93	1047	<3.0	--	<4	--	<10	29	--	<.2	--	<5	--	<11	--
FIELD BLANK 3	12-29-92	1130	<3.0	--	<6	--	<10	55	--	<.2	--	<4	--	6.6	--

Table 20. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--
Organic constituents, Phase II, November 1992 through January 1993

[µg/L = micrograms per liter; < = less than; > = greater than; -- = data not available; P,P′ DDD = 1,1-Dichloro-2,2- bis-(pchlorophenyl)-ethane; P,P′ DDE = 2,2-Bis(p-chlorophenyl)-1,1-dichloroethene; P,P′ DDT = 2,2-Bis(p-chlorophenyl)-1,1,1-trichloroethene; A "v" after a well no. indicates possible contamination bias due to drilling methods, while a "v" after a value indicates parameter was found in the associated blank, as well as in the sample; A "j" after a value indicates an estimated value that is less than the reporting value; An "e" after a value indicates analyses that exceeded the calibration range of the instrument]

NOTE: Well No. ending in a "d" represents duplicate analyses. Field blank 1 was collected after sampling well JF1. Field blank 2 was collected after sampling well JF21. Field blank 3 was collected after sampling well P8.

Well No.	Station number	Date	Time	Acetone (µg/L)	Benzene (µg/L)	Bromo-di-chloro-methane (µg/L)	Bromo-form (µg/L)	Bromo-methane (µg/L)	Carbon di-sulfide (µg/L)	Carbon-tetra-chlo-ride (µg/L)	Chloro-benzene (µg/L)	Chloro-ethane (µg/L)
Volatile organic compounds												
Surficial Aquifer												
P2	391809076173001	01-14-93	1330	<10	<10	<10	<10	<10	<10	<10	<10	<10
P3	391812076172901	01-21-93	1330	<200	<200	<200	<200	<200	<200	<200	260	<200
P4	391811076172801	01-21-93	1200	49vj	<200	<200	<200	<200	<200	<200	<200	<200
P6	391825076173001	12-15-92	1015	5vj	<10	<10	<10	<10	<10	<10	<10	<10
P7	391826076173001	12-15-92	1200	11vj	<33	<33	<33	<33	<33	<33	<33	<33
P8	391827076172801	12-29-92	1100	8j	<10	<10	<10	<10	<10	<10	<10	<10
P8d		12-29-92	1104	<10	<10	<10	<10	<10	<10	<10	<10	<10
P9	391810076173101	01-14-93	1100	<10	<10	<10	<10	<10	<10	<10	<10	<10
P9d		01-14-93	1104	<10	--	<10	<10	<10	<10	--	<10	<10
TH1	391827076172701	12-29-92	1400	<10	<10	<10	<10	<10	<10	<10	<10	<10
TH3	391824076173001	12-16-92	0930	<10	<10	<10	<10	<10	<10	<10	<10	<10
TH8	391816076173801	01-06-93	1100	6vj	<10	<10	<10	<10	<10	<10	<10	<10
TH10	391805076174001	01-14-93	1030	5vj	<10	<10	<10	<10	<10	<10	<10	<10
JF13	391809076174303	01-07-93	1230	15vj	800	<50	<50	<50	<50	<50	<800	<50
JF13d		01-07-93	1234	<50	--	<50	<50	<50	<50	--	<50	<50
JF23	391809076174603	01-11-93	1410	3vj	<50	<50	<50	<50	1j	<50	<50	<50
JF33	391814076173803	11-23-92	1400	4vj	<10	<10	<10	<10	<10	<10	<10	<10
JF43	391812076173103	12-03-92	1030	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF53	391808076172703	01-21-93	1130	84vj	<400	<400	<400	<400	<400	<400	<400	<400
JF53d		01-21-93	1134	110vj	<400	<400	<400	<400	<400	<400	<400	<400
JF63	391810076172803	01-20-93	1430	73vj	<250	<250	<250	<250	<250	<250	<250	<250
JF63d		01-20-93	1434	<250	--	<250	<250	<250	<250	--	<250	<250
JF73	391807076172803	01-19-93	1400	<500	<500	<500	<500	<500	<500	<500	<500	<500
JF73d		01-19-93	1404	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
JF83	391808076173003	01-19-93	1130	6,700j	<20,000	<20,000	<20,000	<20,000	<20,000	<20,000	<20,000	<20,000
JF93	391825076172603	12-14-92	1350	6vj	<10	<10	<10	<10	<10	<10	<10	<10
JF103	391826076173106	12-22-92	1020	110v	<10	<10	<10	<10	<10	<10	<10	<10
JF113	391826076173103	12-16-92	1330	5vj	<10	<10	<10	<10	<10	<10	<10	<10
JF123	391827076173003	12-21-92	1200	3vj	<10	<10	<10	<10	<10	<10	<10	<10
JF133	391806076173501	12-30-92	1200	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF143	391808076174401	12-30-92	1100	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF153	391815076170301	01-06-93	1300	9vj	2j	<10	<10	<10	<10	<10	<10	<10
JF163	391815076170601	12-30-92	1300	<10	<10	<10	<10	<10	<10	<10	<10	<10

Table 20. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Station number	Date	Time	Acetone (µg/L)	Benzene (µg/L)	Bromo-di-chloro-methane (µg/L)	Bromo-form (µg/L)	Bromo-methane (µg/L)	Carbon di-sulfide (µg/L)	Carbon-tetra-chlo-ride (µg/L)	Chloro-benzene (µg/L)	Chloro-ethane (µg/L)
Volatile organic compounds--Continued												
Confining Unit												
JF12	391809076174302	01-08-93	1000	8j	4j	<10	<10	<10	<10	<10	<10	4
JF22	391809076174602	01-12-93	1000	5vj	<10	<10	<10	<10	<10	<10	<10	<10
JF22d		01-12-93	1004	5vj	<10	<10	<10	<10	<10	<10	<10	<10
JF32	391814076173802	11-23-92	0930	14	<10	<10	<10	<10	<10	<10	<10	<10
JF52	391808076172702	01-26-93	0745	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF62	391810076172802	01-26-93	0830	4j	<10	<10	<10	<10	<10	<10	<10	<10
JF82	391808076173002	01-20-93	1100	45v	<100	<100	<100	<100	35j	<100	<100	<100
JF122	391827076173002	12-22-92	1030	30v	<10	<10	<10	<10	<10	<10	<10	<10
Confined Aquifer												
JF1	391806076165301	01-22-93	1230	4j	<10	<10	<10	<10	<10	<10	<10	<10
JF2	391845076171401	01-05-93	1400	12v	<10	<10	<10	<10	<10	<10	<10	<10
JF11	391809076174301	01-07-93	1300	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF21	391809076174601	01-14-93	1200	3vj	<10	<10	<10	<10	<10	<10	<10	<10
JF31	391814076173801	11-24-92	1230	8vj	<10	<10	<10	<10	<10	<10	<10	<10
JF41	391812076173101	12-01-92	1230	2j	<10	<10	<10	<10	<10	<10	<10	<10
JF51v	391808076172701	01-26-93	0730	<10	<10	<10	<10	<10	5j	<10	<10	<10
JF61v	391810076172801	01-26-93	0800	47	<10	<10	<10	<10	6j	<10	<10	<10
JF61dv		01-26-93	0804	53	<10	<10	<10	<10	7j	<10	<10	<10
JF71v	391807076172801	01-21-93	1030	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF81v	391808076173001	01-19-93	1330	6j	<14	<14	<14	<14	<14	<14	<14	<14
JF81dv		01-19-93	1334	<50	--	<50	<50	<50	<50	--	<50	<50
JF91	391825076172601	12-14-92	1000	4j	<10	<10	<10	<10	<10	<10	<10	<10
JF101	391826076173104	12-16-92	1330	4j	<10	<10	<10	<10	<10	<10	<10	<10
JF111	391826076173101	12-16-92	1130	6vj	<10	<10	<10	<10	<10	<10	<10	<10
JF121	391827076173001	12-21-92	1430	<10	<10	<10	<10	<10	<10	<10	<10	<10
Quality Assurance Samples												
FIELD BLANK 1		01-22-93	1245	3j	<10	<10	<10	<10	<10	<10	<10	<10
FIELD BLANK 2		01-14-93	1245	4j	<10	<10	<10	<10	<10	<10	<10	<10
FIELD BLANK 3		12-29-92	1115	<10	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 1		12-14-92	1115	5j	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 2		01-14-93	1300	<10	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 3		01-15-93	1330	<10	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 4		01-19-93	1500	7j	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 5		01-20-93	1330	3j	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 6		01-21-93	1330	5j	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 7		01-25-93	--	3j	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 8		01-25-93	1440	<10	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 9		01-26-93	0830	4j	<10	<10	<10	<10	<10	<10	<10	<10

Table 20. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Date	Chloroform (µg/L)	Chloromethane (µg/L)	Dibromochloromethane (µg/L)	1,1-Dichloroethane (µg/L)	1,2-Dichloroethane (µg/L)	1,2-Dichloroethene (µg/L)	1,1-Dichloroethene (µg/L)	1,2-Dichloropropane (µg/L)	cis-1,3-Dichloropropene (µg/L)	trans-1,3-Dichloropropene (µg/L)	Ethylbenzene (µg/L)
Volatile organic compounds--Continued												
Surficial Aquifer												
P2	01-14-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
P3	01-21-93	<200	<200	<200	<200	<200	980	<200	<200	<200	<200	<200
P4	01-21-93	<200	<200	<200	<200	<200	3,300	<200	<200	<200	<200	<200
P6	12-15-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
P7	12-15-92	<33	<33	<33	<33	<33	<33	<33	<33	<33	<33	<33
P8	12-29-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
P8d	12-29-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
P9	01-14-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
P9d	01-14-93	3	<10	<10	<10	<10	--	<10	<10	<10	<10	<10
TH1	12-29-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TH3	12-16-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TH8	01-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TH10	01-14-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF13	01-07-93	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
JF13d	01-07-93	<50	<50	<50	<50	<50	--	<50	<50	<50	<50	<50
JF23	01-11-93	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
JF33	11-23-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF43	12-03-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF53	01-21-93	<400	<400	<400	<400	<400	>10,000e	<400	<400	<400	<400	<400
JF53d	01-21-93	<400	<400	<400	<400	<400	>10,000e	<400	<400	<400	<400	<400
JF63	01-20-93	<250	<250	<250	<250	<250	120j	<250	<250	<250	<250	<250
JF63d	01-20-93	<250	<250	<250	<250	<250	--	<250	<250	<250	<250	<250
JF73	01-19-93	<500	<500	<500	<500	<500	920	<500	<500	<500	<500	<500
JF73d	01-19-93	<1,000	1,000	<1,000	<1,000	<1,000	820j	<1,000	<1,000	<1,000	< 1,000	<1,000
JF83	01-19-93	<20,000	<20,000	<20,000	<20,000	<20,000	12,000j	<20,000	<20,000	<20,000	<20,000	<20,000
JF93	12-14-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF103	12-22-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF113	12-16-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF123	12-21-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF133	12-30-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF143	12-30-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF153	01-06-93	3	<10	<10	3j	3j	3j	1j	3j	<10	<10	2j
JF163	12-30-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Table 20. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--
Organic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Date	Chloroform (µg/L)	Chloromethane (µg/L)	Dibromochloromethane (µg/L)	1,1-Dichloroethane (µg/L)	1,2-Dichloroethane (µg/L)	1,2-Dichloroethene (µg/L)	1,1-Dichloroethene (µg/L)	1,2-Dichloropropane (µg/L)	cis-1,3-Dichloropropene (µg/L)	trans-1,3-Dichloropropene (µg/L)	Ethylbenzene (µg/L)
Volatile organic compounds--Continued												
Confining Unit												
JF12	01-08-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF22	01-12-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF22d	01-12-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF32	11-23-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF52	01-26-93	<10	<10	<10	<10	<10	152	<10	<10	<10	<10	<10
JF62	01-26-93	<10	<10	<10	<10	<10	4j	<10	<10	<10	<10	<10
JF82	01-20-93	<100	<100	<100	<100	<100	190	<100	<100	<100	<100	<100
JF122	12-22-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Confined Aquifer												
JF1	01-22-93	<10	<10	<10	1j	<10	<10	<10	<10	<10	<10	<10
JF2	01-05-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF11	01-07-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF21	01-14-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF31	11-24-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF41	12-01-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF51v	01-26-93	<10	<10	<10	<10	<10	>200e	<10	<10	<10	<10	<10
JF61v	01-26-93	<10	<10	<10	<10	<10	2j	<10	<10	<10	<10	<10
JF61dv	01-26-93	<10	<10	<10	<10	<10	2j	<10	<10	<10	<10	<10
JF71v	01-21-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF81v	01-19-93	<14	<14	<14	<14	<14	22	2j	<14	<14	<14	<14
JF81dv	01-19-93	<50	<50	<50	<50	<50	--	<50	<50	<50	<50	<50
JF91	12-14-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF101	12-16-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF111	12-16-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF121	12-21-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Quality Assurance Samples												
FIELD BLANK 1	01-22-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
FIELD BLANK 2	01-14-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
FIELD BLANK 3	12-29-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 1	12-14-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 2	01-14-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 3	01-15-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 4	01-19-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 5	01-20-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 6	01-21-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 7	01-25-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 8	01-25-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 9	01-26-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Table 20. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Date	Methylene chloride (µg/L)	Methyl-ethyl-keytone (µg/L)	Methyl-iso-butyl-ketone (µg/L)	Methyl n-butyl keytone (µg/L)	1,1,2,2-Tetra-chloro-ethane (µg/L)	Tetra-chloro-ethene (µg/L)	Toluene (µg/L)	1,1,1-Tri-chloro-ethane (µg/L)	1,1,2-Tri-chloro-ethane (µg/L)	Tri-chloro-ethene (µg/L)	Vinyl chloride (µg/L)
					Volatile organic compounds--Continued							
					Surficial Aquifer							
P2	01-14-93	1vj	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
P3	01-21-93	<200	<200	<200	<200	<200	3400	<200	<200	<200	570	600
P4	01-21-93	<200	<200	<200	<200	500	<200	<200	<200	65j	3,600	<200
P6	12-15-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
P7	12-15-92	<33	<33	<33	<33	<33	<33	<33	<33	<33	310	<33
P8	12-29-92	2vj	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
P8d	12-29-92	1vj	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
P9	01-14-93	2vj	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
P9d	01-14-93	2vj	<10	<10	<10	--	--	--	<10	--	--	--
TH1	12-29-92	1vj	2vj	<10	<10	<10	<10	<10	<10	<10	<10	<10
TH3	12-16-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TH8	01-06-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TH10	01-14-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF13	01-07-93	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
JF13d	01-07-93	<50	8vj	<50	<50	--	--	--	<50	--	--	--
JF23	01-11-93	<10	<10	<10	<50	<10	<10	<10	<10	<10	<10	<10
JF33	11-23-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF43	12-03-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF53	01-21-93	<400	<400	<400	<400	4,900	<400	<400	<400	290j	4,200	95j
JF53d	01-21-93	<400	<400	<400	<400	5,000	<400	<400	<400	300j	4,200	110j
JF63	01-20-93	<250	<250	<250	<250	75j	130j	<250	<250	<250	4,400	<250
JF63d	01-20-93	<250	74vj	<250	<250	--	--	--	<250	--	--	--
JF73	01-19-93	<500	170vj	<500	<500	9,000	280j	<500	<500	90j	5,100	<500
JF73d	01-19-93	<1,000	<1,000	<1,000	<1,000	8,000	290j	<1,000	<1,000	<1,000	4,800	<1,000
JF83	01-19-93	<20,000	<20,000	<20,000	<20,000	260,000	3,600j	<20,000	<20,000	2,000j	41,000	<20,000
JF93	12-14-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF103	12-22-92	3vj	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF113	12-16-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF123	12-21-92	48	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF133	12-30-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF143	12-30-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF153	01-06-93	3vj	5vj	4vj	2vj	2j	1j	2j	2j	3j	1j	<10
JF163	12-30-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Table 20. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Date	Methylene chloride (µg/L)	Methyl-ethyl-keytone (µg/L)	Methyl-isobutyl-ketone (µg/L)	Methyl n-butyl keytone (µg/L)	1,1,2,2-Tetrachloroethane (µg/L)	Tetrachloroethene (µg/L)	Toluene (µg/L)	1,1,1-Trichloroethane (µg/L)	1,1,2-Trichloroethane (µg/L)	Trichloroethene (µg/L)	Vinyl chloride (µg/L)
Volatile organic compounds--Continued												
Confining Unit												
JF12	01-08-93	<10	6vj	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF22	01-12-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF22d	01-12-93	<10	2j	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF32	11-23-92	1j	5vj	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF52	01-26-93	<10	<10	1j	<10	1j	<10	<10	<10	1j	3j	<10
JF62	01-26-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	13	<10
JF82	01-20-93	<100	<100	<100	<100	<100	22j	<100	<100	<100	1,800	<100
JF122	12-22-92	<10	8j	<10	<10	<10	<10	<10	<10	<10	<10	<10
Confined Aquifer												
JF1	01-22-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF2	01-05-93	<10	5vj	<10	<10	<10	<10	1j	<10	<10	<10	<10
JF11	01-07-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF21	01-14-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF31	11-24-92	1j	2j	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF41	12-01-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF51v	01-26-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	97	<10
JF61v	01-26-93	<10	3vj	<10	<10	<10	2j	<10	<10	<10	<10	<10
JF61dv	01-26-93	<10	<10	<10	<10	<10	2j	<10	<10	<10	<10	<10
JF71v	01-21-93	<10	3vj	<10	<10	2j	<10	<10	<10	<10	3j	<10
JF81v	01-19-93	<14	<14	<14	<14	5j	3j	<14	<14	<14	220	<14
JF81dv	01-19-93	<50	<50	<50	50	--	--	--	<10	--	--	--
JF91	12-14-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF101	12-16-92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF111	12-16-92	<10	3vj	<10	<10	<10	<10	<10	<10	<10	<10	<10
JF121	12-21-92	49	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Quality Assurance Samples												
FIELD BLANK 1	01-22-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
FIELD BLANK 2	01-14-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
FIELD BLANK 3	12-29-92	2j	4j	<10	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 1	12-14-92	<10	2j	<10	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 2	01-14-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 3	01-15-93	3j	3j	<10	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 4	01-19-93	2j	<10	<10	<10	2j	<10	<10	<10	<10	<10	<10
TRIP BLANK 5	01-20-93	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 6	01-21-93	1j	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 7	01-25-93	2j	3j	<10	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 8	01-25-93	<10	2j	<10	<10	<10	<10	<10	<10	<10	<10	<10
TRIP BLANK 9	01-26-93	2j	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Table 20. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Station number	Date	Time	Acenaphthene (µg/L)	Acenaphthylene (µg/L)	Aldrin (µg/L)	Anthracene (µg/L)	Alpha benzene hexachloride (µg/L)	Beta benzene hexachloride (µg/L)	Delta benzene hexachloride (µg/L)	Benzo[a]anthracene (µg/L)	Benzo[a]pyrene (µg/L)	Benzo[b]fluoranthene (µg/L)
Semi-volatile organic compounds													
Surficial Aquifer													
P2	391809076173001	01-14-93	1330	<10	<10	<0.05	<10	<0.05	<0.05	<0.05	<10	<10	<10
P3	391812076172901	01-21-93	1330	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
P4	391811076172801	01-21-93	1200	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
P6	391825076173001	12-15-92	1015	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
P7	391826076173001	12-15-92	1200	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
P8	391827076172801	12-29-92	1100	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
P8d		12-29-92	1104	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
P9	391810076173101	01-14-93	1100	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
TH1	391827076172701	12-29-92	1400	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
TH3	391824076173001	12-16-92	0930	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
TH8	391816076173801	01-06-93	1100	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
TH10	391805076174001	01-14-93	1030	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF13	391809076174303	01-07-93	1230	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF23	391809076174603	01-11-93	1410	<12	<12	<.05	<12	<.06	<.06	<.06	<12	<12	<12
JF33	391814076173803	11-23-92	1400	<11	<11	<.05	<11	<.05	<.05	<.05	<11	<11	<11
JF43	391812076173103	12-03-92	1030	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF53	391808076172703	01-21-93	1130	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF53d		01-21-93	1134	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF63	391810076172803	01-20-93	1430	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF73	391807076172803	01-19-93	1400	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF73d		01-19-93	1404	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF83	391808076173003	01-19-93	1130	<40	<40	<.05	<40	<.05	<.05	<.05	<40	<40	<40
JF93	391825076172603	12-14-92	1350	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF103	391826076173106	12-22-92	1020	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF113	391826076173103	12-16-92	1330	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF123	391827076173003	12-21-92	1200	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF133	391806076173501	12-30-92	1200	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF143	391808076174401	12-30-92	1100	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF153	391815076170301	01-06-93	1300	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF163	391815076170601	12-30-92	1300	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10

Table 20. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Station number	Date	Time	Ace-naphth-ene (µg/L)	Ace-naphthy-lene (µg/L)	Aldrin (µg/L)	Anthra-cene (µg/L)	Alpha benzene hexa-chlo-ride (µg/L)	Beta benzene hexa-chlo-ride (µg/L)	Delta benzene hexa-chlo-ride (µg/L)	Benzo[a] anthra-cene (µg/L)	Benzo[a] pyrene (µg/L)	Benzo[b] fluor-an-thene (µg/L)
Semi-volatile organic compounds--Continued													
Confining Unit													
JF12	391809076174302	01-08-93	1000	<10	<10	<0.05	<10	<0.05	<0.05	<0.05	<10	<10	<10
JF22	391809076174602	01-12-93	1000	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF22d		01-12-93	1004	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF32	391814076173802	11-23-92	0930	<11	<11	<.05	<11	<.05	<.05	<.05	<11	<11	<11
JF52	391808076172702	01-26-93	0745	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF62	391810076172802	01-26-93	0830	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF82	391808076173002	01-20-93	1100	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF122	391827076173002	12-22-92	1030	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
Confined Aquifer													
JF1	391806076165301	01-22-93	1230	<10	<10	<0.05	<10	<0.05	<0.05	<0.05	<10	<10	<10
JF2	391845076171401	01-05-93	1400	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF11	391809076174301	01-07-93	1300	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF21	391809076174601	01-14-93	1200	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF31	391814076173801	11-24-92	1230	<11	<11	<.05	<11	<.05	<.05	<.05	<11	<11	<11
JF41	391812076173101	12-01-92	1230	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF51v	391808076172701	01-26-93	0730	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF61v	391810076172801	01-26-93	0800	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF61dv		01-26-93	0804	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF71v	391807076172801	01-21-93	1030	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF81v	391808076173001	01-19-93	1330	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF91	391825076172601	12-14-92	1000	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF101	391826076173104	12-16-92	1330	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF111	391826076173101	12-16-92	1130	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
JF121	391827076173001	12-21-92	1430	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
Quality Assurance Samples													
FIELD BLANK 1		01-22-93	1245	<10	<10	<0.05	<10	<0.05	<0.05	<0.05	<10	<10	<10
FIELD BLANK 2		01-14-93	1245	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10
FIELD BLANK 3		12-29-92	1150	<10	<10	<.05	<10	<.05	<.05	<.05	<10	<10	<10

Table 20. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Date	Benzo[k] fluor-an-thene (µg/L)	Benzo [ghi] pery-lene (µg/L)	4-Bromo-phenyl phenyl ether (µg/L)	Alpha chlor-dane (µg/L)	Gamma-chlor-dane (µg/L)	4-Chloro-analine (µg/L)	Bis (2-chloro-ethoxy) methane (µg/L)	Bis (2-chloro-ethyl) ether (µg/L)	Bis (2-chloro-iso-propyl) ether (µg/L)	2-Chloro-naph-thalene (µg/L)	2-Chloro-phenol (µg/L)	4-Chloro-phenyl phenyl ether (µg/L)	Chry-sene (µg/L)
Semi-volatile organic compounds--Continued														
Surficial Aquifer														
P2	01-14-93	<10	<10	<10	<0.05	<0.05	<10	<10	<10	<10	<10	<10	<10	<10
P3	01-21-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
P4	01-21-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
P6	12-15-92	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
P7	12-15-92	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
P8	12-29-92	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
P8d	12-29-92	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
P9	01-14-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
TH1	12-29-92	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
TH3	12-16-92	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
TH8	01-06-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
TH10	01-14-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF13	01-07-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF23	01-11-93	<12	<12	<12	<.06	<.06	<12	<12	<12	<12	<12	<12	<12	<12
JF33	11-23-92	<11	<11	<11	<.05	<.05	<11	<11	<11	<11	<11	<11	<11	<11
JF43	12-03-92	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF53	01-21-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF53d	01-21-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF63	01-20-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF73	01-19-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF73d	01-19-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF83	01-19-93	<40	<40	<40	<.05	<.05	<40	<40	<40	<40	<40	<40	<40	<40
JF93	12-14-92	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF103	12-22-92	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF113	12-16-92	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF123	12-21-92	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF133	12-30-92	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF143	12-30-92	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF153	01-06-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF163	12-30-92	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10

Table 20. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Date	Benzo[k] fluor-an-thene (µg/L)	Benzo [ghi] pery-lene (µg/L)	4-Bromo-phenyl phenyl ether (µg/L)	Alpha chlor-dane (µg/L)	Gamma-chlor-dane (µg/L)	4-Chloro-analine (µg/L)	Bis (2-chloro-ethoxy) methane (µg/L)	Bis (2-chloro-ethyl) ether (µg/L)	Bis (2-chloro-iso-propyl) ether (µg/L)	2-Chloro-naph-thalene (µg/L)	2-Chloro-phenol (µg/L)	4-Chloro-phenyl phenyl ether (µg/L)	Chry-sene (µg/L)
Semi-volatile organic compounds--Continued														
Confining Unit														
JF12	01-08-93	<10	<10	<10	<0.05	<0.05	<10	<10	<10	<10	<10	<10	<10	<10
JF22	01-12-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF22d	01-12-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF32	11-23-92	<11	<11	<11	<.05	<.05	<11	<11	<11	<11	<11	<11	<11	<11
JF52	01-26-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF62	01-26-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF82	01-20-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF122	12-22-92	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
Confined Aquifer														
JF1	01-22-93	<10	<10	<10	<0.05	<0.05	<10	<10	<10	<10	<10	<10	<10	<10
JF2	01-05-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF11	01-07-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF21	01-14-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF31	11-24-92	<11	<11	<11	<.05	<.05	<11	<11	<11	<11	<11	<11	<11	<11
JF41	12-01-92	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF51v	01-26-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF61v	01-26-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF61dv	01-26-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF71v	01-21-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF81v	01-19-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF91	12-14-92	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF101	12-16-92	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF111	12-16-92	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
JF121	12-21-92	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
Quality Assurance Samples														
FIELD BLANK 1	01-22-93	<10	<10	<10	<0.05	<0.05	<10	<10	<10	<10	<10	<10	<10	<10
FIELD BLANK 2	01-14-93	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10
FIELD BLANK 3	12-29-92	<10	<10	<10	<.05	<.05	<10	<10	<10	<10	<10	<10	<10	<10

Table 20. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Date	P,P' DDD (µg/L)	P,P' DDE (µg/L)	P,P' DDT (µg/L)	Dibenzo-furan (µg/L)	1,2-Di-chloro-benzene (µg/L)	1,3-Di-chloro-benzene (µg/L)	1,4-Di-chloro-benzene (µg/L)	3,3'-Di-chloro-benzi-dine (µg/L)	2,4-Di-chloro-phenol (µg/L)	Di-eldrin (µg/L)	2,4-Di-methyl-phenol (µg/L)	Di-methyl phthal-ate (µg/L)
Semi-volatile organic compounds--Continued													
Surficial Aquifer													
P2	01-14-93	<0.10	<0.10	<0.10	<10	<10	<10	<10	<10	<10	<0.10	<10	<10
P3	01-21-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
P4	01-21-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
P6	12-15-92	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
P7	12-15-92	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
P8	12-29-92	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
P8d	12-29-92	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
P9	01-14-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
TH1	12-29-92	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
TH3	12-16-92	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
TH8	01-06-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
TH10	01-14-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF13	01-07-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF23	01-11-93	<.12	<.12	<.12	<12	<12	<12	<12	<12	<12	<.12	<12	<12
JF33	11-23-92	<.11	<.11	<.11	<11	<11	<11	<11	<11	<11	<.11	<11	<11
JF43	12-03-92	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF53	01-21-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF53d	01-21-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF63	01-20-93	<.10	<.10	<.10	<10	1j	<10	<10	<10	<10	<.10	<10	<10
JF73	01-19-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF73d	01-19-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF83	01-19-93	<.10	<.10	<.10	<40	<40	<40	<40	<40	<40	<.10	<40	<40
JF93	12-14-92	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF103	12-22-92	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF113	12-16-92	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF123	12-21-92	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF133	12-30-92	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF143	12-30-92	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF153	01-06-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF163	12-30-92	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10

Table 20. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Date	P,P' DDD (µg/L)	P,P' DDE (µg/L)	P,P' DDT (µg/L)	Dibenzo-furan (µg/L)	1,2-Di-chloro-benzene (µg/L)	1,3-Di-chloro-benzene (µg/L)	1,4-Di-chloro-benzene (µg/L)	3,3'-Di-chloro-benzi-dine (µg/L)	2,4-Di-chloro-phenol (µg/L)	Di-eldrin (µg/L)	2,4-Di-methyl-phenol (µg/L)	Di-methyl phthal-ate (µg/L)
Semi-volatile organic compounds--Continued													
Confining Unit													
JF12	01-08-93	<0.10	<0.10	<0.10	<10	<10	<10	<10	<10	<10	<0.10	<10	<10
JF22	01-12-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF22d	01-12-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF32	11-23-92	<.10	<.10	<.10	<11	<11	<11	<11	<11	<11	<.10	<11	<11
JF52	01-26-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF62	01-26-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF82	01-20-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF122	12-22-92	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
Confined Aquifer													
JF1	01-22-93	<0.10	<0.10	<0.10	<10	<10	<10	<10	<10	<10	<0.10	<10	<10
JF2	01-05-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF11	01-07-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF21	01-14-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF31	11-24-92	<.10	<.10	<.10	<11	<11	<11	<11	<11	<11	<.10	<11	<11
JF41	12-01-92	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF51v	01-26-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF61v	01-26-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF61dv	01-26-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF71v	01-21-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF81v	01-19-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF91	12-14-92	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF101	12-16-92	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF111	12-16-92	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
JF121	12-21-92	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
Quality Assurance Samples													
FIELD BLANK 1	01-22-93	<0.10	<0.10	<0.10	<10	<10	<10	<10	<10	<10	<0.10	<10	<10
FIELD BLANK 2	01-14-93	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10
FIELD BLANK 3	12-29-92	<.10	<.10	<.10	<10	<10	<10	<10	<10	<10	<.10	<10	<10

Table 20. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Date	Beta-endo-sulfan (µg/L)	Endo-sulfan-I (µg/L)	Endo-sulfan sulfate (µg/L)	Endrin (µg/L)	Endrin alde-hyde (µg/L)	Endrin ketone (µg/L)	Fluor-anthene (µg/L)	Fluor-ene (µg/L)	Hepta-chlor (µg/L)	Hepta-chlor epoxide (µg/L)	Hexa-chloro-benzene (µg/L)	Hexa-chloro-but-adiene (µg/L)
Semi-volatile organic compounds--Continued													
Surficial Aquifer													
P2	01-14-93	<0.10	<0.05	<0.10	<0.10	<0.10	<0.10	<10	<10	<0.05	<0.05	<10	<10
P3	01-21-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
P4	01-21-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
P6	12-15-92	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
P7	12-15-92	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
P8	12-29-92	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
P8d	12-29-92	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
P9	01-14-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
TH1	12-29-92	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
TH3	12-16-92	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
TH8	01-06-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
TH10	01-14-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF13	01-07-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF23	01-11-93	<.12	<.06	<.12	<.12	<.12	<.12	<12	<12	<.06	<.06	<12	<12
JF33	11-23-92	<.11	<.05	<.11	<.11	<.11	<.11	<11	<11	<.05	<.05	<11	<11
JF43	12-03-92	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF53	01-21-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF53d	01-21-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF63	01-20-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF73	01-19-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF73d	01-19-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF83	01-19-93	<.10	<.05	<.10	<.10	<.10	<.10	<40	<40	<.05	<.05	<40	<40
JF93	12-14-92	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF103	12-22-92	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF113	12-16-92	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF123	12-21-92	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF133	12-30-92	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF143	12-30-92	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF153	01-06-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF163	12-30-92	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10

Table 20. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Date	Beta-endosulfan (µg/L)	Endosulfan-I (µg/L)	Endosulfan sulfate (µg/L)	Endrin (µg/L)	Endrin aldehyde (µg/L)	Endrin ketone (µg/L)	Fluoranthene (µg/L)	Fluorene (µg/L)	Heptachlor (µg/L)	Heptachlor epoxide (µg/L)	Hexachlorobenzene (µg/L)	Hexachlorobutadiene (µg/L)
Semi-volatile organic compounds--Continued													
Confining Unit													
JF12	01-08-93	<0.10	<0.05	<0.10	<0.10	<0.10	<0.10	<10	<10	<0.05	<0.05	<10	<10
JF22	01-12-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF22d	01-12-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF32	11-23-92	<.10	<.05	<.10	<.10	<.10	<.10	<11	<11	<.05	<.05	<11	<11
JF52	01-26-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF62	01-26-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF82	01-20-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF122	12-22-92	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
Confined Aquifer													
JF1	01-22-93	<0.10	<0.05	<0.10	<0.10	<0.10	<0.10	<10	<10	<0.05	<0.05	<10	<10
JF2	01-05-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF11	01-07-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF21	01-14-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF31	11-24-92	<.10	<.05	<.10	<.10	<.10	<.10	<11	<11	<.05	<.05	<11	<11
JF41	12-01-92	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF51v	01-26-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF61v	01-26-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF61dv	01-26-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF71v	01-21-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF81v	01-19-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF91	12-14-92	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF101	12-16-92	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF111	12-16-92	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
JF121	12-21-92	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
Quality Assurance Samples													
FIELD BLANK 1	01-22-93	<0.10	<0.05	<0.10	<0.10	<0.10	<0.10	<10	<10	<0.05	<0.05	<10	<10
FIELD BLANK 2	01-14-93	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10
FIELD BLANK 3	12-29-92	<.10	<.05	<.10	<.10	<.10	<.10	<10	<10	<.05	<.05	<10	<10

Table 20. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Date	Hexachlorocyclopentadiene (µg/L)	Hexachloroethane (µg/L)	Indeno [1,2,3-C,D] pyrene (µg/L)	Isophorone (µg/L)	Lindane (µg/L)	Methoxychlor (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	N-nitrosodi-N-propylamine (µg/L)	Pentachlorophenol (µg/L)	Phenanthrene (µg/L)
Semi-volatile organic compounds--Continued												
Surficial Aquifer												
P2	01-14-93	<10	<10	<10	<10	<0.05	<0.50	<10	<10	<10	<25	<10
P3	01-21-93	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
P4	01-21-93	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
P6	12-15-92	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
P7	12-15-92	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
P8	12-29-92	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
P8d	12-29-92	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
P9	01-14-93	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
TH1	12-29-92	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
TH3	12-16-92	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
TH8	01-06-93	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
TH10	01-14-93	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF13	01-07-93	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF23	01-11-93	<12	<12	<12	<12	<.06	<.62	<12	<12	<12	<30	<12
JF33	11-23-92	<11	<11	<11	<11	<.05	<.54	<11	<11	<11	<26	<11
JF43	12-03-92	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF53	01-21-93	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF53d	01-21-93	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF63	01-20-93	<10	<10	<10	<10	<.05	<.50	<10	6j	<10	<25	<10
JF73	01-19-93	<10	2j	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF73d	01-19-93	<10	2j	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF83	01-19-93	<40	61	<40	<40	<.05	<.50	<40	<40	<40	<100	<40
JF93	12-14-92	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF103	12-22-92	<10	<10	1j	<10	<.05	<.50	<10	<10	<10	<25	<10
JF113	12-16-92	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF123	12-21-92	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF133	12-30-92	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF143	12-30-92	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF153	01-06-93	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF163	12-30-92	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10

Table 20. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Date	Hexachlorocyclopentadiene (µg/L)	Hexachloroethane (µg/L)	Indeno [1,2,3-C,D] pyrene (µg/L)	Isophorone (µg/L)	Lindane (µg/L)	Methoxychlor (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	N-nitrosodi-N-propylamine (µg/L)	Pentachlorophenol (µg/L)	Phenanthrene (µg/L)
Semi-volatile organic compounds--Continued												
Confining Unit												
JF12	01-08-93	<10	<10	<10	<10	<0.05	<0.50	<10	<10	<10	<25	<10
JF22	01-12-93	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF22d	01-12-93	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF32	11-23-92	<11	<11	<11	<11	<.05	<.50	<11	<11	<11	<27	<11
JF52	01-26-93	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF62	01-26-93	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF82	01-20-93	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF122	12-22-92	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
Confined Aquifer												
JF1	01-22-93	<10	<10	<10	<10	<0.05	<0.50	<10	<10	<10	<25	<10
JF2	01-05-93	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF11	01-07-93	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF21	01-14-93	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF31	11-24-92	<11	<11	<11	<11	<.05	<.50	<11	<11	<11	<28	<11
JF41	12-01-92	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF51v	01-26-93	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF61v	01-26-93	<10	<10	<10	1j	<.05	<.50	<10	<10	<10	<25	<10
JF61dv	01-26-93	<10	<10	<10	1j	<.05	<.50	<10	<10	<10	<25	<10
JF71v	01-21-93	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF81v	01-19-93	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF91	12-14-92	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF101	12-16-92	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF111	12-16-92	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
JF121	12-21-92	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10
Quality Assurance Samples												
FIELD BLANK 1	01-22-93	<10	<10	<10	<10	<0.05	<0.50	<10	<10	<10	<25	<10
FIELD BLANK 2	01-14-93	<10	<10	<10	<10	<.05	<.50	<10	<10	1	<25	<10
FIELD BLANK 3	12-29-92	<10	<10	<10	<10	<.05	<.50	<10	<10	<10	<25	<10

Table 20. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Date	Phenols (µg/L)	Pyrene (µg/L)	Styrene (µg/L)	1,2,4-Trichlorobenzene (µg/L)	2,4,5-Trichlorophenol (µg/L)	2,4,6-Trichlorophenol (µg/L)	Xylene (µg/L)
Semi-volatile organic compounds--Continued								
Surficial Aquifer								
P2	01-14-93	<10	<10	<10	<10	<25	<10	<10
P3	01-21-93	<10	<10	<200	<10	<25	<10	<200
P4	01-21-93	<10	<10	<200	<10	<25	<10	<200
P6	12-15-92	<10	<10	<10	<10	<25	<10	<10
P7	12-15-92	<10	<10	<10	<10	<25	<10	<10
P8	12-29-92	<10	<10	<10	<10	<25	<10	<10
P8d	12-29-92	<10	<10	<10	<10	<25	<10	<10
P9	01-14-93	<10	<10	<10	<10	<25	<10	<10
TH1	12-29-92	<10	<10	<10	<10	<25	<10	<10
TH3	12-16-92	<10	<10	<10	<10	<25	<10	<10
TH8	01-06-93	<10	<10	<10	<10	<25	<10	<10
TH10	01-14-93	<10	<10	<10	<10	<25	<10	<10
JF13	01-07-93	13	<10	<50	<10	<25	<10	<50
JF23	01-11-93	2j	<12	<10	<12	<30	<12	<10
JF33	11-23-92	<11	<11	<10	<11	<26	<11	<10
JF43	12-03-92	<10	<10	<10	<10	<25	<10	<10
JF53	01-21-93	<10	<10	<400	<10	<25	<10	<400
JF53d	01-21-93	<10	<10	<400	<10	<25	<10	<400
JF63	01-20-93	<10	<10	<250	<10	<25	<10	<250
JF73	01-19-93	<10	<10	<500	<10	<25	<10	<500
JF73d	01-19-93	<10	<10	<1,000	<10	<25	<10	<1,000
JF83	01-19-93	<40	<40	<20,000	<40	<100	<40	<20,000
JF93	12-14-92	<10	<10	<10	<10	<25	<10	<10
JF103	12-22-92	5j	<10	<10	<10	<25	<10	<10
JF113	12-16-92	<10	<10	<10	<10	<25	<10	<10
JF123	12-21-92	<10	<10	<10	<10	<25	<10	<10
JF133	12-30-92	<10	<10	<10	<10	<25	<10	<10
JF143	12-30-92	<10	<10	<10	<10	<25	<10	<10
JF153	01-06-93	<10	<10	1j	<10	<25	<10	3j
JF163	12-30-92	<10	<10	<10	<10	<25	<10	<10

Table 20. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Date	Phenols (µg/L)	Pyrene (µg/L)	Styrene (µg/L)	1,2,4-Trichlorobenzene (µg/L)	2,4,5-Trichlorophenol (µg/L)	2,4,6-Trichlorophenol (µg/L)	Xylene (µg/L)
Semi-volatile organic compounds--Continued								
Confining Unit								
JF12	01-08-93	<10	<10	<10	<10	<25	<10	<10
JF22	01-12-93	1j	<10	<10	<10	<25	<10	<10
JF22d	01-12-93	2j	<10	<10	<10	<25	<10	<10
JF32	11-23-92	<10	<10	<10	<10	<25	<10	<10
JF52	01-26-93	1j	<10	<10	<10	<25	<10	<10
JF62	01-26-93	<11	<11	<10	<11	<27	<11	<10
JF82	01-20-93	8j	<10	<100	<10	<25	<10	<100
JF122	12-22-92	9j	<10	<10	<10	<25	<10	<10
Confined Aquifer								
JF1	01-22-93	<10	<10	<10	<10	<25	<10	<10
JF2	01-05-93	<10	<10	<10	<10	<25	<10	<10
JF11	01-07-93	<10	<10	<10	<10	<25	<10	<10
JF21	01-14-93	<10	<10	<10	<10	<25	<10	<10
JF31	11-24-92	<11	<11	<10	<11	<28	<11	<10
JF41	12-01-92	<10	<10	<10	<10	<25	<10	<10
JF51v	01-26-93	1j	<10	<10	<10	<25	<10	<10
JF61v	01-26-93	26	<10	<10	<10	<25	<10	<10
JF61dv	01-26-93	22	<10	<10	<10	<25	<10	<10
JF71v	01-21-93	6j	<10	<10	<10	<25	<10	<10
JF81v	01-19-93	2j	<10	<14	<10	<25	<10	<14
JF91	12-14-92	<10	<10	<10	<10	<25	<10	<10
JF101	12-16-92	<10	<10	<10	<10	<25	<10	<10
JF111	12-16-92	<10	<10	<10	<10	<25	<10	<10
JF121	12-21-92	<10	<10	<10	<10	<25	<10	<10
Quality Assurance Samples								
FIELD BLANK 1	01-22-93	<10	<10	<10	<10	<25	<10	<10
FIELD BLANK 2	01-14-93	<10	<10	<10	<10	<25	<10	<10
FIELD BLANK 3	12-29-93	<10	<10	<10	<10	<25	<10	<10

Table 20. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Date	Time	n-Butyl benzyl phthalate (µg/L)	Diethyl phthalate (µg/L)	Di-n-butyl phthalate (µg/L)	Di-n-octyl phthalate (µg/L)	1,3,Dinitrobenzene (µg/L)	2,4,-Dinitrophenol (µg/L)	2,4-Dinitrotoluene (µg/L)	2,6-Dinitrotoluene (µg/L)	Bis(2-ethylhexyl) phthalate (µg/L)
Chemical surety materials											
Surficial Aquifer											
P2	01-14-93	1330	<10	<10	<10	<10	<2	<25	<2	<2	<10
P3	01-21-93	1330	<10	<10	<10	<10	<2	<25	<2	<2	<10
P4	01-21-93	1200	<10	<10	<10	<10	<2	<25	<2	<2	<10
P6	12-15-92	1015	<10	<10	<10	<10	<2	<25	<2	<2	1j
P7	12-15-92	1200	<10	<10	<10	<10	<2	<25	<2	<2	1j
P8	12-29-92	1100	<10	<10	<10	<10	<2	<25	<2	<2	<10
P8d	12-29-92	1104	<10	<10	<10	<10	<2	<25	<2	<2	<10
P9	01-14-93	1100	<10	<10	<10	<10	<2	<25	<2	<2	<10
TH1	12-29-92	1400	<10	<10	<10	<10	<2	<25	<2	<2	<10
TH3	12-16-92	0930	<10	<10	<10	<10	<2	<25	<2	<2	<10
TH8	01-06-93	1100	<10	<10	<10	<10	<2	<25	<2	<2	<10
TH10	01-14-93	1030	<10	<10	<10	<10	<2	<25	<2	<2	<10
JF13	01-07-93	1230	<10	<10	<10	<10	<2	<25	<2	<2	<10
JF23	01-11-93	1410	<12	<12	<12	<12	<2	<30	<2	<2	<12
JF33	11-23-92	1400	<11	<11	<11	<11	<2	<26	<2	<2	<11
JF43	12-03-92	1030	<10	<10	<10	<10	<2	<25	<2	<2	<10
JF53	01-21-93	1130	<10	<10	<10	<10	<2	<25	<2	<2	<10
JF53d	01-21-93	1134	<10	<10	<10	<10	<2	<25	<2	<2	<10
JF63	01-20-93	1430	<10	<10	<10	<10	<2	<25	<2	<2	2vj
JF73	01-19-93	1400	<10	<10	<10	<10	<2	<25	<2	<2	<10
JF73d	01-19-93	1404	<10	<10	<10	<10	<2	<25	<2	<2	<10
JF83	01-19-93	1130	<40	<40	<40	<40	<2	<100	<2	<2	<40
JF93	12-14-92	1350	<10	<10	<10	<10	<2	<25	<2	<2	<10
JF103	12-22-92	1020	<10	<10	<10	<10	<2	<25	<2	<2	<10
JF113	12-16-92	1330	<10	<10	<10	<10	<2	<25	<2	<2	<10
JF123	12-21-92	1200	<10	<10	<10	<10	<2	<25	<2	<2	2j
JF133	12-30-92	1200	<10	<10	<10	<10	<2	<25	<2	<2	<10
JF143	12-30-92	1100	<10	<10	<10	<10	<2	<25	<2	<2	<10
JF153	01-06-93	1300	<10	<10	<10	<10	<2	<25	<2	<2	1j
JF163	12-30-92	1300	<10	<10	<10	<10	<2	<25	<2	<2	<10

Table 20. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Date	Time	n-Butyl benzyl phthalate (µg/L)	Diethyl phthalate (µg/L)	Di-n-butyl phthalate (µg/L)	Di-n-octyl phthalate (µg/L)	1,3,Dinitrobenzene (µg/L)	2,4,-Dinitrophenol (µg/L)	2,4-Dinitrotoluene (µg/L)	2,6-Dinitrotoluene (µg/L)	Bis(2-ethylhexyl) phthalate (µg/L)
Chemical surety materials--Continued											
Confining Unit											
JF12	01-08-93	1000	<10	<10	<10	<10	<2	<25	<2	<2	1j
JF22	01-12-93	1000	<10	<10	<10	<10	<2	<25	<2	<2	1j
JF22d	01-12-93	1004	<10	<10	<10	<10	<2	<25	<2	<2	<10
JF32	11-23-92	0930	<11	<11	<11	<11	<2	<27	<2	<2	2j
JF52	01-26-93	0745	<10	<10	<10	3vj	<2	<25	<2	<2	5vj
JF62	01-26-93	0830	<10	<10	<10	3vj	<2	<25	<2	<2	4vj
JF82	01-20-93	1100	<10	<10	<10	1j	<2	<25	<2	<2	4j
JF122	12-22-92	1030	<10	<10	<10	<10	<2	<25	<2	<2	1vj
Confined Aquifer											
JF1	01-22-93	1230	<10	<10	<10	2vj	<2	<25	<2	<2	4vj
JF2	01-05-93	1400	<10	<10	<10	2j	<2	<25	<2	<2	4j
JF11	01-07-93	1300	<10	<10	<10	2j	<2	<25	<2	<2	3j
JF21	01-14-93	1200	<10	<10	<10	<10	<2	<25	<2	<2	<10
JF31	11-24-92	1230	<11	<11	<11	<11	<2	<28	<2	<2	<11
JF41	12-01-92	1230	<10	<10	<10	<10	<2	<25	<2	<2	<10
JF51v	01-26-93	0730	<10	<10	<10	6vj	<2	<25	<2	<2	34v
JF61v	01-26-93	0800	<10	<10	<10	4vj	<2	<25	<2	<2	5vj
JF61dv	01-26-93	0804	<10	<10	<10	3vj	<2	<25	<2	<2	5vj
JF71v	01-21-93	1030	<10	<10	<10	<10	<2	<25	<2	<2	3vj
JF81v	01-19-93	1330	<10	<10	<10	<10	<2	<25	<2	<2	1j
JF91	12-14-92	1000	<10	<10	<10	3vj	<2	<25	<2	<2	5vj
JF101	12-16-92	1330	<10	<10	<10	<10	<2	<25	<2	<2	<10
JF111	12-16-92	1130	<10	<10	<10	<10	<2	<25	<2	<2	<10
JF121	12-21-92	1430	<10	<10	<10	6vj	<2	<25	<2	<2	7vj
Quality Assurance Samples											
FIELD BLANK 1	01-22-93	1245	<10	<10	<10	<10	<2	<25	<2	<2	<10
FIELD BLANK 2	01-14-93	1245	<10	<10	<10	<10	<2	<25	<2	<2	5
FIELD BLANK 3	12-29-92	1115	<10	<10	<10	<10	<2	<25	<2	<2	<10

Table 20. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Date	HMX (µg/L)	2-Methyl 4,6-di-nitro-phenol (µg/L)	3-Nitro-aniline (µg/L)	2-Nitro-aniline (µg/L)	4-Nitro-aniline (µg/L)	Nitro-benzene (µg/L)	Nitro-glyc-erine (µg/L)	2-Nitro-phenol (µg/L)	4-Nitro-phenol (µg/L)	N-nitro-sodi-phenyl-amine (µg/L)	PETN (µg/L)	RDX (µg/L)
Chemical surety materials--Continued													
Surficial Aquifer													
P2	01-14-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	--
P3	01-21-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
P4	01-21-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
P6	12-15-92	<2	<25	<25	<25	<25	<10	<50	<10	<25	1j	<250	<2
P7	12-15-92	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	4.7
P8	12-29-92	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
P8d	12-29-92	<2	<25	<25	<25	<25	<10	<50	<10	<25	1j	<250	<2
P9	01-14-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	--
TH1	12-29-92	<2	<25	<25	<25	<25	<10	<50	<10	<25	1j	<250	<2
TH3	12-16-92	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
TH8	01-06-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
TH10	01-14-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	--
JF13	01-07-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF23	01-11-93	<3	<30	<30	<30	<30	<12	<50	<12	<30	<12	<250	<2
JF33	11-23-92	<2	<26	<26	<26	<26	<11	<50	<11	<26	<11	<250	<2
JF43	12-03-92	2.6	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF53	01-21-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF53d	01-21-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF63	01-20-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF73	01-19-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF73d	01-19-93	<2	<25	20	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF83	01-19-93	<2	<100	<100	<100	<100	<40	<50	<40	<100	<40	<250	4.9
JF93	12-14-92	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF103	12-22-92	10	<25	<25	<25	<25	<10	<50	<10	<25	3j	<250	<2
JF113	12-16-92	<2	<25	<25	<25	<25	<10	<50	<10	<25	1j	<250	5.4
JF123	12-21-92	4.4	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF133	12-30-92	<2	<25	<25	<25	<25	<10	<50	<10	<25	1j	<250	<2
JF143	12-30-92	<2	<25	<25	<25	<25	<10	<50	<10	<25	1j	<250	<2
JF153	01-06-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	1j	<250	<2
JF163	12-30-92	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2

Table 20. Ground-water-quality data from J-Field, Aberdeen Proving Ground, Maryland--Organic constituents, Phase II, November 1992 through January 1993--Continued

Well No.	Date	HMX (µg/L)	2-Methyl 4,6-dinitrophenol (µg/L)	3-Nitroaniline (µg/L)	2-Nitroaniline (µg/L)	4-Nitroaniline (µg/L)	Nitrobenzene (µg/L)	Nitroglycerine (µg/L)	2-Nitrophenol (µg/L)	4-Nitrophenol (µg/L)	N-nitrosodiphenylamine (µg/L)	PETN (µg/)L	RDX (µg/L)
Chemical surety materials--Continued													
Confining Unit													
JF12	01-08-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF22	01-12-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF22d	01-12-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF32	11-23-92	<2	<27	<27	<27	<27	<11	<50	<11	<27	<11	<250	<2
JF52	01-26-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF62	01-26-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF82	01-20-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF122	12-22-92	<2	<25	<25	<25	<25	2.8	<50	<10	<25	<10	<250	<2
Confined Aquifer													
JF1	01-22-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF2	01-05-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF11	01-07-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF21	01-14-93	<2	<25	<25	<25	<25	<10	--	<10	<25	2vj	<600	<2
JF31	11-24-92	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF41	12-01-92	<2	<28	<28	<28	<28	<11	<50	<11	<28	<11	<250	<2
JF51v	01-26-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF61v	01-26-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF61dv	01-26-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF71v	01-21-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF81v	01-19-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF91	12-14-92	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF101	12-16-92	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
JF111	12-16-92	<2	<25	<25	<25	<25	<10	<50	<10	<25	1j	<250	<2
JF121	12-21-92	<2	<25	<25	<25	<25	<10	<50	<10	<25	1vj	<250	<2
Quality Assurance Samples													
FIELD BLANK 1	01-22-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
FIELD BLANK 2	01-14-93	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2
FIELD BLANK 3	12-29-92	<2	<25	<25	<25	<25	<10	<50	<10	<25	<10	<250	<2

Table 21. Percentage of recovery for volatile organic compounds detected in field matrix spikes of ground-water samples, compared to laboratory matrix spikes and spike duplicates, Phase II, December 1992 and January 1993

[µg/L, micrograms per liter; --, data not available; ambient (unspiked sample) concentrations from a corresponding sample were subtracted from the spiked environmental sample concentrations to obtain the percentage of recovery]

Percentage of recovery for field matrix spikes (assuming no background concentration, expected concentration is 125 µg/L)

Sample No.	Date	Benzene	Carbon tetrachloride	Chlorobenzene	1,1-Dichloroethene	1,2-Dichloroethene	1,1,2,2-Tetrachloroethane	Tetrachloroethene	Toluene	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
P9	01/14/93	112	112	--	--	100	128	112	112	136	112	77
JF13	01/07/93	64*[a]	96	--	--	96	136	96	104	128	96	80
JF63	01/20/93	120	96	--	--	64	60*	104	112	136	--*[b]	77
JF81	01/19/93	88	58	--	--	87	108	55	75*	104	160*[c]	57

Percentage of recovery for laboratory matrix spikes and spike duplicates (assuming no background concentration, expected concentration is 50 µg/L)

P7	12/15/92	84	--	99	79	--	--	--	95	--	84	--
		86	--	98	79	--	--	--	92	--	153*	--
JF23-92-MS	01/11/93	122	--	96	82	--	--	--	108	--	95	--
		106	--	93	84	--	--	--	102	--	91	--
JF32-92-MS	01/24/92	77	--	99	67	--	--	--	91	--	74	--
		78	--	96	91	--	--	--	92	--	78	--
JF21-92-MS	01/14/93	84	--	89	84	--	--	--	98	--	90	--
		90	--	91	85	--	--	--	100	--	94	--
JF1-92-MS	01/22/93	81	--	93	84	--	--	--	95	--	86	--
		81	--	97	85	--	--	--	99	--	87	--
Quality-control (QC) limits for percentage of recovery[d]		76-127	--	75-130	61-145	--	--	--	76-125	--	71-120	--

* These samples are outside of the laboratory QC limits for either the percentage of recovery or the relative percentage of difference of difference of duplicate matrix spikes.

[a] Ambient concentration of benzene was 800 µg/L, which could have increased the error associated with the percentage of recovery.
[b] Ambient concentration of trichloroethene was 4,400 µg/L, which could have increased the error associated with the percentage of recovery.
[c] Ambient concentration of trichloroethene was 220 µg/L, which could have increased the error associated with the percentage of recovery.
[d] These QC limits are for percent recovery of matrix spikes and spike duplicates at the laboratory; therefore, these are acceptable limits for percent recovery based on U.S. Environmental Protection Agency standards (U.S. Environmental Protection Agency, 1985).

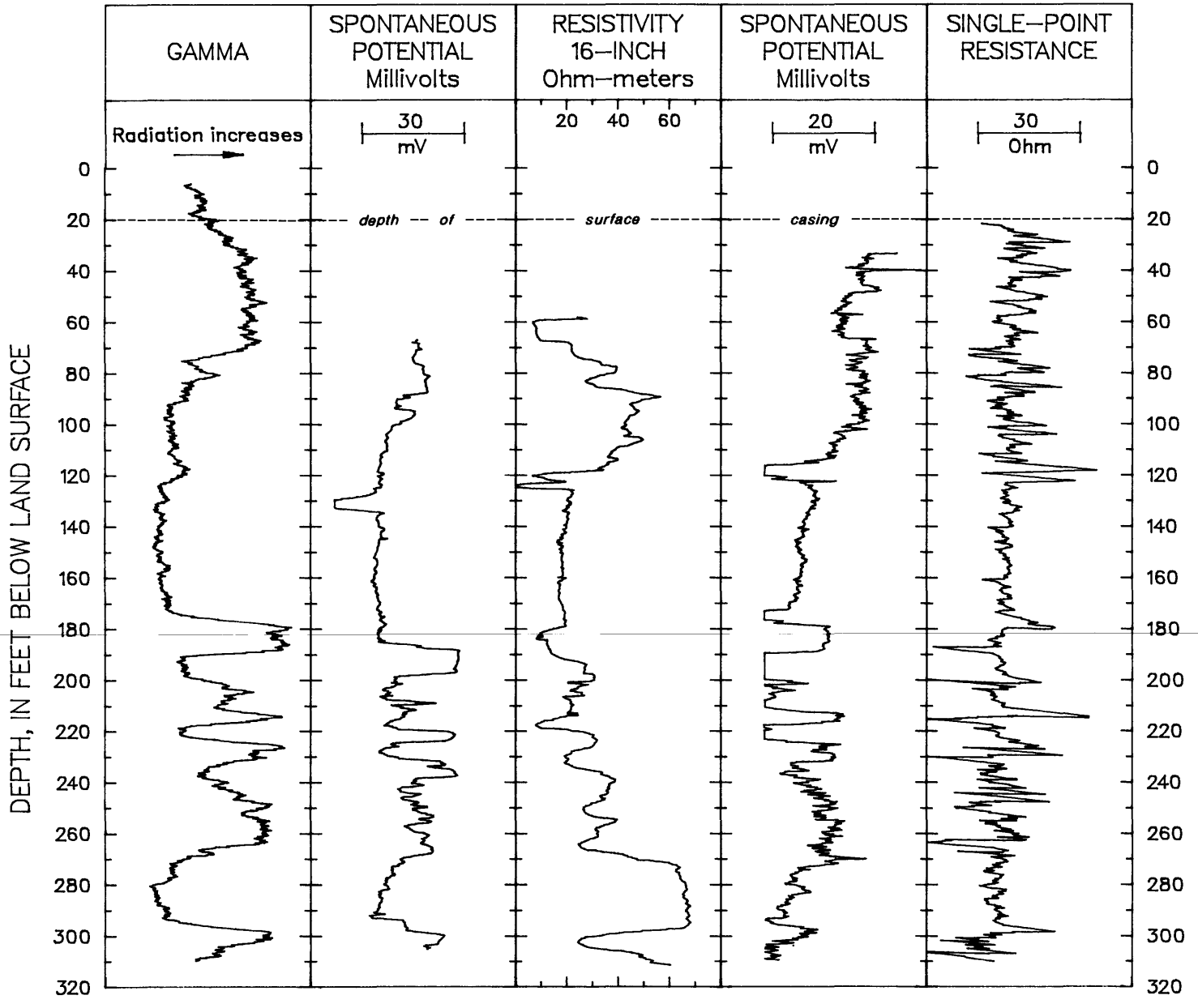


Figure 6a.--Geophysical logs for borehole B-1 from J-Field, Aberdeen Proving Ground, Maryland.

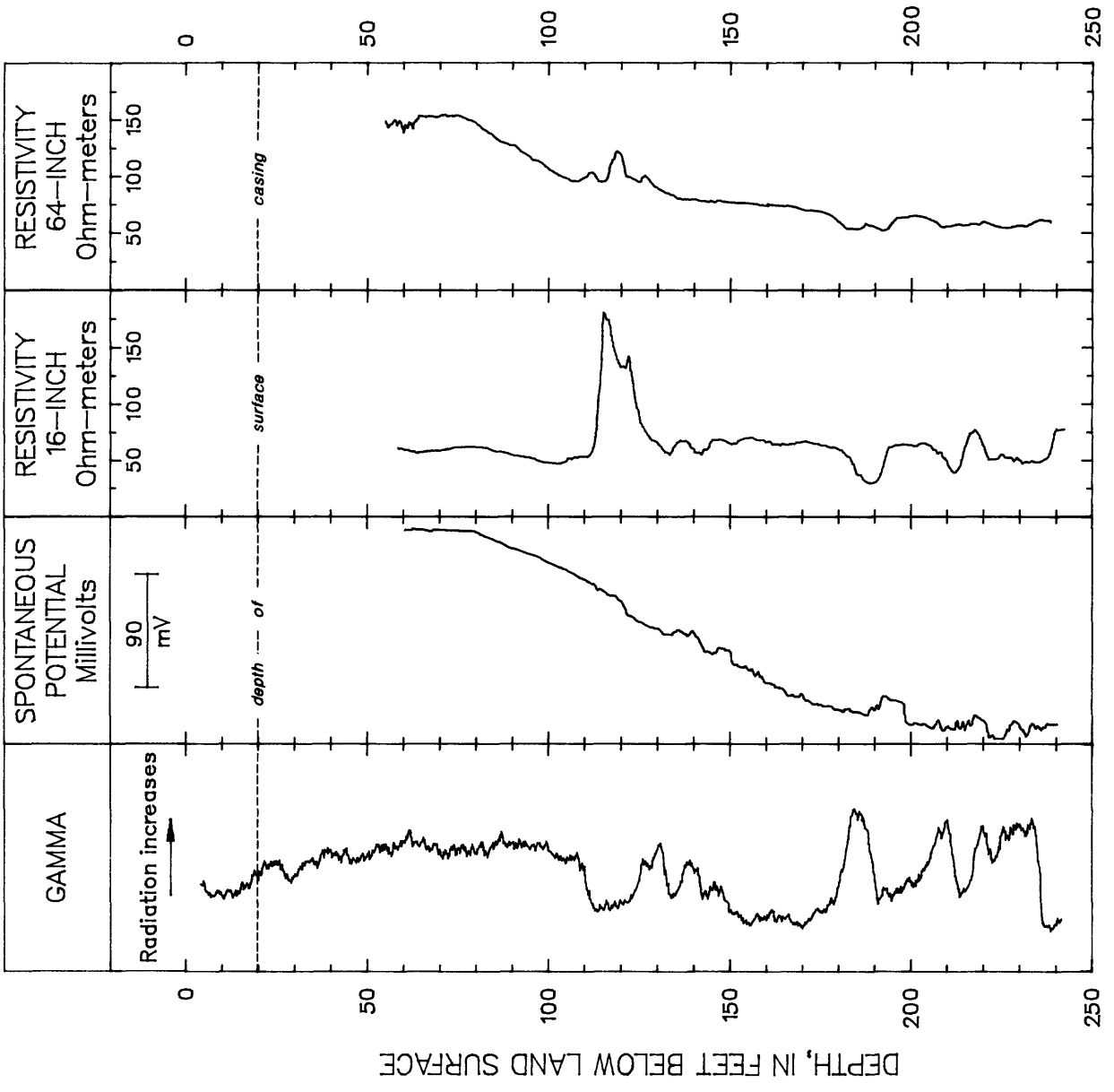


Figure 6b.--Geophysical logs for borehole B-2 from J-Field, Aberdeen Proving Ground, Maryland.

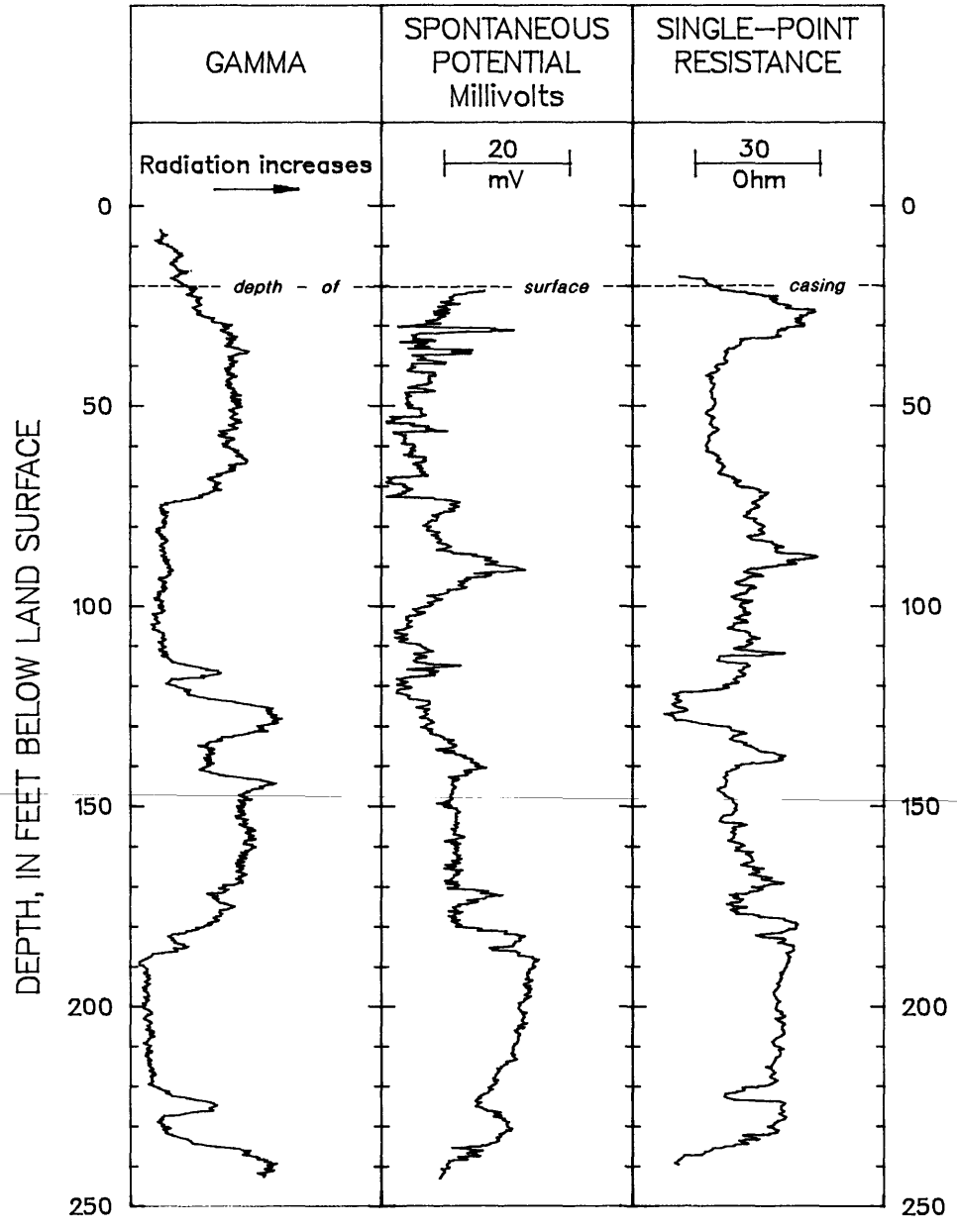


Figure 6c.--Geophysical logs for borehole B-3 from J-Field, Aberdeen Proving Ground, Maryland.

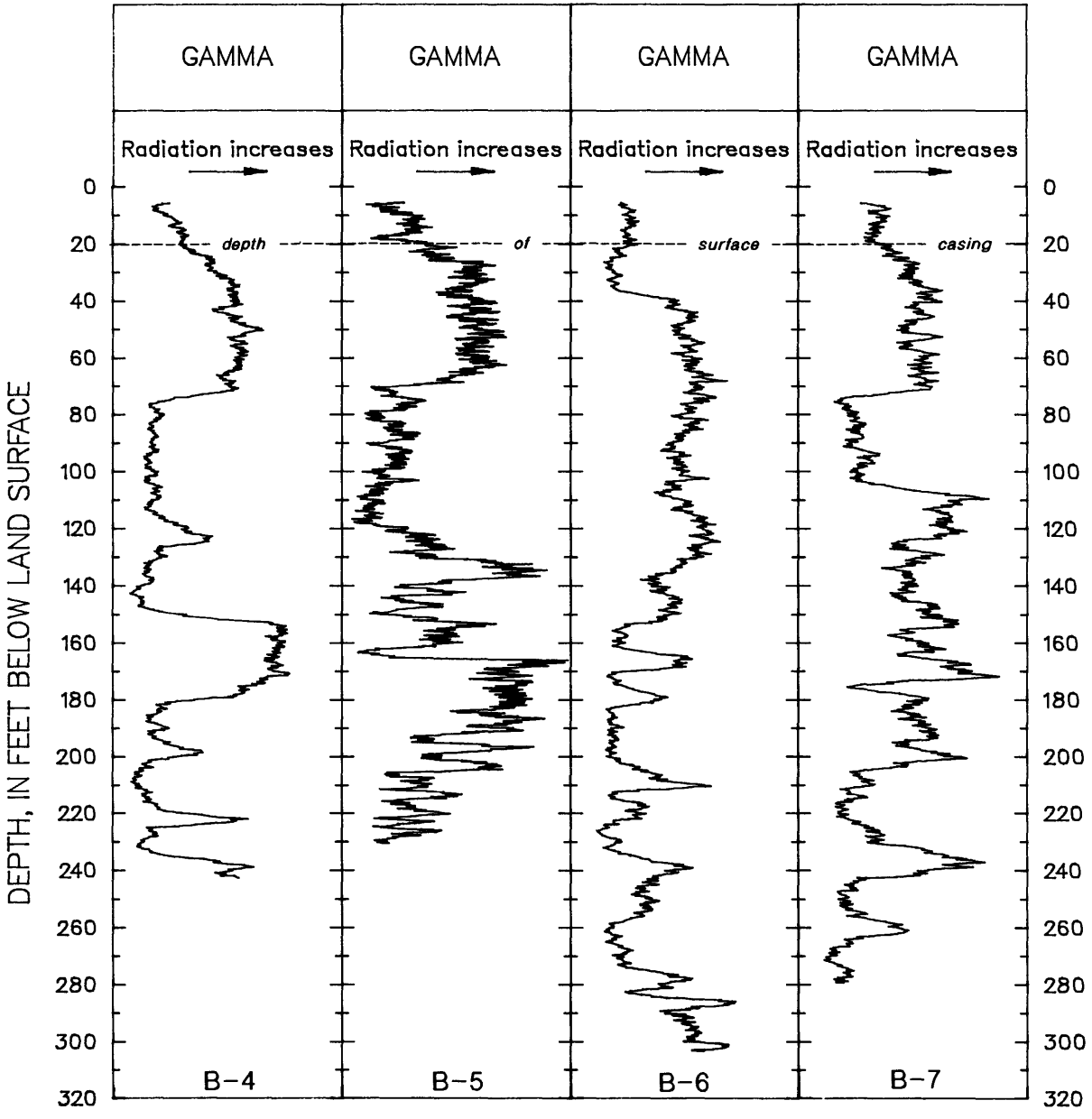


Figure 6d.--Geophysical logs for boreholes B-4, B-5, B-6, and B-7 from J-Field, Aberdeen Proving Ground, Maryland.

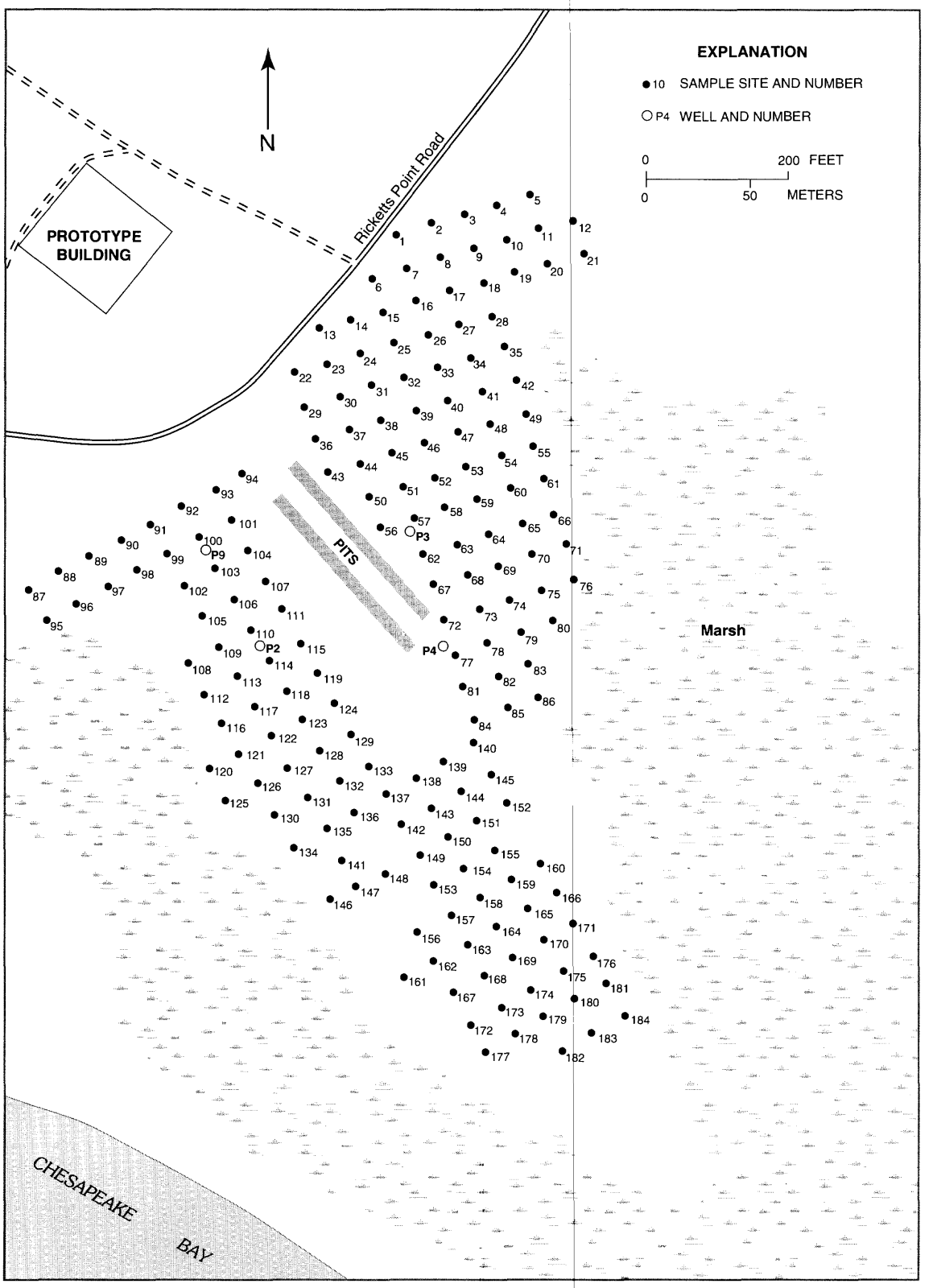


Figure 7a.--Electromagnetic-induction sampling grid at the toxic-materials disposal area at J-Field, Aberdeen Proving Ground, Maryand.

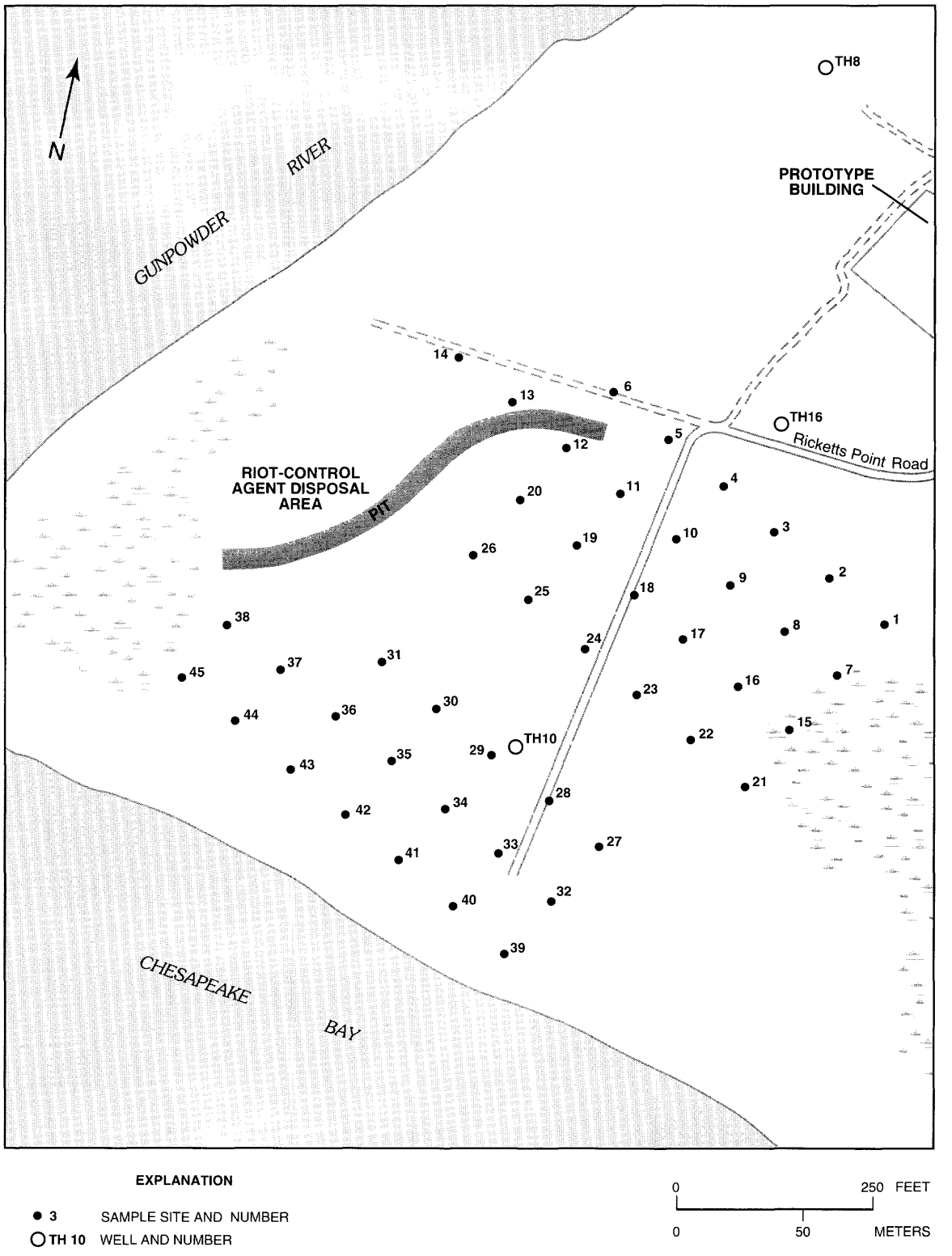


Figure 7b.--Electromagnetic-induction sampling grid at the riot-control-agent disposal area at J-Field, Aberdeen Proving Ground, Maryand.

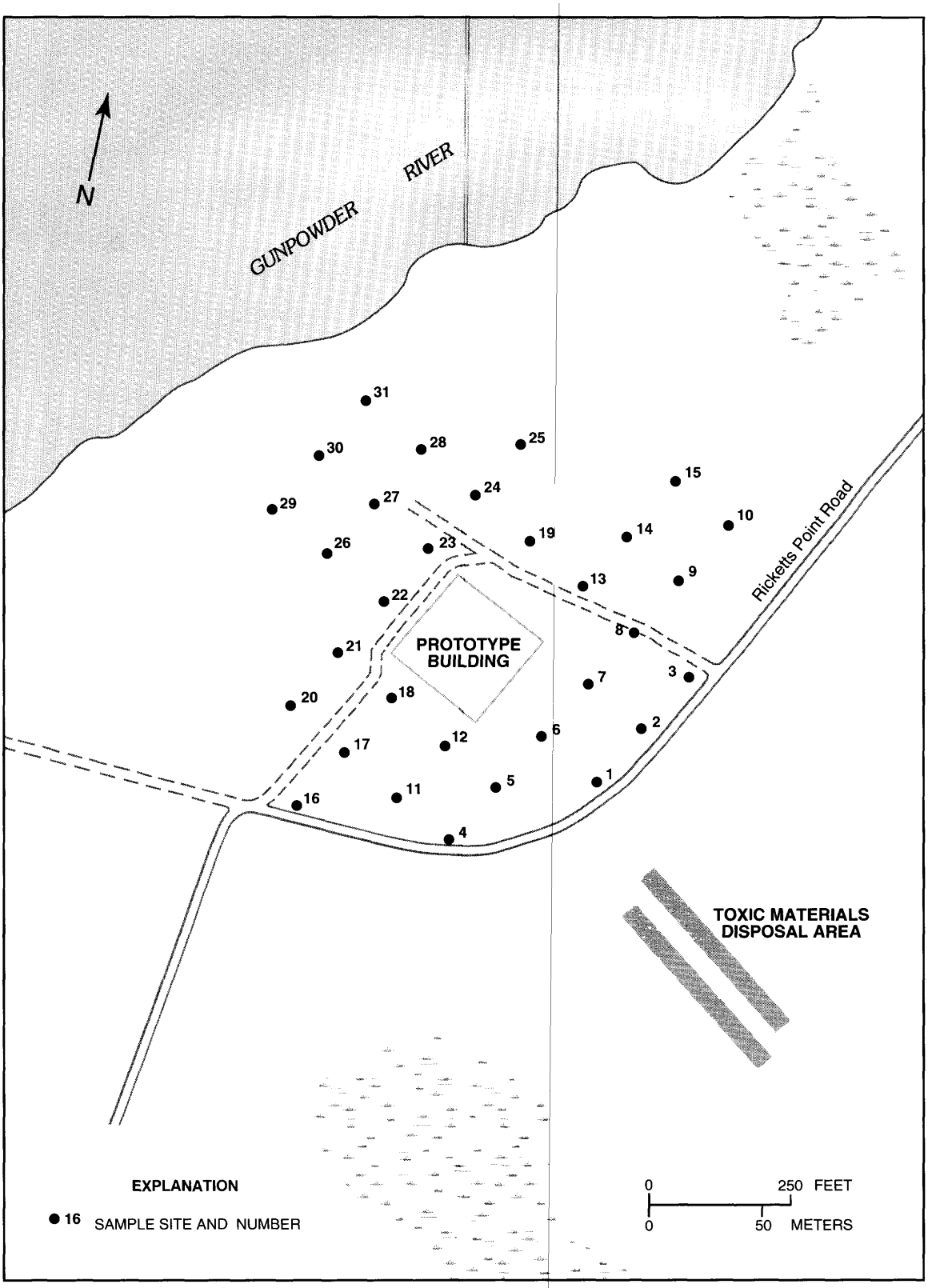


Figure 7c.--Electromagnetic-induction sampling grid at the Prototype Building area at J-Field, Aberdeen Proving Ground, Maryland.

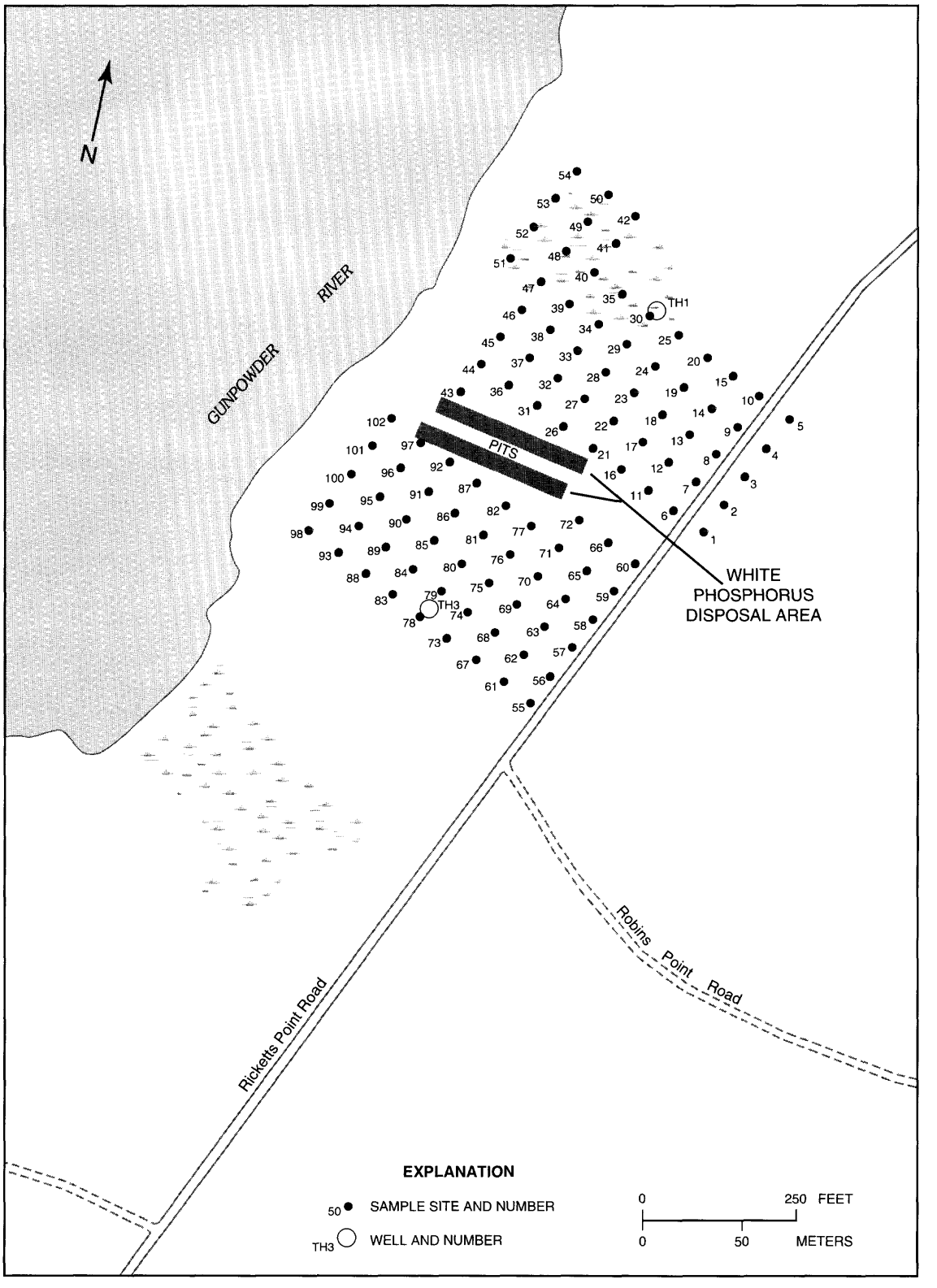


Figure 7d.--Electromagnetic-induction sampling grid at the white-phosphorus disposal area at J-Field, Aberdeen Proving Ground, Maryland.

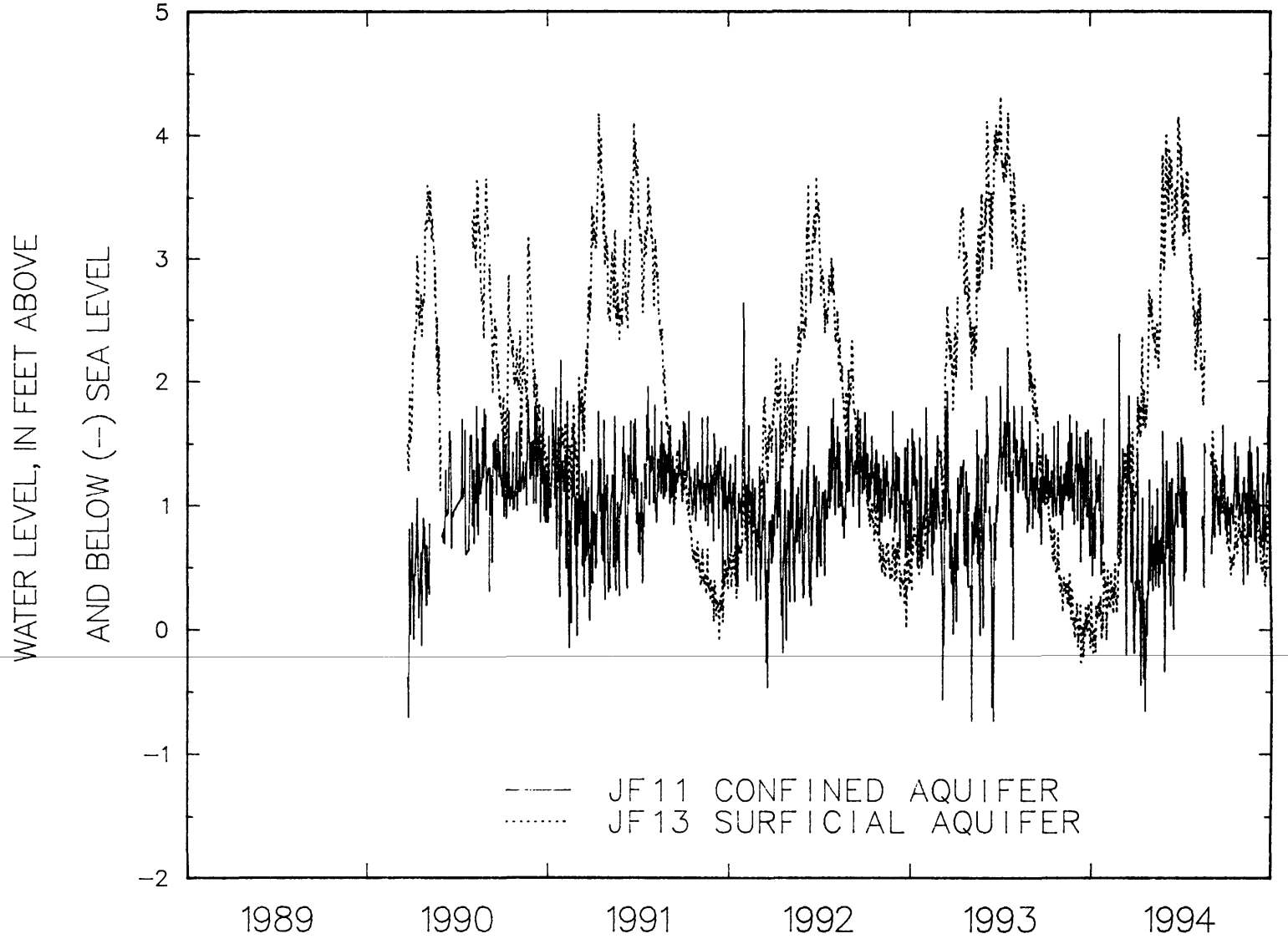


Figure 8a.--Daily mean water levels in wells JF11 and JF13 at J-Field, Aberdeen Proving Ground, Maryland, for calendar years 1989-94.

(Screened interval for well JF11 is 78 to 83 ft below sea level, and the interval for well JF13 is 13 to 18 ft below sea level.)

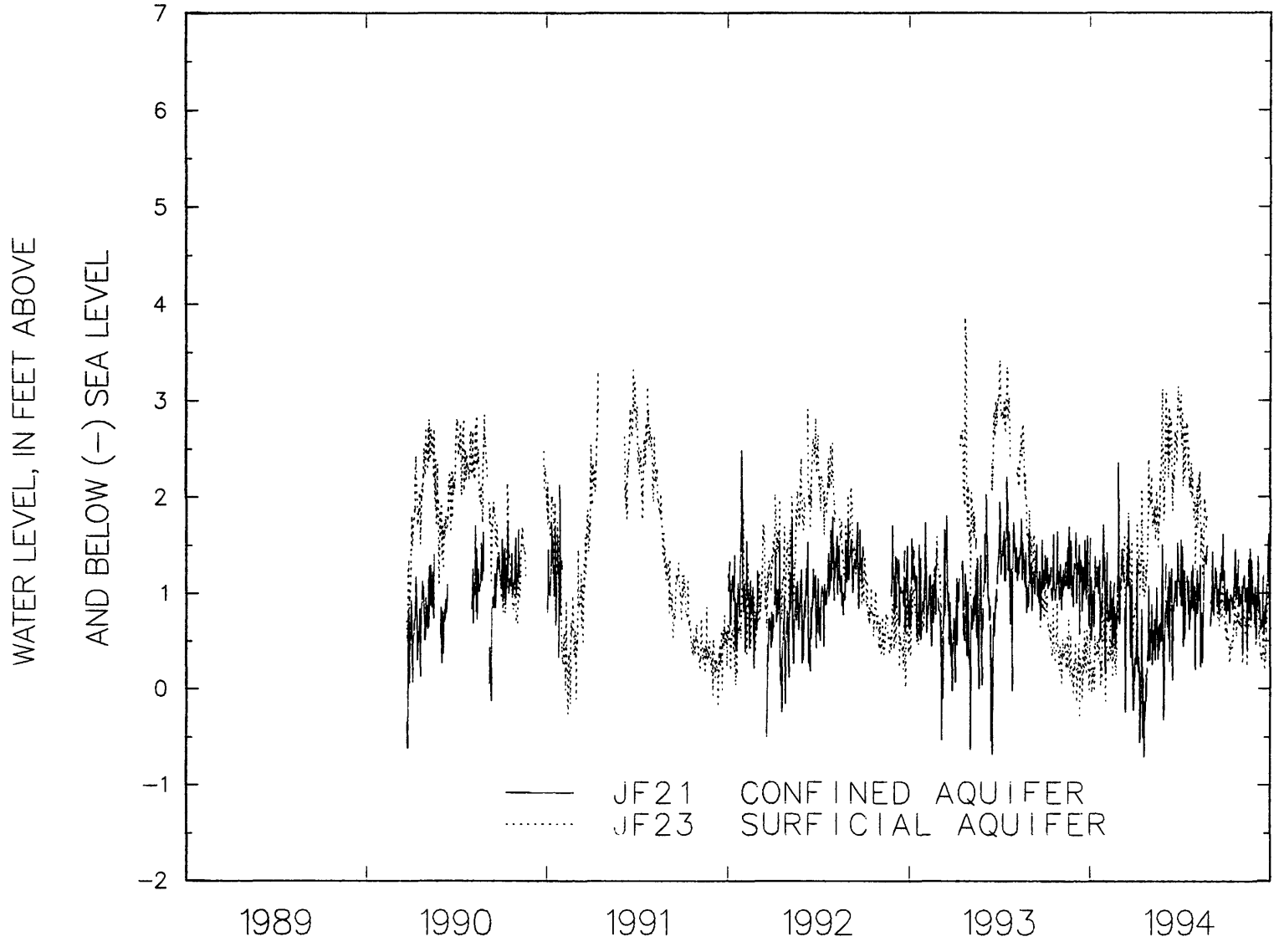


Figure 8b.--Daily mean water levels in wells JF21 and JF23 at J-Field, Aberdeen Proving Ground, Maryland, for calendar years 1989-94.

(Screened interval for well JF21 is 65 to 68 ft below sea level, and the interval for well JF23 is 13 to 16 ft below sea level.)

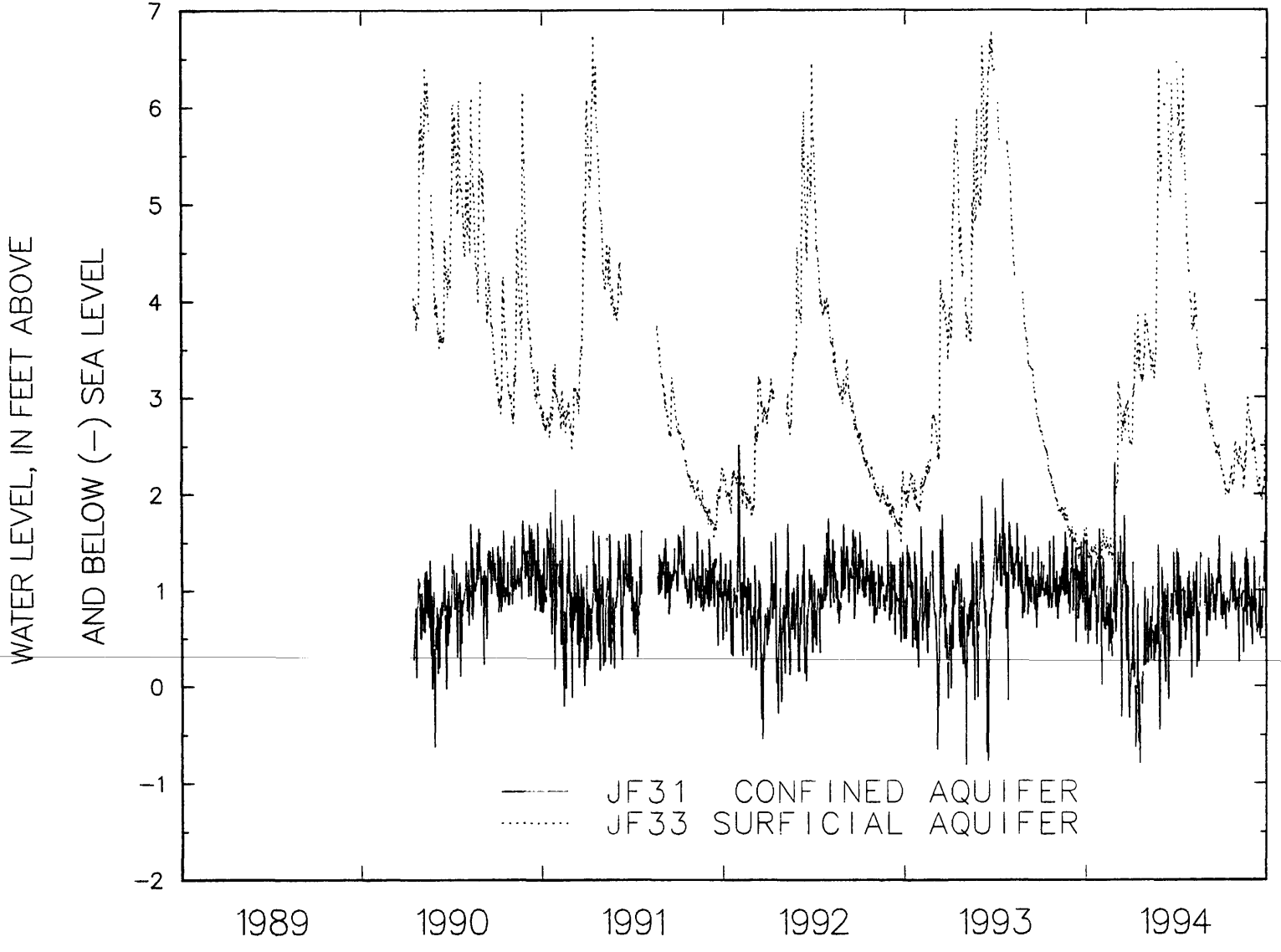


Figure 8c.--Daily mean water levels in wells JF31 and JF33 at J-Field, Aberdeen Proving Ground, Maryland, for calendar years 1989-94.

(Screened interval for well JF31 is 66 to 71 ft below sea level, and the interval for well JF33 is 7 to 12 ft below sea level.)

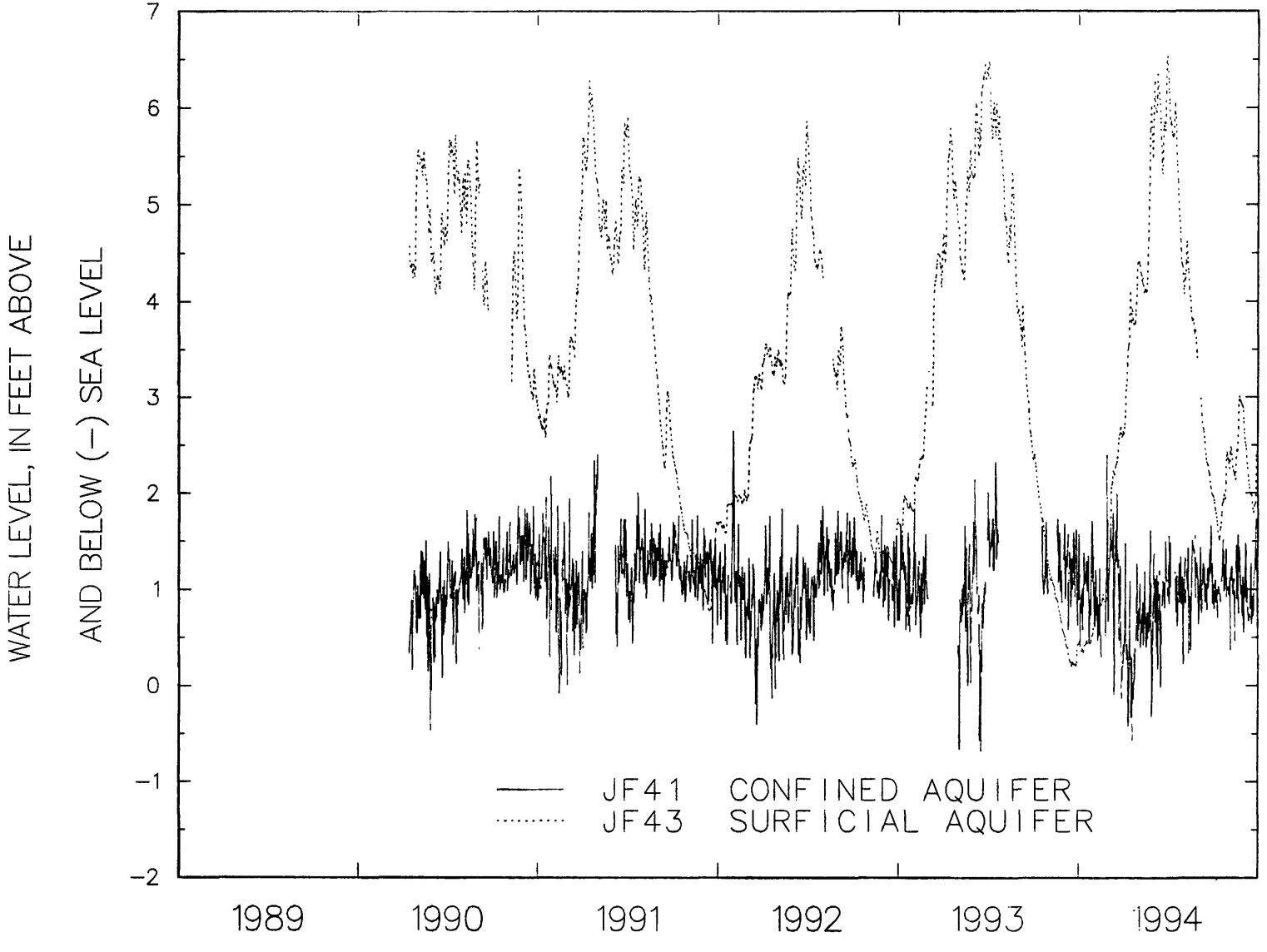


Figure 8d.--Daily mean water levels in wells JF41 and JF43 at J-Field, Aberdeen Proving Ground, Maryland, for calendar years 1989-94.

(Screened interval for well JF41 is 75 to 80 ft below sea level, and the interval for well JF43 is 19 to 24 ft below sea level.)

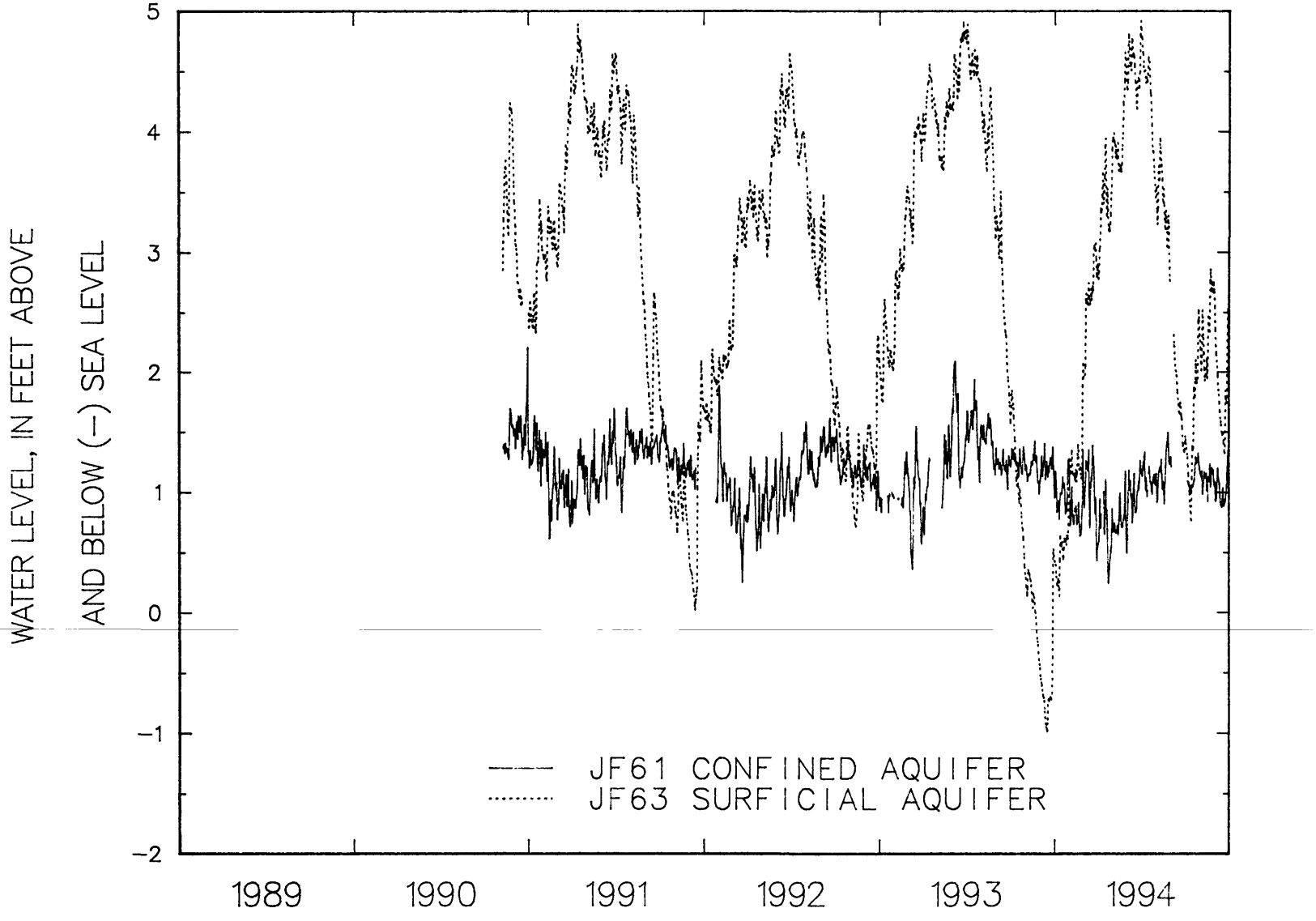


Figure 8e.--Daily mean water levels in wells JF61 and JF63 at J-Field, Aberdeen Proving Ground, Maryland, for calendar years 1989-94.

(Screened interval for well JF61 is 91 to 96 ft below sea level, and the interval for well JF63 is 12 to 15 ft below sea level.)

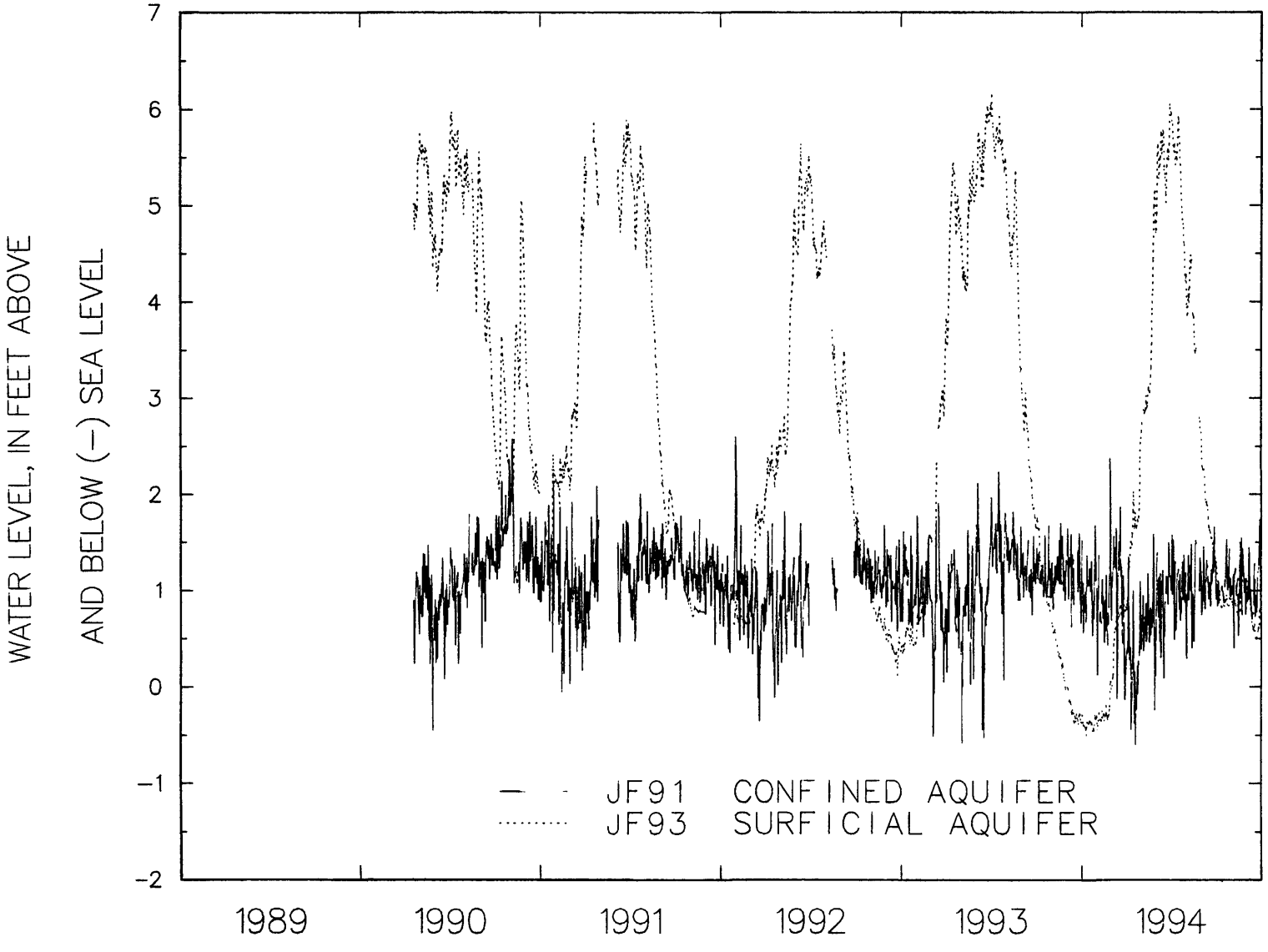


Figure 8f.--Daily mean water levels in wells JF91 and JF93 at J-Field, Aberdeen Proving Ground, Maryland, for calendar years 1989-94.

(Screened interval for well JF91 is 64 to 69 ft below sea level, and the interval for well JF93 is 10 to 15 ft below sea level.)

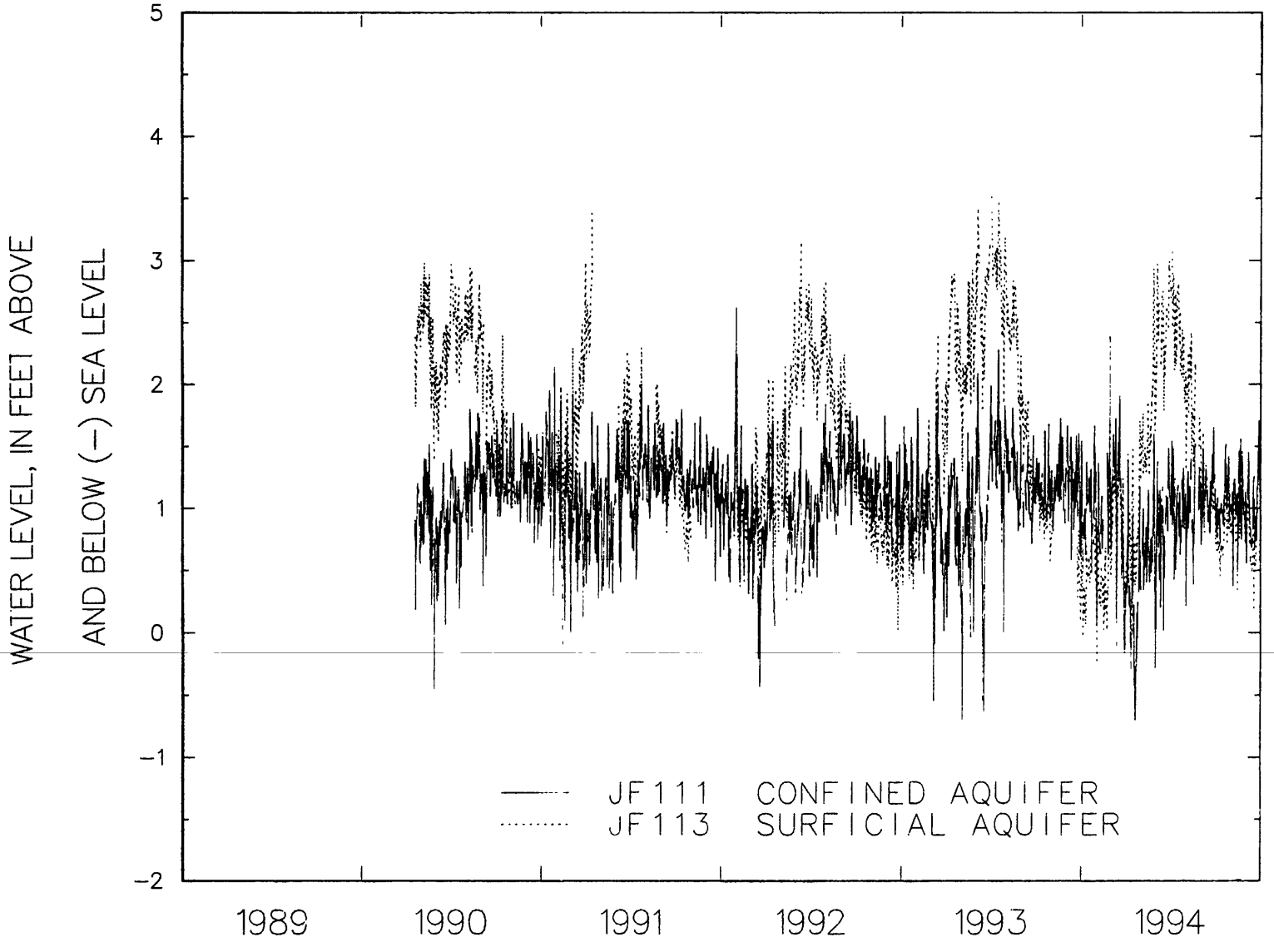


Figure 8g.--Daily mean water levels in wells JF111 and JF 113 at J-Field, Aberdeen Proving Ground, Maryland, for calendar years 1989-94.

(Screened interval for well JF111 is 63 to 68 ft below sea level, and the interval for well JF113 is 15 to 18 ft below sea level.)

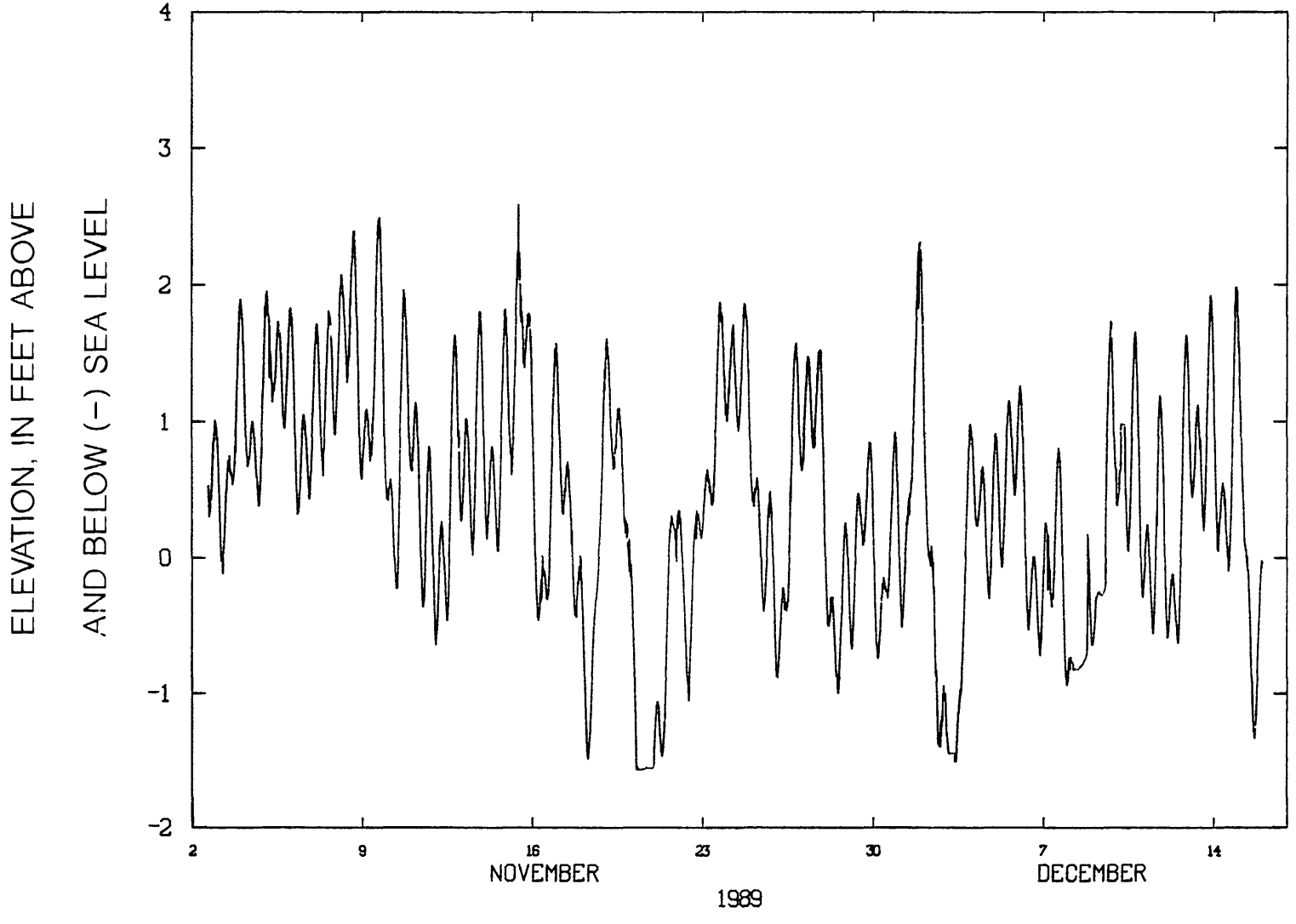


Figure 9 -- Tidal fluctuations of the Chesapeake Bay at the Robins Point tide gage, Aberdeen Proving Ground, Maryland, November 2 to December 15, 1989.

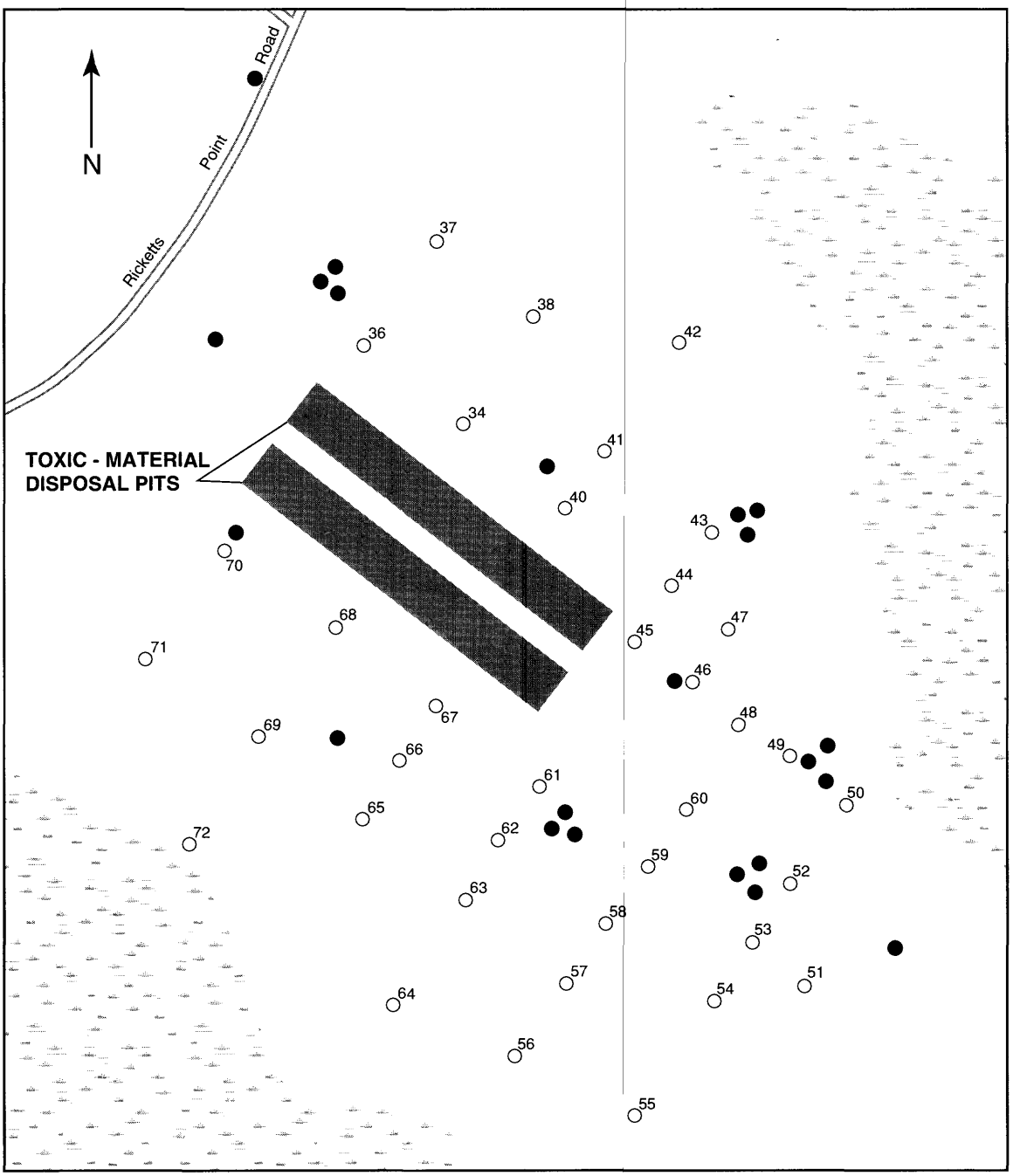


Figure 10a.--Location of soil-gas sampling sites at the toxic-materials disposal area, Phase I, J-Field, Aberdeen Proving Ground, Maryland.

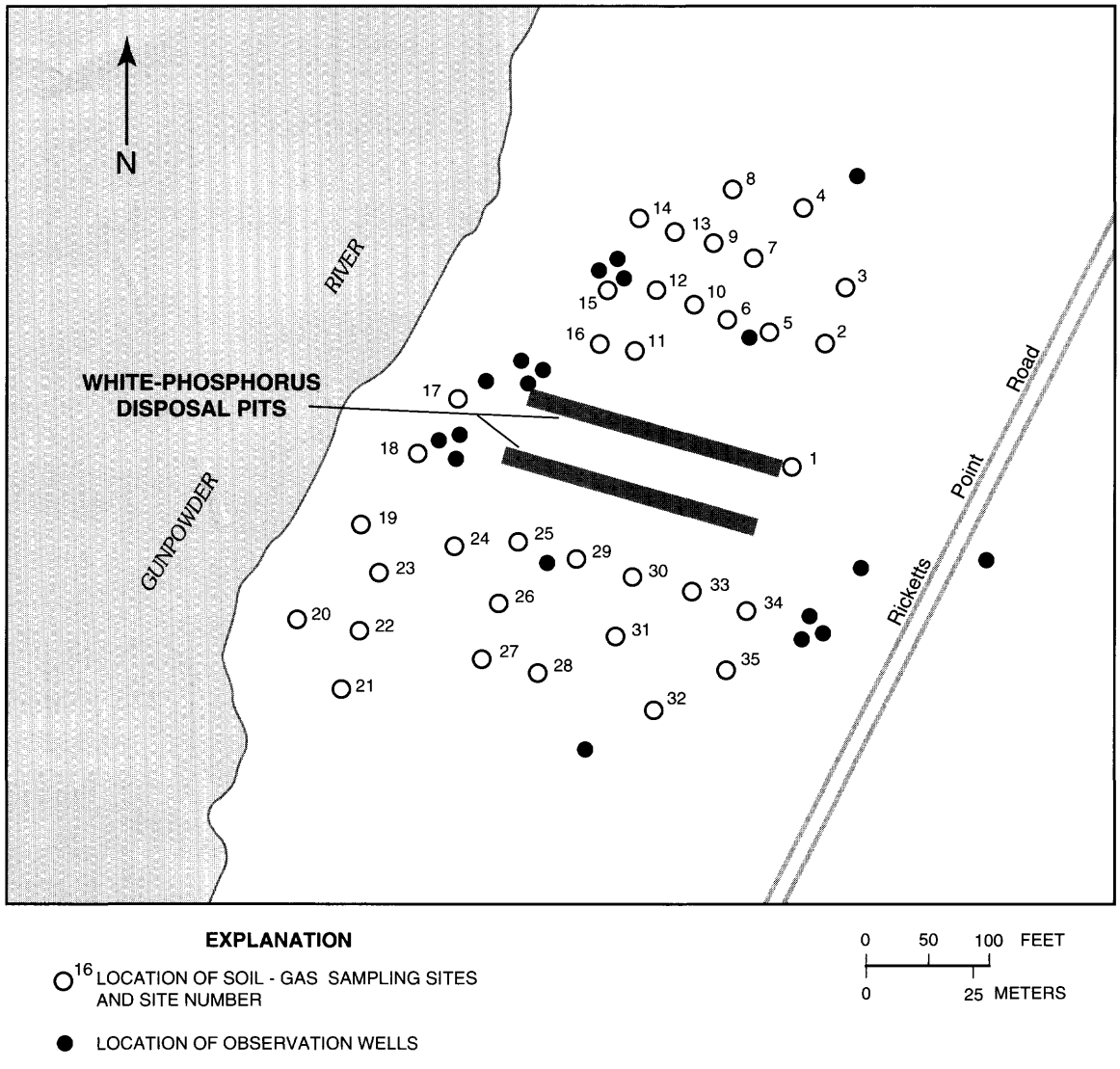
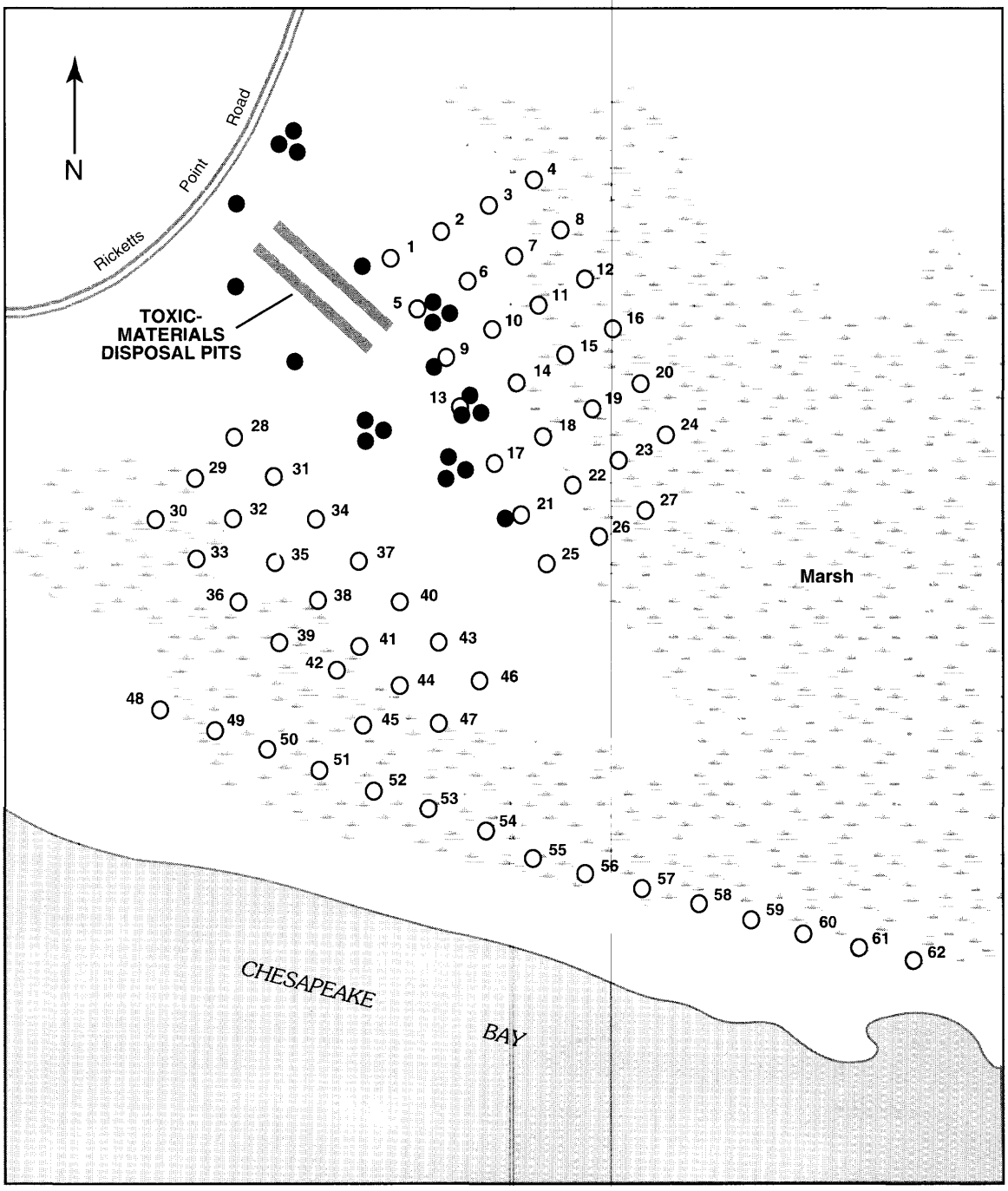


Figure 10b.--Location of soil-gas sampling sites at the white-phosphorus disposal area, Phase I, J-Field, Aberdeen Proving Ground, Maryland.



EXPLANATION

○ 48 LOCATION OF SOIL - GAS SAMPLING SITE AND SITE NUMBER

● LOCATION OF OBSERVATION WELLS

0 100 200 FEET

0 50 METERS

Figure 11a.--Location of soil-gas sampling sites at the toxic-materials disposal area, Phase II, J-Field, Aberdeen Proving Ground, Maryland.

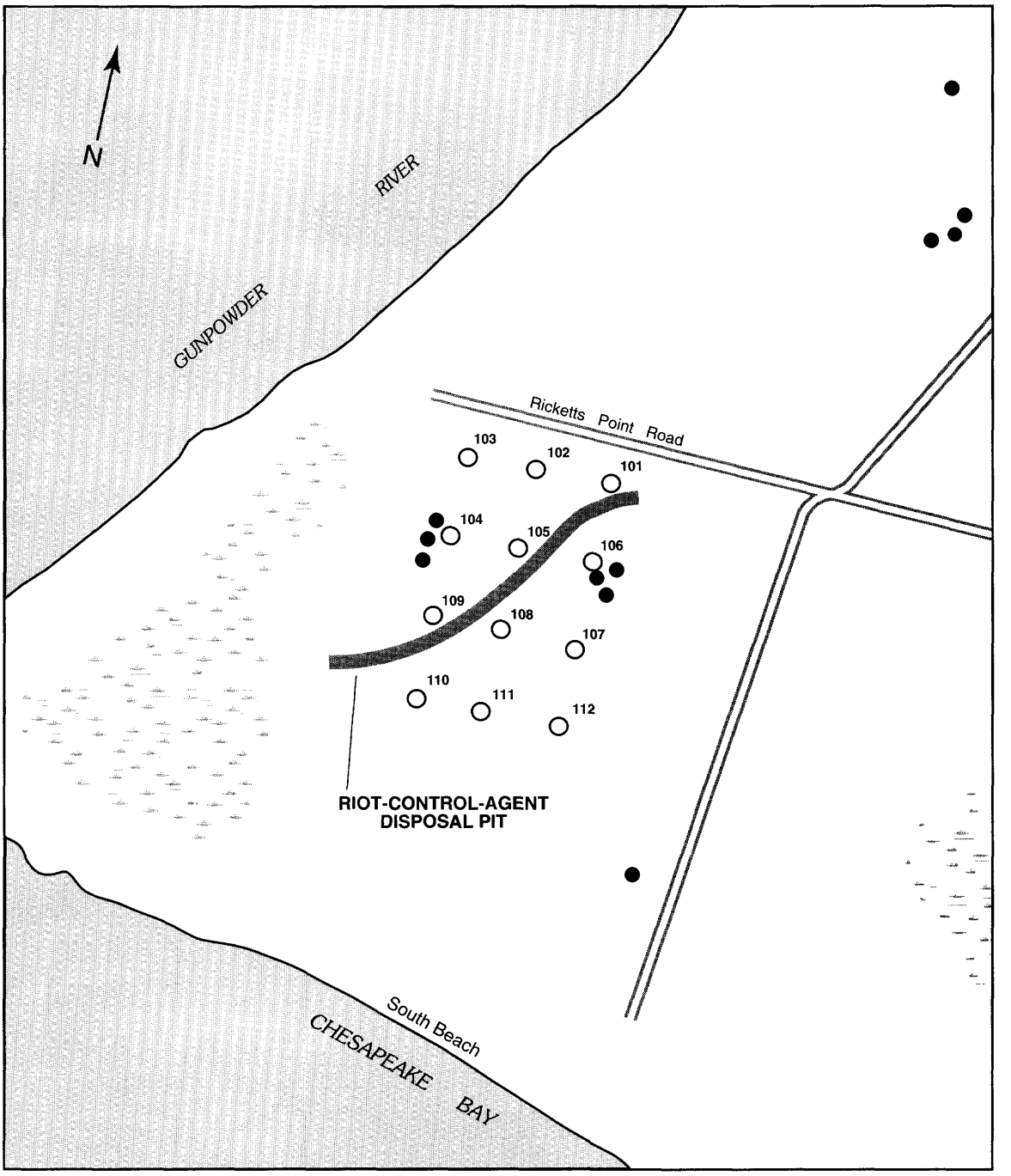


Figure 11b.--Location of soil-gas sampling sites at the riot-control-agent disposal area, Phase II, J-Field, Aberdeen Proving Ground, Maryland.

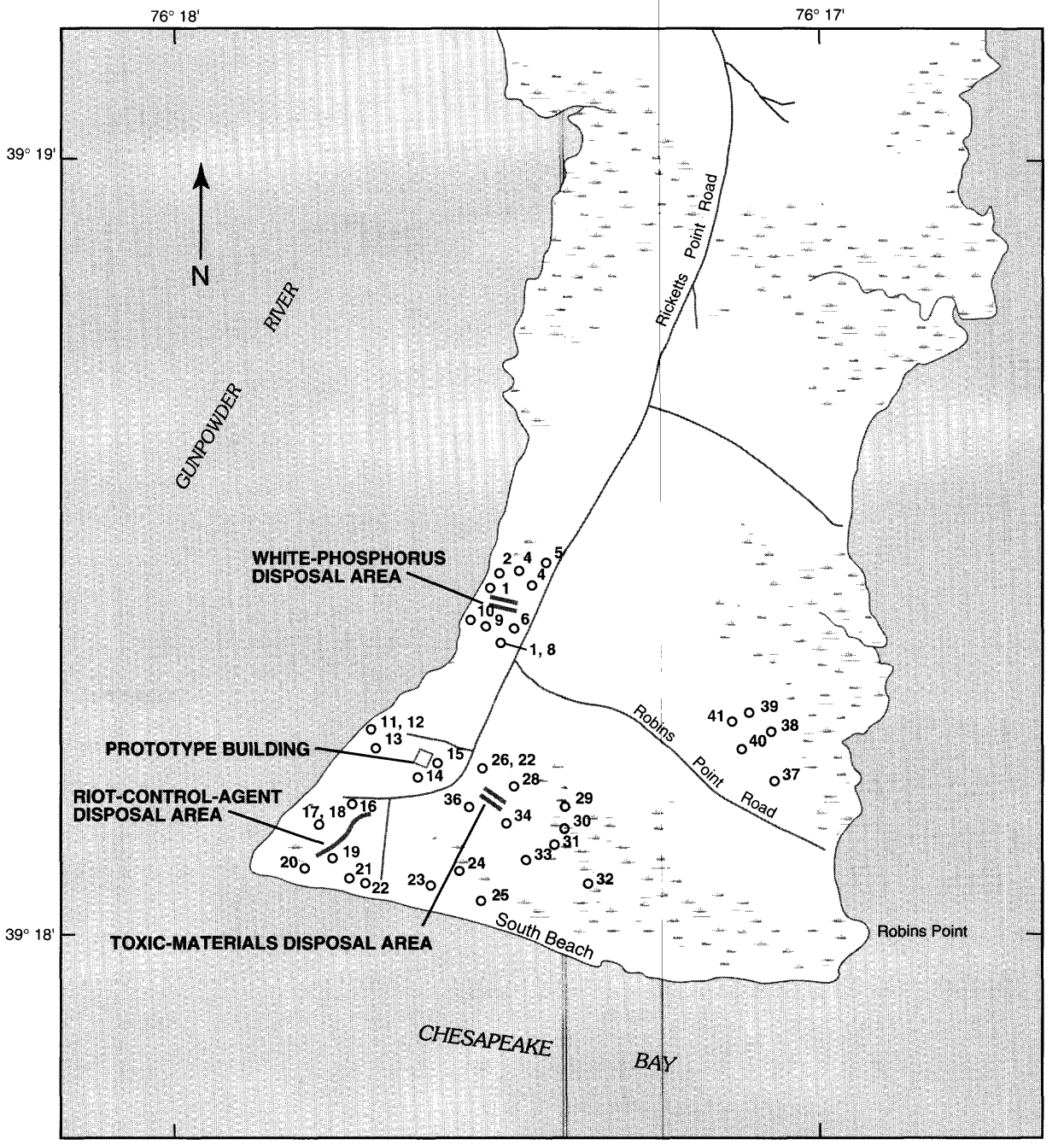


Figure 12.--Location of soil-quality sampling sites, J-Field, Aberdeen Proving Ground, Maryland.

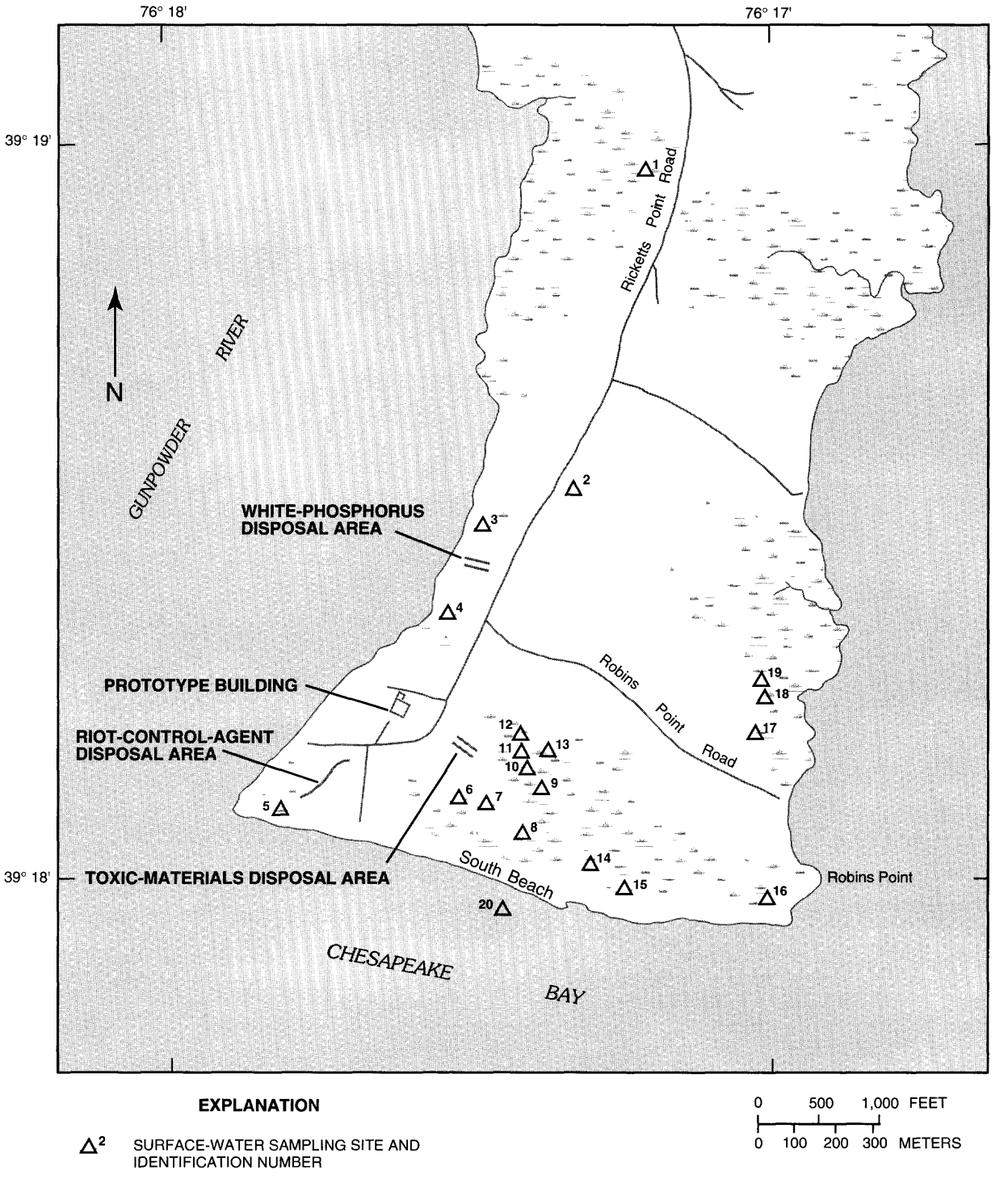


Figure 13.--Location of surface-water sampling sites, J-Field, Aberdeen Proving Ground, Maryland.

CONVERSION FACTORS, VERTICAL DATUM, AND ABBREVIATIONS

Multiply	By	To obtain
inch (in.)	25.4	millimeter
foot (ft)	0.3048	meter
foot per day (ft/d)	0.3048	meter per day
mile (mi)	1.609	kilometer
mile per hour (mi/hr)	1.609	kilometer per hour
square inch (in^2)	6.4516	square centimeter
square foot (ft^2)	0.0929	square meter
gallon (gal)	3.785	liter
gallon per minute (gal/min)	0.06308	liter per second

Temperature is reported in degrees Celsius (°C), which can be converted to degrees Farenheit (°F) by use of the following equation: $°F=1.8(°C)+32$

Sea level: In this report, "sea level" refers to the National Geodetic Vertical Datum of 1929--a geodetic datum derived from a general adjustment of the first-order level nets of the United States and Canada, formerly called Sea Level Datum of 1929.

Chemical concentration, specific conductance, and water temperature are reported in metric units. Aqueous chemical concentration is given in milligrams per liter (mg/L) or in micrograms per liter (µg/L). Milligrams per liter is a unit expressing the concentration of chemical constituents in solution as well as weight (milligrams) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter. For concentrations less than 7,000 mg/L, the numerical value is the same as for concentrations in parts per million.

Specific conductance of water is expressed in microsiemens per centimeter at 25 degrees Celsius (µS/cm), which is identical to micromhos per centimeter at 25 degrees Celsius, formerly used by the U.S. Geological Survey.

Radioactivity is expressed in picocuries per liter (pCi/L). A picocurie is one-trillionth ($1x10^{-12}$) the amount of radioactivity of one curie (Ci). A curie is the amount of radioactivity that yields $3.7x10^{10}$ radioactive disintegrations per second. A picocurie yields 2.22 disintegrations per minute.

The standard unit for hydraulic conductivity is cubic foot per day per square foot $[(ft^3/d)/ft^2]$. This mathematical expression reduces to foot per day (ft/d).